

Venous Resections in Pancreatic Head Carcinoma - 15 Years Experience with Survival and Prognostic Factor Analysis

Nikola Vladov, Tsvetan Trichkov, Vassil Mihaylov, Ivelin Takorov, Tsonka Lukanova, Radoslav Kostadinov, Stefan Marvakov

HPB Surgery and Transplantology, Military Medical Academy, Sofia, Bulgaria

Abstract

Background: We present a comparative analysis of survival, complications and major risk factors in patients who underwent surgery for pancreatic head carcinoma.

Methods: This is a single-centre retrospective study aimed to evaluate clinical, surgical and pathoanatomical features of 467 patients who underwent radical surgery for pancreatic head carcinoma between September 2004 and October 2019. The series includes 88 patients (18.8%) with venous resections for borderline resectable pancreatic adenocarcinoma.

Results: The estimated median survival rates were statistically significant with 19.3 months in pancreaticoduodenal venous resections (VR) and 26.9 months in pancreaticoduodenal resections (PDR), respectively ($p=0.047$). On the other hand, one, three, and five-year survival rates of 46.6%, 17.6% and 8.3% in VR, and 53.6%, 20.8%, 14.9% in PDR were not statistically significant ($p=0.13$, 0.5 and 0.11 respectively). Survival rates comparison in PDR, VR, and palliative procedures (PP) between the three groups showed statistical significance ($p<0.05$). The clinically relevant postoperative complications in venous resections (13.6%) vs. 14.8% in PDR were not statistically significant ($p=0.77$). Postoperative bleeding and reoperation ($p<0.05$) are independent prognostic factors for worse outcomes. There was no statistically significant relationship between survival and presence of vascular invasion ($p=0.581$).

Conclusions: When performed by experienced surgeons at specialized high-volume centres, pancreaticoduodenal resections combined with venous resection and reconstruction are reliable and safe surgical procedures.

Key words: pancreatic ductal adenocarcinoma, pancreaticoduodenal resection, venous resection