LETTER TO THE EDITOR

Exocrine pancreas graft drainage in recipient duodenum through side-to-side duodeno-duodenostomy

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The interesting report by Hummel *et al.* in the February issue of this Journal [1] confirmed our previous publication indicating that, in pancreas transplantation, side-to-side duodeno-duodenal anastomosis is technically feasible and allows easy access to the graft duodenal mucosa for repeated biopsies and rejection monitoring [2]. In our experience we prefer to anastomose the graft portal vein to the infrapancreatic superior mesenteric vein similarly to the technique described by Boggi *et al.* [3]. With this procedure, the pancreas graft is positioned in a pure retroperitoneal and physiologic location for both endocrine and exocrine drainage, but it is uncertain if this fact has any influence on the functional results of the transplantation.

The main drawback of this technique is the potential for anastomotic leak that could be challenging to control as the recipient duodenum cannot be resected. Direct duodenal repair, plasty with a Roux-en-Y limb, or laterolateral duodenojejunostomy may be surgical options to achieve recipient duodenal closure in case of anastomotic leak [2].

We considered using this technique in our last five pancreas transplantations (three pancreas alone and two simultaneous pancreas-kidney transplantations). In four patients, side-to-side duodeno-duodenal anastomosis was performed (three manually and one with a circular stapling device, according to the surgeon's preference). Immunosuppression consisted of quadruple therapy, including induction with polyclonal antibodies and maintenance with tacrolimus, mycophenolate mofetil and low-dose steroids. These patients underwent regular protocol duodenal biopsies, without any evidence of acute or chronic rejection. Pancreas graft and patient survival is 100% at follow-up. One patient required two re-laparotomies, for early non-infected peripancreatic hematoma and for late (>6 months) mechanical intestinal occlusion. No patient experienced any complication linked to the duodenal anastomosis or to the vascular reconstruction. In the fifth patient recipient of simultaneous pancreas-kidney transplantation, pancreas graft duodenum was found to be badly preserved at reperfusion, and we then chose to perform duodenal drainage through a Roux-en-Y jejunal limb. This patient developed anastomotic leakage requiring life-saving pancreas graft resection after three unsuccessful attempts of surgical correction.

This small series of duodeno-duodenal drainage of pancreas grafts, and the case described by Hummel, provide some evidence that this technique is feasible, appears to be safe in pancreas grafts with good duodenal preservation, and provides easy access of the duodenal mucosa for rejection monitoring. All these pancreas grafts are functioning perfectly and did not develop any episode of rejection. These promising results need to be confirmed by larger series and controlled comparison with classical enteric drainage.

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References

1. Hummel R, Langer M, Wolters HH, Senninger N, Brockmann JG. Exocrine drainage into the duodenum: a novel technique for pancreas transplantation. *Transpl Int* 2008; **21**: 178.
2. De Roover A, Coimbra C, Detry O, *et al.* Pancreas graft drainage in recipient duodenum: preliminary experience. *Transplantation* 2007; **84**: 795.
3. Boggi U, Vistoli F, Signori S, *et al.* A technique for retroperitoneal pancreas transplantation with portal-enteric drainage. *Transplantation* 2005; **79**: 1137.

