

Case Report

Urethrocutaneous fistula following fracture penis

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Abstract

Penile fracture is an emergency in urology. Early surgical management is recommended, to prevent long term complications. Although urethrocavernosal fistula is one of the described complications following fracture penis repair in literature, no case of urethrocutaneous fistula has been reported till now. Here we report the first case of urethrocutaneous fistula following repair of fracture penis.

Key Words: Complications of fracture penis, fracture penis, urethro-cutaneous fistula

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INTRODUCTION

Penile fracture occurs when the erect penis is forcibly bent against resistance leading to a rupture of the corpora cavernosa.^[1] A history and clinical examination are the most important tools to diagnose penile fracture. It may be associated with urethral trauma in 1-38% of cases.^[2,3] Associated urethral injury should be suspected if there is blood at meatus, hematuria and difficulty in voiding. However these signs are suspicious, these are not diagnostic and urethral injuries can be missed if not properly evaluated. These missed injuries can lead to long-term complications one of which is urethrocutaneous fistula. We report a case of urethrocutaneous fistula 2 years after fracture penis repair and such case has never been reported in English literature.

CASE REPORT

The present case is about a 42-year-old man who reported to us with leakage of urine from the right ventral aspect of penis. He had a history of fracture penis for which he was operated

about 2 years back in a peripheral hospital. On proper history and on evaluation of operative notes, it was observed that the patient had a fracture on the right ventral aspect of penile shaft during sexual intercourse. There was no history of blood at meatus, hematuria and difficulty in voiding. He reported this to a nearby hospital within 6 h where he was operated. Retrograde urethrography (RGU) was not performed. He was discharged on the 5th post-operative day after removal of the perurethral catheter. Patient was passing urine normally with no development of penile curvature or erectile dysfunction following surgery. After 2 years of surgery, patient noted leakage of urine from the ventral aspect of penis on the right side [Figure 1]. Initially, leakage was mild and the patient did not seek medical advice for 6 months. Gradually the urine leakage increased and the patient presented to us. RGU was done and diagnosis of urethrocutaneous fistula following fracture penis repair was made [Figure 2]. Cystoscopy showed the fistula [Figure 3]. Suprapubic cystostomy was done initially for urinary diversion, followed by repair of the fistula after 6 weeks. Per urethral catheter was removed after 3 weeks and patient voided successfully. Until 6 months of follow-up, there is no urinary leakage from the fistula site.

DISCUSSION

Overall, 24% of patients of penile fracture had an associated urethral injury. The most common cause of penile fracture with urethral injury is vaginal intercourse (75%).^[4]

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Figure 1: Clinical photograph showing the site of fistula

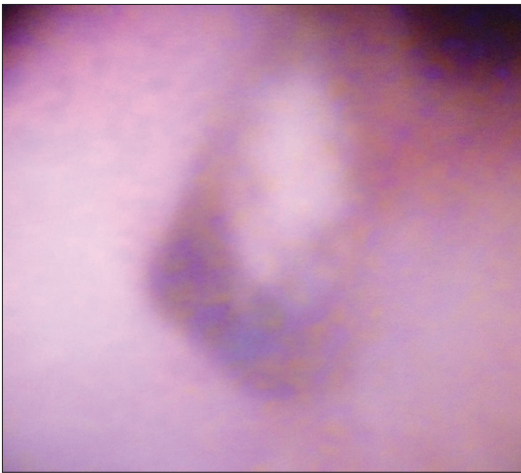


Figure 2: Cystoscopic view of the urethra showing the fistula with scar tissue

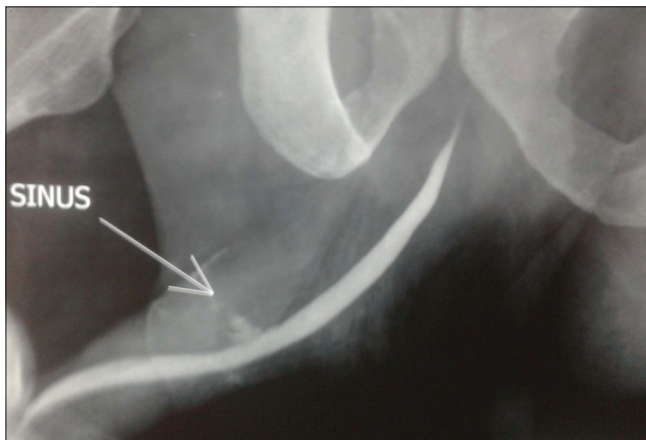


Figure 3: Retrograde urethrography showing the leakage of contrast from the urethra

Associated urethral injury should be suspected if there is blood at meatus, microscopic or gross hematuria and voiding difficulty. However, these symptoms may be absent in patients with associated urethral injury.^[4] Urinalysis is an important

component in the diagnosis of suspected urethral injuries, but it can be misleading at times. Gedik *et al.* reported the presence of microscopic hematuria only in 6 out of 107 patients, but none of them had a urethral injury on exploration. Injuries involving the ventral aspect of corpora and associated spongiosal defect are likely to be missed on examination.^[5] RGU is helpful in confirming the presence of a urethral injury. However, urethrography may give false negative results. The study by Mydlo *et al.* reported a false negative rate of 28.5% (2/7 patients) in their small series.^[6] The cause for false negative urethrography is assumed to be the presence of overlying hematoma at the site of injury which masks the defect. Hence, diagnosis is usually clinical. Immediate exploration with repair of the corporal tear is the standard and should be done in the presence of a typical history and supportive physical sign. RGU can be omitted if proceeding directly to operative repair, but in those cases, exploration for a urethral injury must then be performed intraoperatively. One must avoid contact between the severed corpus spongiosum and corporal tissue to obviate the risk of postoperative impotence as a consequence of spongio-cavernosal fistula. The repair should involve complete evacuation of the hematoma, debridement of the margins, watertight closure of the tunica and spongiosum separately and wrapping of the urethral anastomotic site with a sub-dartos vascularized flap to prevent fistula formation in case of overlapping suture lines. One of the methods of locating the urethral injury was to inject saline with methylene blue dye in the urethra, which leaks out to the operative field through the unrecognized urethral injury, which is reliable and safe method in locating urethral tears in fracture penis.^[7]

CONCLUSION

Although evaluating a patient with penile fracture, the possibility of urethral injury must always be kept in mind as its close proximity puts the urethra at risk. A high level of suspicion for urethral injury during surgical exploration is warranted especially in the presence of suggestive history and examination although many of the times classical presentation may be absent. The site of urethral trauma usually overlies tear in the corpora. Proper evacuation of hematoma and visualization of urethral defect is recommended intraoperatively so that this could not be missed. However, it may not be so and methylene blue is helpful in locating the site of urethral injury in such cases.

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