# E70 Totally Laparoscopic Pancreaticoduodenectomy Using 3D Flexible Laparoscopic System

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#### **Purpose:**

Robotic PD has not yet been expanded due to the needs of the dedicated teams and the excessive costs. 3D flexible laparoscopic system (3D) with depth perception and spatial orientation allows the precise dissection of the dangerous site and facilitate the comfortable reconstruction. We present experiences regarding the efficacy of L-PD using 3D.

### **Methods:**

Totally L-PD was attempted in 15 patients from June 2016 to June 2017. However, conversion to open PD was required in one patient with tumor invasion to the superior mesenteric vein. Pancreaticojejunostomy was completed with the dunking procedure in 1 patient and with duct- to-mucosa technique in 13 patients.

### **Results:**

Mean operation time was 500 min. The replaced right hepatic artery originated from superior mesenteric artery of hepatic artery was identified in one patient and preserved well because of the precise dissection under the excellent visual field.

The mean size of pancreatic duct and hepatic duct were 3 mm and 10 mm. There was no major intra-operative complications and post-operative mortality. Postoperative complications were detected in 7 patients, including pancreatic fistula (n=5), and delayed gastric emptying (n=2). All pancreatic fistula was grade A and were recovered with conservative treatment.

#### **Conclusion:**

In selected patients, L-PD is a safe and effective procedure with comparable surgical outcomes to open surgery. Especially, we believe that 3D will play an important role in the expansion of complicated PD surgery and will provide a bridge role for future robot systems.