



## Gossypiboma mimicking posterior urethral stricture



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### ABSTRACT

**INTRODUCTION:** Foreign bodies in the urogenital tract are not uncommon. Hairpins, glass rods, umbilical tapes, ball point pen are described in lower urogenital tract. Retained gauze piece (gossypiboma) in posterior urethra may cause diagnostic dilemma. Symptoms and investigations may mimic stricture of posterior urethra.

**PRESENTATION OF CASE:** Two cases of retained gauze pieces in the urethra are described here. The micturating cystourethrogram was suggestive of posterior urethral stricture.

**DISCUSSION:** Two cases described here had retained gauze piece as a cause of filling defect and abnormal appearance in the micturating cystourethrogram. Gossypiboma may be a possibility where posterior urethral stricture are seen after previous surgery in paediatric age group.

**CONCLUSION:** In the setting of previous urogenital surgery gossypiboma should be kept in the differential diagnosis where posterior urethral stricture are seen in the paediatric age group.

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## 1. Introduction

Gossypiboma (retained gauze piece) in the urinary bladder and urethra may give rise various clinical manifestations. Common presentations are lower urinary tract symptoms (LUTS), e.g. severe dysuria, frequency, urgency, pyuria, haematuria and foul smelling urine.<sup>1</sup> Gossypiboma in the posterior urethra may give an appearance of urethral stricture. Two cases of gossypiboma are described who presented with features suggestive of posterior urethral stricture with a history of previous surgery and on exploration impacted gauze pieces were found.

## 2. Case report

### 2.1. Case 1

A five-year old male child presented complaining of not passing urine per urethra. He had undergone suprapubic cystolithotomy for bladder stone at another centre four months previously. The patient had developed retention of urine on removal of the Foleys catheter in the immediate post-operative period. Retention of urine

was relieved by suprapubic cystostomy. He reported to our institution with a suprapubic cystostomy in situ complaining of not passing urine per urethra. Attempts were made to pass a urinary catheter per urethra into the bladder unsuccessfully. Routine blood and renal function tests were within normal limits. However, routine urine microscopy showed pus cells in abundance. Ultrasonography did not revealed any stone or suspicious foreign body in the urinary bladder. Contrast study done through suprapubic catheter showed contrast in urinary bladder but not in the urethra. Retrograde urethrogram revealed absence of contrast in the posterior urethra simulating urethral stricture (Fig. 1). We attempted to perform cystoscopy but were not able to negotiate beyond the bulbar urethra and during negotiation of the catheter through cystostomy, a big piece of gauge was found inside the posterior urethra causing bladder outflow obstruction (Fig. 2). It was removed. Patient was asymptomatic after removal of gauge piece. At the follow up of six months the patient had no complaints and was passing urine normally.

### 2.2. Case 2

A six-year old boy reported with complaining of retention of urine for a day. Three month previously the patient had undergone surgery for bladder stone. Thereafter the patient complained of poor stream and straining during micturation. Routine blood,

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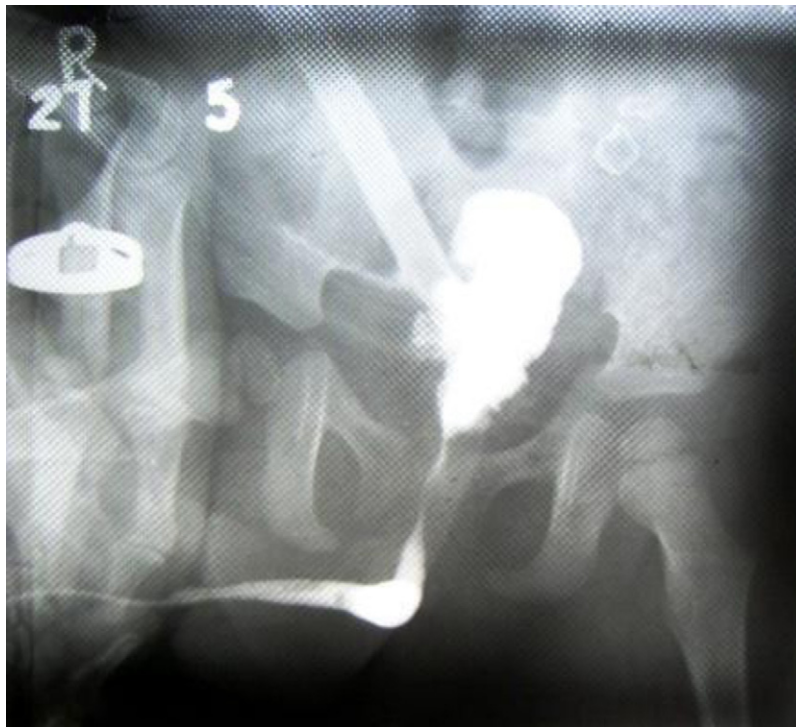


Fig. 1. RGU showing stricture posterior urethra.

urine examinations and renal function tests were within normal limits. Retrograde urethrogram revealed a stricture in the posterior urethra with the irregular outline (Fig. 3). Ultrasonography showed bilateral renal stones with no bladder pathology. The patient was operated for the left renal stone and left sided DJ stent was inserted. In the immediate post operative period the patient passed urine along with a small size of gauge piece and the DJ stent (Fig. 4). Subsequently the patient passed urine normally with a good stream.

### 3. Discussion

Foreign bodies in the urethra and urinary bladder have been reported either due to self insertion for sexual gratification, psychological disorder, traumatic, migration from adjacent organs or inadvertently retained after previous surgical intervention.<sup>2,3</sup> Some studies described leech as foreign body in the urinary bladder causing haematuria.<sup>4</sup> The urethra and bladder forms common passages



Fig. 2. Gauge piece coming out from bladder.



**Fig. 3.** RGU showing stricture of posterior urethra.

if foreign bodies are inserted into the urinary tract.<sup>5</sup> Types of foreign bodies in the urinary bladder and urethra consists of glass rods, hairpins, umbilical tapes, ball point pen, pencil, rubber tube, penrose drain, bougie,<sup>6</sup> retained gauze piece (gossypiboma) and

even nonabsorbable sutures causing stone formation leading to persistent cystitis.<sup>7</sup> Usually these foreign bodies give features of lower urinary tract symptoms like dysuria, pyuria, haematuria, urgency, frequency and foul smelling urine. Retained, forgotten and



**Fig. 4.** Photograph showing piece of gauge piece expelled per urethra.

lost foreign bodies during previous operations have been retrieved in subsequent operations. Gossypiboma in the urinary bladder diagnosed by ultrasound can be endoscopically removed in large gossypibomas suprapubic cystostomy<sup>8</sup> is required. In these case reports the gossypiboma was simulating a urethral stricture. In the first case cystourethroscope could not be negotiated beyond the anterior urethra hence, suprapubic cystostomy was performed and a gauze piece was impacted in the posterior urethra was removed. In the second case, an elongated gauze piece along with the double J stent was expelled per urethra while straining during micturition.

Both patients were passing urine normally in the routine follow up visits.

Delayed complications such as urethral stricture can occur, so close follow up is recommended.

#### 4. Conclusion

A gossypiboma in the urethrovesical canal may simulate stricture in the posterior urethra causing diagnostic dilemma. In cases where there is history of previous surgery, in the differential diagnosis of urethral stricture gossypiboma should be considered.

#### Conflict of interest statement

None.

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None.

#### Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

#### Authors contributions

Bindey Kumar, Zaheer Hasan, Prem Kumar and Rajiv Nayan Priyadarshi contributed to study, design and writing. Vinit Kumar Thakur and Manish Mandal contributed to data collection. Neelam Sinha and Sanjay Kumar Sinha contributed to data analysis.

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