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Lyon, France - November 15th - 17th

Book of abstracts

Posters sessions

Thursday 16th November

Presentations time

P001 to P032 : 10:30am - 11am

P033 to P066 : 12am - 12:30am

P067 to P099 : 3:30pm to 4pm

Friday 17th November

Presentations time

P100 to P131 : 10:30am - 11am

P132 to P165 : 12am - 12:30am

P166 to P200 : 3:30pm to 4pm

Choledochal Cyst in Adults, Its Presentation and Management: Our Experience

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Introduction

Choledochal cyst is a rare congenital dilatation of the bile ducts and majority of them presents during childhood. Choledochal cyst in adult is rare and is usually suspected or diagnosed by hepato biliary imaging studies often initiated for evaluation of upper abdominal complaints and obstructive biliary disease.

Objectives

This paper aims to analyze and review the management of choledochal cyst in adults who presented to our hospital.

Methods

Total number of 15 patients were managed from June 2008 to June 2016 in our unit and reviewed on their presentation clinical information and management.

Results

There were 12 female patients and 3 male patients out of 15 patients. Majority of them had upper abdominal. Only two patient presented with the classical triad i.e abdominal pain,jaundice and mass. There were 11 type 1 (73.3%), type II-2 (13.3%) , type III-1,(6.6%) and type IV-1(6.6%) patient. 3 patients had associated cystolithiasis. 11 patients were treated by total cyst excision and reconstruction by Roux-en-Y hepatico jejunostomy. Rest 2 were treated with simple cyst excision.There was no significant intraoperative and postoperative morbidity or mortality. Histopathological report revealed no evidence of malignancy.

Conclusions

Choledochal Cyst should be considered in the differential diagnosis in all patients with a history of biliary colic, recurrent cholangitis or pancreatitis with associated dilatation of bile duct with jaundice, particularly if they are less than 40 years of age.Diagnosis is often delayed due to variable presentation and the best surgical option is total cyst excision along with reconstruction Roux-en-Y hepatico jejunostomy.

Choledochotomy with t-tube versus Choledochoduodenostomy in management of patients with common bile duct stones with low facilities

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Background:

In limited facilities to perform laparoscopic and/or endoscopic common bile duct exploration; open choledochotomy with T-tube and choledochoduodenostomy remain the valid options for treatment of common bile duct stones. This study aimed to compare both procedures in term of indication, surgical technique and outcome.

Patients and Methods:

It is prospective descriptive cross sectional hospital based study, conducted at Ibn Sina Specialized Hospital, it included all patients with common bile duct stone who treated with choledochotomy with T-tube and choledochoduodenostomy, and indication for CDD is dilated CBD more than 1.5 cm, stone forming patients and benign distal duct stricture. Data was analysed with statistical package of social sciences (SPSS) version 23.

Results:

Seventy-eight patients were studied, the mean age was 50.65 years (SD±15.1), female to male ratio was 2:1, of the them 58 patients (74.4%) were treated with choledochoduodenostomy and 20 patients (25.6%) were treated with choledochotomy + T-tube. Main indication was dilated common bile duct diameter; in choledochoduodenostomy mean diameter 14.5 mm (SD±2.8) vs 10.6 mm (SD±2.7) in T-tube group (*P* value 0.0001). there were three patients out of 20 had retained stone after choledochotomy (15%). Wound infection was 3.4% in choledochoduodenostomy vs 5% in choledochotomy. Bile leak occurred in 2 patients (3.4%) in choledochoduodenostomy vs 2 patients (10%) among choledochotomy + T-tube group.

Conclusion:

Choledochoduodenostomy is safe and effective in treatment of common bile duct stones in those patient with dilated common bile duct, with good clinical outcome.

Keywords:

Choledochotomy, T- tube, choledochoduodenostomy, common bile duct stones, Sudan.

Comparison of effectiveness of Ceftriaxone with Ciprofloxacin in the management of acute calculus cholecystitis

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Objective

To compare the effectiveness of ceftriaxone with ciprofloxacin in the initial management of patients with acute calculus cholecystitis.

Methods

We evaluated 40 patients with acute cholecystitis between September 2015 to march 2017. Time for resolution of symptoms, response to treatment and duration of hospital stay were assessed between those receiving ciprofloxacin and ceftriaxone. Diabetic patients and Pregnant females were excluded from the study.

Results

The mean age of acute cholecystitis was 40.8 ± 10.9. Male: female ratio was 1:7. Mean duration of hospital stay was 4.4 ± 1.39 days whereas in ceftriaxone group it was 4.8 ± 1.24 days which was statistically insignificant with p value of 0.343. 95% of patients responded to ciprofloxacin and 90 % patients responded to ceftriaxone with a p value of 1.00 which was statistically insignificant. Responses to the symptoms of cholecystitis were comparable with these two antibiotics.

Conclusion

We can conclude from the study that ciprofloxacin is equally effective with ceftriaxone in the management of acute calculus cholecystitis if not superior in terms of resolution of pain and fever, normalization of pulse and TLC and duration of hospital stay. Ciprofloxacin can be used as an alternative in place of ceftriaxone. So we recommend that ciprofloxacin as a first line antibiotic in the management of acute calculus cholecystitis.

Gallblader tuberculosis mimicking tumor : a case report.

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Introduction:

Tuberculous involvement of the gall bladder is rare.The pseudo-tumor form poses a differential diagnosis problem with gallbladder cancer. Diagnosis is usually postoperative with the histological analysis of the gallbladder.

Observation:

A 51-years-old male patient presenting episodes of hepatic colic with nocturnal vespero fever. Abdominal examination objectified an ovoid painfull mass of the right hypochondrium, evoking a dilated gallbladder. Biological exams showed no inflammation and hepatic tests were normal. Hepatobiliary MRI was in favor of multi-lobular cystic mass of the gallbladder evoking a cystic vesicular tumor or hydatid cyst. On sub-costal surgical exploration there was a tumor of the bottom of gall bladder measuring about 4 cm, without extension on liver. Cholecystectomy was performed. After removal, we noticed a milky liquid issue from the gallblader, with many little stones. The post-operative course was marked with skin infection treated by local care and antibiotic. Histological analysis showed a gallbladder tuberculosis. An anti-tuberculous treatment Rifampicin + Isoniazid + Ethambutol + Pirazinamide) was instituted during 6 months. Two months later, the patient presented an incisional hernia treated with prothesis. There was no further complication after.

Conclusion:

Pseudo-tumor tuberculosis of the gallbladder is exceptional, even in tuberculous endemic countries. Clinical, imaging and biology are not specific. The diagnosis is made by pathological analysis. A well-conducted antituberculosis treatment can lead to healing.

Incidental gallbladder after laparoscopic cholecystectomy: preoperative factors associated with poor outcomes after reoperation.

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Objective:

Reoperation is generally recommended when an incidental(I) gallbladder carcinoma(GBC) is found after a laparoscopic cholecystectomy(LC). However, despite a radical reoperation early recurrence and a reduced overall survival are observed in up to 20% of patients. The present study attempted to identify preoperative factors associated with poor disease-specific survival after resection of an I-GBC.

Methods:

A retrospective review of a prospectively maintained database of patients undergoing resection for GBC from January 1995 and March 2017 were retrospectively evaluated. Patients undergoing a radical reoperation for I-GBC were identified and univariate and multivariate Cox analysis were performed in order to assess preoperative survival prognostic factors.

Results:

There were 50 consecutive patients with I-GBC (median age-64 years; range,38-82) undergoing re-resection at a median of 36 days (range15-98) form a LC. LC was converted to open in 7(14%) and complicated by various form of gallbladder opening (GOP) in 14 (28%) patients. Preoperative appearance of residual cancer(RC) were present at the preoperative CT scan in 15 patients (30,6%), 11 patients (22%) had T3 and/or poor differentiated tumors and 13 resections were labelled as R1(26%). Operative mortality and morbidity were 2% and 22% respectively. Overall survival was 40 months with 80%-50%-41%-36% at 1-3-5-10 years. Independent preoperative risk factors for specific disease related survival were T3 tumors(HR:4.62;1.54-13.8), GOP (HR:1.84;1.10-7.3) and RC (HR:3.23;1.30-7.9). Patients presenting with 0,1,2-3 risk factors had 3-years survival rates of 89%,33%,9%($p<0.0001$).

Conclusions:

The presence of RC, GOP and T3 tumors indicates poor survival after resection for I-GBC following LC. The combination of these three easily available factors might be helpful to identify a subgroup of patients in need of neoadjuvant treatment before surgery.

Liver transplantation for primary sclerosing cholangitis

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Objectives:

Primary sclerosing cholangitis (PSC) is an idiopathic and intractable disease. Liver transplantation is the only proven long-term surviving treatment of PSC. However, data from Japanese registry of liver transplantation suggest that receiving a living donor liver transplantation (LDLT) from a first-degree relative might lead to a higher risk of recurrence of PSC. Here, we retrospectively reviewed the cases of liver transplantation in our institution.

Methods:

From 1996 to 2015, 371 consecutive patients underwent liver transplantation at the Okayama University Hospital, Japan. Among them, 12 patients with PSC were enrolled in this study, 11 LDLT and 1 DDLT.

Results:

Among 5 patients who received LDLT from first-degree relatives, only 1 patient had a recurrence of PSC 6 years after LDLT. On the other hand, the patient who received DDLT had a recurrence of PSC 4 years after DDLT. No patients suffered graft loss caused by a recurrence of PSC.

Conclusions:

LDLT from a first-degree relative might not have a higher risk of recurrence of PSC under the appropriate condition of immunosuppression.

Mirizzi syndrome: open or laparoscopic?

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Background:

Mirizzi Syndrome (MS) is an uncommon complication of cholelitiasis that consist of the extrinsic obstruction of the common bile duct, and is related with obstructive jaundice as clinical presentation. Surgical management of SM constitutes a challenge for surgeons and is associated with severe BD lesions. MS has been suggested as a contraindication for laparoscopy, but it is currently described as a viable option for selected patients (MS type I in Csendes classification).

Objective:

To review our initial experience in laparoscopic management of MS, comparing outcomes with open approach in a low-volume centre.

Methods:

This is a retrospective review of patients with MS from January 2006 to December 2016. Electronic health records were analysed and clinical presentation, diagnostic modalities, surgical approach, complications and Csendes classification of MS were evaluated.

Results:

During the evaluated period 10 patient were diagnosed with MS, all of them preoperative (incidence 3,3%). There were 2 males and 8 females with a mean age of 52 years (range: 19-76). Three patients had MS type I (30%); two were treated with laparoscopic cholecystectomy (LC) with no conversions. In the remaining one open cholecystectomy (OC) were performed. One patient had type II MS (10%) and was successfully treated with open subtotal cholecystectomy. No type III MS were found. Three patients had MS type IV (30%). Laparoscopic subtotal cholecystectomy with Pezzer tube cholecistostomy were performed in this cases. Finally one type V MS were reported (10%), presenting a cholecystoduodenal fistula and was treated with a laparotomic subtotal cholecystectomy, duodenorrhaphy, and Roux-en-Y hepaticojejunostomy.

Conclusions:

Preoperative diagnosis of MS is essential in the proper management of the disease. We believe that initial laparoscopic approach for MS (including type IV) is feasible and safe, and conversion would be subject to intraoperative findings.

Multiple gallbaldders: analysis of a historical cohort of 180 cases

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Objectives:

Biliary malformations, such as pancreatobiliary malunion or bile duct cysts are sometimes associated with an oncologic risk. Multiple gallbladders (MG) are a rare malformation with no clear data about its risk, and management.

Methods:

Retrospective analysis of 176 published cases of MG during the last 25 years literature and 4 cases from 2 french institutions.

Results:

Eighty-two per cent of patients were diagnosed during the treatment of a gallstone-related disease, of which 13% had a previous cholecystectomy. Ultrasound scan and MRCP showed a sensitivity of 66% and 99%, respectively. The cystic duct was common to both gallbladders (type1) in 43% and separated (type 2) in 50% of patients. In the latter case, there was no way to differentiate preoperatively an accessory gallbladder from a Todani II bile duct cyst. Cholecystectomy was performed in 129 patients by laparotomy (42%) or laparoscopy (58%), with a postoperative biliary leakage rate of 2.4%. Two cases of cancer were found (1%).

Conclusion:

MG have the same natural history than single gallbladder without major oncologic risk. Surgical indications are usually similar except in case of type 2 MG because of the potential misdiagnosis with a Todani II bile duct cyst, which is associated with a risk of cancer.

Our experience of the management of patients with obstructive jaundice of different ethiology

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Objectives:

Mini-invasive interventions for patients with obstructive jaundice implements wider within last several years, with growth of the number of patients with tumors of hepatopancreatobiliary zone.

One of the principal components of surgical management of these patients is the appropriate decompression of biliary system. Today most of professionals considers that wide implementation of antegrade and retrograde biliary interventions shall significantly improve general results of the treatment of patients with obstructive jaundice, due to decreasing of complication and mortality rate.

Methods:

Current investigation includes 22 patients with obstructive jaundice, treated in the period between 2016, June and 2017, April. From treated patients, there were 14 men (63.6%) and 8 women (36.4%); the age of patients ranged from 26 to 79.

Patient's hospitalization day differed between 9th and 45th day after appearing of jaundice. The common bilirubin level ranged from 89 to 560 Umol/L. Causes of jaundice were: pancreatic cancer – 7 (31.9%); cancer of common bile duct – 2 (9.0%); cancer of gallbladder – 1 (4.5%); cancer of intrahepatic bile ducts – 1 (4.5%); cancer of major duodenal papilla – 2 (9.0%); liver tumor with invasion of bile ducts – 3 (13.7%); benign stricture of common bile duct – 3 (13.7%); choledocholithiasis – 3 (13.7%).

For 22 patients, we have provided 28 mini-invasive interventions: 13 – percutaneous transhepatic (antegrade) draining, 14 – endoscopic (retrograde) stenting, using plastic or metal stents; 1 – combine external-internal draining ("rendezvous" technique).

Results:

There were no any mortality associated with percutaneous transhepatic or endobiliary interventions. In 2 cases (9%) after percutaneous draining, there were migration of drain, which forced us to provide re-draining. Patients after endoscopic stenting has not had any complications.

Conclusion:

The use of minimally invasive decompression techniques in obstructive jaundice management is quite effective palliative action, which prevents the development of liver failure, improves the quality and length of life of patients with biliary and pancreatic malignancies.

Re-arousal of a vanishing surgical procedure: Application of surgical cholecystostomy in critically ill or non-percutaneous-cholecystostomy fit patients of acute cholecystitis

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Today, surgical cholecystostomy(SC) is nearly replaced by image-guide percutaneous techniques, and it's been scarcely mentioned since 1980s after the introduction of percutaneous cholecystostomy(PC). However, SC may be needed in some situations. Cholecystostomy has been shown to be beneficial in high-risk patient groups to decompress the gallbladder, reducing patient's symptoms and the systemic inflammatory response. It also has been proven the most feasible bridging treatment prior to elective cholecystectomy. The majority of PC has often performed via transhepatic route, transversing the liver for theoretically greater catheter stability and lower rate of bile leakage. The transperitoneal route is considered a more suitable option in patients with liver disease and uncorrected coagulopathy. To date, either route of PC is executed with the help of sonography or computerized tomography by radiologist, and that are not always available in some developing districts. Herein, we introduce this forgotten surgery: SC to reach the goal of bile diversion similar to transperitoneal PC. We enrolled total 9 patients in a single institute with acute cholecystitis not suitable for transhepatic route, underwent SC since 1999 to 2016. The reasons for SC are as below: 1. Liver cirrhosis with coagulopathy. 2. Sepsis with coagulopathy. 3.Gallbladder empyema with rupture. 4. Unavailability of radiologist. And among these 9 patients, 6 have undergone following cholecystectomy. And all of the 9 patients were uneventful during 1-year follow-up.

Six cyclic monoterpenes (Rowachol®) attenuates liver injury, inflammation, and cholestasis in bile duct ligated (BDL) rats.

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Objectives:

Six cyclic monoterpenes has choleretic properties and inhibits the formation of cholesterol crystals in bile. Choleretic effects of Rowachol increase the volume of biliary secretion; candidate of possible cholelitholytic agent. However, whether Rowachol has a protective role in obstructive cholestasis remains unclear. The aim of this study is to investigate the protective effect of Rowachol on liver injury induced by BDL, as well as the potential mechanism.

Methods:

We divided male Sprague-Dawley rats into 5 groups (n=7/group): Group 1 : sham operated group with saline (n=7), Group 2 : BDL group with saline_3 Days (n=7), Group 3 : BDL group with Rowachol (provided from Pharmbio Korea Co. Seoul, Korea)_3 Days (n=7), Group 4 : BDL group with saline_7 Days (n=7), Group 5 : BDL group with Rowachol_7 Days (n=7). Twenty-four hours after surgery, each group followed by saline or Rowachol treatment daily for 3, 7 days. We perform biochemical, western, RT-PCR, IHC and histologic evaluation.

Results:

Liver index in the BDL group increased highly compared to control group. Compared to the BDL group, rats treated with the dose 0.31mmol/kg of Rowachol slightly decreased the liver index and cholestasis. Rowachol does not cause liver injury in SD rat for 7days and 14 days. Serum aspartate aminotransferase (ALT), alanine aminotransferase (AST), and alkaline phosphatase (ALP), total bilirubin, direct bilirubin, and gamma GGT increased significantly in BDL group for 7days were reduced in BDL group with Rowachol for 7days. In the BDL group, there was tissue disorganization with loss of hepatocyte cords and inflammatory infiltration. However, liver histology was improved in the BDL group with Rowachol. BDL group for 7days showed significant increases in liver mHAI and bile duct proliferation. BDL group with Rowachol revealed lower scores for mHAI. The mRNA expression levels of bile acid synthesis (Cyp7a1, Cyp7b1, and Cyp27a1) were decreased in the 7days BDL group with Rowachol. Also, Hepatic detoxification enzymes were increased in the 7days BDL group with Rowachol. These up-regulated detoxification enzymes can increase the water solubility of hepatotoxicity through hydroxylation (Cyp3a), sulfation (Sult2a1), and glutathione conjugation (Gsta2-4). Rowachol significantly reduced the expression of genes involved in inflammation (mRNA expression of IL-1β, MCP-1, and IL-6, and NF-κB /p65) in BDL group.

Conclusions:

Six cyclic monoterpenes attenuates liver injury and cholestasis in BDL rats, which may be associated with hepatic detoxification and alteration of bile synthesis.

Surgical intervention for Benign Biliary diseases in the era of ERCP

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Objective:

To assess the role and outcome of surgical procedures for various benign diseases of biliary tree, when the endoscopic retrograde cholangiopancreaticography (ERCP) has either failed or could not be done either due to anatomical or technical reasons.

Method:

Data collected for a period of 2 years (2014-2016) and analysed for all the patients who were seen for benign biliary diseases and undergone surgery in the institution.18 patients were found to be eligible for the study. Their clinical features, investigations, imaging, ERCP findings,operative findings and outcome were reviewed.

Results:

The common indications for the surgery remain stone diseases including Mirrizi's syndrome (10/18), choledochal cyst (3/18) and biliary tract injuries (3/18). Uncommon indication include chronic pancreatitis and choledochoduodenal fistula with cholangitis.

- 50 % (9/18) patients were directly taken up for surgery. (5/18) patients had undergone ERCP before reaching to us. In (4/18) patients ERCP was attempted but could not be done.
- Patients underwent Roux-en-Y Hepatico-jejunostomy (13/18) and CBD exploration (5/18 -2*). Cholecystectomy was the most common previous surgery (3/18) and one patient has undergone T-tube drainage for Choledochal cyst perforation in the past. In (5/18) patients congenital anomaly of ductal system and normal vascular variant was noted. CBD stent was removed from 4 patients,one had stent left in situ for 3 years.
- Wound infection and ascites remained most common complications, while one patient developed bile leak.One patient required additional procedure for retained stone following Laparoscopic CBD exploration. There was no mortality. On long term follow up (12/18) patients were clinically and biochemically normal.

Conclusion:

Even with wide availability of endoscopic procedures, surgical intervention is still required. A good patient and procedure selection and understanding of biliary anatomy is essential to have good outcome.

Liver remnant function in metastatic colorectal cancer patients

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Introduction:

In case of colorectal cancer patients with liver metastases (mCRC), liver surgery increases the threat of postoperative acute liver failure (ALF). The aim of our study is the functional state of hepatocytes of liver remnant investigation.

Material and methods:

Patients with resectable forms of colorectal cancer and liver metastases (n=25). Lactate in the liver tissue was determined spectrophotometrically. Defining the detoxifying function of biological oxidation coupling of phosphorylation in hepatocytes was performed by electron paramagnetic resonance at a temperature of liquid nitrogen.

Results:

In the cult the liver tissue revealed a functional exhaustion detoxification capacity of hepatocytes (levels of oxidized and lowspin form of cytochrome P-450 system in the catalytic cycle of detoxification were 0,33 ± 0,08 RU and 1,11 ± 0,13 RU respectively). Mitochondria of this cells operate in violation of phosphorylation coupling oxidation in NAD·H-ubiquinone oxidoreductase. Levels FeS-protein N-2 in electron-transport complex was 0,32 ± 0,06 RU. Also it was noted increasing levels of NO-FeS-proteins to the values of 0,33 ± 0,08 RU. (normal levels are 0,14 ± 0,07), which is the cause of mitochondrial energy function and formation of cellular hypoxia, which correlates with increased levels of lactate in the liver tissue (> 2.00 mkM/g·tissue at a rate of 1,80 ± 0.26 mkM/g·tissu)e and demonstrates the functioning of hepatocytes in hypoxic conditions.

Conclusions:

We found that ALF can diagnose by the level of lactate in the liver tissue. In future research it should explore the sensitivity of this marker for complications and mortality prognosing. For the prevention of intestinal barrier function and intestinal microbial balance, leading to systemic inflammation and infectious complications considers it appropriate to monitor the activity of NADPH-oxidase in neutrophils and iNOX.

Opposite prognostic role of microRNA- 200 family upon primary liver cancers

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Background:

MicroRNA (miR)-200 family, long recognized as a tumor suppressor, plays an important role upon hepatocellular carcinoma (HCC) undergoing epithelial-to-mesenchymal transition (EMT); whereas the expression of miR-200 family in intrahepatic cholangiocarcinoma (ICC) and combined ICC and HCC (cHCC-ICC) remain unexplored.

Methods:

Sixty-five ICC, 27 cHCC-ICC and 60 HCC were enrolled for measurement of miR-200 family and its targeted molecule, TUBB3, and HuR (a RNA binding protein), respectively. In vitro gain- and loss-of functional studies were conducted using the cholangiocarcinoma cell lines.

Results:

Expression of miR-200 family was up-regulated in ICC and was down-regulated in HCC, with cHCC-ICC as the intermediate. In situ hybridization confirmed that the expression of miR-200c was derived from the neoplastic cells. TUBB3 and cytoplasmic but not nuclear HuR were highly expressed in ICCs, compared to those of cHCC-ICCs and HCCs ($p<0.01$, $p<0.01$). Over-expression of miR-200c was correlated with KRAS mutation in ICC cohort, and represented an adverse prognostic factor. Functional studies demonstrated an auto-regulation loop existing between miR-200c and KRAS. Cellular invasion of high miR-200c-expressing HuCCT1was attenuated by depleting HuR and enhanced by anti-miR-200c, respectively; while their effects were neutralized by the simultaneous administration.

Conclusion:

Unlike miR-200 family acting as a tumor suppressor on HCC through EMT, miR-200 family works phenotypically as an adverse prognostic factor in ICC cohort, possibly through KRAS signaling with auto-regulation, and through TUBB3 interplayed with HuR. Expression of miR-200 family, TUBB3 and cytoplasmic HuR helps differentiate primary liver cancers, as well to predict long-term outcome.

A resected case of metachronous cholangiocarcinoma occurred after pancreaticoduodenectomy for cancer of the extrahepatic bile duct

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Objectives:

We present a case of metachronous cholangiocarcinoma in the intrahepatic duct occurred 23 months after Pancreatoduodenectomy (PD).

Methods (Case presentation):

A 78-year-old man who underwent PD with extended bile duct resection including hilar plate for a cancer of the extrahepatic bile duct. The histopathological diagnosis was well-differentiated adenocarcinoma with superficial spread. All the margins of the specimen were proved pathologically to be free of the tumor. Twenty-three months after the surgery, a tumor in segment 4 of the liver and a small nodule in the hepatic duct near the previous anastomotic site was detected by image findings. Under a diagnosis of recurrence at the hepaticojejunostomy with liver metastasis, chemotherapy with GEM and TS-1 were administered. After 12 months of chemotherapy, the hepatic lesion had been disappeared, then left hepatectomy combined with the resection of hepaticojejunostomy was performed.

Results:

The histopathological specimen revealed that carcinoma in situ expanded along large bile duct of the segment 2, 3, and 4. The lesion was accompanied by extremely localized invasive mucinous carcinoma. The final diagnosis was intraductal papillary neoplasm of the bile duct (IPNB) associated with invasive carcinoma. No metastasis lesion was shown in liver parenchyma. Since the lesion was far from the anastomotic site of previous surgery, it was diagnosed as not a recurrence but a “de novo” metachronous cholangiocarcinoma. The postoperative course was uneventful and radiological examinations has shown no evidence of recurrence, during the follow up periods of 60 months after the second surgery.

Discussion:

Multicentric adenocarcinoma of the biliary tract is very rare. Some reports state that repeated resection for metachronous adenocarcinoma might improve survival of these patients.

Conclusions:

We present a case of metachronous cholangiocarcinoma treated successfully by hepatectomy following PD.

Digital Gene Expression Analysis Reveals Predictive Genes for Recurrence in Biliary Tract Cancer

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Objectives:

Biliary tract cancer(BTC) with recurrence is poor prognosis. There is little evidence to improve the prognosis in these groups with several treatments. The aim of the current study is to determine the recurrence prediction genes in BTC with digital gene expression analysis with nCounter analysis system.

Methods:

We examined 69 patients with BTC who underwent surgery. RNA was extracted from surgical specimen and examined in a molecular counting assay, which counts RNA molecules by simultaneous hybridization of several probes. The molecule counting assay was done with custom code set of 45 genes which selected from 770 cancer related genes. Patients were devided into recurrence group (28patients) and no recurrence group (41patients). We researched RNAs with significant differences in expression between the two groups.

Results:

We identified the high and low expression of genes in recurrence group. *Interleukin-8*(p=0.000258), *Oncostatin M*(p=0.00264) and *Leukemia inhibitory factor*(p=0.00492) were high expression. These genes were expressed regardless of R1 and lymph node metastasis.

Conclusions:

High expression of *Interleukin-8, Oncostatin M, Leukemia inhibitory factor* genes can be a predictive marker of recurrence. People in these groups are necessary to introduce adjuvant therapy with or without lymph node metastasis and to shorten the follow interval.

Combined vascular resection benefits of perihilar cholangiocarcinoma patients is controversial. This study was undertaken to compare morbidity and mortality in patients with perihilar cholangiocarcinoma with or without vascular resection and the effect of combined vascular resection to resectability.

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Methods:

Clinical data of 62 perihilar cholangiocarcinoma patients who had been treated in Moscow Clinical Scientific Center from December 2013 to April 2017 were retrospectively analyzed. The patients were divided into two groups based on vascular resection: those without vascular resection; those with portal vein resection alone and/or those with hepatic artery resection. The complication rates, mortality and the number of R0 resection were compared among the two groups.

Results:

No significant differences were found in complication rates, mortality among the two groups (P>0.05). The number of R0 resections were significantly increased in patients with vascular resection.

Conclusions:

Vascular resection improved resectability rate of patients with perihilar cholangiocarcinoma and do not increase their morbidity and mortality.

Left trisectionectomy combined with simultaneous portal vein and hepatic artery resection for Type IV Perihilar Cholangiocarcinoma: A case report

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Objectives:

Type IV peri-hilar cholangiocarcinoma often have major vascular invasion due to anatomical proximity. To obtain negative resection margins, it may need major hepatectomy with vascular resection. This procedure is technically demanding. Several authors reported negative results especially for combined hepatic artery resection. We report case of left trisectionectomy combined with simultaneous portal vein and hepatic artery resection for type IV tumor.

Methods:

Patient with type IV peri-hilar cholangiocarcinoma involving portal vein and hepatic artery. Preoperatively, patient underwent percutaneous biliary drainage via right posterior duct and embolization of left & right anterior portal vein. Post-embolization CT volumetry showed 38% future remnant liver volume. At operation, after careful exploration for extrahepatic metastases, dissection around Rouviere's sulcus was performed to assess resectability. Skeletonization of hepatoduodenal ligament and distal bile duct transection were performed. Distal right posterior portal vein and hepatic artery were encircled. Left portal vein and left hepatic artery were divided. After complete parenchymal transection and caudate lobe resection, right posterior duct was divided. Then, right posterior hepatic artery and portal vein were transected. Surgical specimen was removed. Right posterior portal vein was re-anastomosed to main portal vein. Right posterior hepatic artery was reconstructed using rotating gastroduodenal artery under microvascular technique. Intraoperative ultrasonography was performed to ensure good intrahepatic vascular flow. Then, Roux-en Y hepaticojejunostomy was performed.

Results:

Left trisectionectomy combined with vascular resection was performed successfully without intraoperative complications. Operative time was 540 minutes and estimated blood loss 500 ml. Pathology showed cholangiocarcinoma with portal vein and hepatic artery invasion. Uninvolved all resection margins but positive 3/12 lymph nodes. Patient was discharged on postoperative day 12 without peri-operative complications.

Conclusions:

Left trisectionectomy combined with simultaneous portal vein and hepatic artery resection for type IV peri-hilar cholangiocarcinoma is feasible procedure and provide chance for achieving negative resection margins.

Papillary carcinoma of the gallbladder: a distinct variant

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Introduction:

Papillary adenocarcinomas are the rare variants accounts for only 5 % of gall bladder malignancy and have much better prognosis as compared to the adenocarcinoma gallbladder and this favourable outcome is due to its delayed invasion in tissue, exophytic growth and possibly early clinical presentation obstructive symptoms.

Objectives:

This paper intends to analyze the clinicopathological features of papillary adenocarcinoma of gallbladder and its surgical outcome.

Methods:

Between the period of Janaury 2006 to December 2016 there was total 5 cases of papillary adenocarcinoma of the gallbladder which were pathologically diagnosed post operatively. All the patient underwent properative evaluation by ultrasound and CECT of abdomen and underwent surgical resection.

Results:

The 5 patients with papillary carcinomas included 4 women and 1 men, aged 50-72 years, 2 patient had gall stone disease. 3 patients underwent Laparoscopic Cholecystectomy, Extended laparoscopic cholecystectomy in 1 patient and 1 patient underwent open cholecystectomy. The pathological lesion was well to moderately differentiated. Patients were followed up for a period of 10 years.

Conclusions:

Though adenocarcinoma of the gallbladder has dismal prognosis, the rare variety of papillary adenocarcinoma has got the better prognosis in terms of surgical outcome and survival, irrespective of tumour size and degree of differentiation. And simple cholecystectomy can be a complete curative procedure.

How to treat synchronous liver metastases from colorectal cancer?

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Objectives:

Recent development of chemotherapy has tremendous impact on patients with advanced colorectal liver metastases (CRLM). The purpose of this study is to clarify the appropriate strategy for advanced synchronous CRLM.

Methods:

We retrospectively reviewed 317 patients who underwent hepatectomy for synchronous CRLM with curative intent. Upfront resection was performed for 245 patients (resectable group). Pre-operative chemotherapy was performed for 72 patients as initially unresectable CRLM (conversion group, n = 48) or marginally resectable CRLM (NAC group, n = 24). Unresectable CRLM means post-operative liver function or volume is not acceptable. Marginally resectable CRLM (n=24) presented invasion to IVC, metastases to other organs, massive multiple bilobular metastases, and so on.

Results:

The 3, 5 and 10-year overall survival rate (OS) was 64.0%, 46.2% and 33.1% respectively. In terms of classification defined by tumor number and size, 5-year OS of H1 (tumor number =<4 and size <5cm), H2 (except for H1 and H3) and H3 (tumor number =>5 and size =>5cm) were 53.2%, 43.0% and 28.4% respectively. Univariate analysis revealed that tumor size =>5cm, tumor number =>5 and elevation of CEA or CA19-9 were significant prognostic factor.

As for the treatment strategy, 5-year OS of NAC group was significantly superior to conversion group (p=0.0034) but not significantly better than resectable group (p=0.092). Limiting for H3 patients, 5-year survival rate of the resectable group (n=21, 11.0%) was inferior to conversion group (n=25, 27.9%) and NAC group (n=5, 100%) significantly.

Conclusions:

Surgical outcome of advanced CRLM such as H3 group is seriously dismal. Curative hepatectomy followed by preoperative chemotherapy for advanced CRLM can improve both marginally-resectable cases and initially unresectable cases. Both curative resection and adequate chemotherapy are demanding to achieve better outcome, we should emphasize to succeed a series of proper treatment.

Influence of pre-operative chemotherapy on liver regeneration after right hepatectomy for colorectal liver metastases (CRLM)

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Objectives:

To assess the role of a pre-operative chemotherapy on liver regeneration following formal right hepatectomy for CRLM.

Background:

Neo-adjuvant systemic chemotherapy is frequently used prior to surgical resection of CRLM. While chemotherapy has been shown to induce histopathological changes in liver parenchyma, its impact on liver regeneration remains poorly assessed.

Patients and methods:

This retrospective study included 40 patients undergoing right hepatectomy for CRLM. Patients were allocated to two groups according to the number of chemotherapy cycles delivered pre-operatively: 0 to 6 cycles (n = 34), 7 or more cycles (n = 6). Liver hypertrophy rate was assessed using liver volumetry on pre and post-operative imaging.

Results:

Patients receiving a sustained pre-operative chemotherapy

(> 6 cycles) exhibited a reduced liver hypertrophy of the left remnant liver compared to patients receiving 6 cycles or less (471 ml versus 706 ml; P = 0,015). Liver hypertrophy was comparable in patients receiving 6 cycles or less and those without any pre-operative chemotherapy. Preoperative chemotherapy had no influence on overall post-operative morbidity.

Conclusion:

Pre-operative chemotherapy impairs liver regeneration following right hepatectomy for CRLM. This should be taken account when planning multi-steps procedures.

Laparoscopic Combined Colorectal and Liver Resection for Metastatic Colorectal Cancer

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Objectives:

Nowadays, regarding a personalized multimodal approach, laparoscopic liver and colorectal resections, separately distinguished, are accepted as feasible, safe and oncologically equivalent to open resections surgical methods of treatment for colorectal carcinoma. However, there is still no consensus, regarding the applicability of combined laparoscopic colon and liver resection. The aim of the present study is to determine the feasibility of combined different volume laparoscopic colon and liver resection in selected patients with primary colorectal cancer and synchronous liver metastases.

Methods:

From April 2014 to April 2017 thirteen patients with primary CRC and a synchronous liver metastases underwent combined totally laparoscopic or “hybrid” liver and colorectal surgery. Patient and tumor (primary and metastatic) characteristics, operative variables, and postoperative outcomes were evaluated prospectively.

Results:

The primary tumor was located in the colon in 9 patients and in the rectum - in 4 patients. Seven patients had a solitary synchronous liver metastasis and 6 patients - multiple. Surgical approach was totally laparoscopic in 10 patients and the “hybrid” technique was applied in 3 patients. The major hepatic resections were 5. Median operative time was 270 min, with a mean blood loss of 120 ml for the combined major liver resections and 70 ml for the group with minor liver resections. The average postoperative hospital stay was 7,5 days. Postoperative complications were observed in two patients (grade IIIa and IIIb, respectively), mortality rate was zero. R0 resection was achieved in 12 patients, and in one patient laparoscopic combined procedure was the first stage of a two-stage liver resection. Recurrent disease was found in two patients on the 3rd and on the 14th month respectively.

Conclusions:

Simultaneous laparoscopic colorectal and liver resection appears to be feasible in selected patients with CRC and SLM on providing an adequate preoperative selection and combined surgical expertise.

Significance of multidisciplinary approach for advanced colorectal liver metastases: a single institutional experience

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Objectives:

Multidisciplinary team (MDT) approach has reportedly been a keyword for the treatment of Stage IV cancers in the era of modern chemotherapy. However, actual impact of MDT approach on the treatment outcomes of colorectal liver metastases has not yet been discussed so well. The objective of this study was to clarify the significance of MDT approach in clinical decision making process for advanced colorectal liver metastases.

Methods:

Based on the retrospective review of a prospectively collected clinical database in a single high-volume hepatobiliary center, impact of MDT approach including hepatobiliary surgeon on the treatment outcomes of synchronous liver metastases was investigated by comparing the estimated clinical results based on the initial treatment plans offered by colorectal surgeons and the actual clinical results based on the treatment plans modified by hepatobiliary surgeons.

Results:

Among 689 patients who underwent curative resections for primary colorectal lesions between April 2014 and October 2015, 42 (6.1%) patients presented synchronous liver metastases with (n=14) or without (n=28) extrahepatic disease. Proportion of patients who were diagnosed with resectable or potentially resectable disease at initial assessment was 40.5% (17/42) by colorectal surgeons and 61.9% (26/42) by hepatobiliary surgeons (P=0.049). With adequate combination of preoperative chemotherapy and advanced hepatobiliary surgical approach, 54.7% (23/42) patients eventually underwent curative surgical resection including 4 conversion cases. Based on the outcome-based estimation, approximately 20% of patients would have benefit from curative surgical options with 10% of conversion rate among initially unresectable population by including hepatobiliary surgeons in MDT.

Conclusion:

MDT approach including hepatobiliary surgeons significantly improves resection rate and may offer potential survival benefit even for patients with initially unresectable disease.

Postoperative fluid managemnet using tolvaptan after living donor liver transplantation

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Aim:

The vasopressin V2 receptor antagonist tolvaptan is a new diuretic that selectively promotes the excretion of water.We recently introduced tolvaptan for postoperative fluid management after living-donor liver transplantation (LDLT).

Methods:

We compared clinical outcomes of LDLT recipients who were treated with tolvaptan, furosemide, and human atrial natriuretic peptide (hANP) (tolvaptan group, n=16) and those who were treated with furosemide and hANP only (control group, n=10).

Results:

There were no significant differences in preoperative and intraoperative demographic data between the tolvaptan and control groups except for the follow-up period after surgery. Urine volume was 1242 ± 692, 2240 ± 1307, and 2268 ± 1262 mL on postoperative day 1, 3, and 7, respectively, in the tolvaptan group. These volumes did not significantly differ from those in control group (1027 ± 462, 1788 ± 909, and 2057 ± 1216 mL on postoperative day 1, 3, and 7, respectively). There were no significant between-groups differences in postoperative body weight gain or drainage volume from abdominal drain tubes. Times to hANP discontinuation and central venous catheter removal were significantly reduced in the tolvaptan group. No severe side effects directly related to tolvaptan were observed. Six-month survival was 90.0% and 93.8% in the control and tolvaptan groups, respectively.

Conclusions:

The results of this study suggest that addition of tolvaptan to furosemide and hANP is a safe and effective option for postoperative fluid management after LDLT.

Randomised study comparing effect of restricted vs liberal fluid administration on post-operative clinical outcome after laparoscopic cholecystectomy

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Objectives:

To find out the effects of restricted vs liberal fluid administration on post-operative clinical outcome after laparoscopic cholecystectomy.

Methods:

We evaluated 50 patients who underwent laparoscopic cholecystectomy between September 2015 and April 2017. Subjective parameters, analgesic and antiemetic requirements and duration of hospital stay were compared between the two fluid groups.

Results:

Post-operative subjective parameters like vomiting, dizziness, fatigue and pain as well as analgesic (*p* value 0.002) and antiemetic requirement (*p* value 0.001) were significantly more in the restricted group than liberal group. However, the duration of hospital stay was similar in both restricted group with mean of 19.68 hours and liberal group with mean of 21.36 hours (*p* value 0.2664).

Conclusions:

Restricted fluid administration is equally effective if not superior to liberal fluid administration given intra and post operatively in terms of resolution of pain, fatigue, vomiting and dizziness, if adequate analgesia and antiemetic are given post operatively on a regular basis. Also, there is no difference in hospital stay with discharge on the same day if early ambulation and early adequate oral intake is promoted without any need for excessive fluid administration making it a day care procedure without adding on to significant complications.

When and how to remove drains after hepatectomy: an evaluation of drain removal on the third and first postoperative day

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Background:

There is no standard way of drain management after hepatectomy. We introduced early removal of drains in a step-by-step manner. Outcomes of drain removal on postoperative day (POD) 3 and POD 1 were evaluated.

Methods:

Conventionally, drains were pulled out gradually from POD 7 and removed within 14 PODs in our institute (control group). Recently, we defined the criteria for early removal of drains: (i) drain-fluid bilirubin level below 3 mg/dl; (ii) drain discharge volume less than 500ml/day; (iii) macroscopic findings of the drain discharge neither bloody nor infected. In patients meeting the criteria, drains were removed on POD 3 between January 2012 and February 2013 (POD 3 group), and on POD 1 between February and December 2013 (POD 1 group). Outcomes were compared between groups.

Results:

Median duration of postoperative hospital stay was shorter in POD 3 group (11 days, range 7-60) than in the control group (14 days, range 7-41) ($P < 0.0001$). The incidence of drain infection was lower in POD 3 group (1.2%) than in the control group (5.7%). The incidence of grade B bile leakage and complications ≥ grade III did not increase in POD 3 group (1.2% and 2.4%) compared with those in the control group (2.3% and 3.5%). Meanwhile, in POD 1 group, median duration of postoperative hospital stay was 11 days (range 6-37), which was comparable to POD 3 group. However, the incidence of grade B bile leakage and complications ≥ grade III was higher (5.7% and 4.6%) than other groups. When limited to patients whose drains were actually removed, the incidence of bile leakage and complications in POD 1 group was almost the same as other groups. Intraoperative findings were also taken into account when removing drains.

Conclusions:

Drain removal on POD 3 reduces the length of postoperative hospital stay and the incidence of drain infection without impairing safety. However, we should take into account the intraoperative findings to remove drains safely on POD 1.

CDK9-Inhibition and trail overcomes Sorafenib-Resistance of hepatocellular Carcinoma

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Sorafenib remains the standard therapy for patients with advanced HCC despite considerable side-effects and the fact that systemic treatment only prolongs survival by a few months. One major reason for its limited efficiency is the fact that that HCC cells commonly exhibit or acquire resistance to Sorafenib. Therefore, novel effective and cancer-selective therapeutic strategies are urgently needed. Recently, we identified the combination of the death ligand TRAIL and CDK9 inhibition as an exceptional potent strategy to selectively kill tumor cells. Here, we evaluated the combination of the clinical tested CDK9-inhibitor Dinaciclib and TRAIL for HCC and investigated underlying molecular mechanism.

The combination of Dinaciclib and TRAIL synergistically and effectively reduced cell viability in HCC cells and, importantly, almost completely abolished clonogenic survival of these cells. The combination induced cell cycle arrest and caspase-8-dependent apoptosis in these cells. Moreover, this combination displayed a superior cytotoxic effect in HCC cells compared to Sorafenib treatment alone. Interestingly, this combination overcame acquired Sorafenib-resistance in HCC cells by the shift of the ratio of pro- and anti-apoptotic proteins on the transcriptional level.

In conclusion, due to its potency, CDK9-inhibition in combination with TRAIL provides a novel and promising therapeutic approach for Sorafenib-resistant HCC.

Comparative clinical outcomes of liver resection for hepatocellular carcinoma with and without bile duct tumor thrombus

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Background:

Hepatocullular carcinoma (HCC) presenting with obstructive juandice caused by bile duct tumor thrombus(BDTT) is an uncommon event. The role of hepatectomy and clinical outcomes are remaining controversy. The aim of this study was to evaluate short and long-term outcomes of hepatectomy for HCC with BDTT comparing to non-BDTT.

Methods:

Total twenty-two HCC patients with BDTT who underwent hepatectomy in author's institute were retrospective reviewed of shot and long-term outcomes comparing with 111 HCC patients without BDTT. An impacted of BDTT to clinical outcome and survival benefit after surgical resection was analyzed.

Results:

HCC with BDTT group presenting with higher level of serum total bilirubin, alpha-fetoprotein and CA 19-9. Six HCC patients with BDTT (26.1%) received preoperative percutaneous transhepatic biliary drainage (PTBD). All HCC with BDTT cases received major hepatectomy VS 32.4% in non-BDTT group. The HCC patients with BDTT who underwent hepatectomy have longer operative time (420 VS 217 minute), more blood loss (1,200 VS 500 ml) and higher morbidity (53.5% VS 16.7%). Two patients in BDTT group death within 30 days from peri-operative sepsis and post-hepatectomy liver failure. The 1-, 3- and 5-year survival rates of BDTT group were 85.7%, 71.4%, and 71.4%, respectively. These were slightly lower than non-BDTT group (97.3%, 82.9%, and 81.1%, respectively) but no statistical significant (P-value = 0.208). BDTT was not showed impact to survival and recurrence (P-value = 0.608, 0.807). Only tumor size more than five centimeters dose impact to both survival and recurrence (P-value = 0.015, 0.001).

Conclusion:

Bile duct obstruction from tumor thrombus does not imply as an advanced disease. HCC with BDTT patients can achieve favorable surgical outcomes and long term survival after liver resection when appropriate operation is carefully selected.

Expression of LYSYL oxidase like-2 in hepatocellular carcinoma and its clinical significance

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Objective:

In this study, we investigated the role of LOXL2, the correlation between LOXL2 and epithelial to mesenchymal transition (EMT), and the effects of using beta-aminopropionitrile (BAPN) to inhibit LOXL2 with the goal of reducing tumour progression in hepatocellular carcinoma (HCC).

Methods:

The expression level of LOXL2 was evaluated in HCC and adjacent noncancerous tissues using quantitative reverse transcription polymerase chain reaction and clinicopathological analyses. The effects of BAPN on cell proliferation, migration, and invasion were investigated *in vitro*. Additionally, LOXL2 expression was measured in the culture supernatants of HCC cell lines.

Results:

Our results show that LOXL2 expression was higher in HCC cell lines and tissues. There was a significant correlation between EMT status and LOXL2 levels (p=0.004). BAPN reduced migration and invasion in HCC cells. HCC patients with high levels of LOXL2 expression had relatively shorter disease-free survival (p=0.009) and overall survival (p=0.035) times. The expression level of LOXL2 was similar between cell supernatants and HCC cell lines. A multivariate analysis demonstrated that portal vein invasion (p=0.015), venous invasion (p=0.026), serum AFP (α-fetoprotein) levels (p=0.019), and LOXL2 expression (p=0.009) were independent prognostic factors.

Conclusions:

Our results suggest that a higher level of LOXL2 may contribute to tumour progression, indicating that LOXL2 has clinical value as a therapeutic target in HCC.

Hemodynamics in hCC and liver parenchyma under hepatic artery balloon occlusion and ITS therapeutic application

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Objectives:

Balloon-occluded transarterial chemoembolization (B-TACE) method has recently gained attention again as a useful treatment for hepatocellular carcinoma (HCC). However, hemodynamics of the liver and tumor under balloon occlusion of the hepatic artery has not been evaluated, and the effectiveness of B-TACE remains controversial. Therefore, the aim of this study was to investigate hemodynamic changes in HCC and liver parenchyma under hepatic artery occlusion.

Methods:

Thirty-eight HCC nodules in 25 patients were included. Computed tomography (CT) hepatic arteriography (CTHA) with and without balloon occlusion of the hepatic artery was performed. CT attenuation and enhancement volume of HCC and liver parenchyma with and without balloon occlusion were measured on CTHA. Influence of balloon position (segmental or subsegmental branch) was evaluated based on differences in HCC-to-liver parenchyma attenuation ratio (H/L ratio) and enhancement volume of HCC and liver parenchyma.

Results:

In the segmental group (n = 20), H/L ratio and enhancement volume of HCC and liver parenchyma were significantly lower with balloon occlusion than without balloon occlusion. However, in the subsegmental group (n = 18), H/L ratio was significantly higher and liver parenchyma enhancement volume was significantly lower with balloon occlusion; HCC enhancement volume was similar with and without balloon occlusion. Rate of change in H/L ratio and enhancement volume of HCC and liver parenchyma were lower in the segmental group than in the subsegmental group. There were significantly more perfusion defects in the segmental group.

Conclusions:

Hepatic artery occlusion causes hemodynamic changes in HCC and liver parenchyma, especially with segmental occlusion.

Incorporation of DNMT1 and HLA-DRα with TNM staging in HCC

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Abstract

Background: Hepatocellular carcinoma (HCC) is the most common type of hepatic cancer and is particularly a problem in China. Bio-molecular markers have been demonstrated to be of prognostic significance and might help predict tumor behavior. Methods: In our study, we aimed to assess the prognostic values of DNA methyltransferase 1 (DNMT1), HLA-DRα, and β-catenin, as well as the combined use of molecular biomarkers, clinicopathological parameters and the TNM staging system to find a method for superior prognostic performance for HCC by analyzing a Chinese HCC cohort.

Results:

We revealed the significant prognostic roles of DNMT1 (OR: 2.570; 95% CI: 1.401-4.715; P = 0.002) and HLA-DRα (0.350; 0.189-0.616; 0.001), and further developed an estimation formula to predict prognosis in HCC patients after curative resection, based on TNM staging, operative blood loss, abnormal total bilirubin, DNMT1 and HLA-DRα. The receiver operating characteristic curve analysis showed that prediction from the multivariate logistic regression had an area of 0.847 and performed better than the conventional TNM staging system, as well as other current HCC staging systems.

Conclusion:

Our study demonstrated the prognostic values of DNMT1 and HLA-DRα in HCC patients after curative resection. Additionally, we developed a prognostic estimation formula featured better stratification ability than the conventional TNM staging and provided a practicable stratification method for HCC patients after curative resection.

Insulin treatment can accelerate the recurrence of hepatocellular carcinoma after surgery

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Aim:

Insulin treatment is a possible risk factor for hepatocellular carcinoma (HCC) in patients with diabetes mellitus (DM). However, the effect of insulin treatment on the prognosis after the surgical treatment of HCC is unclear. In the present study, we examined the effect of insulin treatment on the prognosis of HCC patients after hepatectomy.

Methods:

We examined 124 HCC patients who underwent hepatectomy from 2004 to 2014 at our hospital and met the following criteria: 1) hepatectomy was the initial treatment for HCC and 2) surgery was curable. We focused on the treatment for DM after surgery, which was reviewed retrospectively from the medical records.

Results:

Out of 124 patients, 54 (44%) were diagnosed with DM. Relapse-free survival (RFS) and overall survival (OS) were not significantly different between the DM and non-DM groups. Out of 54 patients with DM, 15 (28%) were treated with insulin. RFS was significantly shorter in patients who received insulin treatment than in those who did not (median RFS 468 days vs. 1376 days, respectively; log-rank $p = 0.0121$), but OS was not different between both groups. RFS remained significantly different even after adjustment for other factors such as sex, age, liver disease, Child–Pugh class, histopathology of background liver, and clinical stage (hazard ratio 4.30, $p = 0.0016$). On the other hand, RFS and OS were not significantly different between groups with low HbA1c (<7.5%) and high HbA1c (≥7.5%).

Conclusion:

Insulin treatment can be a prognostic factor for recurrence after surgery in HCC patients.

Multidisciplinary treatment for Stage B, C Hepatocellular carcinoma

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Background:

According to Barcelona Clinic Liver Cancer (BCLC) staging system, TACE for Stage B hepatocellular carcinoma (HCC) and sorafenib for Stage C HCC are standard treatment. However, the results are not satisfactory at all in spite of a ratio to become a target patient accounting for 60%.

Aim:

This retrospective trial was to determine the prognosis of multidisciplinary treatment using percutaneous isolated hepatic perfusion (PIHP) for Stage B, C HCC.

Materials and Methods: Between January 1989 and December 2015, 224 consecutive patients with Stage B, C HCC were enrolled in prospective clinical trials of PIHP. 104 patients who had good liver function received sequential reductive hepatectomy. Out of 104 patients, 10 did not complete PIHP because of hepatic dysfunction or other reasons. 14 patients received preoperative PIHP. 4 patients received the combination of particle radiotherapy and PIHP.

Results:

The median overall survival (MST) of all 104 patients in the dual treatment group was 19 months and the actual 1, 3, and 5-year overall survival rates were 70, 28, and 21 %, respectively. A total of 94 patients completed the dual treatment and its local control rate was 67%. And 75 patients in the group of the dual treatment categorized Stage C. But the MST of 75 patients categorized Stage C who completed the dual treatment is 19 months. And more, the MST of all 14 patients in the group of preoperative PIHP was 14 months and the actual 1 and 3-year overall survival rates were 64 and 18 %, respectively.

Conclusions:

Dual treatment could offer mild-term survival in a subset of patients with major portal invasion who were previously deemed to have dismal prognosis. However, our strategy yielded much longer survival term than any other previous reports. Dual treatment should be considered as a first line treatment.

Prediction of posthepatectomy liver failure in patients with hepatocellular carcinoma

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Objectives:

Posthepatectomy liver failure (PHLF) is a fatal complication in patients with hepatocellular carcinoma (HCC). Recently, preoperative 3D-CT simulation has enabled us to estimate the future remnant liver volume (FRLV) properly. This study aimed at clarifying what predicts PHLF.

Methods:

The retrospective study was performed on 112 patients, who underwent hepatectomy for HCC with preoperative simulation using Synapse Vincent between January 2013 and June 2016. The plasma disappearance rate of indocyanine green of the future remnant liver (ICGKrem) was calculated as ICGK multiplied by %FRLV. PHLF was defined according to the International Study Group of Liver Surgery.

Results:

Estimated resection liver volume with tumor showed a strong correlation with weight of resected liver specimen ($r=0.969$, $p<0.001$). PHLF occurred in 26 patients (23.2%); grade A in 19 patients (17.0%), grade B in 6 patients (5.4%), and grade C in 1 patient (0.9%). Patients with PHLF required significantly longer postoperative hospital care than the patients without PHLF (median: 22.5 vs. 18 days). There were significantly differences in ICGK (AUROC; 0.693), ICGKrem (0.672), platelet count (0.649) and intraoperative blood loss (0.630) between PHLF and non-PHLF groups. By multivariate analysis using a logistic regression model determined by univariate analysis, ICGKrem and platelet count were independent predictive factors of PHLF ($p<0.05$). Prothrombin time and intraoperative blood loss were risks for grade B/C PHLF by multivariate analysis.

Conclusions:

ICGKrem might predict PHLF in patients with HCC. Control of intraoperative bleeding is important to prevent grade B/C PHLF.

Short and long-term outcome of liver resection for elderly patients with hepatocellular carcinoma

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Background:

Number of elderly patients who underwent resection of hepatocellular carcinoma (HCC) are increasing in recent years.

Objectives:

The postoperative outcome for these patients were evaluated.

Methods:

1267 patients (mean age: 66 years) between 1990 and 2015 who underwent resection of HCC were enrolled in this study. The patients background factors, operative factors, tumor factors and prognosis were evaluated in 239 elderly patients aged 75 years and more (19%) and 1028 younger patients aged less than 75 years (81%).

Results:

Although the percentage of the elderly patients in 1990s was 6%, it in 2010s was 35%. In elderly group, 182 patients were under 80 years old (76%) and 57 patients were 80 years and more (23%). The ratio of patients who had hepatitis B virus was significantly lower (p=0.000) than that of younger patients. As hepatitis C virus, no differences were found between the two groups. Examinations revealed lower values of haemoglobin (p=0.000), serum albumin (p=0.001) and total bilirubin (p=0.001), higher values of platelets (p=0.004), prothrombin (p=0.000) and creatinine (p=0.043) in elderly patients. Although no differences in duration of operation, amount of intraoperative blood loos and blood transfusion were lower in elderly patients. There were no differences in all postoperative complications. Five-year survival was 53.6% in elderly patients and 59.0% in younger patients with no statistical differences (p=0.166). In regards to cause of death, in 77% of the younger group, in 60% of the elderly group died with HCC, respectively.

Conclusions:

Liver resection for the elderly was performed safely and might extend the patient's life expectancy.

Treatment of solitary 2 to 5-cm large. Hepatocellular carcinoma: surgical resection vs Multi-bi-polar radiofrequency ablation. A Comparative retrospective monocentric study of 141 consecutive patients.

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Objectives:

Multi-bi-polar radiofrequency ablation (MRFA) is a new procedure to treat hepatocellular carcinoma (HCC). Better local recurrence rates were recently demonstrated when compared to mono-polar radiofrequency ablation. The aim of this study was to compare the oncological results and morbi-mortality between surgical resection (SR) and MRFA.

Methods:

We performed a comparative retrospective monocentric study of consecutive patients treated for a solitary 20-50 mm HCC by either SR or MRFA. The curative-treatment option was chosen during multidisciplinary staff meeting. Patients who were already treated for HCC were excluded.

Results:

Between 2011 and 2016, 79 and 62 patients were treated by MRFA and SR, respectively. Tumors in the SR-group were larger (35mm [30 ; 45] versus 30mm [25 ; 34] $p<0.001$), and more frequently subcapsular (81% versus 40%, $p<0.001$, respectively). MRFA patients had more advanced MELD score and clinical evidence of portal hypertension.

Ninety days morbi-mortality was not different, but hospital stay was longer for SR patients (11 days [4;36] versus 7 days [3;67], $p<0.001$).

A liver transplantation (LT) was further undertaken in 8.1% of SR patients and 7.6% of MRFA patients ($p=1.000$).

Overall survival was not different (63% after SR, 78% after MRFA at 5 years, $p=0.870$) but disease-free survival (DFS) was better after SR group (49% versus 42% at 5 years, $p=0.02$) with a median follow-up of 26 (IQR: 13-44) months. Patients in the MRFA showed a trend toward more local recurrence than in the SR (5.4% versus 1.8% at 1 year, 8.7% versus 4.1%, $p=0.115$).

Conclusions:

MRFA represents a safe and effective alternative to SR for non-subcapsular HCC of 20 to 50mm, both in the setting of a bridge to LT, or for patients with severe underlying liver-disease.

Clinical advantages of single port laparoscopic liver surgery

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Objectives:

Single-port laparoscopic liver surgery has been performed sporadically. The aim of this study is to assess our experience with single-port laparoscopic liver surgery as one of the usual treatment modality for various kinds of hepatic diseases.

Methods:

We retrospectively review the medical records of 246 patients who performed a laparoscopic liver surgery between Dec 2008 and Dec 2015 at our hospital. We divided it into two groups, single incision laparoscopic hepatectomy (SILH) and multiport laparoscopic hepatectomy (MPLH).

Results:

Of the 246 patients, 155 patients were underwent SILH and 91 were underwent MPLH. Conversion rate was 22.6% in SILH and 19.8% in MPLH ($p = 0.358$). We adopted SILH in major hepatectomy resected more than 2 sections for 39 patients (25.2%) and 29.7% in MPLH group ($p = 0.459$). Operative time was 124.6 ± 73.5 minutes in SILH group and 335.9 ± 131.7 minutes in MPLH group ($p < 0.001$). Blood loss was 352.5 ± 408.3 ml in SILH group and 866.7 ± 709.7 ml in MPLH group ($p < 0.001$). The safety resection margin was not showed significant difference (0.9 ± 0.86 cm vs 1.1 ± 1.6 cm, $p = 0.553$). The enteral feeding was started earlier in SILH group (1.01 ± 0.103 days after operation) than MPLH group (2.18 ± 1.57 days) ($p < 0.001$). The mean hospital stay after operation was shorter in SILH group (7.3 ± 2.7 days vs 9.9 ± 3.1 days, $p < 0.001$). There was no major perioperative complication or mortality case in this study.

Conclusions:

Single-port laparoscopic liver surgery seems to be a feasible approach for various kinds of liver diseases.

Getting started with robotic in hpb surgery

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Objectives:

The Robotic-assisted surgery is used with an increasing frequency in HpB surgery. This robotic interface is different to open and even to laparoscopic surgery. A learning curve to get familiar with this interface, setup and different material is indicated for the surgeon, but also for the anaesthesiologist and the OR-nurses.

Methods:

Before starting with advanced HpB procedures two surgeons completed the Intuitive Surgical da Vinci training and performed Robotic cholecystectomies together. We evaluated the learning curve by means of the total duration of the procedure. Results: We noticed a reduction of 50 % of the total OR time already after 4 cases. This significant gain of time was due especially to the reduction in docking and dedocking time combined with a swifter placement of the trocars. After those 4 cases we obtained a steady state. No complications were noticed in this group of robotic-assisted cholecystectomies.

Conclusion:

The robotic cholecystectomy is a safe procedure to perform and enables the HpB surgeon to increase his confidence level and knowledge of the robotic interface to evolve towards more advanced procedures. Enrolling for the training program facilitated the transition towards robotic procedures.

Laparo-endoscopic Lithotripsy-assisted Bile Duct Exploration – Improving Outcomes

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Introduction/Objectives:

A one-stage laparoscopic cholecystectomy and bile duct exploration is the preferred technique for the management of choledocholithiasis as it has been shown to have lesser morbidity, a shorter hospital stay and lower cost. Impacted common bile duct stones and stone size are common reasons for technical failure, which can be addressed with the introduction of laparo-endoscopic lithotripsy assisted bile duct exploration.

Methods:

At Changi General Hospital in Singapore, we performed our first laparo-endoscopic laser lithotripsy-assisted bile duct exploration in July 2015. To date, we have performed 6 such cases whereby laser lithotripsy is utilized after experiencing failure with standard retrieval methods such as Dormia baskets. We performed a retrospective review of these patients' clinical presentations and their outcomes post-procedure.

Results:

All 6 patients had their CBD stones extracted successfully, 5 of whom were performed via a transcystic duct approach. 4 of these patients had presented with acute cholangitis secondary to choledocholithiasis of whom 2 had Mirizzi's syndrome, whilst another 2 patients had acute cholecystitis with concurrent choledocholithiasis. All operations were completed laparoscopically, with a median operative duration of 405 minutes (250 – 470 minutes). They stayed a median of 3 post-operative days (2-11 days). There was only 1 Clavien-Dindo Grade IIIb complication in an elderly patient who had initially presented with acute cholangitis and was found to have a concurrent choledocho-duodenal fistula intra-operatively. She subsequently developed post-operative intra-abdominal collections requiring a laparotomy and wash-out. There were no mortalities and no episodes of recurrent CBD stones requiring repeat intervention.

Conclusion:

Laparo-endoscopic lithotripsy-assisted bile duct exploration is a useful technique that can increase technical success of CBD stone extraction via a one-stage laparoscopic procedure. With more widespread utilization of this technique, operative times will likely reduce as surgical personnel become increasingly more familiar with the unique set-up and technicalities involved.

Laparoscopic resection of the extrahepatic bile duct for congenital biliary dilatation : retrospective analysis

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Introduction:

Congenital biliary dilatation (CBD) is more prevalent in Asian countries than in Western countries, and is more commonly diagnosed in young woman. Since patients with CBD have a high rate of biliary tract cancers, surgery should be performed. Laparoscopic resection of the extrahepatic bile duct (LREBD) for CBD is good indication in terms of minimal invasive. We introduced LREBD for CBD in 2011.

Methods:

We investigated usefulness of LREBD for CBD. The indication of LREBD for CBD in our institution is Todani's classification Type Ia and Ic. We compared laparoscopic resection with open resection of the extrahepatic bile duct for patient's characteristics, surgical and postoperative factors.

Results:

Eighteen cases that performed resection of the extrahepatic bile duct from 2011 to 2016 were investigated. The number of cases was 11 cases in the laparoscopic group and 7 cases in the open group. The open group was significantly younger than the laparoscopic group ($p=0.037$). Body Mass Index was lower in the open group than in the laparoscopic group ($p=0.005$). Todani's classification was different between 2 groups ($p=0.001$) because open group included type IV. Blood loss was less in the laparoscopic group than in the open group ($p<0.001$). Operation time and complications were not different significantly. Postoperative hospital stay was more likely to shorter in the laparoscopic group than in the open group.

Conclusion:

LREBD for CBD can be performed safely and may be useful.

My first twenty robotic right hepatectomy: our initial experience

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Objective:

Firstly described in 2002, the robotic liver surgery didn't gain a wide acceptance due to its high cost and the lack of a standardized training program. Still considered a "development in progress" technique, we decided to evaluate the potential advantages of the robotic over laparoscopic approach for a complex liver procedure also in hands of a young surgeon during his initial experience.

Methods:

We analyzed the postoperative outcomes of 20 patients undergoing to robotic right hepatectomy since March 2015 to September 2016.

Results:

The overall mean operative time was 430 min (range 290,550) and the estimated blood loss was 325 ml (range 120,720), no blood transfusion was required. Only 2 patients (10%) underwent to conversion to open surgery both for oncologic reason; the overall morbidity was 3/20 (15%) and all complications occurred (two biliary fistula and one transient liver failure) were classified like minor according to Clavien-Dindo score. The histological characteristics showed a mean surgical margin of 25 mm and we achieved a R0 resection rate of 95% (19/20). The reoperation and 90-days mortality rate were both null. The 1-year overall and disease free-survival rate were 92.3% and 84.6% respectively.

Conclusions:

Nevertheless some concerns regarding the cost-effectiveness and the absence of liver-specific robotic tools, the robotic right hepatectomy is a safe and feasible technique, providing interesting short-term outcomes and oncological results also in the initial phase of learning curve.

The Efficacy of Radiofrequency Ablation in the Management of Liver Tumours

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Objectives:

Hepatocellular carcinoma (HCC) is currently the 2nd most prevalent cause of death from cancer worldwide, with prognosis for HCC generally remaining very poor. In addition, the efficaciousness of Radiofrequency ablation (RFA) versus resection for HCC are relatively unclear. Primary objectives of this review were to assess 1-, 3- and 5-year overall and recurrence free survival in studies looking at the efficacy of RFA versus other accepted therapeutic modalities for the treatment of HCC. New evidence has also emerged regarding the efficacy of RFA in comparison with Percutaneous cryoablation (PCA), Laser Ablation (LA) and Percutaneous ethanol injection (PEI), which are explored in this review.

Methods:

A review was assembled in accord with the guidelines presented by the Cochrane handbook for systematic reviews of interventions and the PRISMA statement. Included in this review are 16 trials, with 2602 participants included. Comparative studies assessing RFA with Surgical resection, Microwave ablation (MWA), PEI and PCA that fulfilled the inclusion criteria were selected.

Results:

A total of 16 studies matched the inclusion criteria, with 2602 participants. 4 Randomised Control Trials (RCT's) were identified comparing resection and RFA, generally study outcome homogeneity was observed in stating that RFA is similar to standard surgical resection in terms of efficacy and long-term survival, however resection remains the most preferable option.

6 RCT's were found comparing RFA and PEI (and Percutaneous Acetic Acid Injection (PAI)), all 6 trials presented evidence supporting the superiority of RFA, with improved overall survival.

Conclusion:

Currently EASL and EORTC guidelines indicate that the therapeutic of choice in patients unsuitable for resection is RFA, and if RFA is not feasible than PEI is the next most preferred therapeutic. No evidence found in this review poses any serious challenges to the current guidelines, however evidence supporting PEI as a great alternative for RFA has developed.

The video sharing of laparoscopic subtotal pancreatectomy with spleen preservation in Kaohsiung medical university hospital

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Introduction:

Solid pseudopapillary neoplasms (SPNs) of the pancreas are rare neoplasms that typically occur in young women less than 35 years of age. SPNs are most commonly found in the body or tail of the pancreas and may contain both solid and cystic components and occasional calcifications. Due to malignant risk, it is recommended that SPNs should be resected.

Case presentation:

This 23 years old female denied any systemic disease. According to her statement, she suffered from traffic accident on 1/7. At ER, a series of image examination was arranged. And Abdominal CT revealed suspect solid pseudopapillary tumor of the pancreas in the pancreatic tail was noted. Due to above problems, she went to our OPD for help, pseudopapillary tumor of the pancreas was diagnosed. She was admitted for HBS ward for further treatment.

Discussion:

- Laparoscopic benefit: short hospital stay, mild wound pain, cosmetic effect, economic issue.
- About warshaw technique: prevent post splenectomy overwhelming infection, preserve immunosystem function
- About splenectomy: SPEN is a potential malignant change tumor, therefore intraoperative frozen section maybe needed to make sure if splenectomy should be done or not. We will close follow up ultrasound for this patient in case of any recurrence.

Conclusion:

Solid pseudopapillary neoplasms (SPNs) of the pancreas are rare neoplasms that typically occur in young women less than 35 years of age. laparoscopic subtotal pancreatectomy with spleen preservation is a good way for the treatment of SPNs. However, frozen section maybe needed to make sure if splenectomy should be done or not.

Liver resection for Neuroendocrine Tumors Liver Metastases in patients within the Milan criteria for transplantation

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Background:

Liver transplantation (LT) has been prosed as a curative treatment for metastatic gastro-entero-pancreatic neuroendocrine tumors (GEP-NETs) but there is a lack of consensus on its real benefit when compared with hepatectomy. We sought to analyze survival outcomes of patients undergoing liver resection for GEP-NETs liver metastasis (NELM) according to the Milan Criteria proposed to select patients with GEP-NET candidate to LT.

Methods:

A multicentric national database including seven tertiary referral Hepato-biliary-pancreatic centers was used to identify patients who underwent hepatectomy for NELM between January 1990 and December 2014. We identify patients fulfilling Milan Criteria: well-differentiated NET (Ki-67<10%), age <60 years, no extrahepatic disease, primary NET resected, stable disease for >6 months, and <50% liver involvement (Group 1). Extended Milan Criteria included patients up to 70 years age old (Group 2). Recurrence after liver surgery was treated per standard protocols according to international guidelines. No patients underwent liver transplantation during the follow-up

Results:

A total of 238 patients were included in our study. Among them, 23 (10%) patients were in Group 1 while 35 (15%) in Group 2. In Group 1 and Group 2, 12 (52%) and 20 (57%) patients had a pancreatic NET, respectively. Median Ki-67 was 5% (IQR,1-7) in both Group 1 and Group 2. In Group 1, 4 (17%) and 17 (74%) patients had NELM of type I and II according to Frilling classification compared with 8 (23%) and 22 (63%) patients in Group 2. While 5-year OS for the whole cohort was 67%, 5-year OS for Group 1 and Group 2 was 80% and 77%, respectively.

Conclusions:

In our series, only 10% of patients fulfilled Milan criteria. The 5-year OS after hepatectomy of this small selected group was comparable with that reported in the literature for patients undergoing LT for NELM within Milan criteria.

Recurrent Primary Liver Neuroendocrine Tumor: literature review and single case report

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Objectives:

Carcinoid tumors are a rare disease which mainly occurs in the gastrointestinal system. The liver is the most common site of metastasis, but its involvement as primary tumor site is extremely rare. We report a case of surgically treated Primary Liver Neuroendocrine Tumors (PLNT) and the treatment of its recurrence. A literature review was carried out with the aim to collect and analyse all reported data about PLNT, focusing on incidence and treatment of recurrent PLNT.

Methods:

A 52 years old woman presenting with jaundice and single nodule on segment IV and V was operated of extended right hepatectomy in 2008. The histology revealed a T2N0 G2 PLNT. After 9 years she developed a new 8 cm mass in the remnant liver. It was surgically removed with atypical resection histology confirmed recurrent NET.

We conducted a comprehensive search of all reported cases or series of PLNT. Considering the last update about grading, we limited the search period to 2010. We used the Kaplan Meier method and Log-Rank test for survival analysis.

Results:

After combined search of 3 databases we found 6 studies reporting recurrent PLNTs, with 12 cases of recurrence overall. Median Overall Survival (OS) was 33 months, median Disease Free survival was 5 months. The preferred treatment modality, in included studies, was chemoembolization (TACE). Our analysis showed that OS and DFS are related with tumor grade (p:0,002 and 0.05 respectively) but not with clinical presentation and tumor size.

Conclusions:

Reported data showed that PLNTs are uncommon andheterogeneous; few data about recurrence are reported. Our survival analysis showed no correlation with clinical presentation, size and location; moreover tumor grade has great relevance in predicting DFS and OS. Our case shows a e good prognosis with G2 histology if no nodal involvement, and, at our knowledge, is the second case of recurrent PLNET treated by surgery.

Anatomical decription of the right anterior sector of the liver – introduction to hepatic simmetry

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Background:

Anatomical segmentectomy based on the Couinaud segmentation remains the gold standard practice. Volumetric studies reported the right anterior sector (RAS) as the largest, representing 37+/-5% of the liver volume on average, mostly represented by segment-8 (S8). Recent 3D-imaging studies confirmed the anatomical variations of the portal vascularization described by Horstjo and Mikami, which divides in some patients the RAS by a vertical plane represented by the S8 branch of the median hepatic vein (MHV). S8 dorsal or ventral sub-segmentectomy allows significant parenchymal preservation while keeping oncological goals in patients for which liver function is already impaired. We reviewed the segmental anatomy of the RAS in order to facilitate the development of this technically demanding surgery.

Results:

Depending on the studies, the ventro-dorsal portal variation was present in 47% to 50.3% of patients, including bifurcation, trifurcation and quadrifurcation types. Ventral and dorsal part of the RAS represented respectively 15.7% and 20.9% of the whole liver on average (11.4% and 12.2% respectively for S8 alone). The S8 hepatic vein was present in 85.1% to 100% of the patients. Surgery, as reported by Ogiso et al and Kishi et al., was conducted along the S8 hepatic vein, guided by the ischemic demarcation line arising from occlusion, ligation or external compression of the branch of the portal vein that irrigate the sub-segment including tumor and provided evidence of its feasibility.

Along this review, it appeared to us that despite a preferential right-sidedness of hepatic parenchymal volumes, both portal and hepatic venous branches showed symmetrical configuration in the right and left liver on both side of the MHV.

Conclusion:

Subsegmentectomy, instead of segmentectomy or anterior sectoriectomy propose the option of curative, less invasive and safe liver resection in selected patients with impaired hepatic functions.

Histopathological review of cholecystectomy specimens in a tertiary hospital in ghana

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Introduction:

Diseases of the gall bladder are relatively common ranging from inflammation to neoplastic conditions. While the inflammatory conditions are rife in our environment, the neoplastic ones are generally rare. Our study aims to analyse the pattern of gall bladder lesions from cholecystectomy specimens submitted to the pathology department of our hospital. This is because not much has been done in this regard.

Methodology:

A retrospective study was undertaken to review all the cholecystectomy specimens submitted to the Department of pathology of Komfo Anokye Teaching Hospital, Kumasi, Ghana from January 2009 to December 2014. Data regarding age, sex, clinical diagnosis and histological diagnosis were retrieved from the surgical daybook. This was analysed with SPSS version 21 and observation drawn were put in tables and figures.

Results:

Our patients were in the age range of 1-88 years with mean age of 46.04 years. There were 34 males and 148 females with M:F ratio 1:4.4. Cholecystectomy specimens were reviewed over a 6 year period. Cholecystitis 129 cases, cholelithiasis 46 cases, 7 cases (0.04%) were malignant, male 1, female 6 with age range 49-75 years, mean 64 years. All were adenocarcinomas with 5 well differentiated (Grade 1) and 2 poorly differentiated (Grade 3) tumours and all were associated with gall stones.

Conclusion:

This study showed that the indication for cholecystectomy in our centre is inflammatory gall bladder lesions and that cancer of the gall bladder is very rare in our environment.

Hydatid cyst of liver perforated into transverse colon: a case report

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Echinococcosis is endemic in Mediterranean countries, the Middle and Far East, SouthAmerica, Australia, and East Africa. The most frequent complications of liver hydatid cysts include those related to the compression of adjacent organs or to perforation into the biliary tree, pleural, or pericardial cavity, or even to cyst infection. Direct perforation of the cyst into hollow abdominal organs is very unusual. The communication usually not found till surgery. We report a case of hydatid cyst perforated into transverse colon which was found intra operatively. Managed by cyst excision with transverse colostomy.

New Views on Treatment of Hepatic Echinococcal Cysts with Using of Argon Plasma Coagulation

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Objectives:

The aim of study was to improve the results of treatment of patients with hepatic echinococcal cysts by using of argon plasma coagulation.

Methods:

The analysis of treatment results of 66 patients during 2010–2016 years was put into the basis of this study. It was 12 (18.2%) men and 54 (81.8%) women in total. An average age of them was 47.7 ± 15.9 years.

The main difference between groups was a way of liver parenchyma coagulation in order to make reliable hemostasis. In main group the final stage of surgical intervention on liver was APC. It was performed to 45 (68.2%) patients. Alternatively, monopolar coagulation was performed to 21 (31.8%) patients (comparison group).

Results:

In main group in the 86.6% cases pericystectomy was conducted. The resecting surgeries was performed to 13.4% cases. In comparison group was conducted in 28.6% cases.

In early postoperative period in main group the complications were observed in 4.4% of cases. The same parameter was 4.8% in comparison group. It led to relaparomies.

The forming of external biliary fistulas was observed in 2 (4.4%) patients in main group and in 3 (14.3%) patients in comparison group. However, all the fistulas have closed spontaneously on 7^{th}–10^{th} day in both groups.

Hernias of abdominal wall and peritoneal adhesions that manifested by intestinal obstruction of different degree were considered as complications of late postoperative period. These values were 0% and 4.4% in main group versus 19% and 14.3% in comparison group, respectively.

Conclusions:

The resection of hepatic echinococcal cysts with further application of argon plasma coagulation on the cyst bed was accompanied by complications quantity decrease in patients that underwent surgery in early as well as in late postoperative period. In this case more positive dynamics of functional liver values improvements was observed.

Sempre Fidelis. A pain the neck and abdomen

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Objectives:

Hemangiopericytoma is a rare soft tissue tumour with low metastatic potential. Metastases can occur anywhere in the body with the most common sites of distant spread is being the lungs and liver. We describe a case of metastatic hemangiopericytoma to the liver more than 25 years after primary resection.

Methods:

A gentleman was admitted for right hypochondriac pain. . Physical examination showed hepatomegaly. An ultrasound abdomen revealed a heterogenous liver mass which was further characterized with a computed tomography (CT) scan of the thorax, abdomen and pelvis which showed a highly vascular dominant hepatic mass in the right lobe.

Results:

He underwent right hepatectomy and was discharged well and stable. Histology returned as returned metastatic, multifocal solitary fibrous tumours.

Conclusions:

Hemangiopericytoma can recur many years after primary resection. Long term follow up is essential.

Short course antibiotic prophylaxis to prevent surgical site infections in HPB and GI surgeries. Are we giving too much?? A prospective study.

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Background:

Use of antibiotics in perioperative period is common practice to prevent septic complications and surgical site infections. Now a days more and more evidences are emerging that short period of prophylactic antibiotics is equally effective for prophylaxis.

Material and Methods:

We prospectively evaluated protocol of single dose preoperative antibiotic for laproscopic surgeries and 48-hour prophylactic antibiotic for open hepato-pancreatico-biliary surgeries and colorectal surgeries. We evaluated 37 patient prospectively in our department, 2 patient were excluded as they were operated for grade 4 peritonitis and died within 24 hours due to sepsis. Surgical Site infections were defined as any culture positive discharge from the main surgical wound or complications like bile leaks through the wound or drain. Categories of surgeries were decided according to CDC protocol (clean, clean contaminated, contaminated and dirty). Statistical analysis were done using SPSS version 21.

Results:

Out of 35 patients 1 patient had undergone grade 1 (clean) surgery, 15 patients grade 2 surgery (clean contaminated), 15 patients grade 3 (contaminated) surgery, and 4 patient had grade 4 (dirty) surgery. Total 6 patient developed surgical site infections giving over all SSI rates of 17 percent. No Patients in grade 1 or grade 2 surgeries developed surgical site infections. 5 patients in grade 3 (33 percent) surgeries and 1 patient in grade 4 (25 percent) surgeries developed surgical site infections. No patient in laproscopic surgery group developed surgical site infections, which is comparable to international data. Contaminated and dirty (grade 3 and grade 4) surgeries were significantly associated with surgical site infections. ($p=0.038$).

Conclusion:

Short course prophylactic antibiotics protocol has similar SSI rates and can reduce hospitalization and cost. Short course prophylactic antibiotic protocol also helps in reducing antimicrobial resistance.

Spectrum of gastrointestinal and Hepatopancreaticobiliary diseases seen at the Komfo Anokye teaching hospital in Ghana

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Introduction:

Even though there have been concerns regarding global expansion of gastrointestinal (GI) and Hepatopancreaticobiliary (HPB) disorders, greater increases are observed in developing countries. The characterization of a spectrum of these disorders, however, is not well-defined in developing countries. This study sought to profile the frequency of GI and HPD disorders and their fundamental demographic characteristics.

Methods:

A 12-year retrospective study was conducted between July 2005 and June 2017 at the GI-Hepatology outpatient clinics of the Komfo Anokye Teaching Hospital, Kumasi, Ghana. All of the patients who visited the clinic within the indicated period were included in the study population. Patients' records were retrieved and reviewed by gastroenterologists from the clinic. The doctors classified the respective diagnoses according to ICD-10.

Results:

The following disease percentages were obtained among the 2629 patients who visited the GI- Hepatology clinic: HPB: Hepatitis B (47%) > cirrhosis (32.5%) > Hepatitis C (3.9%). Misc (2%) GI: Gastritis (24.6%) > H. pylori (16.5%) > Hiatal hernia (13.7%) > GERD (8.4%) Misc (24%)

Mean age (41.5 yrs); Male (47.5%); Female (52.5%); Patients in > 2 disease categories (49%)

Conclusions:

Our HPB and GI broad spectrum characterization revealed viral hepatitis B to be the most prevalent diagnosed disease, followed by cirrhosis, and hepatitis C among the liver diseases; gastritis was the most common among the GI disorders, followed by hiatal hernias and GERD. Since all of these diseases are preventable, our findings call for a community education by specialists to impact public awareness regarding preventive measures and immunization procedures for hepatitis B.

Treatment outcome and effective utility of probability of survival for the patients with traumatic liver injury

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Objective:

The purpose was to evaluate the options for management of severe liver trauma with multiple accompanying injuries as well as the treatment outcome.

Material and Method:

74 patients with traumatic liver injury, transported to our hospital from January 2009-September 2015. Diagnosed and classified according to the hepatic injury classification of the Japanese Association for the Surgery of Trauma (JAST) with the use of contrast enhanced CT. We calculated Probability of survival (Ps) with Trauma Injury Severity Score (TRISS) and examined the relationships of classification, prognosis, and treatment. We extracted deaths occurred with Ps>0.5 as unexpected non-survivors and extracted survivals occurred with Ps<0.5 as unexpected survivors. This study examined the outcomes of trauma and relationship to Ps with underlying variables such as morbidity and mortality rates, and considered the details of unexpected survivors/non-survivors.

Results:

About 40% of the patients had the severe liver injury. They had the lower Ps, and the higher mortality. Survival had a certain correlation between Ps. On the cases of laparotomy, the mortality was 31.2%, and the almost all of those Ps was less than 0.5. The surgical treatment of liver injuries included definitive procedure (hepatorrhaphy, hepatotomy with selective vascular ligation, debridement, selective hepatic artery ligation, liver resection) and damage control surgery with liver packing. The survival rate of laparotomy whose Ps< 0.5 was 0%, but the lowest Ps of survived surgical case was 0.51.

Unexpected survivors contained the cases that the vital status got stable due to the success of the intervention for hemorrhage. On the other hand, unexpected non-survivors contained the cases that the initial vital status was stable, but it got worse soon before performing a certain intervention.

Conclusions:

Ps shows a certain clinical benefit to predict prognosis of traumatic liver injury. We should observe the patients carefully due to acute deterioration of traumatic liver injury.

Evaluation of Prognosis after Major Hepatectomy-induced Sepsis

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Background:

Postoperative sepsis is a major factor of surgical morbidity and mortality. However, the rate and epidemiology of postoperative sepsis after major hepatectomy has not been clarified yet.

Objectives:

We analyzed postoperative sepsis after elective major hepatectomy in Tohoku University hospital.

Methods:

Samples of major hepatectomy were queried between 2011-2015, and patients who experienced sepsis after elective surgeries were identified retrospectively. In this study, two sectionectomy and more were defined as a major hepatectomy.

Result:

160 elective surgical cases were analyzed. Males were 112 cases (66%) and Females were 58 cases (34%). Median age was 67 year old (40 - 85 y.o.). Disease were below. Cholangiocarcinoma were 90 cases (56%), metastatic liver cancer were 26 cases (16%), intrahepatic cholangiocarcinoma were 12 cases (13%), hepatocellular carcinoma were 12 cases (8%), and other were 12 cases. In all cases, the incidence sepsis was 14% (26 cases). Sepsis rate of left tri-segmentectomy was the highest, 29%, right hepatectomy with bile duct resection was 25% and left hepatectomy with bile duct resection was 16%. Simple hepatectomy is 6 - 9 %. Multivariate analysis, operative time is a risk factor of sepsis. Analysis for overall survival (OS), we compared 90 days sepsis recovered cases (SRC) after sepsis and no sepsis cases. OS of SRC was significant low than no sepsis cases.

Conclusions:

Sepsis rate of major hepatectomy was 14%. Preoperative data could not predict sepsis. Sepsis is a prognosis factor in oncology

What is the optimal timing for performing Cholecystectomy after ERCP clearance of CBD stones? A prospective randomized study

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Introduction:

The time interval between endoscopic retrograde cholangiopancreatography (ERCP) and laparoscopic cholecystectomy (LC) is a matter of debate. This study was planned to compare early LC versus late LC.

Patients and methods:

This is a prospective randomized study on patients who are presented with concomitant gallbladder and common bile duct stone. The study population was divided into two groups; group (A) managed by early LC within three days after ERCP; and group (B) managed by late LC one month after ERCP.

Results:

No significant difference between both groups as regards the conversion rate, the degree of adhesion, cystic duct diameter, and intraoperative common bile duct injury or bleeding. Recurrent biliary symptoms were significantly more in delayed LC group in 7 (12.71%) patient versus 1 patient in early LC (P=0.03).

Conclusions:

No significant difference between both groups as regards the conversion rate. Recurrent biliary symptoms were significantly more in delayed LC while waiting LC. Morbidity was significantly more in delayed LC.

Fibroblastic cell subpopulations Role during hepatic damege

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Accumulation of extracellular matrix observed in fibrosis and cirrhosis is due to the activation of fibroblasts, which acquire a myofibroblastic phenotype. Myofibroblasts are absent from normal liver. They are produced by the activation of precursor cells, such as hepatic stellate cells and portal fibroblasts. These fibrogenic cells are distributed differently in the hepatic lobule: the hepatic stellate cells resemble pericytes and are located along the sinusoids, in the Disse space between the endothelium and the hepatocytes, whereas the portal fibroblasts are embedded in the portal tract connective tissue around portal structures (vessels and biliary structures). Differences have been reported between these two fibrogenic cell populations, in the mechanisms leading to myofibroblastic differentiation, activation and "deactivation", but confirmation is required. Second-layer cells surrounding centrolobular veins, fibroblasts present in the Glisson capsule surrounding the liver, and vascular smooth muscle cells may also express a myofibroblastic phenotype and may be involved in fibrogenesis. It is now widely accepted that the various types of lesion (e.g., lesions caused by alcohol abuse and viral hepatitis) leading to liver fibrosis involve specific fibrogenic cell subpopulations. The biological and biochemical characterisation of these cells is thus essential if we are to understand the mechanisms underlying the progressive development of excessive scarring in the liver. These cells also differ in proliferative and apoptotic capacity, at least in vitro. All this information is required for the development of treatments specifically and efficiently targeting the cells responsible for the development of fibrosis/cirrhosis.

Bile duct reconstruction using a jejunal conduit interposition of variable diameter in case of high stricture

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Background:

The "gold standard" surgical procedure for major bile duct injury and biliary stricture is Roux-en-Y hepaticojejunostomy. But this method is not anatomical and physiological. The ideal interposition for restoring the continuity between the biliary tract and duodenum is a pedicle graft of jejunum reduced in caliber to approximately that of the ductal system. But in case of high stricture this method cannot be used.

Methods:

We present new method of reconstruction extrahepatic bile duct using an isolated intestinal segment of a variable diameter: the proximal part remains of original intestine segment during 3-5 cm (to create hepaticojejunal anastomosis in the hepatic hilum or with separate anastomoses for isolated ducts) and then the diameter is reduced to 1 cm, proportional to the biliary tract. For this the antimesenteric part of the intestinal wall of the distal part of intestinal segment was resected, and the free edges of the intestinal wall were sewn together so that the diameter of the graft 1 cm throughout several cm was obtained. The distal anastomosis was formed with the end of the common bile duct. In case the end of the common bile duct cannot be used, the distal anastomosis was performed with duodenum.

Results:

This method was applied in 10 patients with benign biliary strictures. 4 patients were Bismuth III and 6 - Bismuth IV. There were no intraoperative or postoperative deaths (30-day or in-hospital deaths). There were two postoperative complications. Long-term results were obtained in all patients up to 11 years. The mean follow-up was 5.5 years. There were no recurrence of stricture, cholangitis and normal biochemical parameters were observed.

Conclusions:

This new technique is reliable and might be recommended as an alternative method for reconstruction extrahepatic bile duct in cause of major bile duct injury and biliary stricture.

Development of a new biodegradable operative clip made of a magnesium alloy: evaluation of its safety and tolerability.

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Background:

Operative clips used to ligate vessels in abdominal operation usually are made of titanium. They remain in the body permanently and form metallic artifacts in computed tomography images, which impair accurate diagnosis. Although biodegradable magnesium instruments have been developed in other fields, the physical properties necessary for operative clips differ from those of other instruments. We developed a biodegradable magnesium-zinc-calcium alloy clip with good biologic compatibility and enough clamping capability as an operative clip. In this study, we verified the safety and tolerability of this clip for use in canine cholecystectomy.

Methods:

Nine female beagles were used. We performed cholecystectomy and ligated the cystic duct by magnesium alloy or titanium clips. The chronologic change of clips and artifact formation were compared at 1, 4, 12, 18, and 24 weeks postoperative by computed tomography. The animals were killed at the end of the observation period, and the clips were removed to evaluate their biodegradability. We also evaluated their effect on the living body by blood biochemistry data.

Results:

The magnesium alloy clip formed much fewer artifacts than the titanium clip, and it was almost absorbed at 6 months postoperative. There were no postoperative complications and no elevation of constituent elements such as magnesium, calcium, and zinc during the observation period in both groups.

Conclusion:

The novel magnesium alloy clip demonstrated sufficient sealing capability for the cystic duct and proper biodegradability in canine models. The magnesium alloy clip revealed much fewer metallic artifacts in CT than the conventional titanium clip.

Hepatic Falciform Ligament Flap for Repairing Bile Duct Defect

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Objectives:

To clarify the usefulness of hepatic falciform ligament flap for repairing bile duct defect.

Methods:

We performed hepatic falciform ligament flap for patients with bile duct defect or with bile leakage after surgical procedures. For bile duct defect, we plugged the ligament into the defect. For bile leakage, we covered the leakage point wrapping the ligament. We put an intraperitoneal drain all the patients. We evaluated drainage day by intraperitoneal drain, hospital stay after surgery and postoperative complications.

Results:

We performed plugging the ligament for 3 patients in Mirizzi syndrome, and wrapping the bile duct by the ligament for 9 patients with small bile leakage in 3 biliary cancer, 3 acute cholecystitis, 2 bile duct stones, and cystic duct leakage after cholecystectomy. All the12 patients had no persistent bile leakage and. The median drainage day was 5(3-9) days, and the hospital stay after surgery was 7(5-35) days.

Conclusions:

Hepatic falciform ligament flap is useful for repairing bile duct defect.

Hepatobiliary navigation surgery using contrast-enhanced intraoperative ultrasonic cholangiography

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Objectives:

Radiographic intraoperative cholangiography (IOC) has been widely used to confirm the biliary anatomy in hepatobiliary surgery. However, it has radiation exposure and difficulty with handling a C-arm machine, generating 3D images and delineating thin caudate branches. Recently, we have established contrast-enhanced intraoperative ultrasonic cholangiography (CE-IOUSC) as a tool for biliary navigation instead of IOC. Here, we demonstrate the feasibility and usefulness of CE-IOUSC in hepatobiliary surgery.

Methods:

CE-IOUSC was performed using an ultrasound imaging system with a 4D probe, a T-shaped linear probe and a micro-convex probe in various hepatobiliary operations including open hepatectomy for hepatoma, hepatobiliary resections for hilar cholangiocarcinoma, and living donor hepatectomy. After perfluorobutane (Sonazoid) solution was injected via an intra-biliary catheter, ultrasound scanning on the liver surface, the hepatic hilum, or the cut surface was performed in contrast imaging mode.

Results:

CE-IOUSC could provide 3D mapping and 2D regional anatomy of the biliary tree for biliary navigation in hepatobiliary surgery. CE-IOUSC could visualize the biliary drainage area of each bile duct as pseudostaining of the liver parenchyma and the enhanced bile ducts in the remnant liver after hepatobiliary resection for perihilar cholangiocarcinoma. CE-IOUSC was applied safely and successfully as a tool for identification of the biliary configurations, guidance for bile duct division, and confirmation of the remnant biliary system in living donor hepatectomy.

Conclusions:

CE-IOUSC is a novel IOC technique that provides excellent visualization of the biliary tree and the biliary drainage areas. CE-IOUSC can facilitate the surgeon's understanding the spatial relationships between bile ducts and liver parenchyma to reduce the potential risk of biliary complications.

Impact for prognosis after non-anatomical resection for hepatocellular carcinoma with micro portal vein tumor thrombus

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Objectives:

The purpose of this study was to evaluate the intrahepatic recurrence pattern of patients undergoing hepatectomy, and to assess its influence to the prognosis according to the operative procedure (anatomical resection (AR) and non-anatomical resection (NAR)).

Methods; Between 2006 and 2012, a total of 52 patients who had no macroscopic vascular invasion in the pretreatment imaging, and historically proven portal vein tumor thrombus in distal to second-order portal branches were analyzed with regard to overall survival rates, disease-free survival rates, and intrahepatic recurrence patterns.

Results:

There was no significant difference with regard to the overall survival rates at 5 years according to the operative procedure. The disease-free survival rates at 3 years according to the operative procedure were 59.2% (AR group) and 30.1% (NAR group), respectively, which was significantly different between the 2 groups (P=0.0420). Intrahepatic recurrence in the remnant same segment was recognized in 5 patients undergoing NAR. These 5 cases developed multiple bilobar recurrences including the same segment, and there was no case that the recurrences developed only in the remnant same segment, whether the recurrence type was solitary or multiple.

Conclusions:

None of the intrahepatic recurrences in the remnant same segment influence the disease-free survival rate for patients after NAR. Although AR would be an ideal treatment for HCC if allowed, the current study suggests its validity to NAR for patients inappropriate for AR.

Spelenic Psuedocyst mimicking as a cystic lesion of liver – Making a diagnostic dilemma

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Pseudocysts of the spleen are uncommon entities. They are found in <1% of the splenectomies done and usually develop secondary to trauma. Pseudocysts of spleen seldom grow to large size and most of these remain asymptomatic, they require exploration only in symptomatic cases and chances for spleen preservation in these cases are usually less. Here, we present a case of this rare entity who presented to us with complaints of pain and lump in the abdomen. Clinically and radiologically, the lump appeared to be a cystic lesion of the liver and patient underwent diagnostic lap and exploration. On exploratory laparotomy patient had gastric perforation and massively enlarge spleen compressing left lobe and stomach with emptiness in left hypochondrium.patient underwent spleenectomy along with perforation repair. On histopathological examination, diagnosis of splenic pseudocyst was confirmed by the absence of lining epithelium. We would like to report this case because of its rarity and diagnostic dilemma with unusual presentation.

Clinical Outcomes of Living Donor Liver transplantation for Hepatocellular Carcinoma in Egypt

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Background:

Over the last decade, there has been considerable improvement in the outcome of liver transplantation in patients with Hepatocellular carcinoma (HCC).

Aim:

To evaluation the prognosis of living donor liver transplantation (LDLT) as a definitive treatment of HCC in patients who met criteria of transplantation including the recurrence of HCC in Egypt.

Methods:

We retrospective analysed preoperative, operative, post-operative and follow-up records of liver transplanted patients' attending hepato-pancreato-biliary (HPB) surgery department at International Medical Center (IMC), Egypt from April 1, 2013 to the December 31, 2016. During this period, 53 patients underwent LDLT and hepatic focal lesions (FLs) were the indication of liver transplantation in all the cases. Descriptive and analytical statistics were applied to summarize the findings and Kaplan-Meier survival analysis was performed to investigate the survival rates in LDLT recipients. A *p*- value <0.05 was considered statistical significant.

Results:

Of 53 LDLT recipients, 50 (94.3%) were male, mean age of 52±7.64 years and a majority (86.8%) of the patients were HCV positive. However, nearly three-forth (73.6%) of the patients have comorbidities at the time of transplantation and the mean model for end-stage liver disease (MELD) score was 17.3± 6.1 (range: 8 – 35). Nineteen (35.8%) patients developed recurrent HCV after transplantation and nine (17%) had faced transplant rejection. After one year of LDLT, 64.1% of recipients survived, 58.49% for three years, and 39.6% for five years. One year mortality was 35.8% (19 cases), 41.5% (22 cases) in three years and on five years it reached to 60.3% (32 cases).

Conclusion:

This studies identified that the success of LDLT in HCC patients rely on a stepwise approach that incorporates morphological and biological criteria of the tumor. Major vascular invasion, massive infiltrative type, ruptured HCC and distant metastasis are to be considered as absolute contraindications for transplant.

Keywords:

Hepatocellular carcinoma, liver transplantation, living donor liver transplantation, survival, mortality, Egypt.

1. Introduction

Hepatocellular carcinoma (HCC) is the most common type of liver cancer and the second leading cause of cancer-related deaths worldwide [1]. Over the last decade, there has been considerable improvement in the outcomes in the HCC patients by Liver transplantation. However, prognostic factors such as vascular invasion and tumor differentiation are the utmost important indicators in predicting recurrence in liver transplant survivals [2]. In addition, radiological parameters such as tumor size and number are still regarded as the best selection criteria for patients with HCC to undergo liver transplant in clinical practice [3]. For >10 years since the "Metroticket concept" described by the Milan selection criteria have remained as gold stand for selection of HCC patients for liver transplantation remained as gold standard [4]. Further extension, University of California at San Francisco (UCSF) criteria have been proposed to expand the tumor number–size limits to solitary tumor up to 6.5 cm or a maximum of 3 tumor nodules each up to 4.5 cm, and a total tumor diameter not exceeding 8 cm, without compromising patient survival [5]. Currently, the Milan and UCSF criteria are the most popular reference criteria in deciding the candidacy of patients with HCC for liver transplantation.

Liver transplantation in HCC patients currently represents 20-30% of the indications for liver transplantation in United States of America (USA) and Europe [6,7]. With a limited number of liver grafts, the need to obtain organs that are available has prompted the maintenance of selection criteria has prolonged the waiting period. This results in tumor progression to an extent beyond the transplantable criteria, leading to a patient's removal or dropout from the waiting list. In most countries, liver donor living transplantation (LDLT) has been suggested due to shortage of organ availability and increased waiting time [8]. The strong benefit with LDLT would be shorten recipients' time to surgery and thereby preventing disease progression. Further it also reduces the reducing the number of recipients on the deceased donor waiting list. Several previous studies have reported conflicting results with respect to recurrence rates and overall survival after LDLT in HCC patients [9-13]. Two meta-analysis examined the outcomes including patient survival, recurrence-free survival, and recurrence rates at defined time points in HCC patients receiving a LDLT or a deceased donor liver transplantation (DDLT) [12,13]. In the first meta-analysis, no significant difference in the overall survival rates, recurrence-free survival rates and 5-year recurrence rates between LDLT and DDLT recipients [12]. These findings suggests that LDLT represents an acceptable option that does not compromise patient survival or increase HCC recurrence that DDLT. Second meta-analysis identified lower disease free survival after LDLT in patients with HCC compared with DDLT. However, HCC patients selected for LDLT may worse tumor biology than DDLT [13].

In Egypt, the incidence of HCC has been nearly doubled over the past decade and plagued with highest prevalence of HCV in the world, ranging from 6%-28% [14]. The prevalence of HCV infection in patients with HCC is nearly 80%. However, uncertainty regarding the outcomes of patients with HCC in LDLT is unclear. Therefore, we aimed to investigate the prognosis of LDLT as a definitive treatment of HCC in patients who met criteria of transplantation including the recurrence of HCC.

2. Methods

This is a retrospective analysis of liver transplanted patients in the department of hepato-pancreato-biliary (HPB) surgery, International Medical Center (IMC), Egypt from April 2013 to December 2016. During this period, 53 patients underwent LDLT. Hepatic focal lesions (FLs) were the indication of liver transplantation in all the cases. Preoperative records, operative data records, postoperative patients' files and from follow-up records of all the transplanted patients were collected. All their clinical and laboratory data documented in the charts were also collected.

1. *Preoperative data*: Demographic details of patients, disease indications, comorbidities, viral markers (HCV, HBV), blood group, abdominal ultrasound (number of focal lobes, size and site), Child-Pugh score, and model of end stage liver disease (MELD) score.

2. *Pre-transplant selection criteria for patients with HCC*: Milan criteria (single tumor ≤ 5 cm; or ≤ 3 tumors each ≤ 3cm; no vascular invasion and no distant metastases), UCSF criteria (single tumor ≤ 6.5 cm; or ≤ 3 tumors, none < 4.5 cm and total diameter ≤ 8 cm, no vascular invasion).

3. *Operative data*: size and number of hepatic FLs, size of FLs, vascular invasion, portal vein thrombosis (PVT)- thrombactormy or venous graft, hepatic adhesions, type of anastomosis, use of venous graft of recipient liver, graft weight, graft recipient weight ratio (GRWR) (> 0.8, or > 0.8), cold ischemia time (CIT), warm ischemia time (WIT) and total operative time (TOT).

4. *Post-operative data*: Cytology of ascetic fluid, number, size and distribution of focal lobes, presence or absence of tumor capsule, histological differentiation of cancer cells, microvascular invasion, standard immunosuppressive, steroids, anticoagulants and other postoperative drugs.

5. *Follow up after transplantation*: Patients were followed up regularly in IMC hospital. Routine laboratory investigations, abdominal ultrasound, computed tomography of abdomen and Doppler ultrasonography were performed regularly, liver biopsy (if necessary), post-transplant complications, and HCC recurrence rates

were retrospectively reviewed. Special attention was given to recording the complications, total survival and tumor free survival, and cause of mortality in LDLT recipients.

3. Statistical analysis

Data were collected in a specialized data collection form and entered in the Statistical package for social sciences (SPSS, version 22.0; SPSS Inc., Chicago, IL, USA) for windows. Data were expressed as mean with standard deviations (SD) and range, and frequencies as appropriate. Chi-square test and student t-test were used to measure the association between the quantitative variables. Multinomial logistic regression model was used to give adjusted odds ratio (OR) and 95% confidence interval to investigate the effect of different factors on the recurrence of the malignancy. Kaplan-Meier analysis was done to measure the patients' survival rates. A *p*-value of <0.05 was considered statistically significant.

4. Results

4.1. Sociodemographic data of the recipients

From April 2013 to December 2016, 53 patients underwent LDLT in the International Medical Center, Cairo, Egypt. The mean age of the patients 52.9± 57 (ranged from 40 – 63.2 years), more than ninety percent were male (94.3%) and with mean BMI of 24.5±3 (range: 19-32). Nearly three-forth (73.6%) had comorbidities such as Diabetes (n=16), regular sclerotherapy of the malignant nodules (n=9) and diabetes with bronchial asthma was noticed in two patients. The baseline characteristics of the LDLT recipients were summarized in Table 1.

Table 1: Baseline characteristics of the HCC patients underwent living donor liver transplantations (LDLT) (N=53)

	No (%)
Age (mean ± SD)	52.9± 57 (range: 40 – 63.2)
Sex (male)	50 (94.3%)
Weight (mean ± SD)	79 ± 10.6 (range: 58 – 104)
Height (mean ± SD)	173.8 ± 6.2 (range: 160-187)
BMI (mean ± SD)	24.5±3 (range: 19-32)
Donor-recipient relation	
Unrelated	43 (81.1%)
Related	10 (18.9%)
Comorbidites (n=39)	
Diabetes mellitus	16 (30.2%)
Regular sclerotherapy (RST) of the malignant nodules	9 (16.9%)
Diabetes and RST	6 (11.3%)
Diabetes with bronchial asthma	2 (3.8%)
Diabetes with hypertension and RST	1 (1.9%)
Diabetes with hypothyroidism	1 (1.9%)
Diabetes with RST and bronchial asthma	1 (1.9%)
Portal vein thrombosis	1 (1.9%)
RST and bronchial asthma	1 (1,9%)

*HCC: hepatocellular carcinoma; SD: standard deviation

Table 2: Pretransplant Clinical and laboratory data of the recipients (N=53)

Clinical features	***No (%)***	
Viral markers		
Hepatitis C virus	46	(86.8%)
Hepatitis B virus	1	(1.9%)
Hepatitis C + Hepatitis B virus	6	(11.3%)
Blood group		
A	19	(35.8%) B
B	13	(24.5%)
AB	7	(13.2%)
O	14	(26.4%)
Donor blood group		
Identical	33	(62.3%)
Compatible	20	(37.7%)
Laboratory features *(mean± SD)*		
Total bilirubin (mg/dl)	3.0± 3.4	(range: 0.8 - 21.9)
AST (u/l)	88.8 ± 63.1	(range: 20 – 492)
ALT (u/l)	59.5 ± 45.8	(range: 13 – 367)
Albumin (g/dl)	2.8 ± 0.6	(range: 1.6 – 4.4)
INR	1.5 ± 0.4	(range: 1 - 2.6
Creatinine (mg/dl)	0.8 ± 0.3	(range: 0.3 – 1.8)
Ascites (yes)	40	(75.4%)
AFP (ng/ml)	350.9 ± 920.6	(range: 0.35- 3218)
Child-Pugh score		
A	9	(17%)
B	22	(41.5%)
C	22	(41.5%)
MELD score	17.3± 6.1	(range: 8 – 35)
<20	34	(64.2%)
≥20	19	(35.8%)

AST: aspartate aminotransferase; ALT: alanine aminotransferase; INR: international normalization ratio; AFP: alfafetoprotein; MELD: model for end-stage liver disease

Table 3: Operative details of the LDLT recipients (N=53)

Characteristics	**n (%)**
Type of graft	
Right lobe	52 (98.1%)
Right lobe + MHV	1 (1.8%)
Graft weight (gm)*	1200 ± 300 (range: 800 – 1800)
GRWR (%)*	1.2 ± 0.3 (range: 0.8- 1.8)
Number of hepatic vein anastomosis	
1	28 (52.8%)
2	17 (32.1%)
3	8 (15.1%)
Number of portal vein anastomosis	
1	45 (84.9%)
2 (y-shaped graft)	8 (15.1%)
Portal vein thrombosis	8 (15.1%)
Hepatic artery anastomosis	
1	49 (92.5%)
2	4 (7.5%)
Number of bile duct anastomosis	
1	31 (58.5%)
2	20 (37.7%)
3	2 (3.7%)
Anhepatic phase (h)*	4 ± 1.1 (range: 2 – 7)
CIT (min)*	60.8 ± 25 (range: 20 – 120)
WIT (min)*	53.3 ± 15.5 (range: 30 – 95)
Total operative time (h)*	14.8 ± 2.5 (range: 8 – 23)
Blood transfusion (unit)*	5.8 ± 6.4 (range: 0 – 28)
Plasma transfusion (unit)*	8.4 ± 10.7 (range: 0 – 53)

MHV- middle hepatic vein; GRWR- graft-recipient weight ratio;
*mean± standard deviation; CIT: cold ischemia time; WIT- warm ischemia time.

4.2. Pretransplant clinical and laboratory data

The clinical and laboratory investigations performed before 24 hours of transplantation were summarized in Table 2. HCV was identified as dominant viral marker (86.8%) of LDLT transplants, and have identical donar donor blood group (62.3%). Majority of the LDLT recipients are of Child-Pugh score B and C, and more than three-fifth (64.2%) were with MELD scores <20.

4.3. Operative details

Data regarding the operative details and the pathology of the explanted liver includes right lobe graft in almost all LDLT recipients except one patients with a mean graft recipient weight of 1200 ± 300 grams ranging from 800 – 1800 grams and the mean graft-recipient weight ratio of 1.2 ± 0.3%. Twenty eight patients (52.8%) underwent at least one hepatic vein anastomosis, one portal vein anastomosis in forty five patients (89.9%), single hepatic artery anastomosis considered in 92.5% LDLT recipients and at least one bile duct anastomosis was performed in 58.5% of patients. The mean operative time was 14.8 ± 2.5 hours and an average of 5.8 ± 6.4 units of blood and 8.4 ± 10.7 units of plasma transfused during LDLT (Table 3).

Table 4: Findings of post-operative specimens in LDLT recipients

Characteristics	n (%)
Histopathological liver nodules	
Well-diff HCC	43 (81.1%)
Mod-diff HCC	1 (1.9%)
Dysplastic nodule	6 (11.3%)
Complete focal necrosis	1 (1.9%)
Partial focal Necrosis	2 (3.8%)
Site of hepatic focal lesions	
Right	36 (67.9%)
Left	7 (13.2%)
Both	10 (18.9%)
Number of hepatic focal lesions	
Single lesion	26 (49.1%)
Two lesions	22 (41.5%)
Three lesions	5 (9.4%)
Size of hepatic focal lesions	
< 3 cm	18 (34%)
≥ 3 cm	35 (66%)
Size of hepatic focal lesions at 5 cm	
<5 cm	47 (88.7%)
≥ 5 cm	6 (11.3%)
Milan criteria	
Within	42 (79.2%)
Beyond	11 (20.8%)
Tumor grade of liver nodules	
Grade I	13 (24.5%)
Grade II	24 (45.3%)
Grade III	6 (11.3%)
Complete necrosis	10 (18.9%)

Table 5: Major post-operative complications in LDLT recipients

Complications	n (%)
Transplant rejection	
acute	3 (5.7%)
chronic	6 (11.3%)
Biliary	4 (7.5%)
Infection	
wound sepsis	2 (3.8%)
chest	1 (1.9%)
Vascular	
MHV thrombosis	1 (1.9%)
Bleeding	1 (1.9%)
Intracranial hemorrhage	1 (1.9%)
HCV recurrence	19 (35.8%)
HCC recurrence	7 (13.2%)

MHV- middle hepatic vein; HCV- hepatitis c virus; HCC- hepatocellular carcinoma.

4.4. Explanted liver findings

Histopathological examination revealed well-differentiated hepatocellular carcinoma in forty-three (81.1%) LDLT recipients, 68% had right side hepatic focal lesions, and nearly ninety percent (88.7%) had hepatic focal lesions less than 5 cms and were within-Milan criteria (79.2%) (Table 4).

Table 6: Survival and mortality rates in LDLT recipients

Survival rate	**n (%)**	
One year	34	(64.1%)
Three years	31	(58.5%)
Five years	21	(39.6%)
Mean survival duration (months)	71.7	(95% CI: 55-88.5**)**
Median survival duration (months)	52	(95% CI: 9.25-94.6)
Mortality		
After one year	**19**	**(35.8%)**
Hepatic cause	6	(11.3%)
Non-hepatic cause	13	(24.5%)
After three years	**22**	**(41.5%)**
Hepatic cause	8	(15%)
Non-hepatic cause	14	(26.4%)
After five years	**32**	**(60.3%)**
Hepatic cause	14	(26.4%)
Non-hepatic cause	18	(34%)

95% CI: conference interval

4.5. Post-operative complications in LDLT *recipients*

The most frequently encountered post-operative complications in LDLT recipients are presented in Table 5. A fraction of patients (n=3) faced acute transplant rejection, three developed infections and another three experienced vascular complications. However, nineteen (35.8%) of LDLT recipients had recurrence HCV and HCC was reoccurred in seven (13.2%) LDLT recipients.

4.6. Survival and mortality in LDLT recipients

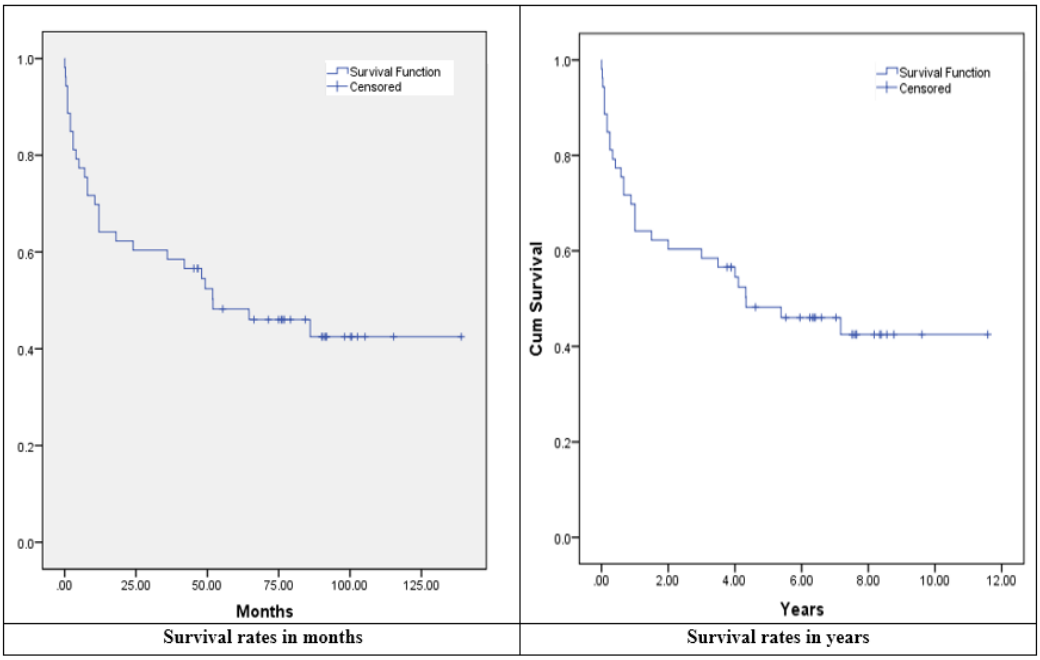

Figure 1: Kaplan-Meier survival plot showing Overall survival after liver transplantation

Nineteen patients (35.8%) died within one year after surgery, after three years twenty two patients died (41.5%) and another thirty two patients died after five years of LDLT (Table 6). The mean survival time was 71.7 (95% CI: 55-88.5) months and median survival duration was 52 (95% CI:9.25-94.6). The cumulative survival rates in LDLT recipients were shown in Figure 1.

5. Discussion

HCC is one of the few major cancer showing unfavorable trends in several parts of the world and the mortality was two-to five-folds higher in North Asia [15]. Liver transplantation remained as the only effective and available therapy for patients with end-stage liver disease. The current shortage of organ and absence of DDLT program in Egypt had led to a consequent increase in the number seeking LDLT. With a higher incidence of HCC cases in Egypt (25.6/100,000) and the most HCV-related HCC cases has raised dramatically in Egypt [16,17]. The clinical outcomes of the 53 patients reported in this study may provide a strong source of evidence of patients with HCC undergoing LDLT in Egypt.

The knowledge and understanding obtained from outstanding clinical studies have paved the way to the creation of the criteria for liver transplantation and guidelines that are used today. In the present study 62.3% of the patients were within imaging Milan criteria and remaining were beyond-Milan criteria according to pre-transplant imaging study. So patients that were within-Milan criteria in the present study were less than what was reported by Mazzaferro et al. [4] study in 1996, that 43 patients (81.1% of the total patients) whom met the predetermined criteria for the selection of small hepatocellular carcinomas at pathological review of the explanted liver. Hence, international recommendations also recommended Milan criteria as the benchmark not only for selecting HCC patients for liver transplantation, but also for future comparisons of expanded selection criteria and refinements.

The prognostic evaluation of HCC patients includes both disease extent assessment and other relevant prognostic variables such as liver functions. In Yang et al. study [18], they discussed the revised scoring system which includes tumor size, tumor number, and pre-transplant serum AFP level as prognostic factors. They defined that HCC patients with 3 to 6 points and 7 to 12 points were transplantable and non-transplantable respectively with overall 1 and 5 year survival rates of 81.3% and 67.0%, respectively. By application of this scoring system in the present study, it revealed that 7 patients had scores ≥7 so, they should have been non-transplantable according to this revised scoring system, and 44 patients had scores ≤ 6 so, they were transplantable. The described scoring criteria [18] could be used effectively to expand liver transplantation selection criteria for patients with HCC without adversely affecting outcome in the LDLT setting, and the described scoring criteria predict tumor recurrence better than the Milan or UCSF criteria. However, because the sample size used in this study was relatively small, the described scoring system requires further verification by a large-scale study.

The main concern after liver transplantation for HCC is the risk of tumor recurrence; in our study seven patients developed HCC recurrence. HCC recurrence was seen mainly in first 2 years with range (17-29 months) postoperatively; they had a median total survival of 2.5 years, and less than 1 year survival from the time of diagnosis. Similar results were noticed in Hollebecque et al. study [19], where HCC recurrence occurred in 8–20% of LDLT recipients and HCC recurrence seen within the first 2 years after liver transplantation, and is associated with a median survival of less than 1 year (7–18 months) from the time of diagnosis. However, several findings showed that most recurrences are associated with systemic tumor dissemination, thus retransplantation is not indicated [20-22]. In that minority of cases where localized recurrence is detected, however, direct treatment by surgery or ablation warrants consideration.

The total survivors after 1 year in our sample were 34 (64.15%) patients, after 3 years 31 (58.49%), and after 5 years were 21 (39.62%). Previous studies have reported conflicting results with respect to recurrence rates and overall survival after LDLT. Several studies comparing deceased donor liver transplantation (DDLT) and LDLT for HCC. Despite higher recurrence rates in these three studies [23-25], the overall survival rates of LDLT for HCC compared to DDLT in all studies were not inferior. One could argue that this difference would eventually translate into a lower long-term survival in the LDLT groups. A recent analysis of 60 Egyptian adult patients underwent right lobe LDLT for cirrhosis complicated by HCC revealed, the median follow-up was 39.5 months. Overall 1-, 3-, and 5- year survival rates were 98.3%, 93.5%, and 71.4%. Overall disease-free survival rates at 1, 3, and 5 years were 96.6%, 93.5%, and 64.2% [26]. Efforts need to be focused to decrease posttransplant liver HCV recurrence rates and to further improve overall survival in LDLT for HCC.

6. Conclusion

Through this study we identified that the success of LDLT in HCC patients rely on a stepwise approach that incorporates morphological and biological criteria of the tumor. Major vascular invasion, massive infiltrative type, ruptured HCC and distant metastasis are to be considered as absolute contraindications for transplant

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Long-term changes in the spleen volume after living donor liver transplantation

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Objectives:

The aim of this study was to clarify the long-term changes in the spleen volume after pediatric living donor liver transplantation (LDLT).

Methods:

A total of 19 pediatric patients underwent LDLT at our facility between 1994 and 2011. Among these patients, the 13 pediatric patients who survived for more than 5 years after LDLT and who did not meet the exclusion criteria were retrospectively analyzed in this study. The exclusion criteria were as follows: emergency transplantation, graft failure and no data for post-operative computed tomography (CT) our institution. We calculated the spleen volume to standard spleen volume (SV/SSV) ratio by automated CT volumetry. We assessed the liver and spleen volumes using CT before LDLT, at roughly postoperative week (POW) 4, at postoperative year (POY) 1, at POY 5, and at POY 10.

Results:

Regarding the SV as evaluated by CT volumetry, there were no consistent trends, with median values as follows: before LDLT, 282.5 (71-641) cm3; POW 4, 252 (109-798) cm3; POY 1, 222.5 (97-948) cm3; POY 5, 263.5 (123-564) cm3; and POY 10, 377 (201-1080) cm3. In contrast, the SV/SSV ratio decreased chronologically, as follows: before LDLT, 5.0 (0.7-6.0); POW 4, 3.7 (2.3-4.3); POY 1, 2.2 (1.7-6.3); POY 5, 1.7 (1.1-5.4); and POY 10, 1.4 (1.1-6.9). In the remote phase after LDLT, many cases showed a trend toward an improved SV/SSV ratio, but splenomegaly was prolonged without improvement in 3 cases (23.1%) with portal vein complications and advanced fibrosis. Furthermore, all three cases showed a decreased platelet count due to hypersplenism.

Conclusion:

Splenomegaly requires a long time to achieve an improvement. In cases without an improvement of splenomegaly, we should suspect abnormalities in the graft liver and portal hemodynamics.

Mansoura experience of living donor liver transplantation for hepatocellular carcinoma

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Aim of the study:

To evaluate the result of LDLT in HCC PTS regarding the safety of the donor & the outcome of the recipient assessing the factor affecting prognosis mainly survival & recurrence.

Patient & method:

This study include 146 pts with HCC transplanted in our center Mansoura university hospital period 2005 to 2017 (137 Male & 9 Female),most of the~ were child B&C & 85% within Milan & uscf criteria, 61 pts were subjected to preoperative loco regional therapy either for down staging or abridge to transplantation

Results:

10 year survival was 92 pts (63%). 52 pts past sound .post operative. without complication. 3 months mortality (13.6%) late mortality (16.4%) mostly due to tumor recurrence. Morbidity occurred 50 Pt (34.2 %). Biliary complication in form of bile leak or structure in 16 Pt (19.9%) & responsible for 2 mortality. In this study the multi variate analysis for factor affecting. Tumor recurrences & survival are vascular invasion, multiple .Tumor & FP > 200 ng .Regarding donor" no mortality & only 21 pt (14.4 %) develop minor complication that respond to conservative management.

Conclusion:

Liver transplantation is best option for treatment of HCC in cirrhotic patient provided no extra hepatic metastasis & no vascular vision.

Transplantation of isolated hepatocytes and their role during acute hepatic insufficiency

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Backrounds/Aims:

According to current experimental and clinical data the principles of treatment of liver toxic illness : liquidation of etiological factor; retention of the organism metabolism on such necessary level which provides the organ function recovery and stimulation of reparative regeneration processes in the toxically damaged liver. Complex method of treatment which unites hemosorbtion and cellular transplantation on one side will provide metabolism and hemodinamics timely recovery, and on the other hand stimulation of the reparation regeneration of the damaged organ.

Methodology:

In the experiment studies was conducted with usage of 120 Wister Line white lab. rats. The animals were divided in four groups. The first group after creation of the model of acute liver damage was under examination without treatment. The II group in the conditions of ethylene-ester mask narcosis after three days of modeling was made one-time hemosorbtion. In III group animals the conditions of ethylene-ester mask narcosis after three days of modeling occurred transplantation of allogenic hepatocytes , IV group animals the conditions of ethylene-ester mask narcosis as well as II group animals were made one time hemosorbtion, furthermore as well as in III group animals were conducted transplantation of allogenic liver isolated hepatocytes.

Results:

After modeling liver acute insuficincy on 3-7 day all animals of the control group died, with transplantation method died - 70 %; with detoxication treatment method died – 26%. And combined method of liver isolated hepahocytes and with performing hemosorbtion methods died – 20%.

Conclusion:

The main reason of death was acute liver insufficiency which was caused by liver damage by toxic agent.

Case of patient operated for rectal cancer, diagnosed years after surgery with IBD (ulcerative colitis) resistant to therapy

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Background:

Ulcerative colitis usually involves rectum; other affected colon parts vary in every patient. Incidence 160/100 000 population.

Material:

This is a case report of a male at 37 in 2007 – for rectal bleeding and pain he received colonoscopy and endoscopic polypectomy. Histopathology revealed polypus with adenocarcinoma. Multidisciplinary team decided for surgery - patient underwent low rectal resection – no cancer found in the specimen. After surgery the patient complained with anorectal and pelvic pain, thenesmas, diarrhea, bowel obstruction, rectal bleeding. Colonoscopy and CT scans found nothing significant. In 2010 another surgery – performed adhesions debridement. Postoperatively the same complains continued. In 2014 Colonoscopy with biopsy revealed - Ulcerative colitis involving recto-sigmoid and cecum. The treatment with Salofalk - orally and enemas; Imuran; methylprednisolone reduced defecations to 2-3 with quality of life improvement. Later disease course shows often symptoms relapses, spastic ring of splenic flexure at X-ray – not proved on colonoscopy; histopathology-crypto-abscesses and fibrosis. In 2017 patient started anti-TNF-therapy.

Results:

Patient has 5-7 annual symptoms relapses with the standard ulcerative colitis therapy. Three months after start of anti-TNF-therapy patient is symptoms-free.

Discussion:

This case best illustrates the controversies in the management of IBD with cancer. In 2007 we didn't perform intraoperative colonoscopy; the patient was verified to have cancer after endoscopic polypectomy but not IBD and received anterior resection; specimen showed neither cancer nor IBD. The 7-years delay in IBD diagnosis resulted in disease advance and resistance to standard management. This case is still opened. For the moment patient isn't candidate for surgery.

Conclusions:

To improve quality of life of ulcerative colitis patient physician should regard the start of biologic treatment after precise indications and no effect of standard therapy. Surveillance including colonoscopy with biopsy and blood assays is mandatory.

Histopathological review of cholecystectomy specimens in a tertiary hospital in Ghana

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Introduction:

Diseases of the gall bladder are relatively common ranging from inflammation to neoplastic conditions. While the inflammatory conditions are rife in our environment, the neoplastic ones are generally rare. Our study aims to analyse the pattern of gall bladder lesions from cholecystectomy specimens submitted to the pathology department of our hospital. This is because not much has been done in this regard.

Methodology:

A retrospective study was undertaken to review all the cholecystectomy specimens submitted to the Department of pathology of Komfo Anokye Teaching Hospital, Kumasi, Ghana from January 2009 to December 2014. Data regarding age, sex, clinical diagnosis and histological diagnosis were retrieved from the surgical daybook. This was analysed with SPSS version 21 and observation drawn were put in tables and figures.

Results:

Our patients were in the age range of 1-88 years with mean age of 46.04 years. There were 34 males and 148 females with M:F ratio 1:4.4. Cholecystectomy specimens were reviewed over a 6 year period. Cholecystitis 129 cases, cholelithiasis 46 cases, 7 cases (0.04%) were malignant, male 1, female 6 with age range 49-75 years, mean 64 years. All were adenocarcinomas with 5 well differentiated (Grade 1) and 2 poorly differentiated (Grade 3) tumours and all were associated with gall stones.

Conclusion:

This study showed that the indication for cholecystectomy in our centre is inflammatory gall bladder lesions and that cancer of the gall bladder is very rare in our environment.

Oncologic outcomes in stage II and III transverse colon cancer: a comparative study for laparoscopic versus open approach with radical D3 lymphadenectomy

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Background:

Surgical type or approach varies for transverse colon cancer largely depending on the location of the tumors or surgeons' preference. However, it has an evidence that extensive lymphadenectomy is favorable for long-term outcomes in locally advanced colon cancers. This study was designed to compare the short- and long-term outcomes following laparoscopic or open approach with radical D3 lymph node dissection for stage II and III transverse colon cancer patients.

Methods:

Between May 2006 and December 2014, patients were treated for stage II and III transverse colon cancer. This is a retrospective study of prospectively collected data in a tertiary teaching hospital. Radical D3 lymphadenectomy includes the principal nodes of middle colic artery, which is numbered as 223 defined by the Japanese Classification of Colorectal Carcinoma.

Results:

A total of 144 patients were included, of whom 118 (81.9%) performed laparoscopically. The patients' characteristics between laparoscopic and open group had no differences. Most patients in laparoscopic group were performed extended right hemicolectomy (90.7%), while open group underwent in 65.4% (p=0.005). Operative time was longer in laparoscopic group (laparoscopic vs. open, 151.3 vs. 131.2 min, p=0.021), and open group had more estimated blood loss (160.8 vs. 289.3 ml, p=0.011). Pathologic outcomes including proximal and distal margin, retrieved lymph nodes, T and N stages had no differences except tumor size (5.8 vs 7.9 cm, p=0.007). Both groups also had not different in postoperative parameters such as first flatus, initial diet, hospital stay, and complications. There was not statistic difference on disease-free, overall, and cancer-specific survivals.

Conclusion:

There was no long-term difference, except for the methods of surgery and the associated differences between laparoscopic and open approaches in case of radical D3 lymphadenectomy in stage II and III transverse colon cancer.

Short-term outcomes of neoadjuvant chemoradiotherapy followed by total mesorectal excision in rectal cancer

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Objectives:

The aim was to examine the effects of neoadjuvant chemoradiation (nCRT) followed by total mesorectal excision (TME) in rectal cancer.

Methods:

From April 2013 to May 2017, a total of 22 patients with rectal cancer were retrospectively studied. Neoadjuvant treatment comprised external beam radiation (50.4 Gy/28 fractions) with concurrent oral capecitabine or tegafur-uracil. Four to 6 weeks after the nCRT, the patients with rectal cancer underwent surgical resection.

Results:

Distribution of median age, median follow up months, pts by male/female, clinical TMN stage and adjuvant chemotherapy after TME was 72 y/o (range 44~86); 22.9 mons (range 4.4~47.1); 19 (86%)/ 3 (14%); cI/IIA/IIB/IIIA/IIIB/IIIC:2(9%)/4(18%)/3(14%)/2(9%)/4(18%)/7(41%); yp0/I/IIa/IIb/IIIa/IIIb/IIIc: 5(23%)/3(14%)/5(23%)/2(9%)/2(9%)/4(18%)/1(4%), 7(32%). Pathological tumor downstaging rate, pathological complete response rate and sphincter preservation rate were 77% (17/22), 23% (5/22) and 32% (7/22). The local recurrence rate and distant metastasis rate was 4.5% (1/22), 18% (4/22).

Conclusions:

The results showed that nCRT followed by TME in rectal cancer was feasible to tumor downstaging, increase sphincter preservation rates and reduce local recurrence rates.

The effectiveness of self-expandable metallic stent as a bridge to surgery for left-sided malignant colorectal obstruction.

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Objectives:

In Japan, self-expandable metallic stents (SEMS) were approved for insurance coverage for treatment colorectal obstruction in 2012. This study aimed to evaluate the effectiveness of SEMS as a bridge to surgery (BTS) compared with emergency surgery for left-sided malignant colorectal obstruction.

Methods:

From January 2012 to March 2017, we retrospectively identified patients received emergency surgery or received elective surgery after SEMS placement due to left-sided malignant colorectal obstruction. Bowel obstruction was defined as having gastrointestinal symptoms and having oral bowel expansion obviously by image findings (abdominal x-ray examination and/or computed tomography). Patients, received any surgery without primary tumor resection, or diagnosed as perforation, bleeding, abscess formation and rectal cancer (excluding rectosigmoid), were excluded. Clinical and pathological findings and surgical outcomes were compared between Emergency surgery group (ES) and BTS group (BTS).

Results:

In 488 consecutive colorectal cancer patients, twenty-eight patients were included in this study. There were 11 patients in the ES group and 17 patients in BTS group. Age, gender, BMI, Charlson comorbidity index, ASA score, tumor location and TNM staging were similar between these two groups. Also tumor (T), lymph nodes (N), lymph vascular invasion (ly and v) and tumor grading weren't different. The rate of laparoscopic surgery was significantly higher (82.4% versus 0%, $p<0.01$) and operative time was longer in BTS group (333 min versus 230 min, $p<0.01$). No difference was verified in blood loss, primary anastomosis rate and stoma creation rate. Intensive care unit (ICU) treatment rate (ES 36.4%, BTS 5.9%) and postoperative complication rate (ES 63.6%, BTS 23.5%) were higher in ES group ($p<0.05$). However mortality case wasn't detected in both groups.

Conclusions:

SEMS placement as BTS for left-sided malignant colorectal obstruction could allow the laparoscopic surgery after decompression and reduce the postoperative ICU treatment and complications.

Treatment of Colorectal Cancer Requiring Preoperative Decompression.

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Objectives:

Colorectal cancer requiring preoperative intestinal decompression has been increasing. Although it has been reported that good short-term outcome can be obtained by performing intestinal decompression, long-term outcome depending on the presence or absence of intestinal decompression remains unclear.

The objective of this study was to examine the relationship between intestinal decompression and long-term prognosis in colorectal cancer patients.

Methods:

The subjects were colorectal cancer patients who underwent surgery in our hospital from November 2005 to May 2017.

Preoperative decompression was required in 65 patients (6%). Intestinal decompression was performed with nasal or transanal ileus tube, colonic stent, and colostomy. Patients were divided into two groups: decompression group and non-decompression group.

Results:

Between the decompression group and the non-decompression group, there was no significant difference in age, sex, and location of the lesion while there was a significant difference in stage (0/Ⅰ/Ⅱ/:0/1/25/19/20 vs 36/192/261/267/185, p=0.002). In surgery-related factors, the proportion of patients who underwent open surgery (84% vs 56%, p=0.001) was higher in the decompression group. Although there was no significant difference in operation time (232min vs 217min, p=0.213), intraoperative bleeding amount (481ml vs 272ml, p=0.001) was larger in the decompression group. While there was no significant difference in the incidence of postoperative complications (52% vs 46%, p=0.377) and the incidence of suture failure (7% vs 6%, p=0.783), the incidence of surgical site infection (50% vs 34%, p=0.007) was higher and the length of postoperative hospital stay (16days vs 14days, p=0.005) was longer in the decompression group. In terms of survival prognosis, the 5-year survival rate (44% vs 73%, p=0.001) after surgery was significantly lower in the decompression group.

Conclusions:

Since colorectal cancers requiring decompression were more likely to be advanced cancers, open surgery was more frequently selected and the prognosis was poorer.

What to do in front of a colorectal cancer in occlusion?

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Introduction:

Intestinal occlusion due to CRC has always raised problems regarding surgical treatment. Due to the fact that most of these patients are operated as an emergency, their metabolic state is insufficiently assessed and mechanically, the colon is not ready for surgical intervention. Surgical teams must make an ongoing choice between surgical treatments in one operative session and serialized surgical interventions.

Objectives:

Our objectif is to adopt a standard therapeutic attitude

Methods:

Through a retrospective study made in the surgery B unit of the TEACHING HOSPITAL of TLEMCEN we report all emergency operated patients for acute intestinal occlusion due to colorectal cancer between January 2007 and December 2016.

Results:

34 patients were operated including 25 males and 9 females with an average age of 61 years .The cancer localization was left colon in 31 cases. First group;an upstream stoma without resection was made in 9 cases (6 colostomies and 3 ileostomies) , 25 resections were performed in the second group, all the patients were operated at a second time.

Discussion:

We did not observe any difference in the operative follow-up for the two groups: stoma of bypass / resection but the operative time is markedly reduced in the first group which reduces the operative risks for these fragilized patients.

Conclusion:

Occlusive colorectal cancers are severe forms of disease which represent a serious problem of therapeutic strategy that is still intensely debated at present.

Despite clear advantages of laparoscopy, colon cancer resections are mostly performed open; literature overview and our data

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Objectives:

In some advanced centers laparoscopic colorectal surgery represents standard procedure and vast majority of patients are operated on laparoscopically. But the fact is that majority of colonic cancer operations in the world is still performed open, even in the most surgically developed countries.

Methods:

We searched Pubmed and Medline for data about the ratio of laparoscopic colonic cancer operations. We performed a retrospective cohort study of all patients operated on for colon cancer (but not rectum) at our department between 2006 and 2015. Inclusion criteria were: patients with primary, solitary colon carcinoma above 15 cm from anal verge, where we managed to perform R0 resection.

Results:

The exact proportion of laparoscopic colon operations is hard to define. At our literature review the rate was rarely over 50 %.

After inclusion criteria we studied 1007 patient with colon cancer. There were 146 or 16 % laparoscopic procedures. The percent of laparoscopic resections is constantly rising. From only few cases in year 2006 to 31 percent in year 2015. There are mostly sigmoid and right colon resections.

Conclusions:

Although surgeons are familiar with advantages of laparoscopic surgery most of them still prefer open procedures for colonic cancer. The reasons are numerous: home department recommendations, too much opposition from colleagues, anesthesiologists and staff, personal discomfort with long and in the beginning demanding operation or perhaps even not believing in advantages of laparoscopy for cancer surgery.

New technique for sutured laparoscopic ileocolic anastomosis enterotomy closure

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Introduction/Objective:

Intracorporeal anastomosis after right laparoscopic hemicolectomy is associated with lower complications and shorter length of stay. However, the closure of the enterotomy made for the stapling device requires advanced laparoscopic skills and is time consuming. We report a new technique of sutured enterotomy closure

Methods:

We use a slowly absorbing surgical suture cut to roughly 25 cm. On the free end, we create a loop by first placing a double knot and then looping the thread 4 times. We begin the suture on the posterior edge of the defect, and after the first stich is passed the needle is passed through the loop made previously making a self-locking knot. We make a full thickness running suture and on the other end of the defect we tie a Cushieri knot, we continue back using the same thread to make a running seromuscular suture. Finally, we tie a knot using the needle edge and the free edge left in the beginning of the suture.

Results:

Using the standard technique of double layer suture the surgeon must tie four knots. This technique requires the surgeon to tie only one standard knot intracorporeally and to throw one Cushieri knot.

Conclusion:

By using self-locking knots and a single suture this technique has the potential to decrease the complexity and time spent on enterotomy closure in intracorporeal ileocolic anastomosis.

Preoperative endoscopic contrivances for gastrointestinal bleeding expand the possibilities of minimally invasive surgery

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Small bowel hemangioma is a relatively rare small bowel tumor and can cause gastrointestinal bleeding, which often results in a diagnostic dilemma. Among the various diagnostic modalities for small bowel hemangioma, video capsule endoscopy (VCE) and double-balloon enteroscopy (DBE) can be recommended as part of the work-up in patients with obscure gastrointestinal bleeding (OGIB). VCE and DBE are both useful modalities for the diagnosis of small bowel disease with OGIB including hemangioma, and preceding observation by VCE can result in a synergistic treatment effect. DBE is superior to VCE in the accuracy of diagnosis and therapeutic potential, while in most cases total enteroscopy cannot be achieved through only the antegrade or retrograde DBE procedures. As treatment for small bowel bleeding, especially spout bleeding, localization of the lesion for the decision of DBE insertion facilitates early treatment, such as endoscopic hemostatic clipping, allowing patients to avoid useless transfusion and the worsening of their disease into life-threatening status. Also, applying endoscopic India ink marking prior to laparoscopic surgical resection is a particularly useful technique for more minimally invasive treatment. We report two cases of small bowel hemangioma found in examinations for OGIB that were treated with combination of laparoscopic and endoscopic modalities. The preceding implementation of VCE made the selective decision of DBE insertion easy, and the endoscopic process facilitated early treatment, resulting in avoidance of progression to life-threatening status. Furthermore, preceding contrast-enhanced computed tomography with a characteristic of rapid and minimally invasive technique may omit VCE, making it a useful algorithm for further early treatment. These findings imply that various preoperative endoscopic contrivances may result in safer, more minimally invasive treatment.

Neuroendocrine rectal tumor as a rare etiology of adult recto-sigmoidal intussusception: case presentation

Matei R., Bratu, Bogdan Diaconescu, Sebastian Valcea, Mircea Beuran.

Abstract:

Intestinal intussusception is a frequent pediatric pathology, but adult cases are rare and don't have a specific presentation. In most cases, adult intestinal intussusception , regardless of its localization, is caused by an endoluminal tumor which can be of multiple pathological types. We report a sigmoido-rectal intussusception in an adult in whom an adenoneuroendocrine tumor was identified as the lead point. This case is unique for several reasons: (1) the tumor is a rare subtype of adenoneuroendocrine variant, (2) neuroendocrine tumors rarely involve the distal segment of the gut, (3) the clinical presentation with a recto-sigmoidal intussusception presented a diagnostic challenge.

A Rare Cause of Chronic Constipation in a Middle Age Female: Anterior Sacral Meningocele.

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Introduction:

Anterior sacral Meningiocele (ASM) is a rare clinical presentation.

Case Report:

A 40 years old female presented with 10 years history of right iliac fossa pain. She described lower limb numbness but no weakness or sphincter disturbances. Five years before her current presentation she was diagnosed as a case of ovarian mass based on abdomino-pelvic ultrasonography. She undewent surgery but no gynaecological abnormality was found.

She presented to us because of new onset constipation. Digital rectal examination revealed bulging of the posterior rectum wall because of an extra luminal mass effect. Colonoscopy was normal apart from bulging in the posterior wall. Lumbosacral spine and pelvis MRI showed partial sacral agenesis and a large presacral meningocele.

Surgical treatment was discussed with the patient and the neurosurgeon. Through lower midline abdominal incision dissection in the retro-rectal space was done. The meningocele was released from surrounding tissues down to the pelvic floor. Then patient on Jack- Knife position, dissection was done till the pedicle of the sac was identified and ligated. The sac was excised. Her post- operative course was uneventful.

Discussion:

ASM can present with a wide range of symptoms. Compression on sacral nerve roots presents with a variety of neurological symptoms. Compression on the rectum causes worsening constipation.

MRI is superior in diagnosing ASM. It gives details about size, shape, and relation to surrounding structures.

The abdominal approach is used for high retro-rectal extra-spinal lesions. The posterior (trans-sacral) approach is used for low lesions and infected cysts.

Conclusion:

MRI is important to assess pelvic masses; gives details about size, shape, and relation to surrounding structures. The abdomino-sacral approach is being recommended for large high presacral masses because it offers good exposure and allows for excellent haemostasis.

Acute intussusception secondary to a lipoma of the small bowel

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Objective:

Intussusception as a cause of intestinal obstruction in adults is rare.There is various pathology which leads to intussusception in adults. Ultrasound and abdominal CT scan may help in a preoperative diagnosis. However early surgical intervention is the mainstay of treatment in order to confirm the diagnosis. We report a case of ileoileal intussusception in an adult caused by an ileal lipoma.

Case:

A 45 year old male, was admitted with abdominal pain and vomiting for two days. The patient had no past history of alteration in bowel habits, melena or weight loss. All the vital parameters were within normal limits. His abdomen was distended and there is no palpable abdominal mass; bowel sounds were hyper audible. Laboratory blood tests were normal. Abdominal radiography revealed prominent dilatation of the small bowel with air fluid levels. Computed tomography (CT) scan was done which was showed dilatation of small intestine because of ileo-ileal invagination. The decision was made to undertake an urgent exploratory laparotomy: ileo-ileal intussusception was present. Resection and ileo-ileal anastomosis was done. A histopathological diagnosis was reported as intussusception as a complication of intestinal lipoma. There was no evidence of dysplasia or malignancy. The postoperative period was uneventful and the patient was discharged on the sixth postoperative day.

Conclusions:

Lipoma of the small bowel is a rare etiology Intussusceptions in adults. Preoperative diagnosis is possible through abdominal CT scan. Emergent surgery is the only curative treatment

Intestinal atresia: the ghanaian experience

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OBJECTIVE

Intestinal Atresias are the most common congenital cause of neonatal intestinal obstruction. In our centre, it is the second most frequent indication for operating on a neonate after anorectal malformation. While prognosis is excellent in the developed world, morbidity and mortality figures of resource-challenged countries are only just improving. Our goal was to identify the peculiarities of the presentation and management outcomes of intestinal atresîa at our hospital. We present our preliminary findings.

METHODS

The clinical notes and operative records of neonates managed for intestinal atresia at Komfo Anokye Teaching Hospital Kumasi from January 2013 to December 2016 were retrospectively retrieved. Data regarding patient characteristics, diagnosis, co-morbidities, surgery, surgical outcome and duration of admission were extracted. Data analysis was done with SPSS 23.0 version.

RESULTS

Seventy-one neonates underwent surgical repair for intestinal atresia. The age range was 4 – 12 days with median age of 7 days and male to female ratio of 1.5:1. Atresias were most common in the jejunum (50.7%, n=36/71) and least so in the ileum (16.9%, n=12/71). The most common types of atresias by category were Type 2 (40%, n=10/25), Type 2 (40%, n=4/10) and Type 1 (41.7%, n=15/36) for duodenal, ileal and jejunal atresias respectively. The most frequently performed procedures were duodenoduodenostomy, ileal resection and anastomosis and jejunoplasty. From the nineteen clinical notes that had been accessed at the time of this write-up, the mean maternal age and gestational age at delivery were 27.6 years and 34.1 weeks respectively. Averagely, feeds were commenced 3.5 days post-operatively. Mean duration of admission was 17.56 days. Additional clinical problems included poor glycaemic control, neonatal sepsis and cholestatic jaundice. Mortality was 10.5% (n=2/19)

CONCLUSION

Late presentation and the challenges associated with neonatal intensive care in our environment have contributed to the morbidity identified in this study.

Colorectal anastomotic dehiscence: risk factors and impact on survival

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Objectives:

The goal of this study was to evaluate the importance of several risk factors on colorectal anastomotic leakage in patients submitted to rectal cancer surgery: previous radiotherapy, gender, age, disease stage and derivative stoma. We also aimed to evaluate the impact of anastomotic leakage in survival and disease-free survival.

Methods:

We analysed a retrospective cohort of patients submitted to low anterior rectal resection with curative intent from January 2012 to December 2014. Exclusion criteria were: non-curative resection and benign pathology. We used the $X2$ test for proportions and log rank test for comparison of the Kaplan-Meier curves. P values < 0.05 were considered statistically significant.

Results:

We identified 61 patients who underwent anterior rectal resection: 39.3% were women (n=24) and 60.7% were men (n=37); 26.2% of the patients had neoadjuvant radiotherapy (n=16). Thirty-one patients were older than 70 years old. According to the disease stage, 25 patients were in stage I and II, 26 in stage III and 10 in stage IV (41%, 43% and 16%, respectively).

Six patients had an anastomotic dehiscence (9.8%).

We did not identifiy a statistical significance between colorectal anastomotic leakage and neither previous radiotherapy, gender, age, disease stage or derivative stoma. There was no significant statistical impact of anastomotic leakage on overall survival and disease-free survival.

Conclusion:

The results of this study do not support the routine use of derivative stoma. The occurrence of anastomotic leakage is not influenced by any of the several risk factors analysed. The overall survival and disease-free survival were not affected by the presence of anastomotic dehiscence.

Short bowel syndrome: adjuvant therapy with vitamin c and erythropoietin in treatment of anemia in patients

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Background:

Adjuvant therapy may allow patients being treated with epoetin to derive greater clinical benefit. Due to inadequate mobilization and incomplete utilization of iron, some patients treated with erythropoietin can have weakened clinical response than expected. However, the quality of treatment could be improved by additional administration of vitamins C.

Methods:

Twenty patients with short bowel syndrome (SBS, or short gut) divided into the intravenous vitamin C (IVC) (n=10) and control (n=10) groups. Their have had hemoglobin value below 100 g/l and serum ferritin level in range of 100-500 ng/ml. Both were given erythropoietin (3x75-100 ij/kg weekly). Besides that, experimental group was treated with vitamin C (3x500 mg weekly intravenously) (n=10), and control group was administered placebo (n=l0). The hemoglobin level, hematocrytes and hypochromic erythrocytes value was estimated, as well as hemoglobin concentrations in reticulocytes, transferin saturation index and serum ferritin level. The research lasted for 90 days. Indexes were set at the beginning, 30-th, 60-th and 90-th days after start.

Results:

Both groups had a increase in their hemoglobin (19,2 % vs 15,7 %) and hematocryte (19,3 % vs 15,2 %) and comparison groups do not have significant differences . But the value of transferrin saturation index increased considerably in vitamin C treated group after the 30-th day of research (20,6%) in comparison with control group increase (4,8%), with statistical significance (p=0,023). Also, it was compared ferritin value periodically, with steep decrease of feritin level in experimental group (119,6%) in comparison with control (66,4%), and statistically significant differences (p=0,023) on 90-th day. These data implicated fastened iron storage mobilization in experimental group. It wasn't significant rise neither of hypochromic erythrocyte value (p=0,57), nor has the increase of hemoglobin concentration in reticulocytes (p=1,16).

Conclusion:

The research has shown that vitamin C, applying with human recombinant erythropoietin, have place in treatment of anemic patients with short bowel syndrome. The results have implicated to fastened iron mobilization from tissue storage, better transferrin saturation, and more dynamic erythropoiesis.

Small bowel obstruction: evidence for successful non operative management

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Objectives:

Small bowel obstruction is a common medical emergency and accounted for half of all emergency laparotomies in the UK in 2014-15. According to the British Medical Journal, patients with partial small bowel obstruction may benefit from conservative rather than operative management. Although the diagnostic purposes of gastrograffin are acknowledged, the therapeutic usage of gastrograffin remains debated and is not clearly documented. Our aim was to determine the effectiveness with which gastrograffin can be used to aid in conservative management of small bowel obstruction.

Methods:

We retrospectively analysed medical records for 23 patients who were admitted with small bowel obstruction in January & February 2017. We looked at data pertaining to the aetiology of their small bowel obstruction, how many of those patients were given gastrograffin, how many days it took for them to resume enteral intake afterwards, and how many of them required surgery.

Results:

8/23 patients admitted with small bowel obstruction in January & February 2017 were given gastrograffin. 4 of these patients had become obstructed due to post-operative adhesions, and the remainder had adhesions due to fibroids, an internal hernia, disseminated intraabdominal malignancy, and a stenotic small bowel anastomosis. 6 of these patients had resolution of their obstruction in an average of 1.83 days after being given gastrograffin. The other 2 patients required surgery for their small bowel obstruction.

Conclusions:

The therapeutic usage of gastrograffin is a debatable issue; however it has the potential to augment recovery time of small bowel obstruction. This topic should be further researched, using larger numbers and in a multi-centre trial as the potential benefits both clinical and financial of avoiding surgery in these patients would be substantial.

The aim of this study is the presentation and analysis of complications of the colon and rectum surgery especially during of financial is crisis.

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Meterial-method:

The study is retrospective and refers the period 2011 to 2016.It includes 430 patients with colon and rectal cancer. 60% of them were males. The age ranged from 24 to 92 years. All patients had preoperative diagnosis by colonoscopy, while the staging of disease determined with CT (Computed Tomography) scan of upper and lower abdomen. All patients with rectal cancer underwent to pelvic MRI (Magnetic Resonance Imaging). 35% of the patients had sigmoid cancer,17% cecum cancer, 5% cancer of ascending colon 5% cancer of descending colon and 3% transverse colon cancer.

Results:

At this time of period were performed (73-16.97%) right colectomies, (34-7.9%)extensive right colectomies, (172-40%) left colectomies, (140-32.5%) low anterior resections and (11-2.55%) abdominoperineal resections. At low anterior resections was used the TME technique (total mesorectal excision) and to the right and left colectomies the CME (Complete Mesocolic Excision) technique.

All anastomoses at the low anterior resections were done using circular stapler and additional sutures at the suture line. The anastomoses to the remaining operations by 90% was done handmade with suture of the bowel into 2 layers due to restiction of *(to lack of)*staplers for economic reasons. Concerning the complications, we had the following results: anastomotic leakage:3%,bleeding:2%,intrabdominal abscess:5.5%%,ileus:5%wound infections:18% , atelectasis:9.5% , pulmonary embolism:0,5%.There were two deaths. Of the patients who experienced complications, 92%were treated conservatively. In 5% of the patients performed drainage of abscess under CT. Reoperation needed in 15 patients.42 patients needed treatment in the ICU. The average period of hospitalization was seven days.

Conclusions:

Colon and rectum surgery requires an accurate preoperative diagnosis and thorough preorerative screening for staging. The performance of the operation by a constant, experienced team reduces significantly the complications with the standardization of the procedure. The management of complications should be direct to the benefit of patients, while an important objective remains the reduction of the cost in a country with financial crisis and of cource the reduction of stay in Hospital. Respect for the principles of CME and TME technique is crucial to achieve correct oncological preparations and improve surgical technique in the surgery of the colon and rectum.

Perineal Rectosigmoidectomy for Gangrenous Rectal Prolapse.

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Abstract:

Rectal prolapse with incarceration and strangulation needs emergency intervention either by medical reduction or surgical procedures.

Case report:

A 28-years old male presented with strangulated rectal prolapse for 5 days prior to admission. He had recurrent rectal prolapse after defecation for one month.

He is a young healthy man with full thickness rectal prolapse which was edematous, ulcerated, with signs of gangrene. There was a rectal polyp. Blood, urine tests, abdominal ultrasound and plain X-ray were normal. Osmotic reduction by hypertonic solution had failed.

The decision of surgery was made. The patient on Lloyd Davies position under general anesthesia; using the perineal approach proctosigmoidectomy was done at the demarcation between the healthy and the gangrenous rectum. Distal stump was closed and reduced. Defunctioning left iliac fossa end colostomy was performed through a laparotomy incision. The patient was discharged after 12 days. Histopathology revealed gangrenous mucosa and the polyp was a juvenile. Colonoscopy was done after twelve weeks of discharge and revealed normal mucosa. After six months the colostomy was reversed and the two ends of bowel were joined with a circular stapler. Post-operative course was uneventful.

Discussion:

When prolapse can't be reduced, sedation and Trendelenburg position with osmotic reduction may decrease bowel oedema and help reduction. When the prolapsed bowel is incarcerated, strangulated or ulcerated this becomes a surgical emergency. The operation of choice is perineal proctosigmoidectomy with or without colostomy. Our patient underwent perineal proctosigmoidectomy with a defunctioning left iliac fossa end colostomy. Primary anastomosis was not done because the rectum was oedematous, ischaemic, with deep mucosal ulceration.

Conclusion

Emergency perineal proctosigmoidectomy with closure of distal stump combined with end colostomy is a good option in gangrenous difficult sewn bowel. Reversal of colostomy can be done as a second stage of the procedure.

Wide local excision for anal gist: a case report and review of literature

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Objectives:

Describe an anal GIST successfully treated with wide local excision.

Presentation of case:

We describe a case of a 70-year-old lady presenting with a 2 cm mass in the anal canal. Endoanal ultrasound revealed a well-circumscribed solid nodule in the intersphincteric space. The patient was successfully treated by wide local excision and adjuvant therapy with imatinib mesylate.

Conclusions

Small lesions (< 2 cm) with low mitotic rate may be successfully managed by local excision. Radical surgery should be reserved for large, aggressive tumors.

Extragonadal omental teratoma in a male with normal testis: A rare case report

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Introduction:

Mature cystic teratomas are among the most common ovarian tumors; however, teratomas of extragonadal origin are extremely rare, most common site being the omentum. Most cases reported were frequently found in female with only a couple of cases reported in male.

Case report:

A 15 year old boy was admitted for upper abdominal lump since 6 months. There was no history suggestive of intestinal obstruction. Abdominal examination revealed 17x10 cm lump occupying epigastrium and umbilical region. Genitalia examination was normal.

Ultrasonography and CECT abdomen showed well defined, cystic, multiseptated 17x11x10 cm lesion in central abdomen with dense ossification and calcification along with fat attenuation, fluid and enhancing soft tissue.

Laparotomy revealed a cyst within the greater omentum with rupture at one site and protrusion of hair follicles through it. Histopathological sections showed mature cartilage, gastric glands, adipose tissue, glial tissue, bone, smooth and skeletal muscle, respiratory epithelium and stratified squamous epithelium with skin appendages with no immature components.

Discussion

Teratomas originate in pluripotent cells, and are composed of wide diversity of tissue foreign to the organ or anatomic site in which they arise. Approximately thirty-one international reports on the omental teratoma have been published which included only a couple of male cases. The causes are poorly understood, but three main theories have been proposed to explain their location: 1. Primary teratomas of the omentum may originate from displaced germ cells. 2. Teratomas may develop in a supernumerary ovary of the omentum. 3 Teratomas may result from auto-amputation of an ovarian dermoid cyst with secondary implantation into the greater omentum. Definitive diagnosis is possible following histopathological examination. Teratomas of the greater omentum are benign lesions, but malignant transformation is known. Surgical excision is all that is necessary. Immature teratomas are potentially malignant, so the patient may require chemotherapy and radiotherapy.

Exvivo resection and intestinal autotransplantation for the treatment of tumors at the root of the mesentry

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Background:

Pancreatic tumors involving the root of the mesentry continue to be a management problem in hepatopancreaticbiliary field, these tumors constitute a wide spectrum of pathology NET, PDAC, GIST. Previously these tumors were labeled as irresectable tumors, late stage and untouchable.

Material and Method:

Between the period January 2015-June 2016, Twenty one patient underwent exvivo resection and autotransplantation of the small bowel for tumors of the pancreatic head, neck involving the root of the mesentry, in Shiraz Center for Organ Transplantation, Namazi hospital, Islamic Republic of Iran. Tumors and mesentricvessels were evaluated using triphasic CT and MRV. Internal jugular, great saphenous veins and Deep venous system of the lower limbs were assessed preoperative by duplex examinationfor venous graft of the resected portal vein

Results:

Mean operative time 780+_46 min, mean blood loss 1900 ml, short term mortality 14%, three patients. Main cause of death is respiratory complications (pneumonia, ARDS). Mean cold ischemic time 110+_25 min. Exploration rate 42%, nine patients were explored for different causes. R0 resection could be achieved in most of the cases, and symptoms relief was pleasantly accepted by the patients.

Conclusion:

Exvivo resection and autotransplantation of small bowel is good and justifiable option for pancreatic tumors involving the root of the mesentry. It provides good relief of symptoms, long disease free survival and potential cure.

Gastrointestinal malignancies in Sudanese patients; where we are?

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Background:

Gastrointestinal cancers are a leading cause of cancer related death worldwide (after lung cancer). There is significant geographic variation in gastrointestinal cancers. The aim of this study is to identify variety, pattern of presentation, management and hospital mortality of gastrointestinal malignancy in Sudanese patients.

Methods:

Data from 337 patients with GI malignancies were collected prospectively and retrospectively, it is cross section hospital based study. It included all patient with GI malignancy except those with thoracic oesophageal cancer and it was conducted in two years' period, data collected, and analysed using Statistical package of social science (v 19.0), frequencies, descriptive statistic and test of significant Chi squire, t test were used when appropriate. The P value was considered significant if < 0.05.

Result:

The mean age was 50.5 years (SD+/- 10.5), male to female ratio was 1.3:1, there were 28% (n=97) live in Khartoum and 22.8% (n=77) were come from centre and west of Sudan, about 12.8 % (n=43) from east Sudan, and 11% (n=37) from north Sudan while 1.8 % (n=6) were live in South Sudan. The commonest GI malignancy in our study was pancreatic cancer followed by colonic then gastric malignancies in 36.5%, 26.7% and 16% respectively, the majority of pancreatic cancer (58%) from west Sudan and 31% from north Sudan.

Conclusion:

The commonest GI malignancy in our study was pancreatic cancer, followed by colonic & gastric malignancies. Khartoum and west of Sudan were common states for pancreatic and colonic cancer. Colonic cancer tends to occur in young age group.

Keywords:

GI malignancies, pancreatic cancer, gastric malignancies, Sudan.

Management of Ca Appendix – An institutional Experience

Osama Shakeel, Awais Amjad Malik, Sadaf Batool, Umer Farooq, Shehryar Riaz, Irfan-ul-Islam Nasir, Aamir Ali Syed, Shahid Khattak.

Introduction:

To study the surgical and oncological outcome of all the patients presenting with a diagnosis of Ca Appendix at SKMCH&RC.

Methodology:

From 2006 to 2015 all patients with a diagnosis of Ca Appendix were included in the study. Demographic variables were collected. Surgical outcomes in terms of operation performed and its complications were recorded. Short and long term oncological outcomes were recorded. All data was entered and analyzed in SPSS ver 21.

Results:

A total of 19 patients were included in the study. Median age was 58 years. There were 7 male and 12 female patients. Most common presentation was pain RIF in 16 patients followed by altered bowel habits in 3 patients. 17 patients had an adenoca and 2 had Neuroendocrine Ca. 13 patients had a standard right hemicolectomy performed. 5 only had an appendectomy performed. One patient had a TAH BSO + appendectomy. 12 patients received adjuvant chemotherapy. 8 patients had a disease recurrence. All patients had a median survival of 24 months.

Conclusion:

Cancer of the appendix is rare and needs to be managed aggressively. All patients are best treated with a formal right hemicolectomy with adjuvant chemotherapy.

Recurrent malignant phyllodes tumor of the breast in a two adolescent female

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Phyllodes tumors (PT) are fibroepithelial neoplasm characterized by a combination of hypercellular stroma and cleft-like or cystic spaces lined by epithelium, into which the stroma classically project in a leaf-like fashion and have a potential to recur and metastasize. These tumors are more common in 3rd to 4th decade. Here we present our experience of two cases seen in a young adolescents female of recurrent malignant Phylloides Tumor of the breast.

Keywords:
Malignant, adolescent, phyllodes tumor, recurrence

Standardization of diet follow-up for patients with digestive cancer.

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Objectives:

In oncology, weight loss is an independent factor of morbi-mortality. The aim of this study was to evaluate the impact of standardizing diet practices in patients with digestive cancer on weight evolution (weight loss, stabilization or gain) six months after the first diet consultation (DC).

Methods:

This retrospective analysis of a monocentric “before-after” clinical study included all consecutive patients with digestive cancer with a DC. We compared outcomes from two periods of time. In the first period, DC was performed on request and follow-up depended of nutritionist. In the second period of time, DC was performed early after consultation where cancer was announced and follow-up was standardized with a systematic DC at month 1, 3 and 6. Primary outcome was favorable weight evolution (FWE) (stabilization or gain) at 6 months of first DC. A multivariate analysis was performed to estimate diet standardization effect, adjusted on type of treatment and type of digestive cancer.

Results:

65 patients were followed up at six months, divided into 30 before standardization and 35 after, with no significant differences in baseline characteristics (etiology of cancer, type of treatment). After standardization, first DC occurred significantly earlier after cancer announcement (3.7 vs 1,6 months); and number of DC for each patient increased (4.9 vs 3.5 DC). In univariate analysis, FWE at six months was significantly higher after standardization (51.4% vs 20%, p = 0.018). In the first group, mean weight loss was 5.7 Kg at 6 months, and only 2.3 Kg after standardization. The adjusted odds ratio was 4.12 (CI 95% 1.18-14.45, p = 0.027), confirming the results of the univariate analysis. Severe malnutrition increased from 33% to 47% before standardization while it decreased from 23% to 11% after.

Conclusion:

Diet standardization is an independent factor of FWE at 6 months of first diet assessment in digestive cancer patients.

Stromal tumors – considerations on 26 patients series

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Introduction:

Stromal tumors present clinical and histopathological diversity. Surgeons encounter many challenges from this pathology. New diagnosis methods and treatement approaches have emerged during the past years.

Material and method:

Retrospective analysis over 26 cases from 1998 to 2017.

Results:

Gender distribution: female dominance (15/11). Maximum age was 86. Tumor location: 12-gastric, 5-the small bowel, 4-the large bowel, 5-non digestive tube location. Preoperative diagnosis has been established for 22 cases. 4 cases required emergency procedure (intraoperative diagnosis). Certainty of diagnosis associated Histopathological Examination with Immunohistochemistry (CD117+). Imatinib (Glivec) therapy was set for 8 patients. Immunotherapy was associated for 7 patients.

Conclusions:

Emergency surgical procedure may occur for GIST's due to important digestive bleding. Compression on proximity viscera may lead to emergency surgery. Surgical procedure guided from oncological limits is main treatment. Surgical procedure may be performed as single treatment. Imatinib (Glivec) induces a decrease of tumor and may prevent tumor relapse. Immunotherapy is to be considered.

Challenges of setting up dedicated peritoneal surface malignancy centre in resource limited settings

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A newly established surgical oncology service in Pakistan has started management of peritoneal surface malignancies (PSM) almost a year ago. Looking back at the process of development, the problems and challenges faced were identified.

The challenges of dealing with management of PSM were multifaceted. These include lack of awareness of physicians and patients, lack of organized multidisciplinary teams for PSM management, appropriate perioperative management including anaesthesia, theatre staff and intensivists, and availability of equipment for delivery of HIPEC.

These challenges are looked at from the standpoint of resource-limited settings. We describe how each of these challenges were dealt by our team. Possible solutions in view of our experience in setting up a peritoneal surface oncology service in a developing country are put forward. This will serve as a guide to centres interested in developing programs especially in resource limited settings.

Hyperthermic Intraperitoneal Chemotherapy (HIPEC): The tunisian experience

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Objectives:

The interest of Hyperthermic intraperitoneal chemotherapy (HIPEC) led us to propose the development of this technique in the surgery department 'A' at La Rabta Hospital, Tunis. The aim of the study was to describe the technique, discuss its indications and analyze its results.

Methods:

We did a retrospective, descriptive, consecutive, monocentric study including all patients who have underwent HIPEC, between january 2009 and december 2014. We analyzed clinical, biological and technical data in the pre, intra and post operative.

Results:

Forty cases were included. The average age was 50 years, the sex ratio was 0.73. The indication was peritoneal pseudomyxoma in 21 cases (53%), peritoneal carcinomatosis of colorectal origin in 12 (30%), peritoneal mesothelioma in two cases. Preventive HIPEC for gastric tumors was performed in 5 patients. Carcinomatosis was diffuse in 26 patients (65%), located in eight and absent in six. The mean peritoneal cancer index of Sugarbaker was 9. The average operative time was 284 minutes [150-600]. HIPEC technique chosen was the open technique. The duration of the HIPEC was 30 minutes in 39 patients and 45 minutes in a single patient. The chemotherapy agents used were oxaliplatin in 31 procedures (77.5%), cisplatin in 8 (20%), two of which in combination with mitomycin C, and in one case camptomycine. The postoperative stay was 11 days [5-35]. One death within thirty postoperative days was observed. The overall morbidity rate was 37.5%. In univariate and multivariate analysis, splenectomy was independent morbidity factor. The relapse rate was 30%. The one-year survival was 80%. Overall survival was 28.2 months.

Conclusions:

Our operative times were lower than those of literature, splenectomy was an independent factor of morbidity. Better patient selection, standardization of protocols and the creation of a national register of peritoneal malignancies are necessary conditions for improving the management of peritoneal carcinomatosis.

A novel modified trans-oral approach for endoscopic thyroidectomy

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Objectives:

Modification of the total trans-oral approach for endoscopic thyroidectomy by placing high cervical ports for better triangulation to overcome the obstacle of swording.

Methods:

From April 2016 to May 2017 a total of 9 cases were operated. Three port technique- one 10mm port through the vestibule near lower incisors for a standard 30 degree scope was placed. Subplatysmal plane created using CO2 insufflation with pressure set at 6 mm of Hg. Two 5mm ports were placed at the junction of upper 1/3rd and lower 2/3rd along the anterior border of sternocleidomastoid for working instruments. Thyroidectomy performed using standard ultrasonic harmonic scalpel. Specimen retrieved through one of the neck ports.

Results:

Of the 9 cases, 7 were females and 2 males. One case was converted to open thyroidectomy, rest all were successfully completed. 7 were hemithyroidectomies and 2 were total thyroidectomies. Average size of the nodule 4.5 cm. On histopathology, 8 cases were colloid goitres and one was papillary carcinoma. None of the patients had hypocalcemia or recurrent laryngeal nerve palsy. No patient had surgical emphysema or pneumomediastinum. One patient suffered from surgical site infection in the form of abscess over the neck, which was drained.

Conclusion:

The novel modified trans-oral technique for thyroidectomy is a feasible procedure with excellent cosmetic results.

Intra-operative incidents of laparoscopy: A 10-years study at Surgical Departement of Le Dantec Hospital in Dakar.

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Objectives:

Determinate incidence and study the management of intra-operative laparoscopic incidents

Methods:

This was a retrospective descriptive study carried out from 842 laparoscopic procedures over a period from January 1st of 2006 to 31 December 31st of 2015 within the Department of General Surgery of the Aristide Le Dantec Hospital in Dakar. We Included all cases of intraoperative incidents (59 cases). We studied: the epidemiological data, the interventions concerned, their nature, and their management.

Results:

Incidence of intra-operative accidents was 7%. The female predominated with a sex ratio of 0.9 (28 men/31 women). The mean age was 35 years (extremes of 12 and 85 years). The incidents mostly occured in daily surgery (50 cases). They occurred mainly during hepatobiliary surgery, including cholecystectomy with 45 cases (76.2% of incidents). Gastrointestinal accidents dominated with 39 cases (66.1%). The biliary tract injury was the most common (n=24 or 40.6%). Controlled surgical incidents (n = 50 or 84.7%) were dominated by biliary complications with 19 cases of vesicular breccia (32.2%) and 8 liver wounds (14.1%). There were 9 cases (15.3%) of urgent intraoperative incidents (5 ileal wounds (8.9%), 1 cecal wound (1.6%), 2 appendicular arterial bleeding (3, 2%), 1 case (1.6%) of pneumoperitoneum intolerance). The laparoscopic conversion rate was 40.7% (n = 24): uncontrolled bleeding in 10 cases; Intestinal injury in 8 cases; Wound of the main biliary tract in 3 cases and 3 cases of intolerance to pneumoperitoneum.

The sequences were simple in 37 cases (62.7%). An operative morbidity of 37.3% was noted (n = 22). In Table V, we have detailed the nature of these complications, their origin and their management. Two deaths were observed following postoperative peritonitis (3.4%): The mean hospital stay of our patients was 11 days with extremes of 3 and 29 days.

Conclusions:

The per-coelisocopic incidents are not negligible and it is necessary to take appropriate care in order to avoid dramatic consequences.

Miniinvasive surgical treatment of portal hypertension complicated by bleeding gastroesophageal varices

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Objectives:

Variceal bleeding is a life-threatening complication of portal hypertension with a high probability of recurrence and mortality. Treatment to prevent first bleeding or rebleeding is mandatory. The goal of our research to improve outcomes of patients with portal hypertension complicated by bleeding from gastroesophageal varices and increase the survival of patients with this disease.

Methods:

During the period from 2014 to 2016 in the surgical center of gastrointestinal bleeding Vinnytsa Regional Hospital treated 195 patients with portal hypertension complicated by bleeding from gastroesophageal varices. In this cohort of patients there were 105 men (53,8%) and 90 women (46,2%). An average age of patients was 54,8±10,6 years. All patients were conducted laboratory and instrumental examination. Source bleeding installed at esophagogastroduodenoscopy conducted. Patients were divided into 3 groups. The first group of patients received only conservative therapy, the second group of patients received conservative treatments and performed endoscopic ligation of bleeding gastroesophageal varices, the third group of patients received conservative therapy performed endoscopic ligation of varices and performed endovascular embolization of the splenic artery.

Results:

Among the 195 patients treated with portal hypertension complicated by bleeding from gastroesophageal varices discharged from the surgical department 152 patients (77.95%), 43 patients died (22.05%). All dead patients received only conservative symptomatic therapy. In patients who underwent ligation of gastroesophageal varices - made reliable hemostasis, after splenic artery embolization - a steady decrease in pressure in the portal vein. Following the combined miniinvasive surgery all patients were discharged home, mortality was not.

Conclusions:

Patients with portal hypertension complicated by bleeding from gastroesophageal varices should receive comprehensive treatment: to stop the bleeding - endoscopic ligation of varicose veins, to reduce the pressure in the portal vein and prevention of rebleeding - endovascular embolization of the splenic artery and symptomatic supportive therapy on the every stage.

A Case of Sclerosing Angiomatoid Nodular Transformation of the Spleen with increased accumulation of Fluorodeoxyglucose after 5-year Follow-up

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Background

Sclerosing angiomatoid nodular transformation (SANT) of the spleen is a new entity defined as a benign pathologic lesion. Ruling out the malignancy in preoperative imaging studies is difficult. PET/CT shows weak accumulation, thereby making the preoperative diagnosis difficult. Herein, we reported a case of shrinking SANT of the spleen with increased FDG accumulation during a 5-year follow-up period, which was treated by laparoscopic splenectomy.

Case presentation

A 64-year-old female had been first referred to our hospital for the evaluation of a splenic tumor. Initial contrast-enhanced CT showed a well-defined, and ovoid hypoattenuating lesion, measuring 52 mm in diameter in the spleen on the portal phase and "filling-in" of contrast and increasing homogeneity of the splenic parenchyma on the delayed phase. Initial MRI revealed a low-intensity mass on T1-/T2-weighted images with heterogenous contrast effect. Initial PET/CT had revealed accumulation of FDG in the tumor (maximum standardized uptake value [SUVmax]: 2.8). The mass had been diagnosed as SANT, and the patient was followed-up every 6 to 12 months for 5 years. A follow-up CT scan revealed an enhanced mass that was similar to those observed in the initial CT scan, although this one demonstrated a mild-interval-size decrease, measuring 44 mm in diameter. Follow-up MRI revealed a central low-signal, non-enhancing focus on T1-/T2-weighted images, while follow-up PET/CT revealed increased accumulation of FDG (SUVmax: 3.5). As it was suspicious considering the differential diagnosis, including malignant lymphoma and inflammatory pseudotumor, she underwent reduced-port laparoscopic splenectomy. The pathological results showed three types of vessels including CD34+/CD8-/CD31+ capillaries, CD34-/CD8-/CD31+ ectatic small veins, and CD34-/CD8+/CD31+ dilated sinusoids-like vessels, consistent with the features of splenic SANT.

Conclusions

Although the preoperative diagnosis of splenic SANT is difficult, it might be considered even in patients with decreased splenic tumor size and/or increased accumulation of FDG.

Case report of angiomyxoma of the epiglottis with review of literature

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Objectives:

In this case report, we present only the second case ever, to our knowledge, of an angiomyxoma of the epiglottis. We have also presented a review of literature of angiomyxomas of the head and neck.

Methods:

A clinical case report of a 50 year old female, moderately built and nourished, with complaints of Grade 2 dysphagia for 1 year. She suffered one episode of retching. Not associated with vomitus or blood. Complains of an irregular, large, pink coloured mass protruding from the mouth following the episode of retching. On examination, a 15cm long, tubular swelling, and a 6x6cm globular swelling seen protruding from the mouth (Image 1). Both swellings attached to one another and separately palpable from the tongue and the origin not visible. On endoscopy, an irregular, pink coloured growth seen arising from the epiglottis and progressing into the oral cavity and out of the mouth. On Computed Tomography, a growth seen arising from the supraglottic region. The patient was taken into surgery. Under awake fibreoptic nasal intubation, the growth was visualised at the base under direct laryngoscopic guidance. Seen to be arising from the epiglottis. Using a harmonic scalpel, the growth was excised in toto (Image 2), leaving the epiglottis intact. Patient tolerated the surgery and has recovered well, and has no complaints of difficulty in swallowing or breathing.

Results:

A 15cm long, irregular, pink, oedematous tumour was excised in toto from the epiglottis. On histopathological examination, the growth was confirmed to be Angiomyxoma.

Conclusion:

This is only the second case ever reported to date, of Angiomyxoma of the Epiglottis, and the very first one of this size. It is interesting to note that, with such a large tumour, the patient had just Grade 2 dysphagia and no respiratory symptoms. There have been only 44 cases of Angiomyxoma of the head and neck reported, making this case rare, especially considering it's site and size.

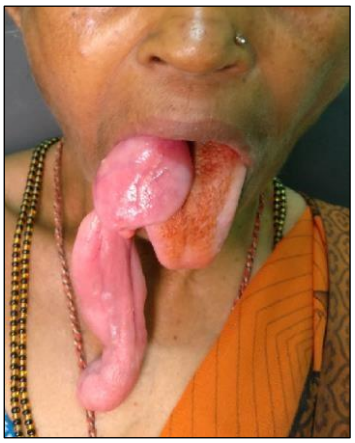

Image 1

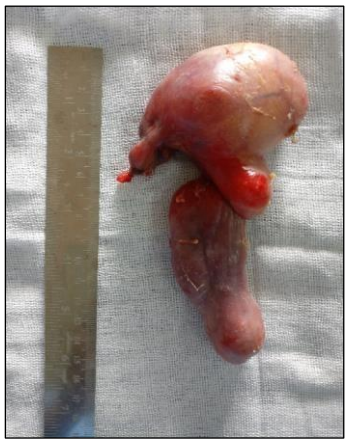

Image 2

Emergency TPN – Are we using it correctly?

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Total Parenteral Nutrition (TPN) provides nutrition in a non-functioning GI tract. TPN is implemented according to the decision made through MDT.

Objectives:

As a 2nd re-audit, this is to establish whether TPN is being used correctly in accordance with local and national guidelines and what the rate of 'Emergency' TPN prescribing is.

Methods:

Data was collected according to a) indication and documentation, b) if other feeding methods are excluded, c) if BMI/weight at start and end are recorded, d) the TPN agent used, e) duration of TPN, f) if TPN was prescribed correctly, g) TPN delivery route, and h) if need for TPN is reviewed. Aseptics provided patients list and ICU/HDU patients were excluded.

Results:

Dietician review was done for all the cases in three audits. The rate of TPNs initiated by dieticians rather than OOH Dr had positively progressed during the audits. After an enhancement in the indications documented from 80% to 88%, a slight drop to 80% was recorded. One case was not reviewed for need to TPN in the 2nd re-audit where all the cases were reviewed in the previous audits. Inaccurate TPN prescription was found in 38% of the cases in the 2nd re-audit while all prescriptions were correct in previous audits. A better rate of checking BMI/weight at start and end of TPN was observed in the initial audit (70%); however, the rate decreased significantly to 30% and 38% in the 1st and 2nd re-audit respectively.

Conclusions:

Majority of the patients had their indications documented. All patients were reviewed by dieticians and majority of TPN used was dietician led. Continued need for TPN was reviewed regularly. However, poor documentation of BMI/weight at start and end of TPN still presents and a high rate (38%) of inaccurate prescribing in latest audit was noted.

Hemoperitoneum of great abundance revealing spontaneous uterine rupture on healthy uterus 7 days postpartum: Case report and review of the literature

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EPH Miliana service de chirurgie general – W Ain Defla – Algérie

We report a case of spontaneous uterine rupture occurring in a 30-year-old female patient with no history of uterine surgery. The diagnosis of uterine rupture, evoked in late post-partum in the presence of acute abdominal pain, collapsus and haemoperitoneum of great abundance on ultrasonography and CT scan, was confirmed laparotomy. The treatment consisted of a hysterrhaphy and the operative follow-ups were simple. The etiopathogenesis of spontaneous ruptures of the non-cicatricial uterus, the clinical and therapeutic aspects are discussed through a literature review

Intra-abdominal bleeding with hemorrhagic shock: A case of adrenal myelolipoma and review of literature

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Background:

Adrenal myelolipoma is an uncommon, benign, and hormonally non-functioning tumor that is composed of mature adipose tissue and normal hematopoietic tissue. Most cases to date are asymptomatic or have epigastric pain. Acute hemorrhage is the most dramatic manifestation of adrenal myelolipoma; though, it is a rare entity. Hemorrhagic shock due to adrenal myelolipoma, to our knowledge, was much less mentioned so far. Persistent bleeding and uncontrollable hypotension are considered to be absolute indications for immediate surgical operation.

Case presentation:

Herein we presented a 32-year-old male patient with initial symptoms of nausea, vomiting, and epigastric pain progressing to altered consciousness and hypotension during ER course. Hemorrhagic shock due to a giant adrenal myelolipoma, R't was diagnosed. Emergent exploratory laparotomy was executed, and en bloc excision of tumor was done.

Conclusion:

Adrenal myelolipoma might be diagnosed as a adjunction to other main causes of illness; furthermore, adrenal myelolipoma could be asymptomatic in lifetime. In our case, however, manifesting as hemorrhage shock was challenging to diagnose step by step; instead, maintaining vital organs perfusion and identifying bleeding sources were to be done. Management of myelolipoma should be done on a case-to-case basis.

Intra-Hilare approach in the laparoscopic treatment of haematological spleen

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Service de chirurgie générale EHU 1er novembre 1954 – Oran (Algérie).

The use of surgery is necessary in the treatment of several splenic disorders such as benign and malignant haematological diseases. The safe feasibility and reproducibility of laparoscopic splenectomy (SL) is proven. Indeed, laparoscopic splenectomy helps to avoid a long incision, inevitable in traditional surgery because of the relative inaccessibility of the spleen. SL is a technique that requires proven skill and rigour.

Laparoscopic splenectomy is a now well codified intervention that becomes a "gold standard" (reference technique).

The intra-Hilar approach has proven itself in our service. It allows to consider the splenectomy safely, especially in the large child or the diameter of the pedicle is small and reduced

The main difficulties are the exposure and the vascular control. In order to carry out a safe operation, it is indeed essential not to cause any bleeding or seepage in the operative field. After using different techniques during the first laparoscopic splenectomies, we have for several years privileged a first intra Hilaire strictly to the Ligasure ® clamp

Multiple sharp foreign body ingestion managed conservatively- a case report

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Introduction:

It is not uncommon for a surgeon in the Emergency Department to be presented with patients of ingestion of foreign body. Although, patients come from all ages; children who have swallowed coins, toys, safety pins or small batteries accidently. Adults usually have a rather different set of ingested foreign bodies which include food boluses, meat and fish bones, denture parts, nails, pins.

Case Report:

We report a case of 20 years lady who was brought to the Emergency with the complaints of epigastric pain following ingestion of multiple sharp pins along with a cup full of toilet cleaner with the suicidal intentions. On examination, patient was mildly dehydrated, vitals within normal limits. Abdomen showed no signs of peritonitis. X-Ray abdomen showed multiple 'needle' like radio opaque shadows in the abdominal cavity, with no evidence of free gas under the diaphragm. Since no signs of perforation were present and the patient was tolerating oral diet; a non-operative expectant management was followed. Under close monitoring, by periodic examination and serial abdominal roentgenograms the patient was managed non operatively. After 11 days of admission, the patient had passed all the sharps without any complication. However, after 3 weeks she came with symptoms of gastric outlet obstruction for which she required a gastrojejunostomy.

Discussion!

The initiation of management of a suspected case of foreign body should not be delayed due to unnecessary investigations. The management of a patient with suspected FB ingestion depends on multiple factors; namely, patient's age and clinical condition; characteristics of the FB; anatomical location of ingested FB; expertise of the endoscopist.

Conclusion:

Wait and watch policy for an ingested foreign body, even for sharp objects, is a well justified approach, provided close monitoring and a periodic assessment of the patient, along with serial abdominal radiographs are done stringently.

Neonatal surgery in a tertiary hospital in Ghana: a 3 year review.

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Objective:

Middle and low income countries have challenges resulting in comparably less desirable outcomes for neonatal surgical conditions. A shortage of the required manpower for the surgical care of neonate has been highlighted. Documentation of the burden of neonatal surgical diseases in Africa is rare. This retrospective 3 year study was undertaken to document this burden and advocate for specialized training in neonatal surgical services.

Method:

The operation records of the main theatre at the Komfo Anokye Teaching Hospital, Kumasi, Ghana between June 2013 and November 2016 were retrospectively reviewed. The biodata, diagnosis, intraoperative findings and surgical procedure on patients aged 30 days or less was extracted. The total number of paediatric surgeries over the same period was correlated with neonatal surgeries.

Results:

With 3 paediatric surgeons in attendance, there were 334 neonatal surgeries during the study period constituting 12.56% of all paediatric surgical procedures recorded. There has been a progressive increase in neonatal surgery in our centre. The male to female ratio was equal. The modal and mean ages were 1 and 10 days respectively. There were 110, 71, 31 and 22 operations for Anorectal malformations, Intestinal atresias, Gastroschisis and Omphalocele respectively with corresponding success rates of 90%, 90%, 10% and 50%.

Conclusion:

A strong positive relationship exists between number of neonatal surgeries and total number of surgeries. There is therefore a need for specific training of personnel to cater for the growing demand. The outcome could be better, particularly for gastroschisis, through strengthening of neonatal intensive care and surgical facilities.

Ossifying fibromyxoid tumor of the trunk mimicking hydatid cyst: a case report.

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Introduction:

Ossifying fibromyxoid tumor (OFMT) is a rare lesion that generally occurs in the soft tissues of proximal limbs, or head and neck presenting as slowly growing mass. Abdominal or trunk location is extremely rare.

Presentation of case:

We report a case of 50-year-old man who presented with a painless, slow growing epigastric mass for 5 years. Radiologic assessment revealed a well circumscribed median subcutaneous parietal mass lesion present in front of the xiphoid process suspicious of a calcified hydatid cyst. Diagnosis of OFMT was made on histopathological examination of resected specimen

Conclusion

OFMT is a rare soft tissue tumor with malignant potential often misdiagnosed as a benign lesion. Complete surgical excision should be performed to prevent local recurrence.

Primary Idiopathic Tumoral Calcinosis

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Introduction:

Tumoral calcinosis is a rare disorder which usually presents as painless solitary swelling or multiple painless swellings of large joints, particularly the hips, elbows, shoulders and knees. The condition has been reported in all age groups. It affects black Africans more than Caucasians.

Objectives:

To highlight its rarity, index of suspicion for this disease, its types and options of treatment of the tumoral calcinosis.

Method:

These three cases presented to outpatient clinic at Kosti Teaching Hospital (Sudan) from 2009 to 2016 by subcutaneous swellings around the hip joints. Preoperatively, plain X ray, fine needle aspiration cytology and blood chemistry done to all patients. All the patients underwent surgical excision of the tumor.

Results:

Three females their ages were 17, 60 and 70 years. Two of them presented with bilateral stony hard masses around the hips joints and the third one (70 yrs) presented with unilateral Lt hip joint mass. The patients experienced pin prick sensation on the site of swelling which was increased during walking and the movement of the joints not affected. Patients could not recall episodes of trauma or injection over the affected area, excessive milk or antacid intake, or any local or systemic illness prior to the development of the lesion. Plain X R for hip joints showed calcified lobulated subcutaneous mass around the hip joint**s.** Renal profile, serum calcium and phosphate were normal. The FNAC showed tumoral calcinsis. All the patients underwent surgical excision of the tumor.

Conclusion:

Primary idiopathic Tumoural Calcinosis is still a disease of unknown cause but complete surgical resection is an effective method of management of this disease and it prevents recurrence.

Real-time intraoperative fluorescent lymphography – a new technique for lymphatic sparing surgery.

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Background:

Many surgical procedures can produce persistent lymphorrea, lymphoceles and lymphedema after lymph nodes and lymph vessels damages. Appropriate visualization of the lymphatic system is challenging. Indocyanine green (ICG) is a well-known non-toxic dye for lymphatic flow evaluation. ICG fluorescent guided lymphography has emerged as a promising technique for intraoperative lymphatic mapping.

Objective:

We aimed to develop a high spatial resolution real-time intraoperative imaging technique to avoid or early recognize deep lymphatic vessels damage.

Methods:

We intraoperatively performed ICG fluorescence-guided lymphography during a kidney transplant. ICG was injected in the subcutaneous tissue of the patient's groin in the Scarpa's triangle (A). A dedicated laparoscopic high definition camera system was used.

Results:

Soon after ICG injection, lymphatic vessels were identified in the abdominal retroperitoneal compartment as fluorescent linear structures running side by side to the iliac vessels (B-C). Surgical dissection was therefore conducted avoiding iatrogenic damages to major lymphatic structures. Another ICG injection at the end of the procedure confirmed that the lymphatic vessels were intact without lymph spread.

Conclusions:

Intraoperative lymphatic mapping with ICG fluorescence-sensitive camera system it's a safe and feasible procedure. ICG real-time fluorescent lymphography can be used to avoid or early recognize deep lymphatic vessels damage and reduce post-operative complications related to lymphatic system.

Resection and simultaneous reconstruction of the infrarenal aorta and inferior vena cava.

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Background:

The simultaneous circular resection of inferior vena cava (IVC) and abdominal aorta is very rare surgical approach.

Methods:

We report the case of a 36-year-old man with retroperitoneal tumor cT4cN0cM0 IIIB (AJCC, 7th ed. 2010) with tumor invasion to abdominal aorta and inferior vena cava (IVC) between renal vessels and bifurcation.

Results:

R0-resection of retroperitoneal tumor with resection and prosthesis of IVC and abdominal aorta, total resection of retroperitoneal fat was performed. On the 4-th postoperative day (POD) the external fistula was drained from the doubled right ureter which was stented. On the 6-th POD the separated liquid in the retroperitoneal space was drained. Patient was discharged from hospital on 24 POD.

Conclusion:

We have successfully used a non-standard approach in malignant retroperitoneal tumor treatment, which includes simultaneous resection and reconstruction of the infrarenal segment of aorta and IVC in order to achieve the R0-resection. We believe that such a tactic can be safe and effective in case of meticulous patients selection and the multidisciplinary and multi-team approaches application.

Retro peritoneal paraganglioma miminck peripancreatic tumor

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Introduction:

Para gangliomas are extra-adrenal chromaffin tumours develop at the expense of neuroectodermal cells of the autonomous nervous system. Retroperitoneal and nonfunctioning forms are very rare. They are often asymptomatic and can reach a substantial size. Treatment usually involves surgery with the goal of total excision.We report the case of a patient who presented with indistinct abdominal pain. We analyzed the presentation, diagnosis and treatment of retroperitoneal paraganglioma

Case Presentation:

A 40-year-old male, ASA status 1, was admitted to explore epigastria abdominal pain. There was no family history of illness. The physical examination was unremarkable with no palpable abdominal mass present. Laboratory blood tests were normal. Abdominal ultrasonography showed an abnormal soft tissue mass in retrogastric. Computed tomography demonstrated an homogeneous 10 cm diameter retrogastric tumor that have a cystic apperance at its center and seems depending in the caudal portion of pancreas.

During surgery with a median approach, we found a retroperitoneal tumour of about 10 cm diameter that was encapsulated and soft. It was adhered to the aorta. We conducted a complete excision of the tumour. On macroscopic examination the mass measured 8.5 × 6 × 3cm and was encapsulated with a cut surface. Histological examination identified a highly cellular, multinodular encapsulated tumor with a vascular framework led to a diagnosis of retroperitoneal paraganglioma. The postoperative period was uneventful and the patient was discharged on the fifth postoperative day.

Conclusions:

The paraganglioma is a rare tumor associated with high morbidity and mortality when the diagnosis is made intraoperatively. Surgical excision remains the mainstay of treatment, although advanced disease and prominent vascularity can at times make excision difficult or impossible.

Target identification of autophagy key kinase ULK1 and research of lead compound acts on ULK1

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Autophagy is related with many diseases such as cancer. The combination of chemotherapy drugs and autophagy inhibitors will increase patients' susceptibility to chemotherapy and thus reduce drug resistance. Key kinases in autophagy signal pathway may act as potential drug targets. ULK1 (UNC-51-like kinase 1) is the only serine/threonine kinase activity protein in autophagy pathway and also is a promising drug target. Our results show that interference of ULK1 gene expression inhibits proliferation and metastasis of liver cancer cells significantly.Start from our probe found earlier, we are systematically studying the effects of our probe in autophagy pathway through the binding of ULK1 now, including its influence on tumor cell death. At the same time, we are trying to answer whether ULK1 can act as a new drug target for cancer, explore its therapeutic spectrum and get more structure information of probe binding site. After that, we will adopt fragment-based drug discovery and structure-based drug design to looking for lead compounds. We plan to cultivate the co-crystal of the lead compound with ULK1, to support our structure-based drug design. In all, this research will change the landscape in the path of target identification of ULK1, as well as provide scientific evidences for relevant disease treatment.

Une cause rare d'occlusion intestinale aigüe : torsion d'un volumineux fibrome utérin. À propos d'un cas.

Dr Walid Barka

EPH Miliana W Aindefla Algérie

Nous rapportons le cas d'une patiente âgée de 40 ans nullipare porteuse d'un volumineux fibrome (> 10 cm) compressif, compliqué d'une nécrobiose avec multiples adhérences inflammatoires d'anse jéjunal responsables d'une occlusion intestinale aigüe (iléus paralytique et compression). Il s'agit à notre connaissance du premier cas rapporté traité de manière conservatrice par adhésiolyse et myomectomie. Ce cas illustre la morbidité des fibromes de plus de 10 cm en dehors de grossesse.

Vascular surgery intervention in Lemierre's syndrome: case report and systematic review.

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Objective:

Lemierre's syndrome classically presents with initial pharyngotonsillitis or peritonsillar abscess in young, previously healthy persons, manifesting with septic thrombophlebitis of the ipsilateral internal jugular vein. It has been described as a rare and pre-antibiotic era syndrome with an incidence rate of one in one million. There has, however, been a reported increase over the past two decades. The disease and syndrome presentation can easily be missed and thus a multidisciplinary approach is required for diagnosis and treatment.

The purpose of this study is to review available literature to determine vascular surgery intervention in Lemierre's syndrome.

Methods:

A systematic search (August 2016) of PubMed, Scopus, Cochrane and EMBASE databases was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for literature presenting Lemierre's syndrome and vascular surgery intervention. Included studies were peer-reviewed articles or academic society publications. Papers with non-vascular surgery, non-English language, and non-adult cases were excluded. Final papers meeting criteria were secondarily screened for analysis.

Results:

The search yielded 1,242 unique articles with 7 studies meeting final selection criteria. 10 of31 cases required vascular surgery intervention. Average age was 29.7+/-4.4 years, with a M: F ratio of 7:3. Average time of symptoms prior to presentation was 6.4+/-1.7days. Correlation analysis performed between variables of symptom days prior to presentation and WBC, demonstrated $R2=0.970$, $p<0.001$. Correlation analysis performed between variables of symptom days prior to presentation and days prior to surgery, demonstrated $R2=0.286$, $p=0.466$. Resection and/or ligation of affected internal jugular vein was the most commonly performed surgical management

Conclusion:

Early consultation with establishment of a conclusive diagnosis with the aid of CT imaging yields optimal clinical outcome in Lemierre's syndrome. The authors conclude this rare syndrome presentation needs a multidisciplinary approach with vascular surgery intervention after failed medical management.

Very rare localization of a retroperitoneal Hemangiopericytoma: a case report.

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Objective:

We report a rare case of retroperitoneal hemangiopericytoma.

Case Presentation:

A 31 years old patient presented with right-sided L5 radiculopathic pain of three months duration. There was no family history or features of neurofibromatosis. The patient did not have other symptoms including nausea, vomiting, bowel habit changes, fever, or weight loss.

Physical examination showed no positive finding. In double contrast abdominopelvic CT scan, a well-defined retro peritoneal mass with measuring about 105 × 73 × 83 mm at right lower quadrant of the abdomen anterior to right psoas muscle was seen. After contrast injection, tumoral mass was enhanced intensely.

Magnetic Resonance Imaging showed an encapsulated and well limited retro peritoneal masse occurring in hypo signal T1 and hyper signal T2 with intense enhancement after injection of Gadolinium. It is flush with the right intervertebral foramen L5-S1.

On exploratory laparatomy, a solitary large retroperitoneal multiloculated mass with hemorrhagic fluid was excised.

Further evaluation by immune histochemistry revealed that tumoral cells were positive for desmin, CD34, smooth muscular antigen, and negative for cytokeratin and CD31, confirming the diagnosis of hemangiopericytoma

The patient is under follow up with regular CT scans and after one year, is currently well without any evidence of recurrence.

Chemoport Insertion by the Resident of General Surgery in a Teaching-hospital: Can They Show Surgery of Good Quality?

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Objectives:

This study designed to evaluate the safety and competitiveness as complications and operating time for implantable catheter insertion by residents. And to analyze the factors affected operating time for time-saving.

Methods:

This study enrolled 383 consecutive patients with malignancy who underwent chemoport implantation. The patients' age, gender, body mass index (BMI), number of operation on the same side, inserting route, postoperative complications, lead time for implantation were evaluated, retrospectively.

Chemoport insertions were done by 6 trainee-residents in Department of Surgery. They divided two groups to senior resident (SR) and junior resident (JR). The study period embraced two years; third to fourth year of senior resident and second and third year of junior resident.

Results:

SR reduce about 4.6 minutes than JR in total operation time (31.1 vs. 35.7 minutes, $P < 0.001$) Although SR showed slightly down slope and JR showed up slope for operation time during the study period, there were no definite change in ANOVA regression analysis ($P = 0.460$ vs. 0.606).

If the operator was not use USG, there were not showed significant difference on total lead time and complication between two groups. But, if the operator was not use C-arm, SR were performed surgery shorter than JR (29.9 vs. 32.4 minute, $P = 0.035$).

Considering results of the multivariate analysis, without USG [hazard ratio (HR) 5.415, 95% confidence interval (CI) 2.773-10.576, $P<0.001$], without C-arm (HR 2.918, 95% CI 1.812-4.700, $P<0.001$), and JR (HR 1.634, 95% CI 1.001-2.667, $P=0.049$) were also identified as independent factor affecting to operation time in this study.

Conclusion:

Chemoport insertion by the trainee-resident of general surgery in a teaching-hospital is competitive because of low postoperative complication rates and reduced operation time. The factors affecting to total operating time were grade of resident, use of the USG or C-arm.

Value of preoperative biliary drainage on postoperative outcome after pancreaticoduodenectomy. A case-control study

Gamal El Ebidy, Ayman El Nakeeb, Talaat Abd Alah.

The potential benefit of preoperative biliary drainage (PBD) on postoperative outcomes remains controversial. The aim of this study was to elucidate surgical outcomes of pancreaticoduodenectomy (PD) in patients PBD and to show the impact of bilirubin level.

Patient and methods:

We retrospectively studied all patients who underwent PD in our center between January 2003 and June 2015. Group A (patients with PBD) and Group B (patients with non-PBD). The primary outcome was the rate of postoperative complication.

Results:

A total number of 588 cases underwent PD. Group A included 314 (53.4%) patients while group B included 274 (46.6%) patients. The overall incidence of complications and its severity were higher in PBD group (P= 0.03 and 0.02). There was significant difference in the incidence of postoperative pancreatic fistula (P =0.002), delayed gastric emptying (P=0.005), biliary leakage (P=0.04), abdominal collection (P=0.04) and wound infection (P= 0.04) in PBD group. The mean length of hospital stay was significantly longer in PBD group than in non PBD group (12.86 ±7.65 days vs 11.05±7.98 days, P= 0.01). No significant impact of preoperative bilirubin level on surgical outcome.

Conclusion:

PBD before PD was associated with major postoperative complications and stent related complications.

An unusual presentation of advanced pancreatic cancer: Coeliac axis occlusion And acute upper gut ischemia

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Case Report:

A 50-year-old male was admitted with four days history of upper abdominal pain, distension and coffee grown vomitus. Abdominal examination showed signs of generalised peritonitis. He had history of marked weight loss, recurrent upper abdominal pain and dyspepsia for eight months. On admission, he was dehydrated with acute renal impairment. The nasogastric tube output in the ER was four litres, dark fluid. While resuscitating the patient and preparing him for an emergency laparotomy, CT abdomen (without contrast because of impaired renal function) was done which showed pancreatic neck and body mass, fat stranding, free fluid and distended bowel loops. Laparotomy showed big pancreatic mass arising from the neck and body of the pancreas. The coeliac trunk was completely infiltrated by the tumour. The stomach and lower oesophagus were gangrenous with gastric perforation. He also had extensive splenic infarction and liver was normal. He was unstable during surgery and nothing could be done. He did not recover from anaesthesia and died in the ICU in day two.

Discussion:

Stenosis of the celiac artery is present in up to 10% of patients undergoing pancreaticoduodenectomy, as reported in series where arteriography was routinely performed before surgery. However, this has no clinical significance, owing to collateral pathways that develop from the SMA via the inferior pancreaticoduodenal artery to provide retrograde flow through the gastroduodenal artery. Coeliac artery thrombosis with gastric ischemia and splenic infarction was reported in the literature, mostly due myloproliferative and thrombotic disorders. This this probably the first case report of acute coeliac artery occlusion due to advanced pancreatic cancer presenting with upper gut ischemia. His pancreatic cancer was not diagnosed before.

Conclusion:

High index of suspicion and CT abdomen with intravenous contrast is needed in patient with advanced pancreatic cancer presenting with acute upper abdominal pain to rule out coeliac artery occlusion.

Hepatoid carcinoma of the Pancreas

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Taipei, Taiwan

Objectives:

Hepatoid carcinoma of the pancreas is extremely rare. This study summarized the clinical features and outcomes of pancreatic hepatoid carcinoma.

Methods:

Data pool for analysis includes the case we encountered with hepatoid carcinoma of the pancreas and reported cases in the literature.

Results:

Twenty-three cases of hepatoid carcinoma of the pancreas were recruited. Nausea/vomiting (62.5%) is more common for the tumors at pancreatic head, followed by jaundice and epigastric pain (50.0%). For those at pancreatic body-tail, 42.9% of the patients presented no symptom. *Alpha-fetoprotein (AFP)* was abnormally elevated in 60% cases. This tumor could be either pure or mixed form with other malignancy (40.9%), with the most common co-existed pathology of malignant neuroendocrine tumor (22.7%). Metastasis occurred in 36.4% cases at the diagnosis, including liver metastasis in 31.8% and lymph node metastasis in 21.1%. The overall 1-year survival was 71.1% and 5-year 40.4%, with a median of 13.0 months. Irresectability, hepatic and lymph node metastasis were associated with negative impact on survival.

Conclusions:

Elevation of serum AFP may be a clue leading to the diagnosis of pancreatic hepatoid carcinoma. This tumor could be mixed form with other malignancy. Surgical resection should be the treatment of choice whenever possible.

HHV-8 Associated Lymphadenopathic Kaposi's Sarcoma Mimicking PTLD after Pancreas Transplant

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Objectives:

Kaposi's sarcoma currently comprises more than 5% of all *de novo* neoplasms in this group. The average time to development of Kaposi sarcoma following transplantation is 15-30 months. Human herpesvirus 8 (HHV-8) genomic sequences have been identified by polymerase chain reaction in more than 90% Kaposi sarcomas.

Materials:

From 2003 to 2016, Kaposi's sarcoma was identified for study from 128 patients with 133 pancreas transplants performed at Taipei Veterans General Hospital. Literature review was also done.

Results:

Only one case of Kaposi's sarcoma was identified, with an incidence of 1.5%. The patient suffered from varicellar zoster Infection (chicken pox) 11 months after pancreas transplant alone (PTA). Four months later (15 months after PTA), lymphadenopathy with enlargement of multiple lymph nodes in neck, around celiac trunk, along the superior mesenteric artery and abdominal aorta, which mimicked posttransplant lymphoproliferative disorder (PTLD). The biopsy for pathology turned out to be Kaposi's sarcoma. HHV-8 viral gene was detected by the molecular (PCR) assay. The lymphadenopathic Kaposi's sarcoma regressed 3 months after treatment by adding sirolimus, reducing the dose of tacrolumus and discontinuing mycophenolate mofetil. There has been no evidence of tumor recurrence for more than 2 years, and he has been enjoying an insulin-free life with euglycemia for more than 3 years.

Conclusion:

This is an unusual HHV-8 associated Kaposi's sarcoma mimicking PTLD presenting as lymphadenopathic form, instead of usual cutaneous form. Sirolimus is recommended for the treatment of Kaposi's sarcoma, in addition to reduction, cessation or modification of immunosuppressive regimen.

Macroscopically M0 but peritoneal cytology positive (CY1) pancreatic cancer patients: should we resect or not?

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Introduction:

The significance of resection of pancreatic duct adenocarcinoma (PDAC) with macroscopically M0 but peritoneal lavage cytology positive (CY1) is still unknown.

Objective:

To clarify the prognosis of CY1 resected PDAC patients and elucidate whether those patients should be resected or not.

Methods:

“336 resected PDAC patients (stage II and above)” and "74 non-resected PDAC cases” from 2000 to 2015 in our institute were enrolled.

Results:

31 cases (9.2%) received resection despite CY1 at laparotomy. Out of other 305 cases of CY0, Stage 2A, 2B, 4 were 86, 180, 39 cases, respectively. Three cases underwent resection after CY become negative after the “new generation anticancer drug” treatment (ND) such as FOLFRINOX and/or GEM+nab-PTX. The MST of CY1 case was 14.7 months, and was significantly shorter than that of Stage 2A (30.6 months, P=0.0007), 2B (25.6 months, P=0.0034) cases, and was equivalent to Stage 4 (13.2 months, P=0.5419), and was significantly longer than the non-resected case (11.0 months, P=0.0324). Among non-resected cases, the MST of the patients who received ND (MST 19.3 months) was significantly better than the patients who received only “conventional anticancer drugs”, such as GEM and/or S-1, (MST 9.1 months; P=0.0052), and was equivalent to the patients with CY1 resected case.

Conclusions:

After the recent availability of ND, the MST of non-resected cases was prolonged and became equivalent to that of CY1 resected cases. Because there are some cases in which CY becomes negative, macroscopically M0 but CY1 cases at laparotomy should not receive resection and wait to become CY0 with administration of ND.

Metastatic Polyp of the Gallbladder from Renal Cell Carcinoma

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Objectives:

Background Gallbladder metastasis from renal cell carcinoma (RCC) is extremely rare. The purpose of this study is to clarify the characteristics of metastatic RCC to gallbladder.

Methods

The pooled data for analysis were collected from gallbladder metastasis from RCC cases encountered by our institution along with sporadic cases reported in 35 English articles from 1991 to 2015.

Results

A total of 50 cases of metastatic RCC to the gallbladder were recruited for study, including 49 from literature and 1 from our institution. 57% of the primary RCC was from the right kidney and 43% of the left. The median interval between diagnoses of primary and metastatic RCC to gallbladder was 36 months, with the longest duration up to 324 months. Most 70% were asymptomatic. *The size of metastatic RCC to gallbladder ranged from 0.8 cm to 9 cm, with median of 2.6 cm. Majority (91%) of the metastatic RCCs presented as a polypoid mass with narrow stalk, and 82% were hypervascular lesion. The overall 1 year, 3 year and 5 year survival rate was 91.5%, 76.2% and 59.3% respectively, with a median of 26.5 months. Number of the metastatic site, timing of metastasis gallstone, symptom, tumor size and operation type of cholecystectomy seemed to have no impact on survival.*

Conclusions

Metastatic RCC to the gallbladder should be taken into account for a gallbladder polypoid mass with narrow hypervascular stalk during the diagnosis and/or follow-up of primary RCC. Gallbladder metastasis from RCC is not necessarily to be an advanced stage with poor outcome, and cholecystectomy is recommended whenever possible.

Pancreatic Groove Cancer

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Objectives:

Pancreatic groove cancer is very rare and can be indistinguishable from groove pancreatitis. This study is to clarify the characteristics, clinical features, managements and survival outcomes of this rare tumor.

Methods:

Brief description were made for each case of pancreatic groove cancer encountered at our institute. Individualized data of pancreatic groove cancer cases described in the literature were extracted and added to our database to expand the study sample size for a more complete analysis.

Results:

A total of 33 patients with pancreatic groove cancer were included for analysis, including 4 cases from our institute. The median tumor size was 2.7 cm. The most common symptom was nausea or vomiting (89%), followed by jaundice (67%). Duodenal stenosis was noted by endoscopy in 96% of patients. The histopathological examination revealed well differentiated tumor in 43%. Perineural invasion was noted in 90%, and lymphovascular invasion and lymph node involvement in 83%. Overall 1-year survival rate was 93.3%, and 3-year or 5-year survival rate was 62.2%, with a median survival of 11.0 months. Survival outcome for the well-differentiated tumors was better than those of the moderate/poorly differentiated ones.

Conclusions:

Early involvement of duodenum causing vomiting is often the initial presentation, but obstructive jaundice does not always happen until the disease progresses. Tumor differentiation is a prognostic factor for survival outcome. The possibility of pancreatic groove cancer should be carefully excluded before making the diagnosis of groove pancreatitis for any questionable case.

Pancreaticoduodenectomy for Pancreatic and Periampullary Lesions in the Young

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Objectives:

The purpose of this study was to clarify surgical outcomes and to assess the biological behavior of periampullary malignancy after pancreaticoduodenectomy (PD) in the young. PD remains a formidable challenge to many pancreatic surgeons. There is no literature report regarding PD in the young.

Materials and Methods:

Data on patients undergoing PD were retrieved for study between January, 1997, and December, 2010. Demographics, disease patterns, clinical presentations, operative findings, surgical risks, tumor pathologic characteristics, and survival outcomes were evaluated in the young patients less than 60 years old and compared with those in the older population.

Results:

There were 585 patients in our study. Of there, 172 were patients 60 years or younger. Higher proportions of female patients were found in the young age group compared to old in regards to sex distribution. Young group had more benign tumor compared to the old, ex. neuroendocrine tumor. The surgical mortality rates are significant less in the Young group. However, there was no significant difference in surgical morbidity and pancreatic leakage. As for the initial presentations, young group patients are often asymptomatic (4.7%) when compared to the old (1.5%, P=0.026) but less jaundice and GI upset (P=0.004, P=0.012).

Conclusions:

PD in the young did not carry more surgical morbidity or pancreatic leakage, but had less surgical mortality, as compared to the old. Young group patients after PD had better 5 year survival in periampullary malignancy and pancreatic head adenocarcinoma.

Sepsis associated with long-term prognosis after pancreaticoduodenectomy for pancreatic cancer

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Background:

There is no data whether sepsis after pancreaticoduodenectomy (PD) influences the long-term outcome of pancreatic cancer patients.

Objective:

The aim of this study is to elucidate whether sepsis after PD had the impact on long- term outcome of pancreatic cancer patients.

Methods:

The medical records and data base of 111 pancreatic cancer patients who underwent PD at Tohoku University Hospital between 2011 and 2015 were reviewed and prognostic factors were extracted using univariate and multivariate analysis.

Results:

Nine of 111 patients suffered from sepsis and its incidence was 8.1%. The causes of sepsis were grade C (44.4%) postoperative pancreatic fistula (POPF), perforation of the colon (44.4%), cholangitis (11.1%), pneumonia (11.1%). There were 2 mortality cases (1.8%). One suffered from sepsis and required reoperation for the perforation of colon and died 46 days after PD. The other died due to bleeding caused by POPF after 52 days after PD. Multivariable Cox regression analysis showed that sepsis after PD was the risk factor for long-term prognosis [HR=3.05; 95% CI 1.15-6.83; p=0.028].

The ratio of adjuvant chemotherapy was significantly less in patients with sepsis after PD (p=0.033). The period to start adjuvant chemotherapy was significantly longer in patients with sepsis after PD (p=0.0497)

Conclusion:

Sepsis after PD leads to the disadvantage of the pancreatic cancer patients and is associated with the poor long-term outcome.

Spontaneous splenic rupture: unusual first presentation of pancreatic cancer.

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Objective:

Describing an infrequent pancreatic cancer clinical debut with spontaneus spleen rupture due to tumor infiltration.

Material and Methods:

Clinical case report: Presentation of a spontaneous spleen rupture due to unknown neoplasic infiltration by pancreatic cancer.

Male, 41y. Diarrhea and LUQ occasional pain. He arrived in shock to ER dept with acute abdominal pain without any abdominal trauma.

Abdominal CT: 14cm splenomegaly, with complete parenchyma laceration and splenic hillium damage, ischemia signs and hemoperitoneum (spleen rupture grade IV).

Results:

Emergency Surgery: Hemoperitoneum. Splenomegaly with congestive spleen, color changes suggestives of ischemia and parenchymal rupture.

Inflammatory mass affecting to spleen, gastric wall, colonic splenic flexure and omentum. Difficult movilization with Mattox manouver. Splenic artery massive bleeding with very difficult control due to fibrosis. Ligation of splenic artery at celiac trunk origin.

Anatomopathological report: Splenic hilium infiltration by pancreatic adenocarcinoma.

Tumoral markers: CA 19.9 = 2668, CEA = 2.4

Body CT and Pancreatic IRM ruled out vascular infiltration or distant metastases.

2nd Programmed Surgical Procedure: Left pancreatectomy with near total gastrectomy and left colectomy.

2nd Anatomopathological results of surgical specimen: Ductal Adenocarcinoma well differenciated 4.5 cm, infiltration of peripancreatic tissues, gastric wall and left colon: T3N1(3/28). Free surgical margins.

Postoperative course: Low debit pancreatic fistula with good evolution until discharge. He began Chemo but after 6,5 month he presented a local relapse, liver metastases and exitus.

Conclusions:

Splenic rupture is an infrequent complication due to progression of pancreatic tumours and venous splenic congestion.

In unknown neoplasms, diagnosis is incidental after histological exams.

It must be mandatory a meticulous histological exam in all spontaneous splenic ruptures excluding pancreatic neoplasms.

The surgical resection of liver metastasis from pancreatic acinar cell carcinoma –Is it useful or not?-

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Objection:

Acinar cell carcinoma (ACC) of the pancreas is rare malignant neoplasm and its prognosis remains poor. One of the reason of poor prognosis is high metastatic potential and most frequently site of metastasis is liver. However, the treatment strategy for liver metastasis remains unclear. The aim of this study is to investigate the optimal treatments for liver metastasis of ACC.

Methods:

From January 2000 to December 2013 a total of 4 cases were diagnosed as ACC with liver metastasis at the Department of General Surgery, Chiba University Hospital. We investigated the clinical characteristics, treatment course and therapeutic outcomes.

Results:

All cases were men. The mean age was 63.5 (range 57-71). Pancreatectomy was performed in all patients, with two cases of distal pancreatectomy, a case of pancreaticoduodenectomy and a case of total pancreatectomy. The median tumor size was 65 mm (range, 45-134 mm) and all cases have no lymph metastasis. One case has synchronous liver metastasis and pancreatectomy with liver resection was performed. Median disease free survival was 10 (4-20) months and median survival time was 41.4 (12.5-68.5) months. Two cases of single-metachronal liver metastasis were treated with plural repeat surgery. Both cases resulted in long term survival for 68.5 months and 43.2 months. On the other hand, a case of synchronous metastasis and a case of multiple recurrence cases were survived only 15.2 months and 12.5 months respectively.

Conclusion:

Surgical resection for single-metachronous liver metastasis with ACC improve survival. In the selected cases, the aggressive repetitive surgery may be useful.

Inverse probability of treatment weighting analysis of upfront surgery versus neoadjuvant chemoradiotherapy followed by surgery for Pancreatic Adenocarcinoma with Arterial Abutment

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Background:

Combined arterial resection during pancreatectomy can be a challenging treatment, and outcome would be more favorable if the tumor becomes technically removable from the artery. Neoadjuvant chemoradiotherapy (NACRT) is expected to achieve locoregional control and enable margin-negative resection.

Aim:

To investigate the effects of NACRT in patients with pancreatic adenocarcinoma (PDAC) which were deemed borderline resectable through preoperative imaging due to abutment of the major artery, including the superior mesenteric artery (SMA) or common hepatic artery (CHA), but were still considered to be technically removable.

Patients & methods:

Comparisons were make between 71 patients who underwent upfront surgery and 21 patients who undenvent NACRT followed by surgery in the strategy to preserve the artery, using unmatched and inverse probability of treatment weighting analysis (UMIN000017115).

Results:

Fifty patients in the upfront surgery group and 18 in the NACRT group underwent curative resection (70% vs 86%, respectively; P = 0.1609). The results of the propensity score weighted logistic regressions indicated that the incidences of pathological lymph node metastasis and a pathological positive resection margin were significantly lower in the NACRT group (odds ratio, 0.006; P < 0.0001 and odds ratio, 0.007; P = 0.0005, respectively). Among the propensity-score matched patients, the estimated 1- and 2-year survival rates in the upfront surgery group were 66.7% and 16.0%, respectively, and those in the NACRT group were 80.0% and 65.2%, respectively.

Conclusion:

It was suggested that chemoradiotherapy followed by surgery provided clinical benefits in patients with PDACs in contact with the SMA or CHA.

Type of surgical procedure in patients with chronic pancreatitis depending on stages of fibrosis

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Objectives:

The aim of our investigation were to define stage and zone of pancreatic fibrosis as criteria to choose a type of surgical treatment of patient with CP.

Methods:

The results of surgical treatment of 181 patients with CP complicated with pancreatic hypertension were submitted. In 37 of patients with calcification and multiple strictures, we check a tissue resistant pressure (TRP) with Stryker tissue pressure monitor and pressure inside the main pancreatic duct. In 37 patients Frey procedure were done in 6, Frey-Izbicki in 26, pancreatoduodenal resection in 5.

Results:

In all cases TRP was highest it the place of pancreatic duct stricture (>200 mm.Hg), as in other parts of the pancreas it decrease till 120 mm.Hg and lower. Ductal pressure was increased only in 22 (59,5%) patients. All patients histologically had severe fibrosis in the stricture place. TRP was >200 mm.Hg in the head of the pancreas only in 30 (81,1%) patients. In 7 patients location of the stricture were in the place between the pancreatic head and neck and TRP in that place proved zone of severe fibrosis. Patient with calcification (head – 6, total – 8) and obstructive CP (increased main pancreatic duct with multiple strictures – 8 patients) had TRP as high as >200 mm.Hg in all part of the pancreas indicating the total pancreatic fibrosis.

Conclusions:

The pacemaker of CP should be considered as zone of maximal fibrosis that not always located in the pancreatic head. Surgical procedure should not only decreas ductal pressure and involve local resection of the head of the pancreas but wide excision of the pancreatic strictures with the opening of the secondary and tertiary ducts (Frey-Izbicki procedure). Moreover, excision should perfomed in zone of maximal TRP (>200 mm.Hg), but in place TRP lower 120 mm.Hg it is enough to do simple drainage procedure.

A case of epidermoid cyst in an intrapancreatic accessory spleen

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Case presentation:

A case is a 40-year-old woman. She was admitted to our hospital for further examination of the tumor near the left kidney, which was incidentally detected by abdominal ultrasonography of medical examination. Enhanced-contrast abdominal computed tomography (CT) demonstrated a 45 mm-sized unilocular cyst in the tail of the tail of the pancreas. CT showed calcification in the wall of the cyst. Magnetic resonance imaging (MRI) revealed the cystic component was hypointense on T1-weighted images and hyperintense on T2-weighted images. On MRI, no connection was revealed between the cyst and main pancreatic duct. Physical examination was essentially unremarkable and laboratory data showed almost normal values. As concerns serum tumor markers, carbohydrate antigen (CA) 19-9 levels had increased to 145.1 U/ml. Because a malignant tumor of the pancreas was suspected, the patient underwent a distal pancreatectomy and splenectomy. The cyst measured 45 mm at its greatest diameter, and contained a serous composition fluid. Microscopic analysis revealed that a unilocular cyst lined by stratified squamous epithelium and surrounded by normal splenic tissue. The final histological diagnosis revealed the presence of an epidermoid cyst of an accessory intrapancreatic spleen. Postoperatively, serum CA 19-9 decreased to normal levels after one month.

Conclusions:

We report a rare case of epidermoid cyst in an intrapancreatic accessory spleen. Despite advances in radiologic techniques, it was difficult to diagnose epidermoid cyst in a pancreas. We make a comprehensive review of the literature.

A case of Solid Pseudopapillary Neoplasm of the Pancreas (SPN) in a male preoperatively diagnosed by use of EUS-FNA

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Case:

A 37-year-old man was referred to our hospital with chief complain of epigastric pain. The finding of Computed Tomography (CT) scan showed duodenal ulcer perforation and then he underwent an emergency surgery against it. The CT scan also showed a low density pancreatic body tumor which was 16mm in diameter. No capsules or cysts were identified in the tumor. The finding of magnetic resonance imaging (MRI) on the tumor showed low signal on T1-weighted, a mildly elevated signal on T2-weighted and a highly elevated signal on diffusion weighted. FDG-PET imaging showed increasing uptake in the pancreatic body. Endoscopic retrograde cholangiopancreatography (ERCP) showed stenosis of the main pancreatic duct. There was no dilatation of the main pancreatic duct in the pancreatic tail. In endoscopic ultrasonography (EUS), the tumor was visualized as a hypoechoic lesion in which has hyperechoic mass lesion that suggested calcification. We performed endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) to obtain a definitive diagnosis. The pathological findings showed fibrovascular pseudopapillary structure and solid hyperplasia of small tumor cells. Immunostaining revealed that the tumor was positive for Synaptophysin and CD10 and negative for Chromogranin A and CD7. SPN was strongly suspected based on this pathology and Immunostaining pattern. We performed middle pancreatectomy and finally diagnosed this tumor as SPN at the histopathological examination of the resected specimen.

Conclusion:

SPN is a rare tumor which occurs primarily in young woman and preoperative diagnosis is very difficult. In our case, EUS-FNA was useful for differential of pancreatic tumor and contribute to select appropriate surgery. Here we present this case along with a review of the literature.

Surgical Management for Pancreatic Cystic Neoplasms (PCNs): A Single-Institution Experience

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Objective:

To summarize our experience in the surgical treatment of pancreatic cystic neoplasms (PCNs).

Methods:

A retrospective analysis was conducted on the clinical data of 110 consecutive patients with PCNs who were treated between Jan 2004 and Mar 2017in Guangdong General Hospital, China. Clinical characteristics, pathology, morbidity and oncology outcome were analyzed.

Results:

The average age of male patients was significantly higher than that of females (54.7 ± 12.3 vs. 44.0 ± 15.1, *P*< 0.001), while the tumor's diameter was less than that of females (3.0 ± 1.8vs. 6.0 ± 3.3 P< 0.001).The overall postoperative morbidity rate was 19%, the rate of pancreatic fistula was 4.5%. Results of univariate analysis showed that age, preoperative hemoglobin, albumin, levels of serum CAl9-9 and CEA were associated with malignant PCNs. Multivariate analysis results showed that serum CEA was independent risk factor for the preoperative prediction of malignant PCNs (OR=85.539, *P*<0.05). The overall survival rate for PCNs patients was 93.6%. The five-year survival rates of benign and borderline PCNs were 98.6%, for malignant PCNs was 56.3% after radical surgery.

Conclusions:

The surgical operation for PCNs was safe and feasible, with acceptable complications. Aggressive surgical management for PCNs may receive better oncology outcome.

Post-endoscopic retrograde cholangiopancreatography pancreatitis: Risk factors and predictors of severity

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Objectives:

Endoscopic retrograde cholangiopancreatography (ERCP) is increasingly used for therapeutic management of various biliary and pancreatic diseases. However, ERCP is not a procedure without morbidities. Post-ERCP pancreatitis (PEP) remains the most common and serious complication after ERCP. Our aim is to detect risk factors for post-endoscopic retrograde cholangiopancreatography (ERCP) pancreatitis (PEP) and investigate the predictors of its severity

Methods:

This is a prospective cohort study of all patients who underwent ERCP. Pre-ERCP data, intraoperative data, and post-ERCP data were collected

Results:

The study population consisted of 996 patients. Their mean age at presentation was 58.42 (± 14.72) years, and there were 454 male and 442 female patients. Overall, PEP occurred in 102 (10.2%) patients of the study population; eighty (78.4%) cases were of mild to moderate degree, while severe pancreatitis occurred in 22 (21.6%) patients. No hospital mortality was reported for any of PEP patients during the study duration. Age less than 35 years (P = 0.001, OR = 0.035), narrower common bile duct (CBD) diameter (P = 0.0001) and increased number of pancreatic cannulations (P = 0.0001) were independent risk factors for the occurrence of PEP.

Conclusion:

In conclusion, PEP is the most frequent and devastating complication after ERCP. PEP is associated with higher morbidity and mortality beside its effect in increasing the consumption of hospital resources. Age less than 35 years, narrower median CBD diameter and increased number of pancreatic cannulations are independent risk factors for the occurrence of PEP. Patients with these risk factors are candidates for prophylactic and preventive measures against PEP.

Novel standardized stapling technique for laparoscopic distal Pancreatectomy: a preliminary study

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Objective:

The incidence of postoperative pancreatic fistula (POPF) remains high after laparoscopic distal pancreatectomy (Lap-DP). To find the most appropriate stapling technique for the pancreatic stump, we standardized the stapling procedure using a newly developed electric stapler. The electric-powered tip movement may reduce hand tremor, reducing trauma to surrounding tissue during cutting and stapling. The black cartridge used has the longest staples (Open/Closed staple height; 4.2/2.3mm) and could be optimal for Lap-DP.

Methods:

From March 2016 to January 2017, eight consecutive patients (two males and six females) underwent Lap-DP for benign pancreatic tumors. Four patients had a mucinous cyst neoplasm, one serous cyst neoplasm, one solid pseudopapillary, one intraductal papillary mucinous neoplasm, and one pancreatic neuroendocrine tumor. The standardized procedure using the electric stapler includes 5 minutes compression, 5 minutes fitting (pre-compression), 5 minutes cutting, 5 minutes fitting (post-compression), and release. This is a total of 20 minutes to cut the pancreas using the electric stapler. We measure drain amylase on postoperative day (POD) 1, 3, 5, 7 to evaluate POPF according to the International Study Group on Pancreatic Fistula definitions. Postoperative complications were graded using the Clavien-Dindo classification. Pancreatic thickness was measured at the resection line on preoperative computed tomography scan.

Results:

All eight patients were POPF grade A. There were no serious complications greater than Clavien-Dindo Classification grade III. Mean pancreatic stump thickness was 16.3mm (range: 11.6-22.1mm). All patients were discharged by POD 10.

Conclusions:

In Lap-DP, a novel 20 minute compression procedure using an electric stapler may reduce the incidence of POPF for a pancreas 22mm thick or less.

Clinical Outcomes of Everolimus in Patients with Advanced Pancreatic Neuroendocrine Tumors: A Multicenter Study in Korea

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Obejectivs:

Everolimus is a standard treatment option for advanced pancreatic neuroendocrine tumors (pNETs). This multicenter study evaluated the efficacy and safety of everolimus in low and intermediate grade advanced pNETs.

Methods:

Tumors were graded according to the World Health Organization 2010 classification system. Patients with low or intermediate grade pNETs who received everolimus as first or second-line chemotherapy between 2002 and 2014 were included.

Results:

A total of 40 patients with metastatic or recurrent pNETs were included in this study. The median age was 54.5 years (range; 19-83 years). Twelve patients (30%) experienced recurrence. There were 11 patients (27.5%) with low grade pNETs and 29 (72.5%) with intermediate. Everolimus was administered as first-line therapy in 30 patients (75%) and as second-line therapy in 10 patients (25%). The median progression-free survival (PFS) of patients with low and intermediate grade pNETs was significantly different (median not reached vs. 11 months, p = 0.015). On multivariate analysis, tumor grade (intermediate grade; hazard ratio = 5.46, 95% confidence interval 1.32 to 22.51, p = 0.019) was the only independent prognostic factor for PFS in pNETs. The most common adverse events were stomatitis, skin rash and anemia.

Conclusions:

WHO 2010 grade is the most important determinant for PFS in patients undergoing everolimus treatment for pNETs with an acceptable incidence of adverse events.

Clinical outcomes of repeated surgery for relapsing symptoms of chronic pancreatitis

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Background and Aim:

For patients with chronic pancreatitis, repeated surgery for refractory and/or relapsing symptoms is sometimes required. However, actual indication and clinical outcomes of repeated surgery remain undetermined.

Patients and Methods:

Fifteen patients who underwent repeated surgery for chronic pancreatitis between 2005 and 2016 were retrospectively reviewed and clinical outcomes were analyzed.

Results:

The studied population included 12 men and 3 women with a median age of 47 years. The main etiology was alcohol abuse (n=13) and the remaining 2 patients presented idiopathic pancreatitis. Reasons for repeated surgery were relapse of pancreatitis (n=7), refractory pain (n=4), biliary stricture (n=3), and pseudocyst formation (n=1). For these patients, following procedures were performed as appropriate: Frey procedure (n=6), distal pancreatectomy (n=3), pancreaticoduodenectomy (n=2), choledochoduodenostomy (n=2), Partington procedure (n=1), and total pancreatectomy (n=1). Median operation time was 265 minutes (range, 94-501), estimated blood loss was 828ml (range, 107-2810). Global morbidity rate (grade $\geq$2) was 33.3% (5/15) including 3 patients with early onset and 2 patients with late onset. Length of hospital stay was 12 days (range, 5-36). Eight patients (53.3%) achieved relief of pain after repeated surgery. Multivariate analyses revealed that early postoperative morbidity is correlated with presence of pancreatic divism or pancreaticobiliary maljunction (X^2=8.3, P=0.004) and pain relief is strongly associated with discontinuation of alcohol (X^2=17.3, P<0.0001).

Conclusions:

Repeated surgery for refractory chronic pancreatitis can be performed safely with acceptable efficacy and morbidity rate. Presence of pancretic divism or pancreaticobiliary maljunction may be a risk factor for early postoperative morbidity and discontinuation of alcohol is inevitable to expect pain relief after surgery.

Comparative study of ringer lactate versus normal saline infusion in early acute gallstone induced pancreatitis.

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Objective:

To compare Ringer Lactate vs. Normal Saline infusion in patients with early Acute Gall Stone induced Pancreatitis with reference to severity of pancreatic necrosis.

Methods:

We evaluated 40 patients with early acute gallstone induced pancreatitis between September 2015 to march 2017. Patients were given minimum of 1000 ml of RL or NS per day depending on their Groups of study for first 72 hrs. Rest of the fluid requirement was fulfilled by using 5% dextrose. After 3 days infusion of fluids were individualised for each patient according to the need. Contrast enhanced CT scan was done on day 7 of onset of symptoms to look for the percentage of necrosis as per Modified CT Severity Index.

Results:

The mean age of acute gallstone induced pancreatitis was 37.45 with no significant sex difference. Mean CTSI of Ringer Lactate group was 4 and the mean CTSI of Normal Saline group was 4.6 on the seventh day CT scan with the p value of 0.52. Correlation between Modified CTSI score and BISAP scores is derived using spearman's rho test. R value was 0.62 i.e. positive correlations between CTSI and BISAP score were present.

Conclusion:

We can conclude from the study that in acute gallstone induced pancreatitis patients, it is probably the amount of fluid not the type of fluid which determines the outcome. There is no statistically significant difference in effect of both Ringer lactate and Normal Saline. Any of them can be used for early resuscitation in patients of acute gall stone induced pancreatitis, keeping in mind the importance of total fluid requirement. BISAP scoring on admission in all patients can help us predict clinically the severity of pancreatitis and wherever severe pancreatitis is predicted, close and intensive fluid resuscitation is required.

Major pancreatic surgery for Von Hippel-lindau disease on the background of new recommendations. Five cases

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Background:

Pancreas is involved in 15% of patient with von Hippel-Lindau disease (VHL). Major pancreatic surgery for VHL is recommended if symptomatic large (>5 cm) serous cystadenomas or neuroendocrine pancreatic tumors (pNENs) > 2 or >3 cm appear.

Aim:

To assess indications and results of major pancreatic surgery in patients with VHL

Methods:

Retrospective analysis of 5 major pancreatic resections using BB Moscow City Hospital database (2013-16).

Results:

Twelve VHL patients is under surveillance. First case: total duodenopancreatectomy for head and tail pNENs on the background of total pancreatic involvement by serous cystadenomas of different size was performed to the 54-year old woman, who 6 years ago was treated by right-sided nephrectomy performed for clear-cell cancer. 8 months later she had died due to dissemination of renal cancer.

A 45-year old woman with multiple cerebellar and spine hemangioblastomas, pNENs in the head and body and tail, 5 years after right adrenalectomy for pheochromocytoma, centre-preserving pancreatectomy and left adrenalectomy for pheochromocytoma. Non-complicated postoperative period.

A 47-year old man with multiple spine hemangioblastomas, large (5-6 cm) pNENs in the head and 10 years after bilateral adrenalectomy for pheochromocytoma was successfully treated by pancreaticodudenectomy. One case of distal pancreatectomy (DP) for NENs combined with bilateral adrenalectomy and left renal resection and another case of DP combined with left adrenalectomy, triple left kidney resection and right kidney resection.

All the patients were discharged and at the moment they are functional, working and fully compensated.

Conclusion:

Timely and possibly parenchyma-sparing pancreatic resections are the operations of choice for pNENs on the background of VHL.

Correlations Between the Hematocrit, Leucocytosis and Pro-Inflammatory Cytokines in Patients with Acute Necrotic Pancreatitis

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Objectives:

The aim of our study was to estimate correlations between values of hematocrit, leucocytosis and pro-inflammatory cytokines (PIC) in patients with acute necrotic pancreatitis (ANP).

Methods:

The results of analysis of complex examination and treatment of 108 patients with confirmed diagnosis of ANP was put into the basis of our study. There were 78 (72.22%) of men and 30 (27.78%) of women in this study. The average age was 41.4±3.3 years. The levels of IL-1β, IL-6, IL-8 and TNF-α were measured in blood serum and peritoneal exudate.

Results:

The PIC play a key role in pathogenesis of ANP and its systemic complications. First of all, the cells in the point of inflammation produce them. It was confirmed by our investigations with IL-1β, IL-8 and TNF-α levels measurement in peritoneal exudates. Their levels in this fluid was significantly higher than in blood serum ($p<0.01$).

In patients with high level of PIC in blood serum fluid accumulation in parapancreatic areas and in the abdominal cavity occurred more frequently as well as multi-organ dysfunction.

In case of values IL-1β ≥12,0 pg/ml and TNF-α ≥20,0 pg/ml we observed the most severe course of ANP. It was with hyperleucocytosis, hyperthermia, expressed multi-organ dysfunction and widespread necrosis in pancreas as well as in parapancreatic areas. The body temperature depends on concentration of PIC in blood serum, mostly of TNF-α level ($r=0.57$, $p<0.01$). There was a direct correlation between the concentration of IL-1β, IL-6, IL-8 and TNF-α and quantity of neutrophils and lymphocytes ($p<0.05$).

The direct correlation was detected between the levels of all PIC and hematocrit value. This correlation was revealed for IL-1β ($r=0.92$, $p<0.001$), IL-6 ($r=0.49$, $p<0.05$), IL-8 ($r=0.62$, $p<0.001$) and TNF-α ($r=0.62$, $p<0.01$).

Conclusions:

The hypovolemia appearance and development of inflammatory reaction make microcirculation impairments more severe. They are typical signs of early stages of severe ANP.

Development of pancreatic endocrine and exocrine insufficiency in non-diabetic patients after distal pancreatectomy: a nationwide database study

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Objective:

The aim of this population-based study was to determine the occurrence of diabetes mellitus (DM) and exocrine pancreatic insufficiency (EPI) in non-diabetic patients who receive distal pancreatectomy (DP).

Research design and methods:

Data from the Taiwan National Health Insurance Research Database was collected from the period from 2000 to 2010. Of 3,264 patients that received DP, we identified 1,410 patients without DM, and 966 without DM and without EPI.

Results:

Of 1,410 non-diabetic DP patients, 312 (22.1%) developed newly-diagnosed DM after DP. Multiple logistic regression analysis showed that dyslipidemia (hazard ratio [HR] = 1.640; 95% confidence interval [CI]: 1.362–2.763; $P < 0.001$) and chronic pancreatitis (HR = 2.428; 95% CI: 1.889–3.121; $P < 0.001$) were significantly associated with the development of DM after DP. In addition, 380 patients (39.3%) developed EPI, and pancreatic cancer was a statistically significant risk factor (HR = 4.663; 95% CI: 2.108–6.085; $P < 0.001$).

Conclusions:

Dyslipidemia and chronic pancreatitis are risk factors for the development of DM after DP. Pancreatic cancer is a risk factor for the development of EPI after DP. Clinicians should be alert for symptoms of glucose and fat intolerance in patients that have received a DP.

Impact factors for perioperative morbidity and mortality and repercussion on long-terme survival in pancreatic head resection.

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Background:

Different factors can impact the occurrence of morbidity and mortality after pancreatic head resections. The focus of the present study was to reveal any impact factors for perioperative morbidity and mortality as well as repercussion of perioperative morbidity on long-term survival in pancreatic head resection.

Patients and methods:

In a retrospective study, clinic-pathological factors of 240 patients after pancreatic head (PD) or total resection were analyzed for correlations with morbidity, 30- and 90-day mortality, and long-term survival. According to Clavien-Dindo classification, all complications with grade II and more were defined as overall complications (OAC). OAC, all surgical (ASC), general (AGC) and some specific types of complications like leaks from the pancreatoenteric anastomosis (PEA) or pancreatic fistula (PF, type A, B and C), leaks from other anastomoses (OL), bleeding (BC) and abscesses (AA) were studied for correlation with clinic-pathological factors. Two chronologically successive groups of patients (P1: from January 1, 2008 to December 31, 2012 (96 pts); P2): January 1, 2013 to March 31, 2017 (144 pts)) were compared for perioperative morbidity, and 30- and 90-day mortality.

Results:

In the 9-year period, altogether 240 patients had pancreatic resection. The incidence of OAC was 37.1%, ASC 29.2% and AGC 15.8%. ASC presented themselves as PL, OL, BC and AA in 19% (of 208 PD), 5.8%, 5.8%, and 2.5% respectively. Age, ASA score, amylase on drains, and pancreatic fistulas B and C correlated significantly with different types of complications. Overall 30- and 90-day mortality were 5 and 7.9% and decreased to 3.5 and 5% in P2.

Conclusion:

High amylase on drains and consequently PF B and C, OAC, PL and BC were independent indicators of morbidity, whereas PL and BC revealed as independent predictor for 30-day mortality, and OAC and PF C for 90-day mortality.

Surgical Outcomes of pancreaticoduodenectomy in Elderly Patients. A Case-Control study

Waleed Askar, Ayman El Nakeeb.

Background:

Although mortality and morbidity for pancreaticoduodenectomy (PD) have improved significantly over the last years, the concern for elderly undergoing PD still present. This study reviewed the surgical outcome of elderly patients who underwent PD.

Patient and methods:

Patients were divided into three groups; Group I (patients with age <60years), Group II (patients with age 60-69 years) and Group III (patients > 70 years. The primary outcome was the rate of total postoperative morbidities. Secondary outcomes included total operative time (hours), hospital mortality, length of postoperative stay (days), and survival rate.

Results:

828 patients underwent PD for resection of periampullary tumor in this study. Group I included 579 (69.9%) patients while group II, included 201 (24.3%) patients and group III included 48 (5.8%) patients. The overall incidence of complications was higher in elderly group (25.9% in group I, 36.8% in group II, and 37.5% in group III P= 0.006). Delayed gastric emptying developed significantly in group II than the other two groups. There was no significant difference in the incidence of POPF, biliary leakage, pancreatitis, pulmonary complication and hospital mortality.

Conclusion:

PD can be performed safely in selected elderly patients. Advanced age alone should not a contraindication to do PD.

Critical appraisal on pancreatic fistula after 84 consecutive pancreatoduodenectomies

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Objectives:

The aim of this study was the analyse the complications after pancreatoduodenectomies with emphasis to pancreatic fistula, morbidity and mortality.

Methods:

From May 2012 to May 2017, perioperative and postoperative data from 84 consecutive patients who underwent a pancreatic head resection were recorded prospectively with Ethics Comittee approval. Data were analysed according to the procedure performed : Whipple or Traverso-Longmire resection and total pancreatectomy (n=3). Duct-to-mucosa pancreatico-enteric anastomosis was performed in all cases (n=81).

Results:

The prevalence of pancreatic fistula was 8,3 % and was not dependent on the procedure (Whipple vs. Traverso). Total morbidity rates were 52,4 % and mortality rate associated with pancreatic fistula of 3,5 % due to conservative treatment failure of severe arterial lesions which demanded emergency relaparotomy (n=3). Multivariate analysis revealed tumor size < 15mm (p=0.01), soft parenchyma (p=0.006), stage III TNM (p=0.01), moderate differentiated ductal adenocarcinoma (p=0.03) and poorly differentiated ampullary carcinoma (p<0.0001) as independent risk factors for postoperative pancreatic fistula.

Conclusions:

A continous effort to improve perioperative management can be responsible for reducing the morbidity and mortality rates after pancreatoduodenectomy. Hemorrhage associated with pancreatic fistula in particular can represent a major problem requiring immediate surgery and intensive care.

Closure of pancreatic stump with round ligament of liver after distal pancreatectomy

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Objective:

Post-operative pancreatic fistula (POPF) has been a major complication after distal pancreatectomy. Numerous methods have been proposed to reduce the rate and severity of POPF. We propose that sealing the pancreatic stump with a ligamentum teres hepatis patch could prevent POPF after distal pancreatectomy. A single-center randomized trial was conducted to evaluate the efficacy of this technique.

Methods:

We randomly assigned patients with pancreatic tumor undergoing distal pancreatectomy into two groups. In the study group, the round ligament of liver was mobilized and used to seal the pancreatic stump after pancreatic transection with linear stapler. In the control group, the pancreas is only transected and sealed with stapler. We performed both open and laparoscopic surgeries. POPF rate, total operation time and other complications were observed.

Results:

Round ligament patch sealing achieved lower total POPF rate (8% vs 29.7%; p=0.018) according to the 2016 updated definition of pancreatic fistula by ISGPS. This procedure did not prolong the total operation time (182.6±63.6min vs 201.1±71.1min; p=0.242). There was no difference in operation time between open and laparoscopic procedures.

Conclusions:

Sealing the pancreatic stump with round ligament of liver can prevent POPF effectively. This procedure is also valid under laparoscopic conditions. This technique is simple and effective and deserves further evaluation in larger cohorts.

Distal Pancreatectomy: Analysis of 120 patients pertaining to indications, complications and surgical results

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Objectives:

Distal pancreatectomy is resection of pancreas to the left of splenoportal confluence with splenectomy (DPS) or without (DP). We analyse our surgical results of distal pancreatecatomy with respect to indications, complications.

Methods:

Data of 120 patients of distal pancreatectomy, between jan 2005 to may 2017, was systematically analysed. The pancreatic stump was suture closed with a separate suture for the pancreatic duct (PD), if identified. Stapled transection was done in 20 patients. Drain was always kept.

Results:

67/120 males and 53 females. Average age was 48 years (12-72). Mean operating time was 140 minutes and blood loss (300ml). 90/120 patients underwent DPS. 30 patients had DP (spleen preserving). 25 patients had laparoscopic approach. Multivisceral resections in 21 patients included stomach, colon, gb, adrenal and kidney. Associated procedures were lateral pancreaticojejunostomy -12,duvals procedure- 5, excision of fistulous tract-3. Two patients had portal vein resection

Indications:

Focal pancreatitis with strictures, collections or pseudocysts - 30, SPEN and pancreatic adenocarcinoma 10 each, NET- 8 , trauma -2, splenic artery aneurysm -4, serous- 26 and mucinouscystadenoma -19, surrounding organ pathologies -11.

Average stay was 10 days. 20/120 (16.7%) patients had post op new onset Diabetes mellitus. Two patients had mortality (1.67%)- due to septic collection and bleed.

28 patients (23%) had postoperative pancreatic fistula, 20 pts required ercp and pd stenting. 10 pts (8.3%) required postoperative percutaneous drainage (PCD). Saio- 8 pts, wound infection - 13. Postoperative bleed in 5 patients.

Conclusion:

Distal pancreatectomy with varied indications, is a safe procedure with less morbidity and acceptable mortality. Pancreatic fistula may require pcd, or ercp and pd stenting.

Duodenum-preserving Pancreatic Head Resection for Low-grade Malignant Tumors.

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Introduction:

Surgical treatment for benign or low-grade malignant tumors of the head of the pancreas is often performed using “traditional” procedures such as pancreatoduodenectomy（PD. However, this approaches result in the loss of the upper gastrointestinal and biliary anatomy with subsequent impairment of exocrine and endocrine functions, and the loss of the upper gastrointestinal and biliary anatomy in PD. Therefore, avoiding unnecessary loss of pancreatic tissue and further deteriorations in endocrine and exocrine pancreatic functions are important challenges for surgeons managing benign and low-grade malignant tumors of the pancreas. For patients, it would be beneficial for their QOL if PD could be avoided. To apply duodenum preserving pancreatic head resection (DPPHR) as radical procedure for benign or low-grade malignant tumors, it is needed to completely resect pancreatic head as well as to preserve the bile duct and peripancreatic vessels. DPPHR is technically difficult and time-consuming due to reconcile these antinomic techniques, which is complete resection in the pancreatic head and preservation of both the bile duct and the pancreaticoduodenal vessels.

Results:

We studied retrospectively 38 cases that underwent DPPHR, 50 patients who underwent PD with benign or low grade malignant pancreatic head tumors. The blood loss in DPPHR was significantly lower than that in PD. There was no significant difference in operative factors and postoperative complications. Both exocrine and endocrine function and the long-term results following DPPHR were superior to those following PD.

Conclusion:

In benign or low-grade malignant tumors of the head of the pancreas, DPPHR should be favored over the PD, if there is no compromise with oncologic radicallity.

Imcomplete external pancreatic duct stent drainage to reduce postoperative pancreatic fistura after pancreaticoduodenectomy

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Objectives:

Imcomplete external pancreatic duct stent drainage after pancreaticoduodenectomy is the standard procedure in our hospital. We regularly clamp the stent before discharge to improve longer postoperative hospital stay, discomfort and restraint. This report intend to reveal management of the stent and clinical course associated with clamping the stent.

Methods:

37 patients who underwent pancreaticoduodenectomy at Kobe University Hospital, from December 2015 to August 2016, were enrolled. All patients performed Blumgart anastomosis for pancreaticojejunostomy by the use of imcomplete external pancreatic duct stent(3 or 4Fr with knot). We clamped the stent when we recognized no leakage of the pancreaticojejunal anastomosis or the cure of postoperative pancreatic fistura.

Results:

Out of 37 patients, median age 69(range 32-81), sex ratio(M:F 26:11), there is pancreatic cancer in 20 patients(54%).There is the incidence of pancreatic fistura of GradeB by ISGPF criteria in 4 patients(11%).The stent was clamped in postoperative day 12(range 7-83). The Stent was re-opened because of fever in 6 patients, and 5 out of 6 patients had fluid collection around the anastomosis for pancreaticojejunostomy in CT image. Among these 6 patients, 1 patient was discharged to leave stent re-opened, but 5 patients could re-clamp the stent 8 days later after re-opened(range 5-22). Statistically,there was no pancreatic cancer($p=0.004$) and the number of leukocytes on the day before clamp was significantly higher than others($p=0.002$). Whether the stent was re-opened or not, the diameter of pancreatic duct, the amount of drainage on the day before clamp and postoperative hospital stay showed no difference.

Conclusions:

External pancreatic duct stent drainage is an effective method for prevention of severe pancreatic fistura and leakage. Stent clamping is also useful for adjusting drainage span. If we carefully examine postoperative clinical course, we can safely clamp the stent and discharge patients with no discomfort and restraint of the stent.

Isolated roux loop pancreaticojejunostomy versus single loop pancreaticojejunostomy after pancreaticoduodenectomy: a retrorospective cohort study

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Objectives:

The aim of this study was to compare the postoperative outcome and the occurrence rate of postoperative pancreatic fistula (PF) between isolated Roux loop pancreaticojejunostomy (IRPJ) and single loop pancreaticojejunostomy (SLPJ) after pancreaticoduodenectomy (PD).

Methods:

Data of patients who underwent IRPJ were compared with those of a pair-matched equal number of patients undergoing SLPJ. The matching was performed according to age, gender, nature of the lesion indicating PD and the texture of the pancreas.

The primary outcome measure was the rate of postoperative pancreatic fistula (POPF). Secondary outcomes included operative time, day to resumption of oral feeding, postoperative morbidity and mortality and exocrine and endocrine pancreatic functions.

Results:

Seventy patients treated by PD were included in the study. The two groups were comparable in both pre- and intra-operative parameters. The median total operative time was significantly longer in the SLPJ group (329 min versus 386 min; p=0,001). Postoperative pancreatic fistula developed in 8 of 35 patients in the SLPJ group and 3 of 35 patients in the IRPJ group (p = 0.101). Four SLPJ patients and one IRPJ patient had POPF of type B or C (p = 0.773). Re-laparotomy was significantly more frequent in the SLPJ group (25.7% versus 8.5%; p=0.04). Time to resumption of oral feeding was shorter in the IRPJ group (p = 0.03). Steatorrhea at 1 year was reported in 2 of 35 RYR patients and 4 of 35 SLPJ patients (p = 0.414).

Conclusions

The use of IRPJ does not seem to decrease the occurrence rate of postoperative PF in patients undergoing PD. But It was associated with a decrease in the incidence of re-laparotomy. This technique allowed for early oral feeding and the maintenance of oral feeding even if POPF developed.

Modified double layer T-L pancreato-jejunostomy – analysis of the first 100 cases

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Objectives:

Pancreatic resection, in particular pancreatoduodenectomy, is a complex procedure. Despite of the significant improvements in the surgical techniques and postoperative care that have lowered the mortality rate, the surgical morbidity after pancreatoduodenectomy is still high. Patients undergoing surgery often suffer from complications. One of the most significant is postoperative pancreatic fistula (POPF). The choice of method for pancreatic anastomotic is still difficult and may be based on the preference of the surgeon, as this anastomosis involves the highest rate of surgical complications.

Methods:

In the Department of HPB and Transplant Surgery in Military Medical Academy, Sofia, has been adopted and modified a certain method for the pancreato-jejunostomy – double layer with external continuous 5/0 monofilament suture and inner duct-to-seromuscularis interrupted monofilament suture 6/0 with protective “perdue” drainage 4-8 Fr. For the period, October 2014 – December 2016 this anastomosis has been used in 101 pancreticoduodenectomies. A prospective study of these 101 patients has been done, including types of postoperative complications, morbidity and mortality rate.

Results:

An analysis has shown a morbidity of 27.72% (n=28), as the observed complications were classified according Clavien–Dindo classification – grade I – 0.99% (n=1), grade II – 8.91% (n=9), grade IIIa – 1.98% (n=2), grade IIIb – 6.93% (n=7), grade IVa – 1.98% (n=2), grade IVb – 0.99% (n=1), grade V – 5.94% (n=6). The complications associated with the pancreatico-jejunostomy were POPF in 7.92% (n=8) and haemorrhage of the anastomotic side in 2.97% (n=3). POPF were graded A in 12.5% (n=1), B in 62.5% (n= 5) and C in 25% (n=2). Conservative treatment was undertaken in 50% (n=4) of the cases of POPF, mini-invasive in 25% (n=2) and operative in 25% (n=2), due to related complications as haemorrhage and infected intraabdominal collection.

Conclusions:

According to the obtained results this surgical technique for pancreatic anastomosis shows excellent short term outcome with satisfactory postoperative morbidity and mortality rates.

Short-term Outcome of Laparoscopic distal pancreatectomy; comparison between spleen-preserving and en-bloc splenectomy

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Introduction:

Laparoscopic distal pancreatectomy is now the standard treatment for low-malignant tumor in the pancreas body or tail. Although many institutes perform laparoscopic spleen-preserving distal pancreatectomy (LSPDP), its benefit is still controversial. The aim of this study is to compare LSPDP with laparoscopic distal pancreatectomy with splenectomy (LDP) in the light of safety.

Methods:

We evaluated the characteristics and the operative outcomes of all patients who underwent LSPDP or LDP at our institution from July 2009 to January 2017.

Results:

We performed 55 LDPs (LSPDP, n = 12; LDP, n = 43) during the study period. There was no significant difference in the characteristics such as age, sex, body mass index and ASA score. The operation time of LSPDP was significantly longer than LDP (LSPDP, 470 ± 43 minutes; LDP, 352 ± 22 minutes, p=0.018), meanwhile blood loss of each group was similar (LSPDP, 203 ± 74 ml; LDP, 207 ± 39 ml, p=0.96). Only 1 patient who received LDP was converted to open surgery because of strong adhesion. The rate of postoperative complications, including pancreatic fistula were not significantly different between the 2 groups. Splenic infarction was not observed in all patients at the time of discharge. The length of hospital stay was not different significantly (LSPDP, 19.3 ± 3.8 days; LDP, 17.5 ± 2.0 days, p=0.69). Ten of 12 patients who were treated by LSPDP, were histologically diagnosed as NET.

Conclusion:

According to our data, LSPDP is feasible and almost has similar outcomes to LDP.

The clinical usefulness of pacreatoduodenectomy using retromesenteric approach in pancreatic head cancer

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In recent years, combination of radical operation and perioperative adjuvant chemotherapy for pancreatic cancer is leading substantially improved treatment outcomes, while the optical surgical approach for pancreatic cancer, especially in pancreatic head cancer, is still controversial. It is widely accepted as important evidence that curative resection (R0) is considered as a curative approach, whereas the rate of positive margins resection (R1) for pancreatic cancer amounts to about 20 %. We herein report pacreatoduodenectomy being aware of mesopancreas for pancreatic head cancer using retromesenteric approach including Cattel-Braasch Maneuver and artery-first approach. Briefly, Cattel-Braasch Maneuver, which involves dissection along the right-sided white line of Told fusion fascia and small bowel mesenteric root. It removes normal lotation of the small intestine, resulting in facilitate anatomical grasp with simplification. Artery-first pancreaticoduodenectomy is a technique to ligate the feeding arteries mainly composed of superior mesenteric artery before the division of the pancreas. The present study includes two groups of patients. A first group of 14 patients with retromesentetic approach and a second group of 13 patients with standard Whipple procedure. The retromesenteric procedure makes it possilbe to maintain a clear operative view and blood loss reduction with early arterial flow ligation to the pancreas head region compared with standard Whipple procedure. Furthermore, the number of lymphadenectomy around the superior mesenteric artery (SMA) significantly increased in retromesenteric approach. These results implied that combination of perioperative multidisciplinary therapy and pacreatoduodenectomy using retromesentetic approach for pancreatic cancer may evade R1, resulting in better prognosis.

The microsurgical techniques In Pancreatojejunostomy

Walid Elhaj.

Background:

The rate of POPF following pancreaticoduodenectomy PD range from 7-28%. Prolonged hospital stay, Postoperative bleeding and reoperations are higher in POPF patients by 40% while the mortality is almost doubled. In spite of numerous pancreaticoenterostomy techniques advocated by different authors especially in the last two decades, the rates of POPF remain unchanged. We refined the duct to mucoas anastomosis by using combined continuous interrupted microsurgical technique as safe and fastest option.

Methods:

From November 2014 to April 2017, 64 patients had pancreaticoduodenectomy for malignant periampullary and duodenal tumors in Soba and Ibn Sina Hospitals. The data was collected prospectively.The primary end point was the occurrence and grade of POPF.

Results:

Patients who had duct to mucosa pancreatojejunostomy had a lower rate of postoperative pancreatic fistula (grade A) 2%.In comparison to patients in the control group where the rate is relatively higher 7.6 % of grade A and B (P_value 0.02).

Conclusion:

DMA technique is widely adopted as valuable and safest techniques for PJ. Meticulous microsurgical techniques has the potentials to refine and to fasion more anatomical and physiological anastomosis.

Two cases of left-sided portal hypertention after pancreaticoduodenecyomy treated with IVR

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Objectives:

To report two cases of left-sided portal hypertension after pancreaticoduodenectomy.

Case #1:

A 70-year-old female who underwent pancreaticoduodenectomy (PD) for pancreatic head cancer combined with resection of the confluence of the portal vein (PV) and the splenic vein (SV). Reconstruction was performed between PV and the superior mesenteric vein (SMV), and SV and the inferior mesenteric vein, respectively. Seven years after surgery, she suffered severe anemia, which seemed to be caused by gastrointestinal bleeding. Although active bleeding was not found on upper, lower, nor small bowel endoscopy, CT revealed varices at the portion of the pancreaticojejunostomy (PJ). Angiography revealed splenic venous flow was drained into the varices and then ran into the portal vein. Then, a diagnosis of bleeding varices of PJ due to left-sided portal hypertension (PH) was made. After partial splenic artery embolization (PSE) was performed to reduce the venous flow into the varices, her anemia was improved. Eleven months after, another session of PSE was necessitated for recurrent anemia. She has not suffered any episodes of anemia within 1 year since then.

Case #2:

An 80-year-old male who underwent PD for pancreatic head cancer combined with resection of the confluence of PV and SV with reconstructing between PV and SMV only. Eighteen months after surgery, the patient developed melena with negative findings on upper, lower nor small bowel endoscopy. CT scan revealed varices at PJ which communicated with the jejunal and the portal veins. He underwent percutaneous transhepatic obliteration of the varices. As the result, he remained without melena until he died of pancreatic cancer 17 months after the embolization.

Conclusion:

Left-sided portal hypertension following PD with bleeding varices could be treated by procedures of interventional radiology with minimal invasiveness.

En bloc Simultaneous Pancreas and Kidney Composite Graft Transplant with Limited Vascular Access

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PurposeObjectives:

Limited vascular access could be encountered in an obese or re-transplant patient. We described modifications that facilitated an en bloc simultaneous pancreas and kidney (SPK) composite graft transplant in 4 diabetic patients with renal failure under hemodialysis.

Materials and Methods:

At the back-table, the superior mesenteric artery and splenic artery of the pancreas graft were reconstructed with a long "Y" iliac artery graft. The smaller left renal artery is anastomosed end-to-side to the larger and longer common limb of the arterial Y graft and the shorter portal vein is anastomosed end-to-side to the longer graft left renal vein. Thus, this en bloc composite graft allowed to facilitate “real” SPK transplant using single common graft artery and vein for anastomosis to one recipient arterial and venous site. The en bloc pancreas and kidney composite graft was implanted by suturing the graft left renal vein to IVC and graft common iliac artery the recipient distal aorta. Exocrine drainage was provided by anastomosis of the graft duodenum to a roux-en-y jejunum limb in an side-to-side fashion. Immunosuppressants included basiliximab, tacrolimus, mycophenolate mofetil, and methylprednisolone.

Results:

The mean operative time was 7 hours with mean cold ischemic time of 6 hours and mean warm ischemic time of 47 min. The mean hospital stay was 20 days, with a serum creatinine level of 1.4 ng/ml and a blood glucose level of 121 mg/dL. There was no rejection episode or postoperative complication after the en bloc SPK transplant.

Conclusion:

En bloc pancreas and kidney composite graft might be an option for patients with limited vascular access. This technique (1) facilitates “real” simultaneous pancreas and kidney (SPK) transplant with only single common artery and vein for implanting the composite graft; (2) minimizes dissection of vessels and conserves recipient vessels.

Pancreas Rejection with Graft Necrosis Presenting with Episodic Massive Intestinal bleeding

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Purpose:

This study is to present our unusual experience of episodic massive intestinal bleeding due to pancreas rejection with graft necrosis.

Materials and Methods:

A case of NIDDM with uremia underwent simultaneous pancreas and kidney transplant in 2005. With 3 times of acute rejection on the kidney and pancreas grafts, he eventually went back to hemodialysis 7 years later.

Results:

The pancreas graft failed due to acute rejection on the pancreas graft 9 years after SPK transplant. Therefore, all immunosuppressants were discontinused. Unfortunately, the pancreas graft became necrotic, and thereafter, intermittent gastrointestinal (GI) bleeding occurred. The angiography detected bleeding from arterial Y-graft, and the extravasated blood flew through the graft duodenojeunostomy anastomosis into the bowels and presented with GI bleeding. The bleeder was controlled by coil embolization. Hemorrhagic shock due to massive re-bleeding happened 1.5 months after coil embolization. The emergent angiography showed coil migration into the necrotic pancreas graft and active re-bleeding again from the same arterial Y-graft. The bleeder was temporarily controlled by a covered-stent in recipient common iliac artery, and emergency explant of the failed and necrotic pancreas graft was performed and the arterial Y-graft was ligated securely to prevent re-bleeding.

Conclusion:

Bleeding from arterial Y-graft could occur after rejection and necrosis of pancreas graft due to sudden withdrawal of immunosuppressants, which might present with intermittent massive GJ bleeding. The coil embolization might fail due to coil migration into the necrotic pancreas graft.

Pancreas transplant at Taipei Veterans General Hospital

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Objectives:

Type 1 diabetes eventually leads to nephropathy, neuropathy, retinopathy and angiopathy after 10 – 30 years. Currently, pancreas transplant is the treatment of choice in tight control of blood sugar for IDDM patients, and further to stabilize, prevent or even to reverse the diabetic complications. We will present our experience in pancreas transplant which was initiated on September 19, 2003.

Methods:

From September 2003 to October. 2016, there were 133 pancreas transplants performed for 128 patients at Taipei Veterans General Hospital, with 36 SPK, 16 PAK, 62 PTA, 19 PBK and 1 PAL (pancreas after liver transplant).

Results:

Most (78.5%) of our pancreas transplants were for IDDM patients. The blood sugar usually returned to normal level within 5 hours (median) after revascularization of the pancreas grafts. The fasting blood sugar maintained within normal range thereafter throughout the whole clinical course in most cases. There were 2 surgical mortality. The technical success rate was 96.5%. Excluding the 4 cases with technique failure, overall 1-year pancreas graft survival is 98.5% and 5-year is 94.1%, with 100% 1-year for SPK, 97.1% 1-year for PTA, 100% 1-year for PAK and 100% 1-year for PBK.

Conclusion:

Pancreas transplant provided an ideal insulin-free solution for DM, especially IDDM. Pancreas transplant could be performed with similar successful rate irrespective of the type of pancreas transplant at our hospital.

A Jejunal diverticula causing a life- threatening bleeding: a case report

Abdelmoniem M., M. Makkawi, Mohamed Eltoum, Hamid Azoz.

Introduction:

Jejunal diverticulum is a rare and usually asymptomatic. More commonly it is usually seen as incidental findings on CT images or during surgery. Complications such as bleeding, perforation, obstruction, malabsorption, blind loop syndrome, volvolus and intussusception may warrant surgical intervention.

Objectives:

The aim of this study was to draw the attention to jejunal diverticula and their complications.

Case report:

We reported a 62 year- old woman presented to the emergency department with recurrent rectal bleeding, lower abdominal pain and weight loss for the last 8 months, she was pale, clammy and hypotensive with a systolic blood pressure of 70 mmHg, she was initially resuscitated with IV fluids and whole blood, then she proceeded to colonscopy which showed sigmoid tumour, biopsies taken revealed adenocarcinoma of the colon.After staging of the tumour, the decision was then made to proceed to exploratory laparotomy with pre- operative plan of segmental colectomy.Intra- operatively we perform segmental sigmoid colectomy with end to end anastomosis, but on formal laparotomy we found 2 gaint diverticula in the proximal jejenum, small bowel resection and end to end anastomosis was done with good post- operative outcome.

Conclusion:

Jejunal diverticula is more common than reported, affect usually older patients and must be consider in differential diagnosis of recurrent hematochezia, a high degree of suspicion is necessary in view of the high mortality and morbidity rates resulting from a delayed diagnosis of the disease. The treatment of choice is surgical excision of the affected segment.

Intussusception in adults: the causes were not malignant.

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Objective:

To evaluate 8 adults with intussusception and to clarify the underline cause, the pattern of presentation and management of this uncommon entity.

Methods:

A retrospective review of patients who their ages more than 18 years with a diagnosis of intestinal intussusceptions in Kosti Teaching Hospital (Sudan) between 2005 and 2013. Patients with rectal prolapse, prolapse of or around an ostomy and gastroenterostomy intussusception were excluded. All the cases presented acutely in A&E department and managed surgically in form of resection and anastamosis.

Results:

There were 8 cases of adult intussusception. The age was ranged from 22 to 55 years. There were 4 males and 4 females. Seven patients (87.5%) presented with features of mechanical intestinal obstruction and one (12.5%) patient presented with pain and tenderness in right iliac fossa as a case of acute appendicitis. All the intussusceptions were in the small intestine. Seven (87.5%) patients had ileocecal intussusceptions and one (12.5%) patient had jejunojejunal intussusceptions. The pathological cause of intussusception was identified in 7 (87.5%) cases as fallow submucosal lipoma in one patient, submucoal heamangioma in one patient, leiomyoma in one patient, bilharzioma in one patient, inflammatory polyp in one patient and two patients had abdominal tuberculosis. One pregnant woman had no pathology in resected segment. There was no mortality in this series.

Conclusion:

Intussusception in adults is a rare entity and diagnosis may be challenging because of nonspecific symptoms. Surgeons should be familiar with the various treatment options, because the real cause of the intussusception often is accurately diagnosed by laparotomy. Treatment usually requires resection of the involved bowel segment.

Isolated pyloric stenosis caused by caustic ingestion. 2 case reports

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Objective:

To emphasize the importance of conservative treatment in caustic pyloric stenosis in children.

Methods:

It is a retrospective study concerning 2 children operated in our department for caustic pyloric stenosis.

Results:

Our study included 2 children aged of 1 and 2 years old, who were victims of accidental ingestion of soda (strong base). The initial examination had shown pharyngeal bucco burns with a stable respiratory and haemodynamic state. The initial behavior for both children, was to put the digestive tract at rest, electrolyte hydrolytic delivery and corticosteroid therapy.

Endoscopic exploration was performed within 24 hours after ingestion. It showed a caustic esophagitis grade IIIA with stage IIIB caustic gastritis. Oral feeding was started after 21 days with total digestive intolerance (vomiting). The TOGD carried out at 2 months of ingestion showed a filiform passage of the constrast product in the pylorus in relation to pyloric caustic stenosis. Surgery was indicated and consisted in a pylorplasty with a feeding jejunostomy. The surgical follow-up was marked by good dietary tolerance with good weight gain.

Conclusion:

Caustic pyloric stenosis is rarely observed. Unlike adults, where partial gastrectomy is often indicated, conservative treatment in children consisting in pyloroplasty may offer better results

Chronic Gastric leaks after sleeve gastrectomy : risk factors of radical surgical treatment.

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Introduction:

2% of the sleeve gastrectomy (SG) lead to gastric leak (GL). Surgical treatment (total gastrectomy) is the treatment of chronic GL. The aim of this study is to determine the risk factors (RF) of chronic GL.

Material and methods:

This retrospective monocentric study compares the patients of our service specialized in bariatric surgery, who had a GL after SG. We realized 264 SG between december 2008 and december 2016, and 4 patients had a GL. 18 patients with a GL went from other hospitals, 22 patients were included in the study. We compared the datas of 10 patients who had a gastrectomy and 12 patients who have not been operated.

Results:

The RF of chronic GL are a gastro-cutaneous fistula, an intra-peritoneal abscess and a large fistule (more than 1cm) (respectively 16 % vs 80%, p = 0.003, 25% vs 70%, p = 0.035, 25% vs 70%, p = 0.035). A previous gastric surgery (16% vs 60%, p = 0.074), aged patients (average of 39.6 years vs 48 years p = 0.073), high BMI (45.5 vs 50.7kg/m², p = 0.213) and denutrition (prealbumine rate 0.21 vs 0.16g/L, p = 0.076) seems to be RF of total gastrectomy.

Conclusion:

The RF of chronic GL are gastro-cutaneous fistula, intra-peritoneal abscess and large fistula. Others studies are required to have better knowledges about the RF of chronic GL and the necessity to execute a gastrectomy for GL after SG.

Keywords**:**

gastric leak, sleeve gastrectomy, chronic.

Conversion of Sleeve Gastrectomy to Roux-en-Y Gastric Bypass FOR Lack of weight loss

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Obesity has become the most common nutritional problem in industrialized countries. The economic cost of obesity and its consequences is 2-5% of health spending in rich countries. The sleeve is the most practiced operation in the world and especially in an emerging country such as Algeria or the follow-up and multidisciplinary concertation remains difficult.

The aim of this observation is to report a complication of the sleeve requiring a surgical recovery (lack of weight loss, regain of weight, disabling gastro-esophageal reflux) discuss the follow-up after this surgery, and the conduct to be held with regard to this complication.

As with any restrictive surgery, the medium and long term results depend on several factors. Weight recoveries are more related to ingestion of caloric food, lack of physical activity. Therefore if there is a lack of collaboration of the patient or an inability for him to compel himself to radical changes, as long as it accepts a new operative risk and metabolic follow-up with the daily intake of vitamin supplements and micro-elements, an additional malabsorptif gesture may be proposed.

Analysis of patients with pT1N2/3 gastric cancer: prognostic factors and eligibility for adjuvant chemotherapy

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Objectives:

Previous reports have shown that the prognosis for pT1N2/3 gastric cancer is poorer than that for other early gastric cancers. The purpose of this study was to clarify the prognosis and eligibility for adjuvant chemotherapy in patients with pT1N2/3 gastric cancer.

Methods:

A total of 1232 patients with pT1 gastric cancer who underwent gastrectomy without preoperative chemotherapy and hospital mortality at Saitama Cancer Center between 2002 and 2015 were included in the analysis. The 5-year survival and clinicopathological features associated with recurrence were retrospectively investigated.

Results:

Among 1232 patients, 1174 were classified as pN0/1 (95.3%) and 58 as pN2/3 (4.7%). For the patients classified as pN0/1 and pN2/3, the 5-year overall survival rates were 91.3% and 88.0% ($P = 0.55$), the 5-year disease-specific survival rates were 98.3% and 89.2% ($P < 0.05$), and the 5-year relapse-free survival rates were 89.5% and 84.9% ($P = 0.52$), respectively. Among the pN2/3 patients, 29 (50.0%) underwent adjuvant chemotherapy. Six patients with submucosal invasion experienced recurrence, and none of them survived. On univariate and multivariate analyses, age was the only significant prognostic factor and adjuvant chemotherapy was not significant.

Conclusions:

In this study, although the prognosis for patients with pT1N2/3 gastric cancer was poorer than the prognosis for those with pN0/1, the 5-year survival rate surpassed 85% for patients with pT1N2/3 gastric cancer and the efficacy of adjuvant chemotherapy was unclear. Our study confirms that careful observation without adjuvant chemotherapy is a better treatment option for patients with pT1N2/3 gastric cancer.

Comparative results of multimodal therapy and surgical treatment of esophageal cancer in Kazakhstan

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Objectives:

The aggressive course of esophageal cancer, the early dissemination and metastases forces to search the new approaches of the treatment of tumors.

Since 2006, Kazakh Research Institute of Oncology and Radiology is developing multimodal therapy (MMT) for patients with esophageal cancer, which includes neo-adjuvant chemoradiotherapy, following esophageal resection.

Methods:

Current investigation includes 130 patients with histologically proved locally advanced esophageal cancer. The treatment group includes 65 who underwent MMT combined with surgery; the control group – 65 patients operated without preliminary MMT. There were 89 men (68.5%) and 41 women (31.5%); age of patients ranged from 33 to 72. In the treatment group, before operation patients received 3 course chemotherapy: Docetaxel 75 mg/sqm, Cisplatin 75 mg/sqm (Days 1, 21, 42) and course of radiotherapy with single focal dose 2 Gy and total focal dose 50 Gy (Days 42-77). Before every course patients estimated for efficiency of treatment and side effects. As the final step, patients underwent for Ivor-Lewis esophagectomy (Day 98). Patients in control – Ivor-Luis esophagectomy only.

Results:

From treatment group, efficiency of pre-operative therapy amounted to 56.9%. 14 patients (21.5%) presented with full tumor resorption. 23 patients (35.4%) had partial regression of tumor, and another 2 patients (3.0%) had tumor progression and were excluded from treatment protocol. 62 patients were operated after MMT. Post-operative complications observed in 37 cases (59.6%) of treatment group and in 38 cases of control group. 4 cases of in-hospital mortality: 2 patients from treatment group, 2 patients from control group.

Five-year survival in treatment group – 32.7%; in control group – 18.9%.

Five-year recurrence-free survival – 28.8% and 17.0%, respectively.

Conclusion:

Multimodal therapy combined with esophageal resection improves early and late results of treatment of locally advanced esophageal cancer, comparing esophageal resection only. MMT gives no negative impact for post-operative complications rate, but significantly improves the five-year survival and recurrence free-survival.

En bloc gastrectomy with subtotal colectomy in case of multiple primary gastric, duodenal and colon cancer - a case report

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Introduction:

Patients with multiple primary cancer of three or more sites are registered in 0,1% of all cancer cases, and 35% of these have a gastric cancer. The most common synchronous neoplasm associated with gastric cancer is colorectal cancer. We present the case of synchronous multiple primary cancer of stomach, proximal part of duodenum and multicentric colon cancer, localized in the cecum, descending colon and sigmoid.

Case report:

A 57-years-old male patient admitted to our institution complaining of pain in epigastrium, vomiting and rapid weight loss. Using the method of esophagogastroduodenoscopy the presence of ulcero-infiltrative tumor of gastric body was verified and small tumor (9 mm) in proximal part of duodenum, just 2 sm behind the pylorus was also found. By the transabdominal ultrasonography an infiltrative lesion of colon was suspected and colonoscopy revealed three tumors of colon: in cecum, descending colon and sigmoid colon. The biopsy presented a different type of adenocarcinomas in all specimens. By a multislice computed tomography of the thorax and the abdomen any malignant dissemination were excluded.

An en bloc total gastrectomy with omentectomy, D2 lymphadenectomy and subtotal colectomy were performed. The proximal part of duodenum was also resected. Histopathological examination verified invasive, diffuse gastric adenocarcinoma, adenocarcinoma of the duodenum within the mucosa and multicentric invasive colon adenocarcinoma. The patient underwent systemic postoperative chemotherapy. Two years after the surgical procedure, the patient is alive, with no signs of recurrence.

Conclusions:

In patients with gastric cancer additional diagnostics is required to identifaed possible other tumors, especially gastro intestinal tumors.

Combined en bloc resection is adequate surgical procedure for synchronous multiple primary gastric and colonic cancer.

Evaluation of the Therapeutic Efficacy of Imatinib in Patients with Advanced or Recurrent Gastrointestinal Stromal Tumor

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Objectives:

The object of this study is to clarify the therapeutic efficacy of imatinib and the importance of multidisciplinary treatment by evaluating prognosis of patients with advanced or recurrent gastrointestinal stromal tumor (A-R GIST).

Subjects and methods:

We performed a retrospective assessment of 10 patients with A-R GIST who had been treated with imatinib at our hospital during the 10-year period. The primary GIST lesion was located in the small intestine in 7 patients, in the stomach in 3, and the site of recurrence was the liver in 5, peritoneal dissemination in 4, and the intraabdominal lymph nodes in 1.

Results:

The mean interval from the first treatment to recurrence was 17.3 month. All the patients had c-kit-positive, and assessment for recurrence revealed that all were at a high risk. Only 2 of the patients received imatinib as adjuvant chemotherapy. The duration of survival in the 10 patients ranged from 13 to 187 months (Case A). The median progression-free survival and overall survival after recurrence were 39 and 53 months, respectively. After the establishment of imatinib resistance, the treatment alternatives included surgery, arterial chemoembolization or sunitinib treatment. Case A patient had undergone two laparotomies for peritoneal dissemination before the launch of imatinib. He maintained long-term complete response, however, his treatment adherence subsequently deteriorated, and he was diagnosed as having peritoneal recurrence at 14 years after the start of the oral therapy; this was treated by tumor excision. The patient currently remains recurrence-free with imatinib, while maintaining effective plasma drug concentrations.

Discussion:

1) In our study population, initiation of appropriate adjuvant chemotherapy in patients at a high risk for recurrence might have prolonged the post-recurrence survival.
2) Multidisciplinary treatment for recurrent lesions can contribute to improvement of the prognosis.
3) Maintenance of long-term drug adherence is important to prevent recurrence.

Healing of large chronic gastric ulcers that have a poor regeneration in case of local injection of platelet-rich plasma

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Objectives:

The aim of study was to estimate efficiency of local injection of platelet–rich plasma in patients with large chronic gastric ulcers that have a poor regeneration.

Methods:

The 19 patients with large chronic gastric ulcers that have a poor regeneration were included into study. In this cohort of patients there were 9 (47.4%) women and 10 (52.6%) men. An average age of patients was 46.6±10.5 years.

Inclusion criteria were age older than 18 years; diagnosis of large chronic gastric ulcers that have a poor regeneration (absence of positive changes after 12 weeks of anti–ulcer therapy), which was confirmed by endoscopy and histological review; absence of signs of malignancy; size of ulcer – 2–3 sm; absence of clinically significant concomitant diseases.

The 9 patients were included into main group (standard anti–ulcer therapy and endoscopic injection of platelet–rich plasma). The group of comparison consisted of 10 patients (standard anti–ulcer therapy only).

On 1^{st}, 7^{th} and 14^{th} day endoscopy with biopsy and measurement of the ulcers square was performed.

Results:

The data we have received demonstrate a tendency of decrease of ulcers' square in main group as well as in group of comparison ($p<0.01$) with time flow.

We also compared sizes of ulcerative defects in both groups at every point of the study. On the 1^{st} day of investigation there were no differences ($p>0.05$) between ulcers' square in both groups. On the 7^{th} day we found out more rapid decrease of size in main group ($p>0.05$). However, this tendency had no statistical significance. On the 14^{th} day difference was larger and it was statistically significant this time ($p<0.01$).

Conclusions:

Unitary local endoscopic injection of platelet–rich plasma on the background of anti–ulcer therapy permits to accelerate a process of the ulcerative defects epithelization significantly ($p<0.01$) during 14 days.

Low-dose eribulin acts antitumor effects in gastric cancer by inhibiting fibrosis via suppression of EMT

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Objectivs:

Scirrhous gastric cancer and peritoneal carcinomatosis (PC) has extensive fibrosis and invasive growth, results in chemo-resistance. These potential are acquired by interaction with stromal cells including cancer-associated fibroblasts (CAFs) in cancer microenvironment. Eribulin is a non-taxane microtube dynamics inhibitor and has an ability of EMT inhibition. The aim of this study is to investigate eribulin effects for tumor progression and fibrosis in gastric cancer (GC).

Method:

MKN45 was used as GC cell line and human peritoneal mesothelial cells (HPMCs) isolated from omentum as CAFs. Eribulin and 5-FU were applied as antitumor agents. In vitro, growth inhibition assay, invasion assay, western blotting, immunofluorescence have been performed. In vivo, subcutaneous fibrotic tumor xenografts co-inoculating MKN45 and HPMC were administered low-dose eribulin alone or eribulin convined with 5-FU.

Results:

Eribulin showed proliferative inhibition and IC50 was 5nM for MKN45 and 8nM for HPMCs. Low-dose (<0.1nM) eribulin inhibited the EMT change by decreasing smad2 phosphorylation. In vivo, eribulin reduced tumor fibrosis and showed synergistic antitumor effect with 5-FU.

Conclusion:

Low-dose eribulin should be promising treatment tool for scirrhous GC and PC.

miR-187 promotes carcinogenesis and serves as a plasma marker for gastric carcinom

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Objectives**:**

Gastric carcinogenesis (GC) is a multistep and multifactorial process. MicroRNAs (miRNAs) are small RNAs that negatively regulate their target genes expression and involved in gastric carcinogenesis. We have demonstrated that miR-370 is highly expressed in plasma of GC patients and promoted GC progression (Oncogene, 2011). Our initial microarray u identified that *miR-187* and *miR-187** were up-regulated in GC tissues. The roles of *miR-187* and *miR-187** in gastric tumorigenesis are studied.

Methods:

Resected GC tumor tissue samples together with paired non-cancerous mucosa sample from gastric patients were harvested at surgery. The plasma and urine samples were harvested before surgery. The expression of *miR-187* and *miR-187** and target genes were measured by quantitative RT-PCR or western blot. The molecular functions of *miR-187* and *miR-187** were analyzed with miRNAs mimic or blocker transfection. The Fisher's exact test, *t*-test, two-way ANOVA, ROC analysis, and various bioinformatic modules were used for the statistical analysis.

Results:

miR-187 and *miR-187** were up-regulated in tissue, the plasma and urine samples of patients with the disease. The plasma *miR-187* and *miR-187** levels were validated as biomarkers for GC diagnosis. The induction of *miR-187* or *miR-187** was found to enrich the proliferation, migration and anchorage-independent growth of GC cells. The repression of the expression of endogenous *miR-187* or *miR-187** was able to reduce such oncogenic phenotypes. BARX2 is the target of *miR-187*. Knockdown of endogenous *BARX2* increased the oncogenicity of GC cells. *BARX2* overexpression was able to reduce such oncogenic phenotypes. In addition, miR-187* enhanced the oncogenicity of GC cells through suppressed WWOX. The expression levels of miR-187/BARX2 and miR-187*/WWOX tended to be opposing in tumor tissue.

Conclusions:

Our results demonstrate that miR-187/miR-187* suppressed BARX2/WWOX expression and enhance the oncogenicity of gastric carcinoma cells. The levels of miR-187 and miR-187* in plasma could act as invaluable markers for the detection of gastric carcinoma.

Negative impact of skeletal muscle wasting after neoadjuvant chemotherapy followed by surgery on survival in patients with thoracic esophageal cancer

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Background:

Skeletal muscle wasting during curative treatment is an important issue faced by esophageal cancer patients. However, it has not been clarified whether skeletal muscle change during neoadjuvant chemotherapy followed by surgery adversely affects prognosis.

Objective:

This study aimed to determine the relation between skeletal muscle change and survival in patients with advanced esophageal cancer who underwent neoadjuvant chemotherapy followed by surgery.

Methods:

We retrospectively analyzed 66 patients with thoracic esophageal cancer who underwent neoadjuvant chemotherapy followed by esophagectomy. We herein investigated the correlation between the change in the total muscle in cross-sectional area at the third lumbar vertebra before and 4 months after surgery, and the postoperative recurrence, and the overall survival.

Results:

Of the 66 patients, 39 (59%) showed a skeletal muscle decreased from baseline to 4 months after esophagectomy. The change of skeletal muscle index from baseline to 4 months after surgery was -1.2 cm^2/m^2. The Multivariate analysis showed that squamous cell carcinoma subtype (HR 0.384; p = 0.032) and skeletal muscle change (HR 1.16; p = 0.012) were found to be independent prognostic factors for overall survival. Additionally, skeletal muscle change was found to be also an independent prognostic factor for recurrence-free survival (HR 1.11, p=0.042).

Conclusions:

Our findings suggest that skeletal muscle wasting from baseline has a negative impact on cancer recurrence and survival.

Outcomes of conversion therapy for initially unresectable gastric cancer

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Objectives:

With the advances in chemotherapy for unresectable gastric cancer, a number of conversion therapy have been successfully demonstrated in advanced gastric cancer. But, the indication of conversion, chemotherapy regimens and period, and timing of the operation are controversal.

Patient and methods:

Between April 2002 and July 2016, 133 patients with initially unresectable gastric cancer introduced chemotherapy in our hospital. We divided four categories based on biology and heterogeneous characteristics from Dr Yoshida`s category classification, and examined treatment content and results.

Results:

33 cases (24.8%) received conversion therapy after chemotherapy. Chemotherapy only group contained multiple non-curative factor, especially multiple liver metastasis and peritoneal dissemination. Prognostic factors for these cases are presence of conversion therapy and Ro resection. Median survival time (MST) of the conversion group was significantly superior than that of chemotherapy group (34.6M vs 7.9M, P>0.001).

Then, we classified 133 cases into four categories (category1/2/3/4 :22/60/10/41). Conversion rate was 81.8%:11.7%:60%:4.9% in each category, so many cases converted in category 1,3. R0 resection rate was higher in category1,2(category1/2/3/4:88.9%/57.1%/33.3%/0%). MST in conversion group and chemotherapy group at each category was 59.8M:11.1M in category1, 23.1M:9.6M in category 2, 14.1M:7.5M in category3 and 25.4:6.9M in category4. MST in conversion group at category1 was significantly superior than chemotherapy group. The prognostic factors in category1 conversion group was under preoperative Stage II, R0 resection and presence of post-ope M factor.

Conclusions:

Conversion therapy is effective for some advanced gastric cancer, especially category1 cases with down staging by chemotherapy and R0 resection. As for category 2-4 in the present treatment strategy, conversion dosen`t improve prognosis, so further improvement for chemotherapy and combined modality therapy is needed.

Pathological Complete Response after preoperative HER+XP therapy for synchronous liver metastasis from advanced gastric cancer

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Case:

A 70-years-old man, who complained epigastric pain and visited nearby hospital. Gastroscopy revealed mass in the stomach, so he was introduced to our hospital. At gastroscopy, Type 3 tumor was present and biopsy showed moderately differentiated adenocarcinoma. Computed tomography(CT) and Magnetic resonance imaging(MRI) showed solitary liver metastasis in S7, so we diagnosed with stage Ⅳ gastric cancer. HER2 was positive (Immunohistochemistry:IHC score 3+), therefore we started HER+XP(trastuzumab, capacitabine and cisplatin) regimen as a preoperative chemotherapy. After 4 courses, primary tumor decreased and liver metastasis was disappeared at CT and MRI. Then we performed open distal gastrectomy with combined resection of mesocolon and liver S7. Liver metastasis was white degeneration, and mesocolon adhered strongly to stomach. Histopathologically, there were no Histopathologically cancer cells at both stomach and liver. The histological effect was complete remission. After operation, he discharged postoperative day 10.

Conclusion:

Conversion surgery following the response of chemotherapy was performed in some advanced gastric cancer with liver metastasis. But even today, chemotherapy regimen, timing of conversion is controversal. We experienced advanced gastric cancer with liver metastasis that became pathological CR by preoperative HER+XP chemotherapy.

Subcloning and characterization of highly metastatic cells derived from human esophageal squamous cell carcinoma KYSE150 cells by *in vivo* selection

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Objectives:

Esophageal cancer is the eighth most common cancer and the sixth most common cause of cancer-related deaths worldwide. Despite the research progress in understanding the disease, the mechanism underlying the metastasis is still unclear.

Methods:

Here, we successfully generated a highly metastatic cell subline, designated as KYSE150-LuM, derived from an esophageal squamous cell carcinoma cell line (KYSE150) by *in vivo* selection. To elucidate the mechanisms driving metastasis, we characterized the gene expression differences between LuM cells and parent KYSE150 cells.

Results:

IL-6, IL-1b, and LCN2, previously associated with tumor growth and metastasis, were up-regulated in LuM cells. Recent studies on cancer have increasingly focused on the tumor microenvironment, from which these cytokines are released.

Conclusions:

The fact that these three cytokines (IL-6, IL-1b, LCN2) were up-regulated in LuM cells indicates that these highly metastatic cells obtained through *in vivo* selection will be a useful resource for further studies on elucidating the mechanisms underlying the tumor microenvironment which is associated with cytokine-related tumor growth and metastasis. Moreover, LuM cells could disseminate to the lung in shorter period of time *in vivo*, indicating their utility for *in vivo* experiments of metastasis and new therapeutic targets in a shorter period of time than currently possible.

Surgical outcomes for esophageal cancer with M1 LYM after esophagectomy

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Objectives:

The prognosis of patients with distant lymph nodes metastasis (M1 LYM) for esophageal cancer is generally poor. In those patients, the effectiveness of surgery remains controversial. The aim of this study was to estimate the role of esophagectomy of patients with M1 LYM.

Patients:

Thirty-seven patients (11%) were postoperatively diagnosed as M1 LYM among 336 patients who underwent R0 esophagectomy for thoracic esophageal squamous cell carcinoma at our institution, between 1995 and 2014.

Results:

There were 36 males and 1 females, with a median age of 62 years. Of these, 5 (14 %) had pT1 cancer, 10 (27%) had pT2 cancer, 20 (54%) had pT3 cancer, and 2 (5%) had pT4 cancer. The type of M1 LYM classified the supraclavicular nodes alone (n=27), and other type (n=10). The 3- and 5-year overall survival rates were 51 % and 32 %, respectively. By univariate analysis, an improved survival was associated with pT status (pT1/2, P=0.0305), tumor length (<7cm, P=0.0072), and the number of lymph nodes metastasis (LNM) (≤ 2, P=0.0017). Age, gender, tumor location, postoperative treatment, histopathological grading, lymphovascular invasion, the number of resected LNs, and the type of M1 LYM each did not affect survival. By multivariate analysis, the number of LNM (≤ 2 vs. 3≤, HR 0.350; 95% CI 0.108–0.942; P=0.0369) was only an independent prognostic factor. The 5-year survival rate for those patients who had 2 or less LNM was 53%, compared with 19% for those who had 3 or more (P=0.0017).

In M1 LYM patients except supraclavicular LN alone, the 5-year survival rates in patients who received postoperative treatment was 29%, while the patients without postoperative treatment survived less than 2.1 years (P=0.0538).

Conclusions:

Esophagectomy may be effective in some patients with M1 LYM who had 2 or less LNM or received postoperative treatment.

The 8th edition AJCC on gastric cancer staging classification works in a locally advanced disease-prevalent cohort

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Backgrounds:

The recently released 8th edition of AJCC gastric cancer pathological staging system (AJCC8) was derived from the IGCA database, which has yet been validated, particularly in cohorts with higher proportion of advanced disease.

Patients and Methods:

A total of 5,386 gastric cancer patients treated at Chang Gung Memorial Hospital (CGMH) and Veteran General Hospital in Taipei (TVGH) were enrolled. Clinicopathological data of the IGCA series and the CGMH/TVGH cohort were compared. Cumulative survival curves of the CGMH/TVGH cohort as stratified by the AJCC7 and the AJCC8 were compared. Lymph node ratio (LNR) was analyzed in patients with N3b disease.

Results:

Patients in the CGMH/TVGH cohort were older and had more advanced tumor stage (stage III, 49% versus 26%, $p<0.001$) than those in the IGCA cohort. The median survival of stages IIIA, IIIB, and IIIC as defined by the AJCC 8 were 49, 27 and 15 months, respectively, with narrower 95% confidence intervals, in comparison with 62, 30 and 18 months, respectively, as defined by the AJCC7. The AJCC8 exhibited better homogeneity and discriminatory ability, compared to the AJCC7. Six hundred and four patients with N3b disease were stratified by LNR into three subgroups, and their median survival were 31, 17, and 11 months, respectively ($p<0.001$). LNR appeared as a powerful outcome predictor of N3b disease (HR, 3.3).

Conclusions:

The AJCC8 performs well in patients with high proportion of advanced gastric cancer. Additionally, we recommend that LNR is a useful supplementary prognostic indicator for N3b disease.

The clinical outcomes and the pathogenetic background of gastric malt lymphoma in South Korea

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Objectives:

Gastric MALT lymphoma is well known slowly progressing malignancy and has a pathogenic trigger, *Helicobacter pylori* infection, commonly with gastric adenocarcinoma. Literatures report about 6 times higher incidence of adenocarcinoma in gastric MALT lymphoma patients compared to that of general population. However, the development of gastric MALT lymphoma and adenocarcinoma seems to have different pathways. In this study, authors investigated the clinical course of gastric MALT lymphoma and the pathogenic background in the view point of Correa's hypothesis.

Methods:

Study was conducted by review of electronic medical record of patients who were diagnosed with gastric MALT lymphoma at an academic institute, the Yeouido St. Mary's Hospital, Seoul, Korea, from January 2001 to May 2017. Clinical course was evaluated with analysis of demographic features, treatment modality and clinical outcomes. pathogenetic background was investigated in by Helicobacter pylori infection status, histology and serology.

Results:

A total of 46 subjects were enrolled and analyzed during the study period. The mean age was 57.19-year-old (range 36 ~ 85). The male to female ratio was 1.19 (25/21). Endoscopic appearances varied; thirteen subjects presented ulcerative mass (28.26%), 12 (26.09%) as flat atrophic patch of discoloration, 16 (34.78%) erosive patches, 2 (4.35%) multiple polypoid lesion and 3 (6.52%) subepithelial tumor like. Helicobacter pylori infection was proved in 82.6 % (38 / 46). Atrophy and intestinal metaplasia were accompanied in background mucosa in 28.26% (13/46). Serum pepsinogen I and II, as serological marker for atrophy, was evaluated in 17 subjects. Only 9 of 17 (52.94%) showed compatible with gastric atrophy (pepsinogen I / II ratio of less than 3 or pepsinogen I of less than 70). The lymphoma stage by Lugano stage was I1E (80.43%), I2E (2.17%), II1E (15.22%) and IIIE (2.17%). genetic alternation, t(11:18), was proved in 4 of 15 patients (23.53%). The treatment of gastric MALT lymphoma varied. 32 patients were treated with Helicobacter eradication therapy. Four patients received chemotherapy with cyclophosphamide, adriamycin, vincristine, prednisolone (CHOP) regimen, five patients received Radiotherapy and three patients underwent surgery. (Figure 1) Of the 46 patients with MALT lymphoma, except for two who was referred to another hospital, 44 patients (100%) had complete remission. The mean time to remission was 130.81 days, and there was no difference in remission frequency according to each treatment method. Patients were followed up for 3.5~114.9 months (mean 40.86 months) and there was no recurrence in patients.

Conclusions:

Gastric MALT lymphoma is well associated with helicobacter pyloric infection and showed high prevalence of current infection (82.6%). However, the mucosal background of gastric MALT lymphoma showed low prevalence of atrophy and intestinal metaplasia, which in highly prevalent of and precedent to adenocarcinoma. It suggests that the pathogenic pathway of gastric MALY lymphoma and adenocarcinoma has different directions. The treatment for gastric MALT lymphoma varies according to kind of clinical conditions, and the result could achieve clinical remission regardless of treatment modalities.

The effect of additional lymph node dissection along the superior mesenteric vein to D2 gastrectomy for distal gastric cancer

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Background:

The role of lymph node (LN) dissection along superior mesenteric vein (No. 14v) in advanced distal gastric cancer (ADGC) is the matter of debate even in Asian countries.

Aim:

To clarify the efficacy of No.14v LN dissection (No.14vLND) for ADGC.

Methods:

A total of 323 patients with ADGC underwent R0 gastrectomy with D2+14vLND between Oct. 2002 and Oct. 2016 was included in this study. Clinicopathological data were analyzed retrospectively. The risk factors of No.14v LN metastasis (LNM) of these patients were investigated by multivariate logistic regression analysis, and the following indicators were enumerated: age, sex, macroscopic type, tumor size, tumor depth, duodenal invasion, cross-sectional location, histological type, and clinically suspected infrapyloric (N0.6) LNM. We adopted the index of estimated benefit from LN dissection (IEBLD) to compare the efficacy of No.14vLND with the other LNs along with the named vessels of the celiac axis (No.7, 8a, 9, 11p, and 12a). This index is calculated by multiplying the frequency of LNM to each station by the 5-year survival rate of patients with positiveLNs at each LN station.

Results:

The incidence of No.14vLNM was 6.5 % and the 5-year survival rate of patients with No.14v LNM was 33.8%. Multivariate analysis revealed that age (<69 years; p=0.016) and cN in No.6 LN (cN+; p=0.026) were independent risk factors of No.14v LNMs. The IEBLD for each LN stations was as follows: No.7: 4.3, No.8a: 7.2, No.9: 2.4, No.11p: 1.5, No.12a:0.8, No.14v: 2.2. Only of patients with cN+ in No.6 LN, the IEBLD for each LN stations was as following: No.7: 7.8, No.8a: 6.3, No.9: 2.2, No.11p: 3.9, No.12a:1.4, No.14v: 5.9.

Conclusions:

The IEBLD for No.14v LN was similar to that of No.11p or No.12a LN. Therefore, No.14vLND had an effect on survival in patients with ADGC. Especially, for patients with cN+ in No.6 LN, No.14vLND should be considered.

Esophagectomy with thoracotomy. Impact of standardization of anesthetic care. Practices on patient outcomes

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Objectives:

Esophagectomy with thoracotomy is a high-risk procedure with significant perioperative morbidity and mortality. Recent years have focused on improving management in perioperative anesthetic care with many practices having shown their benefit in the literature. The main objective of this study was to assess the impact of a change in anesthetic practices on the overall morbidity of patients undergoing esophagectomy with thoracotomy.

Methods:

In this monocentric retrospective before-after clinical study, we compared patient outcomes between a period before standardization of anesthetic practices from 2003 to 2009, and after standardization from 2010 to 2015. Standardization focused on: preoperative renutrition and respiratory physiotherapy; thoracic epidural analgesia, a lung-protective ventilation and a monitored and guided fluid management during esophagectomy; an early extubation in intensive care unit (ICU) followed by non-invasive ventilation sessions. The primary outcome was overall morbidity. Secondary outcomes were death, hospital and ICU length of stay. A propensity score analysis was performed to take into account potential confounding factors.

Results:

109 patients were included, 51 before standardization and 58 after, with no significant differences in baseline characteristics between the two groups. Anesthetic practices dramatically changed between the two periods. Standardization of anesthetic care decreased overall morbidity in unadjusted analysis (OR 0.162, 95% CI: 0.051-0.51, $p < 0.001$). The propensity adjusted odds ratio of overall morbidity was 0.261 (95% CI: 0.079-0.861, $p = 0.03$). We also found a non-significant trend toward reduced mortality at day 90 (from 5.9% to 1.7%), and decreased in ICU length of stay (from 9.7 to 7.4 days), without effects on hospital length of stay (25 days).

Conclusions:

Our results suggest that standardization of anesthetic care practices decreases postoperative overall morbidity after esophagectomy with thoracotomy. This study should encourage anesthetic teams to homogenize their practices. This finding could also be seen as a first step for enhanced recovery after esophageal surgery implementation.

Comparison analysis of three different types of minimally invasive procedures for gastrointestinal stromal tumors

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Objectives:

This study aimed to evaluate the safety, feasibility, and prognosis of three different types of minimally invasive procedures for treating gastric gastrointestinal stromal tumors (GISTs).

Methods:

The clinical data, perioperative conditions, and the follow-up results of patients who underwent laparoscopic resection (LAP), laparoscopic and endoscopic cooperative surgery (LECS), or endoscopic submucosal dissection (ESD) for gastric GISTs were retrospectively collected and analyzed.

Results:

A total of 103 patients were enrolled in this study, and the numbers of cases who underwent LAP, LECS, and ESD were 40, 16, and 47, respectively. Compared with patients in the LAP group, patients in the LECS or ESD group had a smaller tumor size ($P<0.05$, <0.001) and a higher percentage of intragastric growth pattern ($P<0.001$, <0.001). Significant differences were found in operative time among the three groups ($P<0.001$). ESD group had the shortest operative time, followed by the LECS and LAP groups. Patients who underwent ESD had significantly lower intraoperative blood loss than those who underwent LAP ($P<0.001$) and LECS ($P<0.01$). No statistical difference was found in the postoperative recovery and complications among the three groups, except for patients who underwent ESD, who had shorter nasogastric tube retention compared with patients who underwent LAP resection ($P<0.01$).

Conclusions:

Minimally invasive surgery for gastric GISTs is safe and feasible. The final choice regarding a minimally invasive approach should be based on the tumor size, tumor location, pattern of tumor growth, and experience of laparoscopic surgeons.

Gastric cancer – Feasibility of endoscopic treatment after downstage with proton-pump inhibitors: report of a case

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The objective is to describe a case of gastric adenocarcinoma outside the Japanese guideline indication for endoscopic treatment, which was downgraded with the use of proton-pump inhibitors (PPI) enabling the performance of endoscopic submucosal dissection (ESD) and also to describe the favorable evolution with conservative treatment for one of the possible complications of ESD - perforation.

We report the case of a 63-year-old oriental patient, asymptomatic, submitted to esophagogastro-duodenoscopy (EGD) due to family history of gastric cancer. The first EGD showed a 25mm ulcerated irregular lesion, macroscopically classified Borrmann II, in the posterior wall of stomach's grater curvature associated with atrophic gastritis. The biopsy revealed well-differentiated tubular adenocarcinoma, limited to intramucosa. Echo-endoscopy confirmed the partially ulcerated lesion confined to mucosa, without lymphnodes methastasis. The patient underwent a 15-day therapy with PPI, with downstaging of the lesion to IIC according to the classification of the Japanese Society of Endoscopy, which made the lesion elegible for ESD, considering the expanded criterias for endoscopic resections. The patient had a gastric perforation during ESD which was treated with endoscopic closure using endoclips. He remained hospitalized in Intensive Care Unit (ICU) for 2 days and was discharged on the 6th post-operative day. The anatomopathological exam of the surgical specimen revealed gastric adenocarcinoma with free vertical and lateral margins, and no evidence of vascular or neural invasion. EGD surveillance 03 months after the procedure showed no recurrence of the cancer.

Minimally invasive treatment is a tendency for early gastric neoplasia. With promising success, we observe the possibility of downstaging some lesions through the use of PPI, showing the feasibility of endoscopic treatment and avoiding, thus, a more invasive method. We were also able to show the good results of a less invasive treatment (endoclips) in the case of one of the most common complications of ESD - perforation.

Laparoscopic management of hypertrophic pyloric stenosis shall we start with it?

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Objective:

To evaluate the laparoscopic approach in the treatment of hypertrophic stenosis in terms of postoperative follow-up compared to the classical approach.

Methods:

This is a retrospective study of a series of 14 patients operated in our department for hypertrophic pyloric stenosis during 2016.

Results:

Over a period of 1 year, 14 patients were operated for hypertrophic pyloric stenosis.

We opted for a laparoscopic approach in 4 of them. The mean age was 45 days.

The average duration of surgery was almost similar for the 2 groups: 75 minutes for the laparoscopic approach and 67 for the classical technique. The introduction of the diet was started on day 1 for both groups.

Concerning the use of analgesics during postoperative follow up, paracetamol was used during 2 days for the patients operated by laparoscopy and 1 day for the other group. Morphine was not administered to any patient.

There was no significant difference in the duration of hospitalization for both groups. All patients were discharged on day 2.

Conclusion:

Despite the size of our sample, our results lead us to wonder if the laparoscopic approach is currently an alternative in the treatment of hypertrophic pyloric stenosis of. Indeed, the classical technique has excellent results.

A larger sample and better experience would allow us to better evaluate.

Minimally invasive surgery of esophageal cancer in Kazakhstan

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Objectives:

The complicated post-operative course of patients with esophageal cancer forces surgeons to create minimally invasive approaches of esophageal resection.

Methods:

We have provided minimally invasive esophagectomies for 63 patients with histologically proved esophageal cancer, in the age between 35 and 68. 19 operations were full mini-invasive, 44 – hybrid (combined mini-invasive and open surgery). Full mini-invasive esophagectomies were presented as McKeown triple-approach (right-side thoracoscopy + laparoscopy + cervicotomy, N = 11); Ivor-Lewis (right-side thoracoscopy + laparoscopy, N = 5); transhiatal (laparoscopy + cervicotomy, N = 3). Hybrid procedures were presented by Ivor-Lewis operations (right-side thoracotomy + laparoscopy)

Results:

With improvement of techniques, the duration of operation decreased from 580 to 310 minutes for full mini-invasive esophagectomy, and from 370 to 230 minutes – for hybrid operation. Blood loss was minor in all cases. All patients intraoperatively have received a jejunostomy catheter; using it, enteral feeding started in the day of surgery. Physical activation started 1 or 2 days after surgery.

Complications, somatic or surgical, observed in 41.2%. The most significant was anastomotic failure in 3 cases (4.7%), one patient with anastomotic failure died in early post-operative period.

Conclusion:

Minimally invasive esophagectomy allows to provide surgery with minimal trauma and blood loss, due to best visualization of tissues. Also, minimally invasive esophagectomies allows to decrease the intensity of pain and activate patients earlier.

Single/ reduced port laparoscopic surgery for gastric gastrointestinal stromal tumors

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Objective:

Gastrointestinal stromal tumors (GISTs) are rare tumors of the gastrointestinal tract that arise from primitive mesenchymal cells and are commonly located in the stomach and small intestine. Surgical resection remains the mainstay of treatment as chemotherapy and radiotherapy are rarely effective. Single/ reduced port laparoscopic approaches reduce invasiveness and improve post-operative recovery and cosmesis. Here, we report our institution's experience with two cases where such an approach was undertaken.

Methods:

The first patient presented with a lesser curve high posterior body GIST for which she underwent a single port laparoscopic transgastric wedge resection. The second patient presented with a fundus GIST for which she underwent a reduced three-port laparoscopic wedge resection. Operative duration for both procedures were reasonable and microscopic margins were negative on final histological examination of the resected specimens.

Results:

Post-operative recovery was unremarkable for both patients. There were no immediate complications and they were both discharged well on post-operative day three.

Conclusions:

Transgastric approach is ideal for endophytic tumors especially those located at the posterior wall or near the cardio-esophageal junction (CEJ). It allows for minimal gastric resection along with the tumor hence resulting in less risk of strictures. Single/ reduced port laparoscopic wedge resection of gastric GISTs can be performed safely especially when tumours are located at the gastric fundus or along the greater curve. However, the superiority of this approach is not definitive compared with the conventional laparoscopic approach with limited studies published in current literature on long term outcome and patient satisfaction. Prospective randomized studies comparing both methods are necessary to confirm the benefits of this new approach. Whether conventional or reduced port approach is undertaken, surgical principles of gastric GIST resection should never be compromised.

A meta-analysis of prognostic value of KIT/PDGFRA mutations in gastrointestinal stromal tumors

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Objectives:

Gain-of-function mutations of tyrosine kinase receptor KIT or platelet-derived grow factor alpha (PDGFRA) have been confirmed as a critical factor in the pathogenesis of gastrointestinal stromal tumors (GISTs). However, the prognostic role of mutation status in GISTs is still controversial.

Methods:

We identified all relevant studies by searching PubMed, Medline and Embase. Eligible studies were included in our study. A cumulative meta-analysis was performed using review manager 5.3. Odds ratio (OR) and 95% CI were calculated by using a fixed or random effect model.

Results:

A total of 30 eligible articles involving 7883 patients were identified and analyzed. GIST patients with KIT mutation had a significantly poorer progression-free survival (PFS) compared to those with PDGFRA mutation or lacking KIT or PDGFRA mutation. Overall survival (OS) was significantly better in patients with KIT exon 11 mutations than in those with KIT mutation in other exons. Compared to patients bearing other mutations of KIT exon 11, PFS was significantly worse in those bearing KIT exon 11 deletions, particularly KIT codon 557-558 deletions. In advanced subgroup analyses, a better survival outcome was detected in mutant GISTs, especially KIT exon 11-mutant GISTs after receiving imatinib therapy. That showed that KIT exon 11 mutations had a better response to imatinib treatment.

Conclusions:

Our meta-analysis indicates that KIT or PDGFRA mutations have a predictive value on the survival outcomes of GISTs. The gene mutation status, combined with currently available risk stratification criteria, could better forecast the prognosis of GISTs.

Acute oesophageal varices bleeding in sudanese patients – A study of 1047 patients in a single specialized centre

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Abstract:

Background: Acute oesophageal variceal bleeding is life threatening and management challenge. The aim of this study is to determine the management and outcome of acute oesophageal variceal bleeding in Sudanese patients.

Methods:

Cross sectional hospital based study done on Ibn Sina specialized Hospital, a specialized centre that received 2300 to 2600 patients per year of those with GI bleeding, data collected and analysed using SPSS.

Results:

The incidence was 61.3%. Male to female ratio was 3:1 and the mean age was 65.07 years, about 56.6% of the patients had both hematemesis and melena, and 4.4% of patients presented with melena only. Half of the patient had low Hb%. Oesophageal varices were grade four and three in more than 90%, most of them had active bleeding, and 22% had fundal varix. Sclerotherapy was used in the majority of patients to stop bleeding (more than 10 ml), band ligation in 10.1%, both sclerotherapy and band ligation in 1.8%, and Cyanoacrylate (histoacryl) for those with fundal varix. Sengestaken tube was applied in 9.4%. HTN found in 9.8%, DM in 11.2%, renal impairment in 3.2%, heart disease in 2.2%, liver failure in 17.7%, and cancers in 1.8% and it associated with increased mortality. History of Bilharzias' infection found in 45%, and history of previous hematemesis found in 47.4%. There was 9.4% smokers, 7.9% alcoholic, and 9.7% snuffers. There was 9.6% of the patients used aspirin and 1.1% was on warfarin, and 84.3% of the patients were discharged home, and those with co-morbid disease had a high mortality. Rockall score was less than 2 in 49.7%. There is statistical correlation between hematemesis and aspirin usage, terlipressin usage, liver disease, rocall score and outcome P value < 0.05.

Conclusion:

Sclerotherapy and band ligation with terlipressin injection were important in cessation of bleeding.

Key Words:

UGIB, Oesophageal varix, Portal hypertension.

Availability and safety of feeding duodenostomy

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Background:

The impact of nutritional support on the outcome of gastroenterological surgery is well known and, in highly invasive surgery such as esophageal cancer surgery, management by enteral nutrition effectively mitigates postoperative complications. However, feeding via jejunostomy could cause several complications including ileus, which leads to relaparotomy and could be potentially life-threatening. To reduce these complications, we began to place the enteral feeding catheter via duodenostomy in 2009.

Objective:

The aim of this presentation is to report the operative procedure and our experience of feeding duodenostomy.

Method:

Two hundred and twenty one patients with esophageal cancer who underwent radical esophagectomy with retrosternal or posterior mediastinal gastric tube reconstruction at Department of Gastroenterological Surgery (Surgery II), Nagoya University Hospital from January 2009 through December 2015 were identified in the database. All of the patients underwent feeding via duodenostomy and their records were reviewed for the following catheter-related complications: site infection, dislodgement, peritonitis, and mechanical obstruction.

Operative procedure:

The plastic cannula needle in the introducer kit was passed from the pyloric ring to the duodenal bulb and the feeding tube was placed. The round ligament of the liver and the surrounding adipose tissue was ligated just above the umbilical region and mobilized from abdominal wall which was punctured with the plastic cannula needle, through which the catheter was guided. The end of the adipose tissue was fixed to the puncture site at the duodenum so that the catheter could be guided from the abdominal wall into the duodenum covered fully with adipose tissue.

Results:

Catheter site infection was seen in 2 cases, of which 1 developed peritonitis after removal of the feeding tube. However, neither of them required re-lapalotomy. No mechanical ileus was observed.

Conclusion:

Neither mechanical ileus nor relaparotomy was seen during enteral feeding via duodenostomy, hence, feeding duodenostomy seems to be critically safe and useful.

Characteristics and prognosis of emergency gastrointestinal stromal tumors

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Objectives:

The study aimed to investigate the clinical manifestation, management and prognosis of emergency gastrointestinal stromal tumors (GISTs).

Methods:

A retrospective analysis was conducted in 189 GISTs with acute clinical presentation. Recurrence-free survival (RFS) and overall survival (OS) were evaluated using the Kaplan-Meier curves and multivariate Cox-regression analysis.

Results:

Among the 189 cases of GIST, 150 cases demonstrated clinical symptoms of acute gastrointestinal bleeding, 14 cases of acute intestinal obstruction, 13 cases of acute intraperitoneal bleeding, and 12 cases of rupture and peritonitis. The stomach was the dominating site with acute presentation, followed by duodenum. The R0 resection rate was 94.2%. The three- and five-year RFS were 80.6% and 76.7%, respectively. And the three- and five-year OS for the entire cohort were 92.5% and 88.8%, respectively. In multivariate analysis, clinical presentation (P=0.008), tumor size (P=0.007) and NIH risk classification (P=0.001) were independent prognostic factors for RFS. Clinical presentation (P=0.008) and NIH risk classification (P=0.020) were independently associated with OS.

Conclusions:

Emergency GISTs are more likely to manifest as acute gastrointestinal bleeding, and locate in the stomach. Emergency patients with rupture and peritonitis, or high risk GISTs are independently associated with worse RFS and OS.

Duodenal resection for retroperitoneal sarcoma and GIST: short-term outcomes

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Objectives

Surgery is the mainstay of retroperitoneal sarcomas (RPS) and gastrointestinal stromal tumours (GISTs) treatment. Duodenal resections are sometimes necessary to achieve radicality, but surgical short-term outcomes are unclear due to lack of data and rarity of disease. The aim of this study was to review our experience in patients with RPS and GISTs involving the duodenum, and to analyse the surgical approach and outcome.

Methods

We identified all patients who underwent surgery with duodenal resection for RPS and GISTs, at our Institute between 2000 and 2016. Medical records, operative reports, radiological charts and pathology were reviewed. Demographics, clinical, pathologic and treatment variables were analysed.

Results

Thirty-one patients (19 males, 13 females) were treated: 16 for GISTs and 15 for RPS. The median age was 58 years. Preoperative treatment was given to 10 patients: chemotherapy (6) or combined chemo-radiotherapy (4). Sixteen duodenal wedge resections (WR) and 15 segmental resections (13 of which included Treitz's loop resection) were performed. Multi-organ resection was performed in 71% of cases. The median time to flatus and bowel movement was 3 and 5 days. Oral refeeding started after a median of 5 days. Median post-operative hospital stay was 11 days. The overall 30-day postoperative morbidity rate was 65%, while the duodenal-related complication rate was 28%. Morbidity rates were higher in segmental resections compared to WRs: delayed gastric emptying/paralytic ileus 4/15 vs 1/16; duodenal leak 3/15 vs 0/16; volvulus 1/15 vs 0/16. All 3 patients with duodenal leak had previous abdominal surgery and 2 also chemotherapy. No correlations were found between complications and type of anastomosis or duodenal portion resected.

Conclusions

Duodenal resections for RPS and GISTs have significant rates of morbidity and should be performed in specialized centres. When possible, WR is preferred to segmental resection as it is associated with a lower morbidity rate.

Oesophageal perforation secondary to accidental swallowing of dental prosthesis

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Introduction:

Foreign body impaction is 3rd most common in oesophagus after the nose and throat. Oesophageal foreign bodies are seen in almost all age groups, but are most common in children and in adults who are alcoholics, edentulous and psychiatric patients. Most of them can be easily removed by endoscopy. Symptoms depend on the size and nature of the foreign body as well as the site and duration of impaction. Serious potential complications like perforation, necrosis, mediastinitis, and fistulation necessitate rapid and accurate diagnosis and immediate management.

Case Report:

A 40-year-old gentleman swallowed his denture accidentally, which subsequently became lodged in his oesophagus. An attempt was made to retrieve the denture endoscopically but was unsuccessful as the hook was firmly adherent to the oesophagus. We performed thoracic oesophagotomy and successfully extracted the foreign body. The patient showed an uneventful postoperative recovery and could be discharged on post-operative day nine.

Discussion:

About 70% of denture impaction cases occur in the oesophagus. Presentation of denture ingestion depends on the site of impaction and complications occurred, if any. Potential complications of denture ingestion are bleeding, necrosis, perforation, penetration to adjacent organs and obstruction. Initial investigation of choice is chest x-ray, on which 80 % of the foreign bodies can be identified. The main body of dental prostheses is made of acrylic resin, poly-methyl-methacrylate and porcelain, which are all radiolucent, but it includes radiopaque metallic clips and hooks which enable visualisation. Three different modalities are available for the management of denture ingestion: observation, endoscopic retrieval and surgery. The gold standard for dentures impacted in oesophagus without any complications is endoscopy; in complicated cases, surgery is unavoidable.

Splenic penetration of perforated gastric ulcer and correlation with spleen lymphoma: a case report.

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Background:

Peptic ulcer disease affects over 4 million people every year. Gastric perforation is one of the most serious complications, rarely resulting in confined perforations. Primary spleen lymphoma is another rare occurrence. The association between the two diseases has not yet been described.

Methods:

We present a case study of perforated a peptic ulcer blocked by the spleen, fully described from radiology diagnosis by tomography scanning to post surgery pathological study and biomarkers expression.

Results:

A 55-year-old male patient was admitted for epigastric pain and haematemesis. Upper endoscopies revealed Bormann III ulcerated lesion in two occasions, two biopsies stated chronic gastric ulcer. Tomographies show large infiltrative gastric lesions affecting the spleen, pancreas tail, diaphragm and left adrenal gland, with oral contrast penetration in the spleen. Gastrectomy with splenectomy and distal pancreatectomy was performed. Immunochemistry results point toward non Hodgkin diffuse lrge B-Cell lymphoma.

Conclusions:

Peptic ulcer complications present high mortality and classic clinical presentations are oftenly identified by physicians. Even though most perforations are presented as classic acute abdomen (peritonitis), different complications must not be overlooked and differential diagnosis must be thought of. Confined perforations are uncommon, but expected complications that can be easily diagnosticated with complementary imaging such as ultrasonography and tomography, meaning better prognosis if detected early.

Trichobezoar in children. Not only a surgical case!

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Objective:

The importance of multidisciplinary management in the treatment of trichobezoar in children.

Methods:

Retrospective study held in our department, involving 3 patients treated for trichobezoar.

Results:

Our study involved 3 girls, aged from7 to 15 years old. Trichotillomania was stated in 1 case.

Symptoms were made of chronic abdominal pain in one patient and small bowel obstruction in 2 patients. Physical examination had found epigastric mass in one case.

Ultasonography as well as computed abdominal tomography were performed for all patients. They showed a gastroduodenal bezoar in one patient and a small intestine localisation in the other 2 patients.

Surgery was indicated in all cases. Bezoards were extracted by gastrostomy in one patient and enterotomy in the other 2 patients. All our patients were addressed to a pediatric psychiatrist. One of them refused to get a psychological follow-up. She had a recurrent trichobezoar complicated with peritonitis and was urgently reoperated on. She died as a result of septic shock. The 2 others girls have evolved well and did not present a recurrence.

Conclusion:

The treatment of trichobezoar in children is often surgical. It must be urgent to avoid septic complications. Moroever, the management of trichotillomania must be complete and include a psychological follow-up, avoiding the risk of reccurence, which may be in some cases fatal.

Ultrasound-guided inguinal intranodal lymphangiography without duct embolization: an effective approach

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Objectives:

Chylothorax is a serious postoperative complication with a high risk of death. Further surgical investigation is difficult and minimally invasive lymphography has been developed to treat leakage. The aim of this study was to evaluate the feasibility of ultrasound-guided inguinal intranodal lymphangiography without thoracic duct catheterization for treating chylothorax.

Methods:

Between July 2012 and January 2017, all patients with chylothorax unresponsive to medical treatment underwent the percutaneous inguinal procedure. Efficacy was assessed after 3 weeks.

Results:

Five patients were analyzed. The procedure was technically successful in all patients (100%). Four out of 5 patients were cured (80 %).

Conclusion:

Ultrasound-guided intranodal lymphangiography without thoracic duct catheterization is an effective method for treating postoperative chylothorax.

Laparoscopic nissen fundoplication: results and complications

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Aim:

The aim of our study is the presentation and analysis of our results in hiatal hernia repair with laparoscopic fundoplication.

Material-Method:

Our study is retrospective and includes the period 2012-2016. Concerns 128 patients (75 females- 53 males) with hiatal hernia grade III. The age of patients ranged from 23-72 years with average 48 years. All patients were diagnosed with gastroscopy and upper GI imaging with barium. The symptoms were difficulty of swallowing, epigastric pain, heart burn, cough. There were no findings of Barrett Esophagus.

Results:

All patients were undergone to laparoscopic Nissen fundoplication. The technique included 2 sutures for closure of hiatal defect and 2 sutures for loose fundoplication. The dissection included fully transaction of the hepatogastric ligament with identification of caudate lobe. The duration of operation was 90-110 minutes. In one case we convert the operation at open because of bleeding. There were no major postoperative complications. 13 patients had atelectasia with conservative management. Functional results were excellent. Repeat of endoscopy to 6 months.

Conclusions:

Laparoscopic Nissen fundoplication is the surgery of choice for patients with severe hiatal hernia. It's appropriate the exclusion other pathology of stomach, duodenum and esophagus. It's required surgical team with experience with standard technique (loose plication of fundus) to achieve excellent functional results without complications.

Surgical outcomes of T2 esophageal squamous cell carcinoma: comparison with T1b or T3 cancer

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Objectives:

Although T2 esophageal squamous cell carcinoma (ESCC), which is considered as advanced cancer, is treated similarly to T3 cancer, treatment outcomes of T2 ESCC has not been clearly understood. The aim of the study was to examine the difference in surgical outcomes among T1b-T3 ESCC, and to clarify the outcomes of T2 ESCC.

Methods:

A total of 316 patients with pT1b-T3 ESCC who underwent transthoracic R0 esophagectomy with 2/3-field lymphadenetomy between 2000 and 2015 were identified through a prospectively collected database. Median follow-up of 98 months.

Results:

Patients' median age was 65 years (39-87) and 89% were male. pT stage was T1b in 88 patients (28%), T2 in 57 (18%), and T3 in 171 (54%). Nodal involvement was present in 60% of patients with T2 cancer compared with 38% for pT1b (P=0.0088), and 75% for pT3 patients (P=0.0316). The 5-year overall- and disease-specific survival (OS, DSS) were 57% and 69%, respectively, for all patients. The 5-year OS/DSS for pT1b, pT2, and pT3 were 67%/80%, 63%/78%, and 50%/61%. Both OS and DSS for pT2 cancer were superior to those for pT3 (P = 0.0464, P = 0.0124), and no difference was seen between pT1b and pT2 cancer (P = 0.3839, P = 0.8816). Recurrence rate was 27% in pT1b patients, 25% in pT2, and 42% in pT3. Death from the disease occurred in 18% in T1b, 19% in T2, and 37% in T3 patients. Recurrence rate and the ESCC death rate were lower in pT2 patients than in T3 patients (P = 0.0191, P = 0.0105)**,** with no difference between pT1b and pT2 patients (P = 0.7162, P = 0.8663).

Conclusions:

Surgical outcomes of pT2 ESCC after R0 esophagectomy were significantly better than those of pT3 cancer, and were comparable to those of pT1b ESCC that is generally considered as superficial cancer.

The association between methods of preparation of gastric tube and the incidence of morbidities of esophagogastrostomy.

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Objectives:

Gastric tube (GT) is superior in terms of elevation and handiness of the maneuver, so GT is most often selected as a reconstruction conduit. Although it is thought that some leakages of esophagogastric anastomosis induced by ischemic or congested peripheral blood flow in reconstruction coduit, the association between inadequate blood flow in conduit and the incidence of postoperative morbidities such as anastomotic leak or stricture is not clear. The aim of this study was to evaluate the association between methods of preparation of GT and the incidence of morbidities of esophagogastrostomy.

Patients and method:

Between February 2013 and March 2017, consecutive 138 patients who had undergone one-stage right transthoracic esophagectomy with reconstruction using GT were enrolled into this study. All cases were performed by end to end hand-sewn anastomosis. The patients comprised 116 males and 22 females with a median age of 70 years. In 102 patients, a narrow GT (Gr.N) was used for reconstruction between February 2012 and March 2016. In 36 patients, a stretched GT (Gr.S) was used after April 2016. The anastomotic leak and stenosis were evaluated, retrospectively.

Results:

The following results were obtained: anastomotic leak, 23 patients (16.7%): anastomotic stenosis, 35 patients (25.4%). Anastomotic leak occurred in 20 patients (19.6%) with Gr.N and, 3 patients (8.3%) with Gr.S ($p < 0.01$). Anastomotic stenosis occurred in 31 patients (30.4%) with Gr.N and 5 patients (13.9%) with Gr.S ($p < 0.01$).

Conclusion:

The frequency of anastomotic leak or stenosis was low in patients with Gr.S compared to those with Gr.N. Although the right artery is separated in preparation of Gr.N for the purpose of making up for elevation, the incidence of anastomotic morbidities is relative low. The result is indicated that the adequate blood flow is supplied to the anastomosis from right gastroepiploic artery alone.

Efficacy and Safety of Endoscopic Mucosal Resection for Nonampullary Duodenal Tumors.

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Objectives:

Although the prevalence of nonampullary duodenal tumors (NADT) is not high, the number of NADT is increasing as widespread use of upper gastrointestinal endoscopy. There is no established treatment for NADT due to insufficient data. This study aims to evaluate the efficacy and safety of endoscopic mucosal resection (EMR) for NADT by analyzing the clinical outcome of EMR procedure and surgical approach in the treatment of NADT.

Methods:

A total of 43 consecutive patients with 43 NADT underwent EMR and a total of 13 consecutive patients with 14 NADT underwent surgical approach between April 2008 and February 2017 at Seoul National University Bundang Hospital in Korea.

Results:

Median tumor size which has conducted EMR was 10.8mm. Lesions which were performed EMR consisted of 34 low grade adenoma (79%), 6 neuroendocrine tumor (14%), 3 high grade adenoma (7%). En bloc resection was achieved in 41 lesions (95%). There were 1 case of delayed bleeding (2%) after EMR which was done hemostasis by clipping and 2 delayed perforation (5%) after EMR which resolved by supportive care. 2 delayed perforations were all occurred in lesions which has conducted EMR by piecemeal resection. The mean period of hospital days for EMR was 2.6 days. In case of surgical approach, median tumor size was 13.6mm. There were 13 neuroendocrine tumor (93%), 1 high grade adenoma (7%). There was 1 fluid collection complication (8%) after open wedge resection. The mean period of hospital days for surgical approach was 7.1 days.

Conclusions:

In our study, EMR was an efficacy and safety treatment for NADT. But EMR should be done by skillful endoscopists because of the difficulty of procedure for NADT. Also additional data on the long term outcome of ESD and multi-center large prospective studies of EMR will be needed to establish treatment for NADT in the future.

Enucleation of Giant esophageal leiomyoma: Cases with review of literature

Dr Vinay Kumar Shaw, Dr Azhar Perwaiz, Dr Amanjeet Singh, Dr Adarsh Chaudhary.

Esophageal leiomyoma is a rare neoplasm but it is the most common benign tumour of esophagus. Majority of them are asymptomatic, however, surgical removal is preferred especially if the tumour is large or causing symptoms. Extra mucosal enucleation is the treatment of choice but many studies have suggested that esophageal resection may be required for giant esophageal leiomyoma (GLM). Esophagectomy is too morbid a procedure for a benign disease and can be avoided in selected cases of giant esophageal leiomyoma. Our cases of giant esophageal leiomyoma was managed with local excision and we present it with review of available literature

Keywords:
Giant esophageal leiomyoma, enucleation of leiomyoma esophagus.

Nontransthoracic Radical Esophagectomy using cervical and transhiatal approach under pneumomediastinum

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Objectives:

We previously reported the performance of mediastinoscopic esophagectomy with lymph node dissection (MELD) under pneumomediastinum using a transcervical and transhiatal approach as a method of radical esophagectomy. For more complete lymph node dissection, it is necessary to dissect via not only left cervical but also right cervical approach in pneumomediastinum. We herein report the dissection method for upper mediastinum using a cervico-pneumomediastinal approach including right cervical approach in pneumomediastinum and the short surgical outcome.

Methods:

This method was applied to six cases for esophageal cancer. The right recurrent nerve was first identified using an open approach. Pneumomediastinum was then initiated to allow for the upper thoracic paraesophageal lymph nodes (105) and the right recurrent nerve lymph nodes (106recR) to be completely dissected along the right mediastinal pleura, the right vagus nerve, the proximal portion of the azygos vein and the right bronchial artery. Left recurrent nerve lymph nodes (106recL) and the left tracheobronchial lymph nodes (106tbL) were dissected using a cross-over technique, as described previously.

Results:

This operation using bilateral cervical approach in pneumomediastinum were performed for six cases. The median operation time and bleeding is 580 minutes and 475.5 ml, respectively. The median post-operative stay is 13.5 days.

Conclusions:

MELD is therefore considered to be a more minimally invasive and useful modality for radical esophagectomy than the thoracic approach, although the field of view is different from that of the thoracic approach.

Analysis of mortality in accute septic cholangitis

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Objetives:

Biliary sepsis is 1% of receipts in CTI and 10% of sepsis.

Mortality in septic acute cholangitis (SAC) has dropped significantly in the past 30 years, from 80% to 35%. The aim of our study is to analyze the factors that determine mortality.

Methods:

Registration retrospective SAC patients admitted to the ICU of the Hospital Maciel. Period: January 2002 - August 2015.

Variables analyzed: age, sex, history, origin, evolution time, bilirubin, etiology, while unclogging, shock, culture, SAPS II, treatment.

Results:

81 patients were analyzed. Average age: 64 years. Female: 58%. Hometown: 40% derived from other centers. The mean duration of 7 days. Total bilirubin income: 11mg / dl. SAPS II average score: 46. 33% of patients on admission were in shock. Etiology: 92% was for stones. Positive blood cultures: 26%, Klebsiella was the predominant germ. ESBL Klebsiella development by 50%. Ampicillin / sulbactam was the empirical antibiotic used in 59% and multiple antibiotics plans in 48%. Average time to biliary unblocking: 4 days. Mortality was 37%.

Statistically significant factors for mortality were: age over 65, initial shock, male and biliary unblocking time.

Conclusions:

The presence of initial shock, in elderly patients and gall were tardy unblocking the determinants of mortality; whose decline is linked to the inicial, early and minimally invasive management of obstruction