

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 semilunaris) 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: Pancreaticogastrostomy 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: From 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 $\pm$ 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