

Symposium 4

Totally Laparoscopic PPPD

Chiba Cancer Center Hospital, Japan

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Laparoscopic Pancreaticoduodenectomy: Experience in AMC

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There have been only a few reports on laparoscopic pylorus-preserving pancreaticoduodenectomy (LPD) from experienced centers. Clinical outcomes still has been remained undetermined.

One hundred patients with benign or malignant lesions in the pancreatic head underwent laparoscopic pylorus-preserving pancreaticoduodenectomy (LPPPD) between 2005 to 2011. We analyzed overall clinical outcomes and changes of clinical outcomes by learning period to assess the feasibility and safety of this procedure as a single institutional study.

The mean age of the patients was 50.3 years, and there were 46 men and 54 women. Pancreas pathologic examinations revealed 38 patients with intra-ductal papillary mucinous neoplasms (IPMNs), 16 solid pseudopapillary tumors, 15 neuroendocrine tumors, 7 serous cystic neoplasms, 6 pancreatic ductal adenocarcinomas, 3 ampulla of Vater cancers and duodenal gastrointestinal stromal tumors, 2 patient with a mucinous cystic neoplasms and other benign cysts, 1 of metastatic renal cell cancer.

There was one operative mortality from postoperative bleeding. Median operative time was 7.9 hours, which

was decreased according to accumulation of experience from 8.5 hours in first 30 cases and 6.3 hours in last 40 cases. Main complications developed in 27% comprising of 6 (6.0%) of bile leak, and 5 instances of pancreatic fistula. Five patients experienced ileus after operation. There were 4 cases of postoperative bleeding and 3 of wound infection. Complication rate was also decreased from 40% in first 30 cases to and 15% in last 40 cases. The median duration of hospital stay was 11 days (range 7-40 days), which was also decreased from 17 days in first 30 cases, to 10 days (range 7-40) in 40 cases. In 12 patients with invasive malignant disease, median tumor size was 2.8 cm, and median number of lymph node harvested was 13. All patients had margin negative R0 resection.

LPPPD is technically safe and feasible with acceptable morbidity and other clinical outcomes in benign or malignant diseases. Clinical outcomes after learning curve could be improved with the potential benefit of laparoscopic procedure. Well controlled trials are needed to investigate these possible clinical advantages and oncologic equalities.

Laparoscopic Spleen Preserving Distal Pancreatectomy

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Since the introduction of laparoscopy, application on laparoscopic surgery for pancreas is increasing these days. There are several kinds of laparoscopic surgical procedure including distal pancreatectomy, pancreaticoduodenectomy, central pancreatectomy, enucleation, etc. Although, laparoscopic pancreaticoduodenectomy is still controversial due to its difficult techniques, laparoscopic distal pancreatectomy is frequently used as an optional treatment method for the lesions in body and tail of pancreas, when the lesion is considered benign or premalignant. Laparoscopic enucleation is an also good treatment modality when the lesion is presumed to be benign and small such as insulinoma. Laparoscopic distal pancreatectomy can be classified into spleen preserving and spleen sacrificing technique. The spleen preserving technique can be further classified into splenic vessels preserving method and vessels sacrificing method called as Warshaw's method. The splenic vessels preserving method requires longer operation time and more complicated techniques. The splenic vessel sacrificing method is simpler and suit for conditions when malignancy is suspected. However, the application of laparoscopic technique to malignancy is still contraindicated and still there are few reports on this disease entity.

We retrospectively analyzed of the clinical outcome of 110 patients who underwent laparoscopic pancreas surgery from June 2004 to September 2010. As regards to the technique of distal pancreatectomy, preservation of splenic vessels and spleen was tried unless the tumor was very close to splenic hilum or malignancy was suspected in preoperative radiologic

studies. For pancreaticoduodenectomy, both laparoscopy assisted method and totally laparoscopic method have been used. Operation types were 87 cases of distal pancreatectomy, 10 cases of pancreaticoduodenectomy, 6 cases of central pancreatectomy, 4 cases of enucleation and 3 other operations. Among 87 patients operated on distal pancreatectomy, there were 10 patients who were diagnosed as pancreatic malignancy. Eight patients are still alive without recurrence of tumor at mean follow-up period of 30 months. One patient with recurrence is alive for 60 months post-operatively and one remaining patient has expired due to liver metastasis. Our experiences show that laparoscopic pancreas surgery is becoming attractive option for pancreas disease.

References

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Single Incision Laparoscopic Distal Pancreatectomy

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