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VISCERAL SURGERY VIDEOS

Laparoscopic pylorus-preserving pancreatoduodenectomy. Roux-en-y reconstruction with isolated pancreatic drainage (with video)

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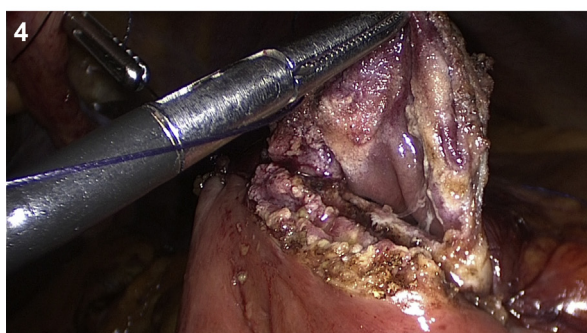
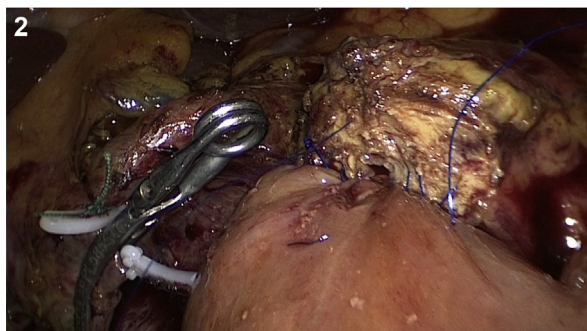
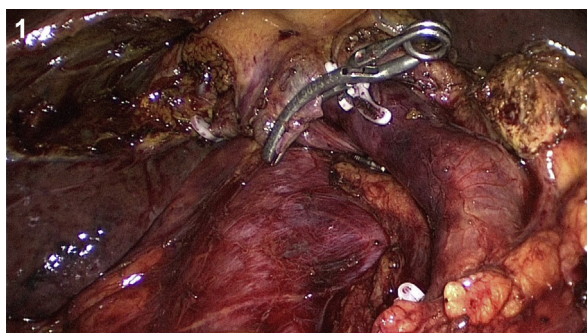
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KEYWORDS

Pancreatoduodenec-
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Technique

Pancreatoduodenectomy is an established procedure for the treatment of benign and malignant diseases located at the pancreatic head and periampullary region. Despite technical improvements, postoperative morbidity remains a major concern. Among these improvements, a technique using two different jejunal loops was described to avoid activation of pancreatic juice by biliary secretion and therefore reduce severity of pancreatic fistula [1]. We have recently described a laparoscopic technique of pylorus-preserving pancreatoduodenectomy (PPPD) with reconstruction of the alimentary tract using isolated pancreatic drainage [2]. This technique does not decrease the incidence of pancreatic fistula. However, according to a recent randomized controlled trial, it decreases fistula severity, duration of stay and medical costs [3]. We present in this video the case of a 60-year-old woman with 2 weeks history of jaundice. CT scan showed a 3-cm tumor, in the head of the pancreas, suspected for malignancy and a replaced right hepatic artery from superior mesenteric artery. The surgical procedure was performed with the patient in a supine position with the surgeon standing between patient's legs. After resection of the pancreatic head, reconstruction of the alimentary tract was performed using two different jejunal loops, one for pancreatojejunostomy and another for hepaticojejunostomy. Jejunum was divided with stapler to create a second loop for biliary anastomosis, which was marked using a green suture. Roux-en-Y was created about 40 cm from jejunal edge. Side-to-side jejunal anastomosis was performed with stapler and a double layered end-to-side pancreaticojejunostomy was performed. Next, vascular clamp was removed from common bile duct and an end-to-side hepaticojejunostomy was performed with 5-0 PDS running suture. Finally, end-to-side duodenojejunal anastomosis was performed using standard double layer technique in an antecolic fashion. Surgical specimen was put inside a plastic retrieval bag and extracted through umbilical port. Pneumoperitoneum was reestablished

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Figs. 1–4. Video extract of “Laparoscopic pylorus-preserving pancreatoduodenectomy”.

and operative field was checked for bleeding and leaks. Two drains, one for pancreaticojejunostomy and other for hepaticojejunostomy were left in place and exteriorized on the left and right flank, respectively, using trocar incisions. Histological examination of the surgical specimen showed a 2.9×2.6 cm adenocarcinoma of the pancreas with free margins. Two out 20 resected lymph nodes were positive. Since March 2012, we are considering every patient for laparoscopic approach, except those with radiological signs of portal vein invasion, voluminous tumor or patient refusal. The proportion of laparoscopic approach for PPPD in our department is about 40% of patients. In conclusion, laparoscopic pylorus-preserving pancreatoduodenectomy with double jejunal loop reconstruction is feasible and may be useful to decrease severity of postoperative pancreatic fistulas. This video shows the different steps (Figs. 1–4) necessary to perform this complex pancreatic surgical procedure.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jviscsurg.2016.02.005>.

Disclosure of interest

The authors declare that they have no competing interest.

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