laparoscopic instruments. The best indications for this type of procedure are in patients with lesions of their intended liver parenchyma division is in the same in-line axis of the single-incision site. Nevertheless, we think the surgeon should be generous to convert into conventional laparoscopic surgery since additional experiences are mandatory to confirm the safety.

VI-3

Useful Method for Initial Trocar Insertion in Patients with Previous Upper Abdominal Surgery for Laparoscopic Cholecystectomy

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Purpose: Laparoscopic cholecystectomy had been regarded as a relative contraindication in patients with previous upper abdominal surgery because peritoneal adhesion was mostly found at previous abdominal incision scar such as umbilicus. In this study, we investigated useful method for initial trocar insertion in patients with previous upper abdominal surgery using abdominal computed tomography (CT) images.
Method: All patients with gallbladder diseases were taken abdominal CT. Because the presence of adhesion between parietal peritoneum and intestine in right side abdominal cavity could be judged by serial section on each phase of CT, it is possible to attempt a 2-cm transverse right abdominal incision (about 8 cm away from umbilicus; line of linea semilunalis) using open technique to avoid complication such as bowel injury. That site is considered as lower possibility of adhesion. Then, standard cholecystectomy was performed using 3 or 4 port. The data were collected and analyzed for open conversion rates, operative times, perioperative and postoperative complications and hospital stay, which compare with the patients who were not underwent previous abdominal surgery.
Results: From March 2009 to August 2010, a total 448 laparoscopic cholecystectomies were attempted. Of these, 25 patients had undergone previous upper abdominal surgery excluding laparoscopic gastrectomy. No complication during trocar insertion was also occurred such as bleeding and intestinal injury. There was no conversion to laparotomy by difficulty of trocar insertion. Twelve patients (50%) with previous upper abdominal surgery required open surgery because of severe peritoneal adhesion around gallbladder.
Conclusion: Right abdominal open technique using CT images is another useful method for initial trocar insertion of laparoscopy in patients with previous upper abdominal surgery.

VI-4

Postoperative Pancreatic Fistula and Functional Assessment following Transgastric Pancreaticogastrostomy in Managing Remnant Soft Pancreas

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Purpose: Pancreaticoenterostomy is an Achilles heel in managing remnant pancreas following pancreatic head resection or central pancreatectomy. As soft pancreas is known to be closely related to postoperative pancreatic fistula, this issue must be a great challenge especially to novice young pancreatic surgeons. Clinical feasibility and safety of transgastric pancreaticogastrostomy in managing remnant soft pancreas were evaluated.
Methods: Form January 2008 to December 2010, 77 patients underwent transgastric pancreaticogastrostomy in managing soft remnant pancreas. The medical records were retrospectively reviewed and perioperative outcomes including postoperative pancreatic fistula were evaluated. Among them, 49 patients with 1-year follow up data were analyzed for nutritional and functional status based on clinically detectable parameters.
Results: Thirty-two patients were female (41.6%) and 45 (58.4%) were male patients with age, 61.4+/-11.2 years. Preoperative overt diabetes was noted in 8 patients (10.4%). Nineteen patients (24.7%) were ampulla of Vater cancers, 19 (24.7%) bile duct cancers, 11 intraductal papillary mucin-producing neoplasms, 10 pancreatic head cancers, 7 neuroendocrine tumors, 6

duodenal cancers, 2 focal pancreatitis, 1 choledochal cyst, solid pseudopapillary tumor, and 1 colon cancer with duodenal invasion were noted. Seventy-one patients underwent pylorus-preserving pancreatoduodenectomy, central pancreatectomy (robot or laparoscopic assisted) in 4, and subtotal stomach-preserving pancreatoduodenectomy in 2 patients. Only 1 postoperative mortality unrelated to pancreaticogastrostomy (pneumonia sepsis) was noted. Postoperative complications were noted in 35 patients (45.5%). Clinical relevant postoperative pancreatic fistula (POPF, grade B) was found in 18 patients (23.4%), and it prolonged postoperative hospital stay (17.3+/-6.6 days vs. 25.4+/-7.1 days, $p<0.001$). No grade C POPF was found. All POPF could be successfully managed conservatively without interventional radiologic approach. One-year follow-up morphologic assessment showed some atrophic change and dilated pancreatic duct in remnant pancreas (thickness=-3.7+/-4.7 mm, pancreatic duct= 1.2+/-2.9 mm, $p<0.05$). There was significant negative correlation between thickness and ratio of pancreatic duct (R2=-0.097, P=0.033), however, nutritional assessments including body weight, cholesterol, albumin, and body mass index were all acceptable comparing to preoperative values. Thirteen patients (13.6%) reported intermittent steatorrhea. Postoperative glucose control is solely dependent on preoperative reserve function of patients' endocrine function ($p<0.05$).

Conclusions: Transgastric pancreaticogastrostomy is easy, safe and can be alternative surgical technique in managing remnant soft pancreas.

VI-5

Laparoscopic Distal Pancreatosplenectomy with a Gastric Wedge Resection for Recurred Ovarian Cancer: Case Report

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Hand-assisted laparoscopic splenectomy for isolated splenic metastasis has been reported in several studies. However, the role of complete laparoscopic surgery is still controversial in gynecologic malignancies. Some studies have reported only their experiences in primary and second debulking surgery for ovarian cancer. In this paper, we present the complete laparoscopic treatment of an isolated prepancreatic metastatic nodule by laparoscopic distal pancreatosplenectomy with a gastric wedge resection. Complete laparoscopic surgery for selective patients with gynecologic malignancy may achieve safe oncologic outcomes and the chance to start postoperative treatment early. Furthermore, these patients may benefit from the advantages of laparoscopic surgery.