

The Optimal Management of Distal Pancreatic Stump After Pancreatico-Duodenectomy: Different Indications for Gastric and Jejunal Anastomoses

Traian Dumitrascu^{1,2}, Vladislav Brasoveanu^{1,3}, Simona Dima¹, Irinel Popescu^{1,3}

¹Center of General Surgery and Liver Transplant, Fundeni Clinical Institute, Bucharest, Romania

²Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

³Titu Maiorescu University, Bucharest, Romania

Abstract

Background/Aim: The optimal management of distal pancreatic stump after pancreatoduodenectomies (PD) remains unclear. The study aims to assess the early outcomes after anastomoses with jejunum vs. stomach of the distal pancreatic stump in a relatively large series of patients with PD.

Patients and Methods: All patients with PD performed between Oct 1, 2016, and Oct 1, 2021, were retrospectively assessed: anastomoses with the jejunum (PJ group) vs. with the stomach (PG group). Results: A number of 360 PD: PJ group – 293 patients (81.4%) and PG group – 67 patients (18.6%). No statistically significant differences were observed between the groups regarding the early outcomes (p values ≥ 0.065), except for the clinically relevant delayed gastric emptying higher rates in the PG group (38.8% vs. 25.9%, $p = 0.049$). In the PG group there were statistically significant higher rates of pylorus-preservation (19.4% vs. 8.2%, $p = 0.012$), soft pancreas texture (76.1% vs. 34.4%, $p < 0.001$), small Wirsung ducts (4 mm (0-25) vs. 3 mm (1-10), $p < 0.001$) and intermediate and high-risk fistula scores (83.6% vs. 52.6%, $p < 0.001$).

Conclusions: No particular anastomotic technique can avoid postoperative complications. In patients with hard pancreas texture and dilated Wirsung duct, a duct-to-mucosa PJ anastomosis should be the first option, while for patients with small Wirsung duct and soft pancreas texture, an invagination PG anastomosis should be preferred.

Key words: pancreatoduodenectomy, pancreatice-jejunal anastomoses, pancreatice-gastroanastomoses, high-risk fistula scores, morbidity, pancreatic fistula