

Laparoscopic Pancreatic Enucleation With End-to-End Pancreatic Duct Reconstruction

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ABSTRACT

Background. Laparoscopic enucleation for neuroendocrine pancreatic tumors has become a feasible technique, with a reported incidence of pancreatic fistula ranging from 13 to 29 %.^{1–3} This report describes the first successful case of laparoscopic pancreatic enucleation with resection of the main pancreatic duct followed by end-to-end anastomosis.

Methods. A 41-year-old woman was admitted to the authors' hospital for repeated syncope. Hypoglycemia also was noted. A contrast-enhanced computed tomography examination showed a highly enhanced tumor measuring 22 mm in diameter on the ventral side of the pancreatic body adjacent to the main pancreatic duct. The patient's blood insulin level was elevated, and her diagnosis was determined to be pancreatic insulinoma. Laparoscopic pancreatic enucleation was performed. Approximately 2 cm of the main pancreatic duct was segmentally resected, and a short stent (Silicone tube: Silastic, Dow Corning Corporation, Midland, MI) was inserted. The direct anastomosis of the main pancreatic duct was performed using four separate sutures with an absorbable monofilament (6–0 PDS).

Results. The operation time was 166 min, and the estimated blood loss was 100 mL. The postoperative course was uneventful, and the patient was discharged from

hospital on postoperative day 7. The pathologic findings showed a well-differentiated insulinoma and a negative surgical margin. A computed tomography examination performed 1 month after the operation showed a successful anastomosis with a patent main pancreatic duct.

Conclusions. Laparoscopic segmental resection of the main pancreatic duct and end-to-end anastomosis can be performed safely with the insertion of a short stent. This technique also can be used for a central pancreatectomy.

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