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## Case Report

# Traumatic avulsion of female urethra: a case report

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### ABSTRACT

Traumatic female urethral avulsion in the absence of a pelvic fracture is an exceedingly rare entity. We report a case of 26 years old lady with crescentic tear of anterior urethra from pubic symphysis. Management consisted of primary urethral repair.

**Keywords:** Crescentic tear, Urethral avulsion

### INTRODUCTION

Traumatic female urethral avulsion in the absence of a pelvic fracture is an exceedingly rare entity.<sup>1</sup> Posterior urethra is more prone to injury as it is adherent to anterior wall of vagina. Complete rupture of the female urethra is rare.<sup>2</sup>

The objective in presenting this particular case was to highlight that early recognition and strict adherence to the principles of reconstructive surgery are necessary to maximize the results and prevent subsequent risks of morbidity.

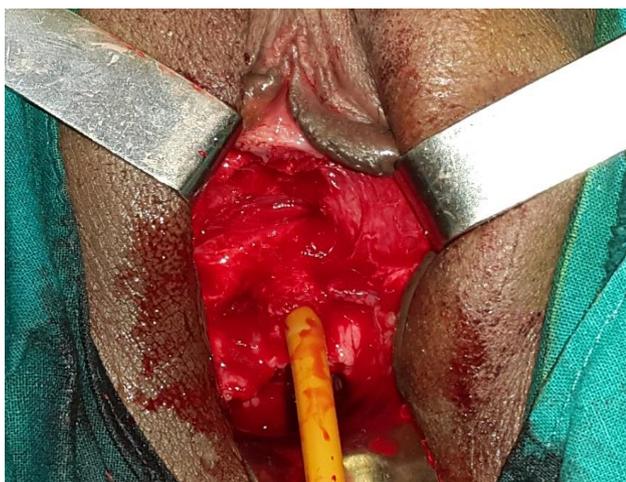
We report a case of 26 years old lady with crescentic tear of anterior urethra from pubic symphysis.

### CASE REPORT

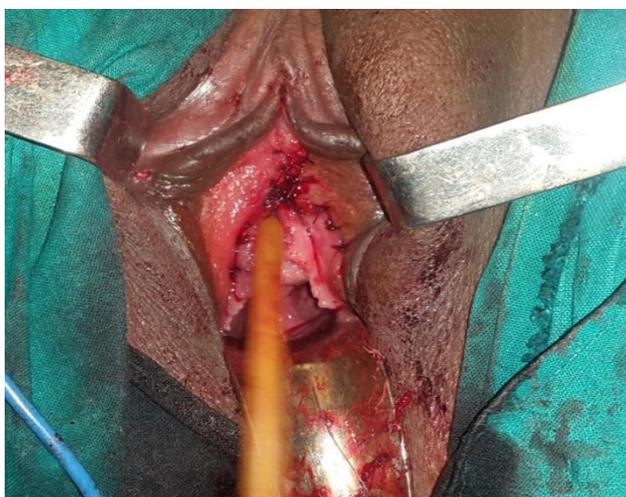
A 26-year-old woman para 1, presented to the gynaecological department of Institute of Kidney Disease and Research Centre, Ahmadabad, Gujarat, India post fall down straddle injury onto a sharp object while taking bath. She had delivered 2 months back. Her injuries involved the genitalia. There was profuse vaginal

bleeding with an inability to pass urine. Examination revealed severe laceration of paraurethral tissue with anterior urethral avulsion (Figure 1). Abdominal ultrasound findings showed that the urinary bladder was full and tender, with no intra-abdominal collection. Full informed consent was obtained for the possibility of urinary diversion, urethral stricture or fistula, incontinence, vaginal infection, or stenosis. Emergency surgery under general anesthesia, in the dorsal lithotomy position with hemostasis was carried out. Patient was catheterized. Bladder was emptied and urine was clear. Cystoscopy was done which showed minimal petechiae at dome of bladder. There was no injury to bladder and bilateral urethral orifice was visualized and urethral viability was confirmed. There were paraurethral tears and crescentic separation of anterior urethra from pubic symphysis.

Crescentic tears were repaired in layers with vicryl 3-0 and 2-0 with figure of 8 stiches. Complete haemostasis achieved (Figure 2). The catheter was removed 3 weeks postoperatively, and the repair was intact. She was fully continent and voided satisfactorily with a good stream. She is followed up every 2 months to monitor any lower urinary tract symptoms and sexual dysfunction.



**Figure 1: Severe laceration of anterior urethra from pubic symphysis.**



**Figure 2: Repair of crescentic paraurethral tears.**

## DISCUSSION

Urethral avulsion with pelvic fracture is a challenging management. Cases of partial urethral injury or urethral transection without much displacement are better managed by primary repair of the transected urethra, which decreases morbidity.<sup>3</sup> Depending on the extent of urethral injury, repair may be performed vaginally, trans-abdominally, or combined.<sup>4</sup> In our patient, urethral avulsion without pelvic fracture. It was repaired vaginally

without any complications. Urethral injuries in females accompanying a pelvic fracture, managed with primary repair or realignment of the urethra.<sup>5</sup> Anatomically, the female urethra is embedded in to the anterior wall of the vagina. The urethra itself consists of 3 layers: 1) the mucous layer, which is continuous with the bladder epithelium; 2) the thin layer of spongy erectile tissue, which includes the plexus of veins and bundles of smooth muscle fibers located immediately below the mucous layer, with both taken together during end to end anastomosis; and, 3) the muscular layer, which is continuous with the muscular layer of the bladder and closed as a second layer over the anastomosis.

## CONCLUSION

Early recognition and primary repair of urethral tears prevents further comorbidity.

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