Combination of polyglicolic acid felt and fibrin glue for prevention of pancreatic fistula following pancreaticoduodenectomy.

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Abstract:

The most frequent cause of morbidity following pancreaticoduodenectomy is pancreatic fistula. An appropriate technique to minimize pancreatic fistula is very important. Polyglicolic acid felt combined with fibrin glue has been applied in other organ surgery with excellent results and without any notable adverse reactions. We herein describe a new technique for prevention of pancreatic fistula using the combination of polyglicolic acid felt and fibrin glue as an adjunct of pancreaticoenterostomy following pancreaticoduodenectomy. Polyglicolic acid felt combined with fibrin glue as an adjunct of pancreaticoenterostomy was applied prospectively to 25 consecutive patients undergoing pancreaticoduodenectomy. Drain amylase was measured daily after the surgery and the incidences of complications were recorded. Median drain amylase on day 1 after surgery was 745IU/L, on day 2 it was 427IU/L, on day 3 it was 97IU/L, and on day 5 it was 38IU/L. Three patients (12%) developed grade A pancreatic fistula. No grade B or C pancreatic fistula was observed. No re-do operations, no postoperative percutaneous drainage, and no surgical mortality occurred. The combination of polyglicolic acid felt and fibrin glue was extremely favorable for prevention of pancreatic fistula following pancreaticoduodenectomy.