

Is Radical Antegrade Modular Pancreatosplenectomy the Solution? A Systematic Literature Review and Meta-Analysis

Mihnea Dragomir, Mihai Adrian Eftimie

Center for General Surgery and Liver Transplantation "Dan Setlacec", Fundeni Clinical Institute, Bucharest, Romania

Abstract

Background: RAMPS is considered, in high volume centers, as the best treatment for adenocarcinoma of the body and tail of the pancreas.

Methods: PubMed database was searched. The results of studies that compared RAMPS with SRPS were analyzed by meta-analytical methods.

Results: Five studies, published between 2013 and 2016, were suitable for quantitative synthesis. 285 unique patients were included, 135 patients in the RAMPS group and 150 patients in the SRPS group. Regarding retrieved lymph nodes, the mean difference was 6.54. This difference was considered to be statistical significant, $P < 0.00001$. A complete tumor resection was observed in 115 of 129 patients who underwent RAMPS and in the case of the standard procedure a R0 resection was obtained in 107 cases out of 137, the RR was 1.17 (95% CI, 1.04, 1.32). One-year overall survival was found to be 79.2% in the RAMPS groups compared with 64.29% in the SRPS group. This difference is considered statistically significant, with a P value of 0.02.

Conclusions: RAMPS is a safe procedure for the treatment of adenocarcinomas of the body and tail of the pancreas. RAMPS procedure is superior to SRPS in terms of lymph node retrieval and R0 resections.

Key words: distal pancreatectomy, retrograde pancreatosplenectomy, radical antegrade modular pancreatosplenectomy, pancreatic cancer, pancreatic resection, adenocarcinoma of the pancreas