Utero-vesical fistula: A rare Genito-urinary fistula

Bastab Ghosh¹, Vipin Chandra², Dilip Kumar pal³

¹Assistant Professor, Department of Urology, Institute of Post Graduate Medical Education & Research, Kolkata-700020
²Post Doctoral trainee, Department of Urology Institute of Post Graduate Medical Education & Research, Kolkata-700020
³Professor & Head, Department of Urology, Institute of Post Graduate Medical Education & Research, Kolkata-700020

*Corresponding author
Prof. Dilip Kumar Pal
Email: urologyipgmer@gmail.com

Abstract: Utero-vesical fistula is a rare genito-urinary fistula and there is very limited number of reported cases in English literature. The most common etiology is iatrogenic following caesarean section. Presenting symptoms vary from only urinary incontinence to classical triad of cyclical haematuria, apparent amenorrhoea and urinary incontinence. Surgical repair either by open or laparoscopy is required for such cases.

Keywords: Caesarean section, Urinary incontinence, Utero-vesical fistula, Youssef's syndrome.

INTRODUCTION

As the term denotes utero-vesical fistula (UVF) is an abnormal communication between uterus and bladder where tract is lined by granulation tissue. Youssef in 1957 described classical symptom complex associated with utero-vesical fistula includes cyclical haematuria, apparent amenorrhoea and urinary incontinence known as Youssef’s syndrome [1]. Incidence of UVF is rare and account only 1- 4% of all genito-urinary fistula (GUF) [2]. But as the most common etiology is iatrogenic bladder injury during caesarean section, its prevalence is increasing because of increasing caesarean delivery worldwide. Treatment options include from conservative management for 4-8 weeks to surgical repair of the fistula either immediate or delayed. In this case report we are presenting a case of UVF in a 23 year old female due to caesarean section. Although our case is not the typical Youssef’s syndrome but due to rarity of this type of urinary fistula in literature our case needs attention.

CASE REPORT

A 23-year-old female was referred to us for evaluation of urinary incontinence. History revealed that she had undergone caesarean section four months back for prolonged labor. There was also a history of caesarean section on her five years back. Operative note of recent caesarean section showed that there was placenta percreta which was removed manually. There was no detection of bladder injury at the time of caesarean section. Patient developed urinary leakage per vaginum after removal of catheter seven days after the caesarean section. Patient was in physiological amenorrhea during evaluation. General examination showed normal findings except mild pallor. Haematological examination and serum biochemistry were normal. On examination there was a lower abdominal scar of caesarean section. Pelvic examination showed slight bulky uterus with normal fornices. Speculum examination showed urine leak from the cervical os. Cystoscopy done in sterile urine showed a fistulous opening in the bladder about 2cmX2cm in size in supratrigonal part away from both the uretericorifices (Fig.1).

Fig-1: Cystoscopic view showing left sided ureteric catheter with a supratrigonal fistula

On cystoscopy both ureters were catheterized and by hysteroscope a fistula was found on the anterior wall of the uterus. During hysteroscopy a guide wire was passed from uterus fistula to the bladder and it was brought outside the urethra through cystoscope (Fig.-2).
Fig-2: Ureteric catheters are in both ureters and the guide wire placed by hysteroscope through uterus opening and brought outside from bladder opening through the urethra.

Laparoscopically after meticulous dissection a fistulous tract was identified between the bladder and uterus (Fig.-3)

Fig-3: Laparoscopic view showing the opening in the anterior surface of the uterus as shown in the arrow.

Which was excised and granulation tissue removed. Bladder and uterus were repaired by non-absorbable sutures. Omental flap was interposed between the repaired bladder and uterus (Fig.4).

Perurethral catheter was left for 14 days after which cystogram showed no leak from the bladder and the catheter was removed. Till six months of follow up the patient is continent with normal menstruation.

DISCUSSION

UVF is rare condition encountered in urology practice, is an abnormal fistulous communication between uterus and bladder [3]. UVF is known to be a complication after cesarean section, curettage of endometrium [1,4,5], difficult vaginal delivery, migration of an intrauterine contraceptive device [6], and high delivery by forceps [7]. Cesarean delivery accounts for about 88% cases of UV fistulae [8, 9]. The condition is rare, representing about 1% to 4% of urogenital fistulae [9]. Due to increased practice of caesarean section there is increasing incidence of UVF. Most likely mechanism for UVF is occult bladder injury during caesarean section, potential injury by an aberrant suture or excessive devascularisation. Usual presentation is urinary incontinence associated with cyclical haematuria or menouria if patient is not in state of physiological amenorrhea, apparent amenorrhea and infertility. Symptom may vary according to site and size of fistula. The classical Youssef’s syndrome is characterized by menouria, absence of urinary incontinence, vesico-uterine fistula and amenorrhea despite a patent cervical canal. The explanation for the classic Youssef’s syndrome is the differential pressure gradient between the uterus and the bladder and the sphincteric action of the cervical isthmus which facilitates passage of blood from the uterus into the bladder. Methods for diagnosing and showing the fistula have included abdominal and transvaginal sonography, hysterosalpingography, cystoscopy, intravesical instillation of methylene blue, intrauterine insufflation of air, transperitoneal transvesical fistulography, and rarely, intravenous urography or CT urograogy. Excretory urography is essential to rule out upper tract involvement. Cystoscopy is essential for detecting site and size of the fistula and also relationship with the ureteric orifices. If cystoscopic findings are inconclusive then diagnosis may be confirmed by leak of methylene blue from the cervical opening after instilling it into the bladder. CT scan may helpful for demonstrating fistulous site and also helps in planning before the surgical correction. Small fistula
may heal spontaneously with the involution of uterus and some require hormonal therapy to suppress menstruation. Coagulation of fistula site with catheterisation may be helpful for small fistula. Surgical repair of the fistula is preferred mode for unresolved fistula. Now a days laparoscopic UVF repair is the treatment of choice because of minimal blood loss and less morbidity. Surgical principle is separation of bladder wall from uterine wall, excision of fistulous tract, tension free closure of both uterine wall and bladder wall with interposition of omentum. If there is no need to preserve uterus, then total hysterectomy may be done for UVF management.

CONCLUSION
UVF may be suspected and considered as differential diagnosis in a post caesarean patient with complains of incontinence although vesico vaginal fistula is the common cause. It is better to prevent the fistula occurrence by careful dissection of bladder away from the site of uterine incision especially during the repeat caesarean section if bladder is pulled up.

REFERENCES