Closure method for thick pancreas stump after distal pancreatectomy: soft coagulation and polyglycolic acid felt with fibrin glue.

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Abstract:

Purpose: Pancreatic fistula (PF) remains an obstacle to safe distal pancreatectomy (DP). A thick pancreatic parenchyma is a major risk factor for PF. In this paper, we elucidate the feasibility of the new closure method using soft coagulation and polyglycolic acid felt with fibrin glue. Methods: In 2009-2013, 96 patients underwent DP with a novel closure method for pancreatic stump that utilized soft coagulation and polyglycolic acid felt with fibrin glue. We evaluated amylase levels in drainage fluid on postoperative days (POD) 1 and 3 and the incidence of postoperative PF according to International Study Group of Pancreatic Fistula (ISGPF) definitions. Results: Drain amylase levels on POD1 and POD3 were 275 and 241 U/L, respectively, and ISGPF-defined Grade B/C PF rates were 16.7 %. No clinical factors were significantly associated with PF. Average pancreatic parenchymal thicknesses were similar in PF-positive and PF-negative patients (10.4 +/- 2.6 mm vs. 10.1 +/- 2.2 mm, P = 0.639). There was no significant difference in the postoperative PF rate between patients with thick (>=12 mm) and thin (<12 mm) pancreas (11.1 vs. 18.8 %, P = 0.544). Conclusion: Our novel pancreatic stump closure method appears to be simple and effective, particularly in patients with thick pancreas.

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