

Enucleation of pancreatic head tumors combined with pre-operative Wirsung stenting, intra-operative ultrasounds and absorbable fibrin sealant patch application.

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Abstract:

Introduction: Enucleation of benign/low malignant tumors of the pancreatic head is technically demanding and often followed by high morbidity rates Aim: To analyze the perioperative outcome of our series of enucleations for pancreatic head tumors. Patients and methods: from February 2010 to February 2012 out of 119 resected pancreatic head/uncinate process tumors, 25 were cystic neoplasms and 14 neuroendocrine tumors (NET); in 10 of them (25.6%) an enucleation was performed. Enucleation was contraindicated in malignant lesions and when the tumor was deeply embedded in gland's parenchyma involving the Wirsung duct. Endoscopic ultrasound was performed preoperatively in 9 patients. ERCP with Wirsung stenting was realized when the distance between the main pancreatic duct and the lesion was less than 3 mm(5 cases). Intraoperative US was performed in all the patients. At the end an absorbable fibrin sealant patch was placed on the area of enucleation. Results: The mean diameter of the tumor was 2 cm (range 1-4.5); histology revealed 2 benign side branch IPMN, 7 G1 and 1 G2 NET. Mean operative time was 200.6 \pm 56.7 minutes, mean blood loss was 87 \pm 49.7 ml. No mortality was observed. Morbidity was 30%: 3 post-operative pancreatic fistula (2 grade B and 1 grade A). Mean length of hospital stay was 8 \pm 2 days. The reoperation rate was nihil. Readmission regarded only 1 patient. Conclusion: Enucleation is a good alternative to pancreatoduodenectomy in benign/low malignant tumors of the pancreatic head/uncinate. Pre-operative Wirsung stenting, intra-operative ultrasounds and fibrin sealant patch application can ameliorate the postoperative outcome.