Case Report

VESICOCUTANEOUS FISTULA PRESENTING AS STRANGULATED INGUINAL HERNIA – A RARE COMPLICATION OF BPH IN A DEVELOPING COUNTRY

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ABSTRACT

A 55-year-old man presented with intermittent episodes of urinary leak through the right groin following an abscess drainage at that site 2 months back. Since then, he had been suffering from recurrent urinary tract infection and urinary leak, which used to be treated symptomatically and by catherization. Intravenous urogram (IVU), voiding cystourethrogram (VCU), and cystoscopy done in our institution revealed a bladder diverticulum with benign prostate hyperplasia, which was communicating with the fistulous opening located in the right groin. Conservative management by catherization completely healed the fistula followed by transurethral resection of prostate. Patient was discharged after 14th day of TRUP and he is now regularly followed up. A long-standing fistula arising from a bladder diverticulum at relatively distant site is of extreme rarity. Vesicocutaneous fistula from an iatrogenic injury to vesical diverticulum resulting from a groin surgery has not been reported so far.

Key Words - Vesicocutaneous fistula, Strangulated inguinal, BPH

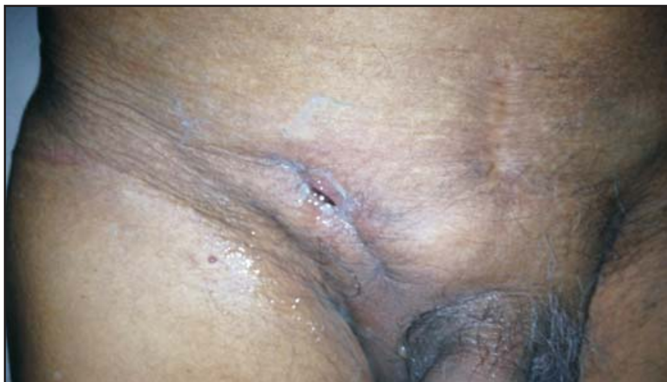
INTRODUCTION

Vesicocutaneous fistula is very distressing condition for the patient and has a tremendous impact on the quality of life. The constant leakage of urine results in maceration and eventual destruction of skin with ensuing infection, discomfort, and malodour. Usually the etiological factors include trauma,[1] after irradiation for carcinoma bladder and prostate,[2] postoperative[3],[4] and vesical calculus.[5] With proper investigations and adequate surgical treatment it can be corrected. Surgical correction is imperative as there is a risk of life-threatening complications like malignancy and sepsis. Vesicocutaneous fistula from an iatrogenic injury to vesical diverticulum,presenting as groin abscess, resulting from a groin surgery has not been reported so far.

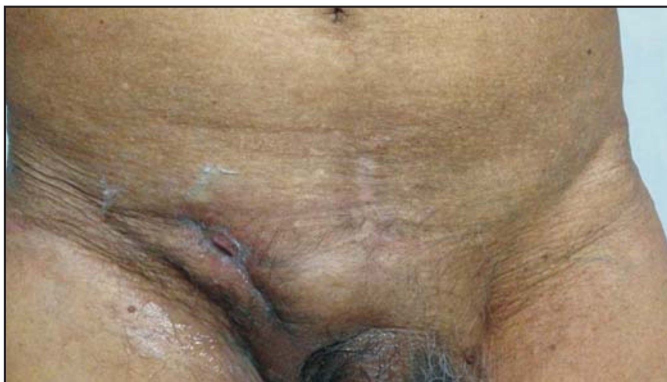
CASE HISTORY

55 year old male presented with right groin swelling and lower urinary tract symptom. On examination he had right irreducible inguinal hernia with overlying erythema. Under spinal anesthesia, right inguinal exploration was done, however on exploration there was minimal pus in true inguinal canal with inflammatory changes, there was no hernial sac present. Right inguinal canal was irrigated with normal saline and closed in layer. Patient was well for two months when he developed intermittent leakage of urine from the right groin [Figure 1]. The patient also had recurrent urinary tract infections and was febrile at the time of admission. Obstructive lower urinary tract symptom were also present. Patient's routine urine examination and renal function tests were normal. The X-ray KUB showed normal study. IVU and VCU were done which didn't show a communicating fistula. Cystoscopy revealed a bladder diverticulum from the lateral aspect of the bladder. Rest of the bladder wall showed mild inflammation and bladder outlet was obstructed due to enlarged median lobe of prostate. The patient was managed conservatively with indwelling bladder catheter resulting in the abatement of urinary leak. The patient was also treated with parenteral antibiotics. After 20 days fistula tract completely healed [Figure 2]. Thereafter patient was operated for enlaged median lobe of prostate by transurethral resection of prostate. Postoperatively after 3 weeks, there was no urinary leak after the removal of indwelling Foley Catheter and normal voiding was

restored. The histopathology of the prostate showed benign prostate hyperplasia. As the presentation occurred secondary to bladder diverticulum complicated by BPH, it was considered as a possibility and the fistula would have been caused by the drainage of abscess which was possibly due to herniation of bladder diverticulum through right deep ring.



Legend 1 -- Picture of patient showing Vesicocutaneous fistula showing urine coming out from opening.



Legend 2 -- Picture of patient showing healed Vesicocutaneous fistula.

DISCUSSION

Vesicocutaneous fistula is very rare. Common causes include extensive trauma with pelvic fractures,[1] after irradiation for pelvic malignancies,[2] postoperative causes like radical hysterectomy,[3] hip arthroplasty.[4] There are also few cases reported as sequel to large bladder calculus.[5] Anecdotal cases of vesicocutaneous fistula from inguinoscrotal hernia,[6] antenatal bladder aspiration,[7] bladder instability,[8] factitious,[9] actinomycosis [10] have been also reported.

Diveticulum of bladder may be congenital or may be secondary due to bladder outlet obstruction. A thorough search for the etiological factors like stones, BPH and malignancy should be made. IVU, VCU, and a cystoscopy would be useful in making the diagnosis. Other cross-sectional imaging such as CT scan and MRI is needed if the fistulous tract is complicated and malignancy cannot be ruled out with routine imaging modalities.[12] In our case cause of bladder outlet obstruction was benign prostate hyperplasia which was detected on cystoscopy done in our institute.

In developing countries like ours, where health care facilities are limited and self awareness regarding illness is low, patients usually present late with complication. Our patient also had long standing BPH, but he presented to us late with right groin hernia, which was infact complication of long standing BPH causing bladder diverticulum. Bladder diverticulum presented as strangulated groin hernia lead to groin abscess. Surgical drainage of this abscess can lead to vesicocutaneous fistula as in present case.

The threat of repeated urinary tract infection and malignancy makes the management of this lesion mandatory. 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. Open surgical management with excision of the fistulous tract and interposition with myocutaneous flap is ideal for large fistulas. Extensive skin loss can be replaced by skin grafting [12]. In our present case, vesicocutaneous fistula had occurred after drainage of groin abscess, which may be sequel of bladder diverticulum herniation, that was successfully treated by conservative measures like intravenous antibiotics and indwelling foley's catheter.

After fistula completely healed, BPH was treated by TRUP. After a thorough search of literature we could not find any reported case of similar nature.

Conflict of Interest

The author(s) declare that they have no competing interests.

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Consent

The authors declare that: 1) Informed consent was obtained from the patient for the publication of the details relating to the patient in this report. 2) There are no patient identifiable details in this report. All possible steps have been taken to safeguard the identity of the patient. 3) This submission is compliant with the requirements of local research ethics committee.

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