

Fibrin glue sandwich prevents pancreatic fistula following distal pancreatectomy.

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Abstract:

Pancreatic fistula is a major form of morbidity following pancreatic resection. We conducted a nonrandomized clinical trial comparing the sealing and sandwich techniques of spraying fibrin glue to prevent pancreatic fistula following distal pancreatectomy. The pancreas was transected with a scalpel to identify and suture the main pancreatic duct and its small branches. In the sealing group, fibrin glue was sprayed over the closed pancreatic stump and sutures. Alternatively, in the sandwich group fibrin glue was sprayed so as to cover and join the cut surface of the pancreatic remnant, which was then held closed with sutures. Altogether 111 patients were included in the study (90 with gastric cancer, 10 with esophageal cancer, and 11 with pancreatic cancer). Patients were nonrandomly assigned to the sandwich or the sealing group. Morbidity was 21.8% for the patients in the sandwich group versus 33.9% in the sealing group. Pancreatic fistulas occurred in 9.0% of the sandwich group versus 26.8% of the sealing group. The incidence of fistula was thus significantly lower in the sandwich group. The incidence of fistula was also significantly lower in the sandwich group for gastric malignancy patients undergoing extended radical lymphadenectomy down to the paraaortic lymph nodes combined with left adrenalectomy. Of the patients with gastric malignancy, pancreatic fistulas occurred in 9.3% of the sandwich group versus 25.5% of the sealing group. The fibrin glue sandwich technique is simple and reliable and should be valuable for complementing other prophylactic methods of preventing pancreatic fistula.