

Post Abdominal Hysterectomy Ureterovaginal Fistula

Kanti Prabha Giri, Ganesh Dangal, Aruna Karki, Hema Pradhan, Ranjana Shrestha, Kabin Bhattachan, Amarnath Thakur, Rekha Poudel, Nishma Bajracharya, Kenusha Devi Tiwari

¹Department of Obstetrics and Gynaecology, Kathmandu Model Hospital, Kathmandu, Nepal

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ABSTRACT

Ureteric injury can occur during any pelvic or abdominal surgeries. Gynecological surgeries especially total abdominal hysterectomy is one of the common cause of iatrogenic ureteric injury leading to ureterovaginal fistula. A 35 years lady had continuous leaking of urine per vagina from 25th day after total abdominal hysterectomy. Her CT urogram showed left distal ureterovaginal fistula and she underwent left ureteroneocystostomy. A good knowledge of pelvic anatomy is necessary along with a good surgical skill to prevent ureteric injury during surgery.

Keywords: DJ stent, ureteric injury, ureterovaginal fistula.

INTRODUCTION

Ureteric injury can occur during pelvic and abdominal surgery like gynecologic, urologic, colonic and vascular surgeries.¹ Approximately two third of these injuries occur during gynecological surgery.² Incidence of ureterovaginal fistula (UVF) occurring due to ureteric injury during gynecological surgery is 0.5–2.5% when surgery is done for benign condition and it increases to 5% for oncologic condition.³ Around 30-45% of ureteric injury are identified and managed intraoperatively while rest are missed and are diagnosed post operatively.⁴ It takes around 1-4 weeks for UVF to appear after ureteric injury and patients present with continuous leaking of urine coupled with normal voiding of urine.³

CASE REPORT

A 35 years female came to OPD with complaint of continuous leaking of urine from 25th day of total abdominal hysterectomy. She had undergone total abdominal hysterectomy for cervical fibroid on 11th June 2018 and on 25th day of surgery she started having continuous leaking of urine per vagina. She was para 3, abortion 2 and had undergone bilateral tubal ligation 11 years back. She had ectopic pregnancy in tubal stump 6 years back and had undergone laparotomy for management. There was no abnormality on general physical and abdominal

examination. On per speculum examination there was indentation in vault area and pooling of urine. Dye test with methylene blue was negative ruling out vault fistula/vesicovaginal fistula (VVF).

Her USG abdomen and pelvis showed bilateral hydronephrosis, mild on right side and moderate on left side. CT IVU was done that showed fistulus communication between distal ureter (approximately 1.3 cm proximal from left vesicoureteric junction) and superolateral vaginal wall with mild hydroureteronephrosis.

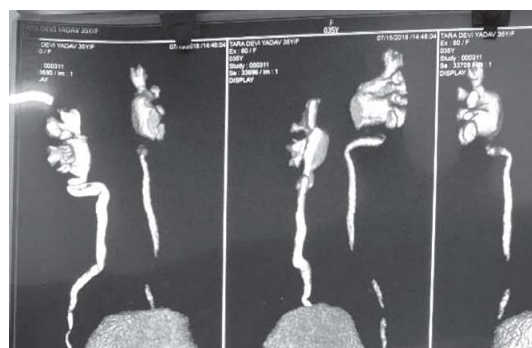


Figure 1. CT urogram showing ureteric fistula and leakage of dye.

She underwent diagnostic left ureterorenoscopy and left ureteroneocystostomy with double J (DJ) stent. On 7th postoperative day x-ray KUB was done (Figure 2), catheter was removed on 10th postoperative day. Patient was discharged in 11th postoperative day. DJ stent was removed in 8 weeks.

CORRESPONDENCE

Dr Kanti Prabha Giri
Department of Obstetrics and Gynecology, Kathmandu Model Hospital, Nepal
Email: junuonline@gmail.com
Phone: +977- 9841356871



Figure 2. X-ray KUB showing double J stent.

DISCUSSION

Iatrogenic ureteric injury is an uncommon complication of obstetric and gynecological surgery and almost 70% of cases are unrecognized during surgery.⁵ Although the prevalence of iatrogenic ureteric injury following gynecological cancer surgery is high, total abdominal hysterectomy for benign condition account for most of the cases.⁶ Unrecognized ureteral injury increases postoperative morbidity leading to fistula formation, urinoma, fever, septicemia, sepsis, or renal functional loss.⁷

Most common site of ureteric injury is at lower third (51%) and chances are increased in presence of risk factors like endometriosis, ovarian neoplasms, distorted pelvic anatomy, pelvic adhesions, and massive intraoperative hemorrhage.⁷ Ureteric

injury can occur as a result of partial or complete transection, ligation, crushing, and thermal injury.² The prophylactic use of ureteral stenting during gynecologic surgery is controversial as it does not prevent surgical injury while the routine use of cystoscopy during surgery may help in identification of it.^{1,3} When identified intraoperatively immediate repair is favored to avoid the postoperative morbidity, prolonged hospital stay, and inconvenience of a second operation.⁴

In delayed identification of ureteric injury, patient may present with flank pain, fever or fistula. Various investigations like methylene blue dye test, USG abdomen, intravenous urography and CT urography can be done to localize the site of injury and to confirm the diagnosis.¹

Treatment for UVF depends on site, size, its etiology, and associated injuries, previously treatment was preferred after 3-6 month of injury to allow healing of injury and fistulas to become smaller before attempting a repair.⁴ Now early intervention is preferred to minimize morbidity, discomfort, and cost.¹ The management of ureterovaginal fistula are aimed for the conservation of renal function and restoration of ureteral integrity by ureteroneocystostomy or end to end anastomosis. And in cases of partial ureteric injury DJ stenting can be done and removed after 6-12 weeks.^{4,5}

CONCLUSION

Iatrogenic ureteric injury is an uncommon, yet serious complication of obstetric and gynecologic surgery that deteriorates women's quality of life. Therefore a good knowledge of pelvic anatomy, good surgical skills, anticipation and intraoperative vigilance during pelvic surgery helps to avoid ureteric injury. Intraoperative identification and immediate repair is desirable in cases of ureteric injury.

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