

## **Resection of an Isolated Arterial Segment During Pancreatectomy**

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**Context** Isolated involvement of an arterial segment in pancreatic tumors occurs infrequently and does not necessarily mean tumor unresectability being possibly caused by tumor location rather than by excessive growth. **Objective** We report on the outcome of a highly selected group of patients undergoing pancreatectomy plus resection of an isolated arterial segment at a single Institution. **Methods** From January 1993 to May 2011 resection of an isolated arterial segment was performed during 26 pancreatectomies. There were 12 males (46.2%) and 14 females (53.8%) with a mean age of 63.6 years. One patient was operated by robotic surgery. Two patients underwent total pancreatectomy (7.7%), 5 pancreaticoduodenectomy (19.2%) and 19 distal splenopancreatectomy (73.1%). Resected arterial segments were celiac trunk (CT) (n=14), hepatic artery (HA) (n=8), CT and HA (n=4). In 6 patients the hepatic arterial flow was re-established by end-to-end anastomosis (n=1), transposition of the left gastric artery (n=1) and interposition of a saphenous vein jump-graft (n=4). Multivisceral resection was required in 9 patients. **Results** Final pathology disclosed ductal

adenocarcinoma (DA) in 18 patients (69.2%), other pancreatic tumor types or periampullary carcinoma in 5 (19.2%) patients and metastatic tumor in 3 patients (11.5%). Fifteen DA patients were node positive (83.3%). Post-operative morbidity and mortality were 55.5% and 3.8%, respectively. After a mean follow up period of 111 months (range 5-225 months), actual survival rate was 64% at 1 year and 20% at 3 years. Equivalent figures for DA were 30% and 15%, respectively. These data favorably compare with an historical cohort of patients with locally advanced DA undergoing palliation without resection. No patient developed local recurrence, despite none received pre- or post-operative radiation. **Conclusions** In patients affected by DA the resection remains key for cure and possibly provides the best palliative treatment. Highly selected patients with isolated involvement of CT and/or HA may undergo pancreatectomy with results similar to patients without vascular involvement and superior to those offered by palliation or medical therapy alone. The lack of local recurrence seems to be a relevant treatment endpoint.