



ENDOSCOPIC MANAGEMENT OF URETEROVAGINAL FISTULA AND RETRIEVAL OF INTRARENAL FRAGMENTED GUIDEWIRE BY URETEROSCOPY: A CASE REPORT AND LITERATURE REVIEW.

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ABSTRACT Gynaecological surgery remains the most common cause of ureterovaginal fistulas. Most common surgery responsible for a ureteric injury is total abdominal hysterectomy. Rare reports of foreign bodies in the renal pelvis and kidney have been made. Majority of times, FBs are brought on by external factors (violence or accidents) or endourological procedures. We report a patient with fragment of PTFE guidewire embedded in the renal parenchyma and pelvicalyceal system following attempted Ultrasound guided percutaneous nephrostomy drainage (PCND) for ureterovaginal fistula, and our successful minimally invasive management with Ureteroscopy of renal foreign body and ureterovaginal fistula.

KEYWORDS : Ureterovaginal fistulas, Fragmented PTFE guide wire, Renal Foreign body

CASE REPORT

A 49 year old, female, known diabetic came to our hospital with complaints of leakage of urine per vagina and increased frequency since 9-10 days. She had underwent Total laparoscopic Hysterectomy with BSO 20 days back. Patient was evaluated for the same at another institution 5 days back. Her CT Urography had revealed Right sided Moderate Hydronephrosis with leakage of urine from distal end of right ureter with moderate amount of collection in the pouch of Douglas. Patient was taken up for Right sided PCN under USG guidance but the procedure was abandoned as the PCS was not dilated. Post Procedure X-Ray KUB was done which was suggestive of radiopaque density at the right renal area (broken end of guidewire) following which the patient came to our institution. Patient was admitted and was further evaluated. CECT Urography was done which revealed Malrotated Right kidney with foreign body seen in the right kidney with tip in the midpole calyx and another end in the right perinephric area with right lower ureterovaginal fistula and right moderate hydronephrosis with right perinephric collection.

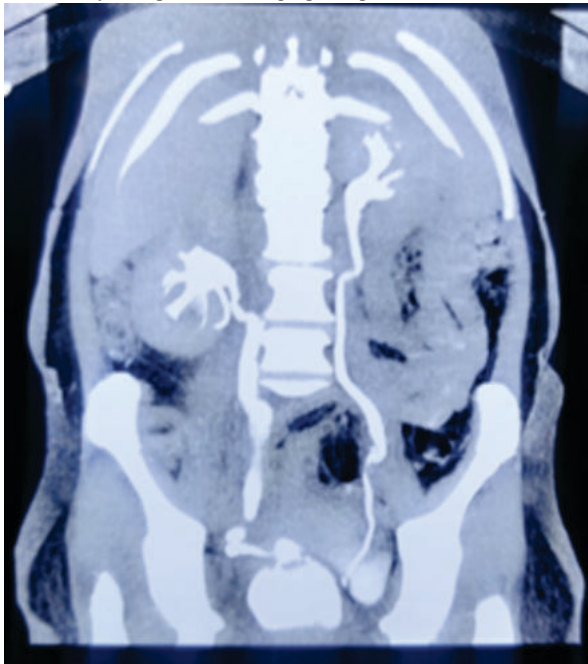


Fig:1: CT Urography (1) showing foreign body(guidewire) in renal cortex

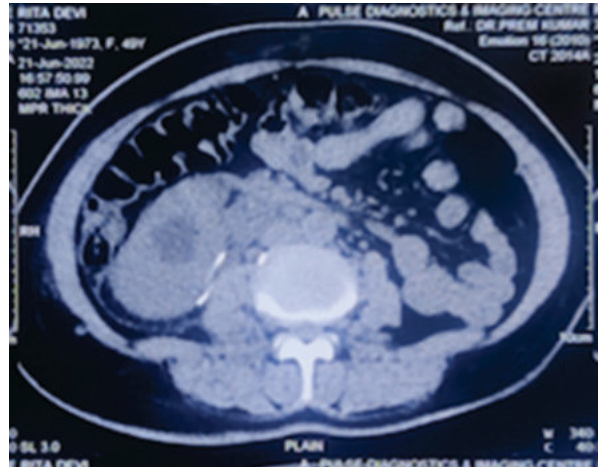


Fig:2: CT Urography (2) showing foreign body (guide wire) in perirenal area

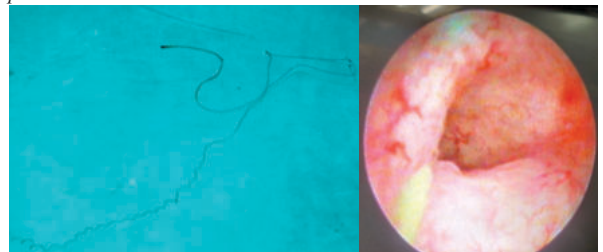


Fig 3: Intraop endoscopic picture, showing foreign body (guide wire)

Fig 4: Fragmented (elongated) guide wire following retrieval (guide wire)

Patient underwent Right ureteroscopy with foreign body removal and right DJ stenting. Intraoperatively a tortuous ureter with an oedematous ring was noted in the right lower ureter.

A fragmented guidewire was noted in the pelvis which was pulled gradually and removed.

Postoperatively patient recovered symptomatically, and was discharged on POD#1 and is on follow up.

DISCUSSION

After gynaecological or other pelvic surgical intervention, persistent urine leakage from the vagina is the most typical presenting sign of an

iatrogenic genitourinary fistula. A fistula may become obvious right away or, far more frequently, after a delay of several days to weeks following surgery. Iatrogenic ureteral injuries might result in the ureterovaginal fistula. The ureterovaginal fistula is thought to be primarily caused by gynaecological surgery. Vesico-vaginal fistulas are present in the majority of women with urinary vaginal fistulas, but ureterovaginal fistulas are also rather prevalent. Ureteroneocystostomy has been the traditional treatment for the ureterovaginal fistula. Conservative, non-invasive treatment has recently been used. The fistula may be able to heal with conservative therapy using a percutaneous nephrostomy tube and/or ureteral stent. Once the ureterovaginal fistula is diagnosed, an immediate ureteral stent or nephrostomy tube placement should be tried. Prompt urine drainage is necessary to maintain renal function even if surgery is subsequently required. In order to restore ureteral integrity, a combined ureteroscopic and fluoroscopic method has been reported to be an effective treatment. Early treatment of the iatrogenic ureterovaginal fistula is advised as it is less painful, causes less morbidity, and is less expensive.[1] Rare reports of foreign bodies in the kidney and renal pelvis exist. Foreign body symptoms differ from person to person; some may be bothersome owing to irritative sensations, while others may be completely asymptomatic. The most typical symptoms, particularly for upper urinary tract foreign bodies, are haematuria and flank pain. For both urologists and radiologists, iatrogenic-retained foreign bodies are a serious problem since they may lead to legal action in addition to the patient's potential health difficulties. [2].

Endoscopic removal is associated with minimal morbidity and hospital stay. With the advent of a variety of modern endoscopic instruments, open surgery is rarely required. Nonetheless, percutaneous, laparoscopic, or open approaches may be necessary when minimally invasive procedures are unsuccessful. To be sure that an FB has not been retained in the urinary tract, endoscopic instruments should be checked before and after use. [3]

CONCLUSION

Cystoscopy and retrograde pyelograms are crucial to rule out the concomitant vesicovaginal fistula and to confirm the diagnosis. The minimally invasive approach is our first choice. Ureteric stent insertion is a primary management for ureterovaginal fistula. When the retrograde method is impossible, percutaneous nephrostomy and antegrade stent insertion are used as the second alternative step. At least 6 weeks of stenting is allowed for healing but in the case of failure, an open surgical repair is necessary. [1]

Retained foreign bodies in the urinary tract are uncommon; however, clinicians must still keep them in mind during percutaneous procedures. Although there are several methods for removing foreign objects from the urinary tract, the least invasive method with the least complications should be the first choice. [4]

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