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Acute abdominal pain after vesical catheterization in a kidney and pancreas graft recipient

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Sir: Simultaneous pancreas and kidney transplantation is becoming increasingly accepted as an appropriate therapy for carefully selected patients suffering from type I diabetes mellitus and end-stage renal failure. The management of pancreatic graft exocrine secretion has been a major concern ever since the start of clinical pancreas transplantation. A variety of techniques have been used in an effort to reduce surgical complications related to the acinar pancreatic tissue and to enhance graft survival. The three surgical procedures most often considered are: enteric duct drainage (pancreaticoenterostomy), urinary duct drainage (duodenocystostomy), and duct occlusion [1]. The surgical technique usually employed at our hospital is the duodenocystostomy. The main advantage of this procedure is the possibility of early detection of pancreatic rejection with the monitoring of pancreatic enzymes in urine [4]. Technical difficulties associated with the operative management of exocrine ductal secretions result in significant morbidity and mortality. Usual complications include: anastomotic breakdown, abscess, fistula, graft pancreatitis, and urethritis [2, 3]. We report an unusual complication caused by a urinary Foley catheter.

A 29-year-old woman suffering from type I diabetes mellitus and end-stage renal disease received simultaneous pancreatic and renal grafts. The pancreas was transplanted with a segment of duodenum and was placed intraperitoneally with end-to-side vascular anastomoses to the right iliac vessels. A two-layer duodenocystostomy was performed. The patient had a small bladder, something that was already disclosed in the pretransplant cystography. The initial immunosuppressive regimen consisted of intravenously administered cyclosporin, prednisone, azathioprine, and OKT3. Immediate diuresis and insulin independence were achieved. No episodes of rejection were detected. Fourteen days after transplantation the vesical catheter was removed. Eight days later, the patient developed a graft pancreatitis, and a small amount of fluid around the pancreatic graft was detected by real-time ultrasonography (US). A urine culture was positive for *E. coli*. Indwelling bladder drainage was performed; abdominal pain disappeared and serum lipase and amylase normalized. Five days later the patient developed fever (38 °C) and a pelvic collection of urine fluid was percutaneously drained under US guidance. An anastomotic breakdown was suspected and confirmed with a cystography. The patient underwent surgical repair of an anterior duodenovesical fistula and drainage of the peripancreatic abscess. One month after this operation the vesical catheter was changed and another Foley catheter introduced. The patient immediately complained of severe abdominal pain in the area of the pancreas graft. An urgent real-time US was performed. It disclosed the vesical balloon abnormally located inside the duodenal segment, compressing the pancreatic graft and causing mild dilatation of the Wirsung duct. The balloon was deflated and the Foley catheter removed, immediately relieving the patient of the abdominal complaints. The patient is currently well with both kidney and pancreas grafts functioning for more than 6 months.

Complications in pancreas transplantation that are related to exocrine secretion management are frequent. We would like to draw your attention to the exceptional complication associated with a vesical catheterization of a patient with a small bladder who underwent a duodenocystostomy and surgical procedures to repair the urinary fistula. The insufflation of the balloon inside the duodenum caused an obstruction of the exocrine pancreatic drainage and subsequent acute abdominal pain. We highlight the fact that extreme precautions should be taken when performing a vesical catheterization, especially in patients with a small bladder or with a large communication between the bladder and the duodenum. When location of the balloon inside the duodenum is suspected, US should be performed immediately and the Foley catheter removed in order to avoid a severe pancreatitic episode.

References

1. Brekke IB (1993) Duct-drained versus duct-occluded pancreatic grafts: a personal view. Transpl Int 6: 116–120
2. Fernández-Cruz L, Sabater L, Gilabert R, Ricart MJ, Saenz A, Astudillo E (1993) Native and graft pancreatitis following combined pancreas-renal transplantation. Br J Surg 80: 1429–1432
3. Ozaki CF, Stratta RJ, Taylor RJ, Langnas AN, Bynon JS, Shaw BW (1992) Surgical complications in solitary pancreas and combined pancreas-kidney transplantations. Am J Surg 164: 546–551
4. Prieto M, Sutherland DER, Fernández-Cruz L, Heil J, Najarian JS (1987) Experimental and clinical experience with urine amylase monitoring for early diagnosis of rejection in pancreas transplantation. Transplantation 43: 73–79

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Bilateral renal cell carcinoma and kidney transplantation – how long should we wait?

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Sir: We wish to report a follow-up on case 2 described in the article by Wiggins et al. [2].

This 44-year-old man had undergone bilateral nephrectomies for renal cell carcinoma in 1989. After extensive investigation to exclude the presence of overt residual tumour, the patient received a cadaver allograft and, at the time of publication, was well without evidence of tumour recurrence. He remained well until December 1993, when he presented with a short history of abdominal pain and a mass in the abdomen. Ultrasound demonstrated a large liver with numerous focal lesions; fine needle biopsy of one of these revealed malignant cells consistent with an adenocarcinoma. He also complained of some numbness of his lower lip and pain in the jaw; a radiograph of the mandible revealed lytic lesions which, on biopsy, were due to metastatic spread of a renal cell carcinoma. He rapidly deteriorated and died 2 weeks after presentation. A postmortem was refused on religious grounds.

Professor Penn, in his invited comment on this article, concluded that he firmly believes that a 2-year waiting period for patients with symptomatic renal carcinomas is reasonable for most patients [1]. The subsequent course in our patient would support this. However, this patient was given just over 4 years of good quality life with a functioning graft before presenting with multiple metastases and a short terminal illness. This has to be weighed against a 2-year wait on dialysis in an anephric state to determine whether the residual tumour would have revealed itself, and if it did he would then most certainly have remained on dialysis.

References

1. Penn I (1993) Kidney transplantation in patients previously treated for renal carcinomas. Transpl Int 6: 350
2. Wiggins C, Pontin AR, Manas D, Swanepoel CR, Cassidy MJD, Kahn D (1993) Renal transplantation in patients with bilateral renal carcinoma – how long should we wait? Transpl Int 6: 348–349

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