

## Example

### Laparoscopic management of neuroendocrine tumors of the pancreas: our experience on 23 consecutive patients

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**Background:** Endocrine pancreatic tumors could be approached in laparoscopy either for radical resection thanks to their small size and low aggressiveness either to obtain adequate tissue to measure the proliferative index in order to establish further treatments.

**Patients and methods:** From 2002 to 2006 all patients undergone to laparoscopy in order to resect or biopsy an endocrine tumor were prospectively evaluated as regard as indication, pre-operative staging, operative management, postoperative outcome and follow up.

**Results:** 23 consecutive patients were operated on. 7 distal pancreatectomies spleen preserving, 7 enucleations 5 splenopancreatectomies and 4 biopsies were performed. Conversion rate was 4%. Postoperative mortality was nihil. Pancreatic fistula developed in 5 cases (22%). Reoperations were 3 (11%) laparoscopically performed. The histological diagnosis according to WHO 2000 was insulinoma in 12 cases, non functioning endocrine carcinoma and neoplasms in 7 and 4 patients respectively. Follow up data are available for all patients. Among radical resections no patient experienced a disease recurrence.

**Conclusions:** Laparoscopic approach is ideal either for endocrine small functioning and non functioning tumors either to obtain adequate tissue samples to measure the proliferative index while for endocrine carcinoma it still remains debatable because of local invasion and major vessels infiltration.

**Keywords:** Endocrine tumors, pancreas, laparoscopy, proliferative index

**Words:** 197