One-Hundred Laparoscopic Distal Pancreatectomies in a Single Institution

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Context The laparoscopic approach for benign and malignant lesions of the left pancreas is increasingly applied. Methods Retrospective study on prospectively collected data. Perioperative data and operative outcome of consecutive laparoscopic distal pancreatectomies performed between March 2006 and March 2013 were analyzed (intent-to-treat analysis). Operative outcome of the subgroup of patients with conversion to open surgery was compared to patients with successful laparoscopy to assess the consequences of conversion. Results Among 341 distal pancreatectomies, 100 patients (29%) had a laparoscopic approach (with a progressively increasing rate from 6% in 2006 to 62% in 2012). Malignancy was not a contraindication. Mean age was 57.4 years (range: 24-83 years; 42 males and 58 females). Mean BMI was 25.3 kg/m² (range: 17-39 kg/m²). Conversion rate was 19% (11 cases because of the difficulty to isolate the pancreas or lesion from the peripancreatic vessels, 6 cases due to intraoperative bleeding, 2 cases due to the site and/or dimension of the lesion). Mean operative time was 244 min (range: 110-490 min). Median blood loss was 250 mL (range: 30-1,800 mL), with 20 patients receiving blood transfusion. Mortality was nihil, morbidity was 68%, with 5% grade ≥3 according to Clavien-Dindo classification (2 cases percutaneous drainage, 3 cases relaparotomy). Pancreatic fistula occurred in 55 cases (of which 8 grade B, 1 grade C). Mean postoperative stay was 8.2 days (range: 4-23 days). Readmission occurred in 7 cases. Spleen preservation (performed with preservation of splenic vessels) was planned in 64% of cases and was successful in 48%; in 12 cases splenectomy was intraoperatively decided due to adhesions with splenic vessels, in 4 cases due to bleeding. The 19 patients with conversion to open surgery, when compared to patients without conversion, had a longer operative time (P=0.01), higher blood loss (P<0.001), higher transfusion amount (P<0.001), and longer postoperative stay (P=0.001); no difference was observed in morbidity rate (P=0.42). At final histology 25 cases were adenocarcinoma, 33 NET (9 insulinoma), 23 cystoadenoma (17 mucinous, 6 serous), 8 IPMN, 5 solid pseudopapillary tumors, 4 chronic pancreatitis and pseudocysts, 2 metastases from RCC. R0 resection was obtained in 97% of cases. Mean number of retrieved lymph nodes was 14.4. Conclusions Laparoscopic distal pancreatectomy can be performed in more than 60% of overall distal pancreatectomy, with a successful spleen preservation rate of 75% of cases. A worse operative outcome is to be expected in patients requiring conversion to open surgery.