Eur J Vasc Endovasc Surg **20**, 196–197 (2000)
doi:10.1053/ejvs.2000.1174, available online at http://www.idealibrary.com on IDEAL®

LESSON OF THE MONTH

Intermittent Groin Swelling Following a Polytetrafluoroethylene Iliofemoral Graft

M. J. McCarthy* and A. R. Naylor

Department of Surgery, RKCSB, University of Leicester, Leicester LE2 7LX

Introduction

Iliofemoral bypass is a common and well-tolerated procedure, which is prone to the usual complications beset to vascular grafts.[1,2] We report a rare complication of transvesical tunnelling of a polytetrafluoroethylene (PTFE) iliofemoral graft that presented as a groin abscess over the recipient femoral artery.

Case Report

A 72-year-old male presented with a 6-week history of a left groin abscess. He had undergone a right external iliac to left common femoral artery PTFE iliofemoral bypass 6 years previously at another centre for claudication. For the following 4 years he had presented at regular intervals, with intermittent left groin swellings thought to be seromas. Straw-coloured fluid was usually drained by needle aspiration. However, he described that his left groin would occasionally swell during micturition.

On this admission the graft was occluded with an abscess pointing through the left groin scar with pyrexia and rigours. It was presumed that the prosthetic graft was infected. He was taken to theatre for groin exploration under general anaesthesia, which revealed a cavitating abscess, encompassing the graft at the femoral artery anastamosis. The artery was slung and control obtained. The anastomosis was taken down, revealing frank pus within the graft lumen. Pus was observed tracking from the graft tunnel; thus, the graft was explored via a supra-pubic approach. This revealed the graft traversing the bladder with an infected tract reaching as far as the exit wound of the graft. The graft was removed from the bladder, traced to its origin on the right external iliac artery and excised. The entry and exit holes in the bladder were repaired in two layers.

The left common femoral artery had adequate inflow; therefore, the artery was repaired with a long saphenous vein patch, resulting in good perfusion of the left foot. The right external iliac artery was repaired in a similar fashion.

Postoperatively a urethral catheter was left *in situ* for 14 days and both feet remained well perfused.

Discussion

Iliofemoral grafts are usually tunnelled posterior to the rectus abdominus muscles, but transvesical penetration is a potential complication. However, only one case has been reported.[3] That case was discovered within the early postoperative period; however, this is the first report of the long-term consequence of transvesical graft tunnelling. Exposure of the femoral artery may result in postoperative groin swelling; the aetiology is commonly haematoma formation, false aneurysms or seromas. Given that there was direct communication between the bladder and the left groin and the swelling increased in size when the patient micturated, it is feasible that the intermittent swellings were urinomas. Surprisingly, the groin did not become infected sooner. As the patient did not have any groin swelling in the preceding 18 months prior to this

* Please address all correspondence to: M. J. McCarthy, Department of Surgery, RKCSB, University of Leicester, Leicester LE2 7LX.

1078–5884/00/080196+02 $35.00/0

admission and the pus cultured *Staphylococcus aureus*, the infection may not be a direct result of a urinary fistula.

This case highlights the importance of pre-operative urethral catheterisation and urinary drainage prior to iliofemoral bypass. Beware of patients who have had an iliofemoral bypass presenting with intermittent fluctuant groin swellings. If drained, then urea and creatinine from the sample should be measured.

References

1 Sidaway AN, Menzoia JO, Cantelmo NL, LoGerfo FW. Retroperitoneal inflow procedures for iliac occlusive disease. *Archives of Surgery* 1985; **120**(7): 794–796.
2 Kalman PG, Hosang M, Johnston KW, Walker PM. Unilateral iliac disease: the role of iliofemoral bypass. *Journal of Vascular Surgery* 1987; **6**(2): 139–143.
3 Hubert J, Mourey E, Hirsch JJ, Mangin P. An unusual urological complication due to vascular surgery: transvesical polytetrafluoroethylene iliofemoral graft. *The Journal of Urology* 1996; **156**: 2004–2005.

Accepted 20 June 2000