Prevention of Pancreatic Fistula After Pancreatoduodenectomy

To the Editor:

There have been several interesting articles1–5 in addition to the recently published article by Pessaux et al6 regarding fistula rate following pancreatoduodenectomy. It is accepted that diverting pancreatic enzymes from the anastomotic site is of major importance, although there seems to be no consensus regarding anastomotic technique (duct to duct or invagination) and use of stents. There does not seem to be emphasis on the treatment of the cut edge of the pancreas as a source of leaking enzymes although Peng et al,7 who used a binding of the pancreaticojejunos tonym, and Chen et al,4 who used suture ligation of the stump, obtained good results. Diminished leakage from the stump could be a significant factor in their good results.

In a letter to the editor in 2008,1 I reported a small personal series using the invagination technique with an internal stent and 3 sutures (2 laterals and 1 anterior) through the pancreatic tissue just proximal to the end of the stump with no fistulas. I assume diminished leakage of enzymes from the pancreatic stump due to these sutures is a significant factor.

A large-scale study using the aforesaid technique appears warranted because pancreatic fistula still appears to be a challenging problem without consensus regarding prevention, and because studies2,4,7 have demonstrated the efficacy of treating the cut edge of the pancreas.

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REFERENCES

Reply:

We read with interest the comments and the technical description of pancreatic duct stenting by P. Niloff. Pancreaticojejunal anastomosis is considered to be the “Achilles heel” of the pancreatoduodenectomy. Several technical variants have been proposed to reduce the rate of postoperative pancreatic fistulas (PFs) after pancreaticojejunal anastomosis. Thus, end-to-end or end-to-side pancreatic duct-to-jejunum anastomosis in 1-, 2-, or 3-layer suture with or without invagination of the pancreatic stump, isolated Roux loop anastomosis, or isolated jejunal loop anastomosis of 60 cm has been proposed. However, few of these procedures have been subjected to a comparative evaluation and even less by a prospective randomized trial. To our knowledge, only 2 procedures have been demonstrated as reducing the rate of PF: binding pancreaticojejunos tony and the use of an external drainage of the pancreatic duct. In a randomized prospective study, the invagination of the pancreatic stump in the jejunal loop during a end-to-side pancreaticojejunal anastomosis allowed for a reduction in the rate of PFs from 24% to 12% (P < 0.05) compared with an anastomosis between the pancreatic duct and the jejunal mucosa.1 Currently, 3 prospective randomized trials demonstrated the benefit of transitory external drainage, reporting a reduction in the PF rate from 20% to 6.7%,2 from 42% to 26%,3 and from 22% to 6%.4 In contrast, Winter et al3 reported that internal pancreatic duct stent did not reduce PF compared with no stent. Unfortunately, personal experience is sometimes disappointing after a clinical trial, so we encourage P. Niloff to demonstrate the effectiveness of their technique that seems very interesting. Any contribution to improve outcomes following pancreatoduodenectomy is welcome.

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REFERENCES

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