PPP24-001

DUODENUM-PRESERVING PANCREATIC HEAD RESECTION AND RESECTION OF THE HEAD OF THE PANCREAS COMBINED WITH SEGMENTAL DUODENECTOMY

I. Kozlov, A. Smirnov and A. Chzao
A Vishnevsky Institute of Surgery, Russia

Introduction: To estimate possibility of performance of the organ-preserving pancreatic resections as alternatives to pancreaticoduodenectomy.

Method: Thirty-one patients underwent duodenum-preserving pancreatic head resection (DPPHR) and pancreatic head resection combined with segmental duodenectomy (PHRSD). DPPHR was performed in 16 patients with a preoperative diagnosis of serous (n = 6) and mucinous (n = 5) cystadenomas, branch-duct intraductal papillary mucinous tumors (n = 4), neuroendocrine adenoma (n = 1). Alimentary tract reconstruction after DPPHR was performed by pancreatojejunostomy (Roux-en-Y) (n = 14) and pancreatogastrostomy (1). Double pancreatojejunostomy (n = 1) was performed after laparoscopic proximal pancreatectomy combined with medial pancreatectomy in multifocal IPMN-BD. Laparoscopic approach was chosen in 3 cases from all DPPHR.

PHRSD was performed in 15 patients with chronic pancreatitis complicated by duodenal dystrophy. Alimentary tract reconstruction was performed in all patients by duodenoduodenostomy combined with pancreaticojejunostomy and choledochojejunostomy (n = 6)–first option, pancreatogastrostomy and choledochoduodenostomy (n = 8)–second option, pancreaticooduodenostomy duct-to-mucosa and choledochoduodenostomy (n = 1)–third option. Choledochoduodenostomy was carried out below the duodenoduodenostomy level always.

Results: No differences were noted in the mean operation time and estimated blood loss between the 2 procedures. Ischemia of duodenum didn't note in 1 case of DPPHR. Careful attention paid to superior posterior pancreatico-duodenal artery preservation when performing DPPHR. Major postoperative complication constituted the following: bile duct stricture (n = 2) in DPPHR delayed gastric emptying (n = 2) and postoperative bleeding (n = 1) in PHRSD. Newly developed diabetes mellitus occurred in 1 patient. Exocrine pancreatic insufficiency was observed in 2 patients after PHRSD. There was no hospital or long-term mortality.

Conclusions: DPPHR is recommended first for a benign or low-grade pancreatic head lesion. PHRSD is a safe and reasonable technique appropriate for selected patients with chronic pancreatitis complicated by duodenal dystrophy. We found benign periampullary lesions could be conservatively treated with DPPHR and PHRSD, which could substitute for classic pancreaticoduodenectomy.

PPP24-002

THE NEW SCORING SYSTEM EVALUATION FOR RISK ASSESSMENT OF MALIGNANCY IN BRANCH DUCT INTARDUCTAL PAPILLARY MUCINOUS NEOPLASMS

I. Yoshioka, K. Shibuya, K. Matsui, S. Sawada, I. Hashimoto, S. Hojo, T. Okumura, T. Yoshida, T. Nagata and K. Tsukada
University of Toyama, Japan

Introduction: Considering high incidences of malignant/invasive lesion in main duct intraductal papillary mucinous neoplasms, surgical resection is strongly recommended. On the other hand, indication of resection is still controversial in branch duct intraductal papillary mucinous neoplasm (BD-IPMN), because of the difficulty of evaluation of malignancy. The purpose of this study is to examine the characteristics of resected BD-IPMN in our institution and the selection for surgical resection.

Method: Nineteen patients having a surgical pathology specimen showing BD-IPMN were retrospectively reviewed between 1998 and 2012. Patient- and disease-specific information including demographics, presentation, diagnostic workup, operative procedures and pathology were abstracted from the patient's medical record in a retrospective fashion.

Results: The groups were divided based on their pathology into benign in 47% (9/19), high-grade dysplasia (HGD) (including carcinoma in situ) in 21% (4/19), and invasive cancer in 32% (6/19).To evaluate malignant potential, we were scored cystic lesion size, mural nodule size and diameter of main pancreatic duct of the BD-IPMN cases as follows: cystic lesion size is <29 mm in 0 point, 30–49 mm in 1 point and >50 mm in 2 point. Mural nodule size is <2 mm in 0 point, 3–5 mm in 1 point and 6 mm in 2 point. Diameter of main pancreatic duct is <4 mm in 0 point, 5–8 mm in 1 point and >9 mm in 2 point. By summing the each point, 0–2 points is grade A, 3–4 points is grade B and 5–6 points is grade C. Eight cases of benign were included in grade A, one case of benign, 4 cases of HGD and 1 case of invasive cancer were included in grade B and 1 case of HGD and 3 cases of invasive cancer were included in grade C (the χ^2 test, $p = 0.007$).

Conclusions: Our scoring system using three independent factors may be helpful for predicting of BD-IPMN.

PPP24-003

CONSERVATIVE TREATMENT AND PERCUTANEOUS CATHETER DRAINAGE IMPROVE OUTCOME OF NECROTIZING PANCREATITIS

S. Junjun, L. Weifeng, Q. Shifang and Y. Yanhui
He First Affiliated Hospital of Henan University of Science and Technology, China

Introduction: Surgical intervention in necrotizing pancreatitis (NP) is associated with high mortality. Guidelines recommend fine needle aspiration (FNA) in patients with NP and signs of sepsis. Because infection of necrosis is considered an indication for surgery, operations are often performed early. We changed treatment toward a conservative approach with percutaneous catheter drainage (PCD) in NP, thereby reducing the rate of open surgery and mortality.
Method: Retrospectively analyzed patients who were operated on for FNA-proven infection of NP (n = 22, group 1) were compared to patients subjected to conservative treatment along with PCD in NP (n = 30, group 2) who were followed prospectively.
Results: On admission, between these 2 groups, most baseline data did not show any statistical difference, including age, gender, etiology, body mass index (BMI), C-reactive protein (CRP) level, Acute Physiology and Chronic Health Evaluation II score (APACHE II), Balthazar computed tomography [CT] score. In group 2, all 30 patients were implemented maximum conservative treatment, 25 of 30 patients were cured by PCD (83.3%), open necrosectomy were needed for 3 patients (10.0%) and 2 dead during hospitalization (6.7%).Whereas, in group 1, surgical operation rate was 45.6% and hospital mortality 31.8%, both of the ratios were differed significantly compared with group 2, 45.6% vs 10%, $p = 0.008$, 31.8% vs 6.7%; $p = 0.027$ respectively. Furthemore, Hospital stay were significantly higher in group 1 compared with the group 2 (39 ± 13.4 vs 90 ± 18.5; $p = 0.033$).
Conclusions: A conservative approach with PCD as the first choice to treatment NP might decrease the rate of surgical operation and mortality compared with previous serial FNA and consecutive indication for surgery in case of proven infection. In addition, Employing PCD to treatment NP is effective and secure.

PPP24-004

PANCOMINE: A MULTI-OMICS DATABASE FOR PANCREATIC CANCER

S.Y. Lee[1], M.-S. Kwon[1], S.H. Kim[2], J.S. Park[3], J.Y. Park[3], Y.H. Choi[3], J.-Y. Jang[2] and T.S. Park[1]
[1]Seoul National University, Korea; [2]Seoul National University Hospital, Korea; [3]SK Telecom, Korea

Introduction: Pancreatic cancer is a malignant neoplasm that originated from the cells in pancreatic tissues. Due to its high mortality and late diagnosis, broad biological aspects about the pancreatic cancer have been investigated. Despite the numerous recent investigations of pancreatic cancer, there is no database available for PDAC which provides a comprehensive view of biological aspects. The comprehensive investigation for previously studied candidates is hard to achieve without careful data mining by hand.
Method: In order to overcome those limitations, we present Pancomine in this paper, a multi-omics database for pancreatic cancer, which is a fully user-controllable and visualized database for the integrated information mining about pancreatic cancer. Basically, Pancomine is a database of previously published datasets produced by microarray or NGS technology. In addition, Pancomine provides a comprehensive comparison across the studies, a genetic candidates the previously published multi-omics data that produced by microarray and NGS technology, and also is able to visualize those results by using many informative plots; such as, heatmap, pairwise scatter plot and parallel coordinate plot.
Results: As a result, we constructed Pancomine by gathering several public omics experiment results from pancreatic cancer and developing visualization methods to show the results more intuitively.
Conclusions: We expect Pancomine to be great database for a preliminary investigation of pancreatic cancer.

PPP24-005

ASSOCIATION OF INTEGRIN BETA4 (ITGB4) GENE POLYMORPHISM WITH PANCREATIC ADENOCARCINOMA

S.R. Mohebbi, P. Azimzadeh, S. Romani, S. Kazemian, N. Ebrahimi, H.A. Aghdaei, A.H.M. Alizadeh and M.R. Zali
Gastroenterology and Liver Diseases Research Center, Shahid Beheshti University of Medical Sciences, Iran

Introduction: Pancreas cancer (PC) is a multifactorial disease. Genetic background and variations occurred in specific genes' sequence could affect the susceptibility of individuals to PC development. The aim of our study was to determine the role of single nucleotide polymorphisms of three cancer related genes including *CDKN2A*, *ITGB4* and *IL-16* in risk of PC development.
Method: A total of 243 individuals including 104 known pancreatic ductal adenocarcinoma patients and 139 healthy controls were subjected for the study. Four selected single nucleotide polymorphisms (SNP) were genotyped using polymerase chain reaction (PCR)-restriction fragment length polymorphism (RFLP) method.
Results: The case and control groups were consisted of 104 Iranian patients (61 male and 43 female, mean age = 62.4 ± 13.4) and 139 healthy controls (75 male and 64 female, mean age = 48.4 ± 16.6) respectively. Our results showed a significant difference between genotype distribution of ITGB4 gene polymorphism (rs743554) among PC patients and healthy control subjects.
Conclusions: *Integrin beta-4* also identified as *CD104* (Cluster of Differentiation 104) and mediates cell-matrix and cell-cell adhesion in all cell types especially in cancerous cells. Our results suggest that ITGB4 gene rs743554 polymorphism is significantly associated with increasing risk of pancreas cancer among our population.