Vesicocutaneous fistula presenting as a thigh abscess

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ABSTRACT

Secondary thigh abscesses are rare, and their cause is often obscure. We report a 90-year-old man who complained of a thigh abscess that was found to be secondary to a vesicocutaneous fistula. He had previously sustained a pelvic fracture and vesical injury from a road traffic accident two years prior to this diagnosis.

Keywords: bladder injury, thigh abscess, urinary tract fistula, vesicocutaneous fistula, vesical injury

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INTRODUCTION

A delayed urinary tract fistulation can develop after a pelvic fracture with bladder or urethral injury. A high index of suspicion is required for early diagnosis. The purpose of this report was to draw attention to this rare occurrence and to highlight the aetiology, presentation and management of a patient with a vesicocutaneous fistula.

CASE REPORT

A 90-year-old male patient who was involved in a road traffic accident in 2001, had a pelvic fracture involving the left pubic ramus, and a urinary bladder injury which necessitated open repair and bladder drain for two weeks. After recovering from the surgery, he was doing well except for mild lower urinary tract obstructive symptoms. Two years later, in February 2003, the patient presented to the general surgery department, complaining of a painful swelling in the right upper medial thigh. During the initial work-up, the patient was found to have bilateral renal stones. Computed tomography of the abdomen, pelvis and upper thigh showed an ill-defined heterogeneous soft mass of the inner upper right thigh, extending to the right lateral wall of the urinary bladder.

He was treated with incision and drainage of the abscess, and intravenous antibiotics. The drainage was continuous and did not dry up despite good local care. A sample was sent for biochemical analysis, and it was consistent with urine. The urology team was consulted, and they advised doing a micturating cystourethrogram (MCUG), which revealed a contrast-filled irregular tract connecting the posterior urethra with the thigh collection (Fig.1). A cystoscopy was performed. It showed a narrow anterior urethral stricture which allowed only a 9F ureteroscopy to pass through, and leakage of irrigant fluid through the fistula was observed. A suprapubic catheter was then inserted. Two months later, the urology team performed an optical urethrotomy to manage an anterior urethral stricture, and the patient was followed up in the urology clinic with serial uroflowmetry and residual urine assessment. On follow-up visits, MCUG was repeated, and closure of the vesicocutaneous fistula was confirmed.

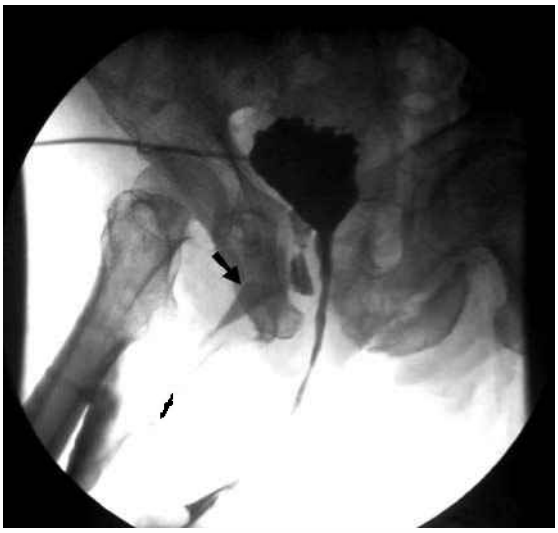

Fig. 1 MCUG shows a fistula tract (arrow) between the posterior urethra and the upper medial aspect of the right thigh.

DISCUSSION

Thigh abscesses associated with a fistula secondary to abdominal pathology have been reported previously. One variant is a vesicocutaneous fistula that may present as a thigh abscess arising from various aetiological factors, including extensive trauma with a pelvic fracture, pelvic abscesses, post-irradiation for pelvic malignancies, and postoperative causes such as hip arthroplasty and vesical calculus.[1-5] Kishore et al reported a vesicocutaneous fistula complicated by an abscess and intermittent leak for 50 years after vesical injury, which was cured by diverticulectomy and excision of the fistulous tract.[6]

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Other rare reported causes include giant bladder calculus and a complication of polypropylene mesh hernioplasty.[7,8] Rotstein et al, in their review of the literature, reported 46 cases of thigh abscess due to carcinoma of the colon and diverticulitis, which are the leading causes of this condition.[9]

The management of vesicocutaneous fistula depends on many factors like the underlying disease process, predisposing factors and the general status of the patient. The bladder has to be kept empty to avoid any increase in pressure or urine leak, and the general condition and well-being of the patient are crucial to enhance tissue healing. As many factors can delay or even prevent vesicocutaneous fistula closure, such as persistent or recurrent infection, radiation, high output fistula, foreign body, infravesical obstruction and radiation, all these factors should be addressed. In our present case, vesicocutaneous fistula had occurred after pelvic trauma with injury to the urinary bladder, presenting as a thigh abscess that was successfully treated with a suprapubic catheter.

In conclusion, thigh abscesses can occur secondary to unusual pelvic processes like infravesical obstruction. On the other hand, a vesicocutaneous fistula can have its external opening in the upper thigh. Both urologists and surgeons should have a high index of suspicion when diagnosing such unusual presentations.

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