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VISCERAL SURGERY VIDEOS

Robotic central pancreatectomy with pancreato-jejunal anastomosis (with video)



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KEYWORDS

Solid pseudopapillary neoplasm;
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Central pancreatectomy is a pancreas-sparing technique used for benign or low-grade tumors in the neck of the pancreas. This procedure is used to decrease the risk of long-term endocrine and/or exocrine insufficiency. However, most patients that could be a good candidate for central pancreatectomy are being treated with distal pancreatectomy with excess sacrifice of functional pancreas parenchyma and splenectomy. The main reason is the need for reestablishment of gastrointestinal continuity of the distal pancreas that may add significant complexity to this procedure. The fear of higher incidence of pancreatic fistula in this type of surgery, although not confirmed in comparative studies [1], may also contribute to fewer indication of central pancreatectomy. The best reconstruction method after central pancreatic resection is still to be defined. Pancreatogastrostomy is easier to perform but Roux-en-Y pancreato-jejunostomy may have better long-term pancreatic function [2]. The feasibility of minimally invasive central pancreatectomy was already shown [3]. This video shows a robotic central pancreatectomy in a young patient with solid pseudopapillary neoplasm in the neck of the pancreas. A 40-year old woman presented with an incidental tumor in the neck of the pancreas. MRI showed a 3.2-cm solid-cystic tumor centrally located. 3-D reconstruction showed that a central pancreatectomy would spare more than 50% of functional pancreas. In this specific patient, a robotic central pancreatectomy was consequently proposed. Roux-en-Y duct-to-mucosa pancreato-jejunostomy was chosen as reconstruction method. As there was no space between the catheter (intubating the wirsung) and the pancreatic duct wall, the needle was first passed through the IV catheter. Then, the needle was pulled out the catheter and removed from the catheter, so the suture would only include the pancreatic duct wall. Total operative time was 227 minutes and blood loss was 50 mL. There was no need for transfusion. Recovery was uneventful, and the patient was discharged on the 4th postoperative day. She presented a biochemical leak (no pancreatic fistula) and the drain was removed on the 10th postoperative day. This patient is asymptomatic with preserved exocrine and endocrine function. This video shows that robotic central pancreatectomy is feasible in selected patients with benign or low-grade neoplasms in the neck of the pancreas. Robotic platform was helpful to perform a duct-to-mucosa anastomosis in an extremely small pancreatic duct.

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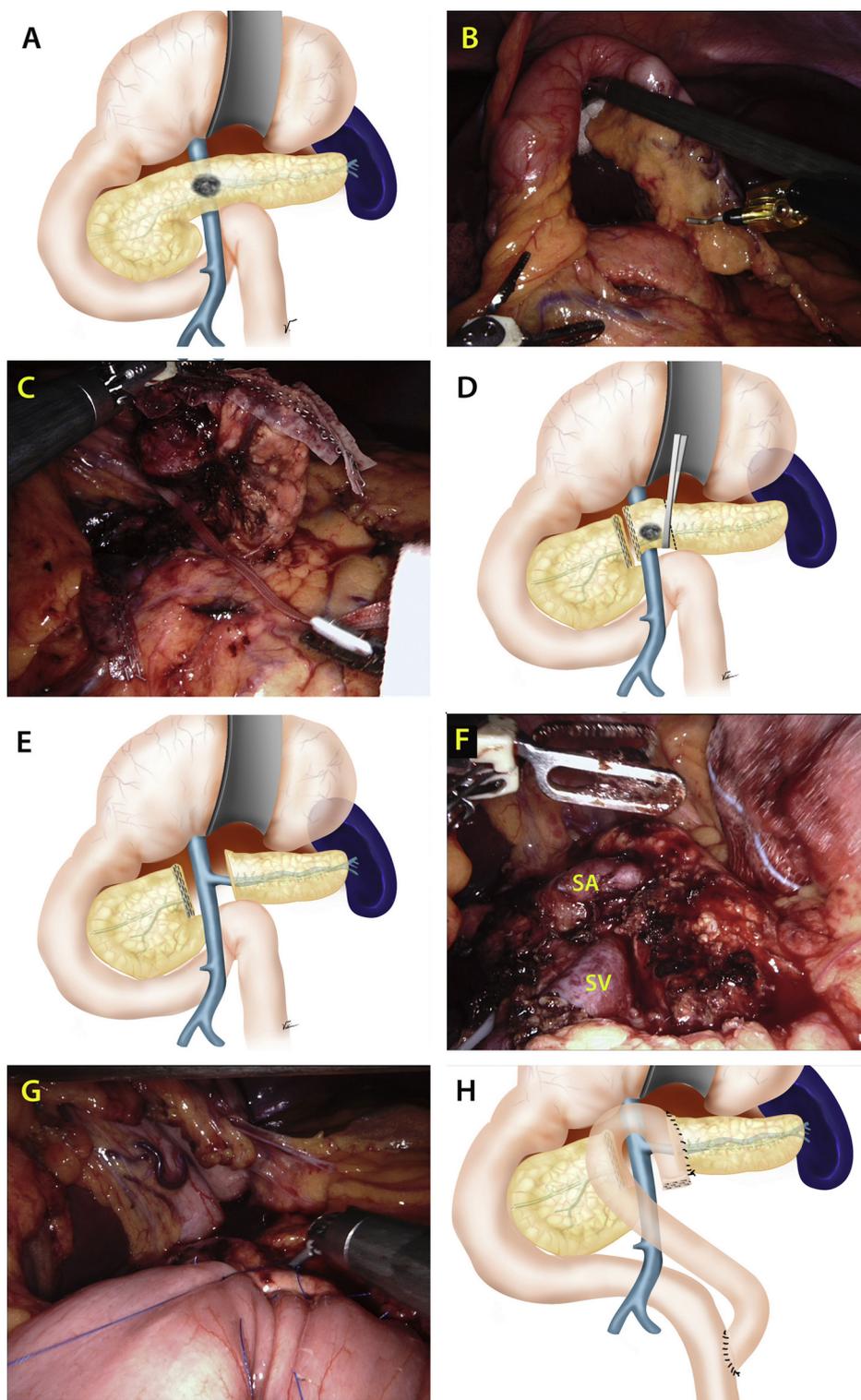


Figure 1. Robotic central pancreatectomy. A. Schematic drawing showing exposure of the pancreas. B. Intraoperative view of the pancreas exposure. C. Intraoperative view: pancreas was divided with stapler and pancreatic segment with the tumor is dissected from the splenic vessels. D. Schematic drawing. View after division of the proximal pancreas. The distal pancreas is pulled up for pancreas transection. E. Schematic drawing. The neck of the pancreas is removed. Splenic vein (SV) and artery (SA) are seen. F. Intraoperative view: central pancreatectomy is completed. G. Intraoperative view: duct-to-mucosa end-to-side pancreateojejunostomy is performed. H. Schematic drawing. Roux-en-Y pancreato-jejunosomy is completed.

This video shows the different steps (Fig. 1) necessary to perform this operation and will be useful for all surgeons having to perform a central pancreatectomy with Roux-en-Y pancreato-jejunostomy.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.jviscsurg.2019.06.015>.

Disclosure of interest

The authors declare that they have no competing interest.

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