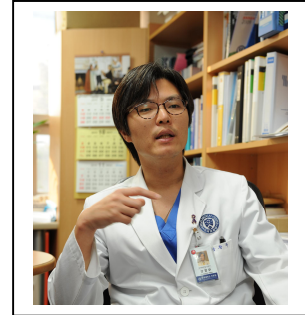


Laparoscopic Pancreaticoduodenectomy¹⁻⁶

[How I Do It]

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Based on the advanced laparoscopic techniques, experiences, and research investigation, laparoscopic distal pancreatectomy is now regarded as safe and effective treatment modality for benign, borderline malignant, and even well-selected pancreatic cancer. However, the application of laparoscopic approach to pancreaticoduodenectomy seems controversial.

The early experiences of laparoscopic pancreaticoduodenectomy (LPD) showed the pessimistic view on LPD. Since late 2000s when Palanivelu, et al published their encouraging outcomes of LPD, many surgeons not only have been trying to suggest the technical feasibility and safety, but also making great effort to improve the perioperative surgical outcomes. In addition, robotic surgical system has been introduced and can be selectively used for safe and effective surgical procedure. LPD is mostly indicated for periampullary pathologies that need to be removed by surgery. LPD is can be divided into three phases; 1) resection, 2) preparing reconstruction, and 3) reconstruction. Considering tissue conditions surrounding periampullary lesions, laparoscopic resection is relatively easy in benign and borderline malignant tumors, but can be difficult in pancreatic head cancer or bile duct cancer due to pancreatitis and cholangitis. Not uncommonly, surgeons need to combine with vascular resection for margin-negative curative surgery. It is reported that even combined vascular resection could be compensated by minimally invasive surgery, but it must be great challenges even to those "experts". To the contrary, laparoscopic reconstruction is thought to be relatively easy in cases of periampullary malignancy due to hard pancreas with large pancreatic duct and large common bile duct (CBD), but not that easy for benign and borderline malignant lesions because most cases will have remnant soft pancreas with small pancreatic duct and small/thin CBD for reconstruction. Therefore, it is thought that LPD is surely feasible and safe, but, it may be difficult to make this approach be generalized. It should be applied in selective cases.

In this presentation, background, indication, surgical techniques, and debating issues will be

discussed.

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