



MANAGEMENT OF UROGENITAL FISTULA (URETERO VAGINAL) POST GYNAECOLOGICAL PROCEDURES

Obstetrics & Gynaecology

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ABSTRACT

In today's Laparoscopic era, most patients look for key hole / minimally invasive surgeries. One of the common complications seen after Total Laparoscopic Hysterectomy is uretero vaginal fistula. It is also seen as a complication post C sections in places where obstetric care is not well developed, however it is less common [1]. Most patients had no urinary symptoms until the sudden onset of incontinence 1 to 4 weeks postoperatively. Diagnosis was established readily by a combination of excretory urography, cystoscopy and retrograde pyeloureterography. Management includes placing a Double J Stent across the fistula. Sometimes a ureteric reimplant including a Boari flap / psoas hitch may be needed depending on the site of injury. If managed timely and well, patients usually do well.

KEYWORDS

In today's Laparoscopic era, most patients look for key hole / minimally invasive surgeries. One of the common complications seen after Total Laparoscopic hysterectomy is uretero vaginal fistula. Hereby presenting the case and a brief discussion on ureterovaginal fistulas.

A 45 year old lady underwent TLH for a related cause outside when on a visit to her maternal home. She did absolutely well post op as per her history, catheter removed on POD 1 and discharged on next day. Her first follow up after one week was fine following which she returned back to the city where her in laws stayed. However on POD 14 to her surprise she complained of voiding normally along with leak per vaginum of a fluid that made her undergarments smell of urine. She then presented to us with this history. On examination it looked like urine and hence a CT Urogram was ordered after renal function tests that were normal. She was found to have a left uretero vaginal fistula with pooling of contrast in the vagina and a collection in the pelvis (Figure 1, 2 and 3). Though she had no physical problems apart from urine leak she had a lot of anxiety and worry that was usual. After discussion of all options a cystoscopy and ureteroscopy was done. Cystoscopy did not reveal any VVF which must be ruled out in every case of UVF.[2] Ureteroscopy showed a small rent (figure 4) likely due to thermal injury on the medial aspect of the ureteric wall in the pelvic ureter with a lot of erythema. A RGP was done that confirmed pelvic extravasation (figure 5). A soft silicon 5fr stent was placed across the injury with the double J in the renal PCS and bladder. She was catheterised. Stent was removed at 3 months followed by a repeat RGP that showed only minimal narrowing at the site. A gentle balloon dilatation was done. The patient is fine, without any significant hydronephrosis and on follow up at the time of this writing (1 year). She does not have any leaks and is doing well.

Ureterovaginal Fistulas - A Brief Review

Most Common Cause- injury to distal ureter likely a benign gynaecological surgery as that is most commonly performed

TYPE OF SURGERY - LAPROSCOPIC > ABDOMINAL > VAGINAL HYSTRECTOMY, C SECTIONS (IN PLACES WHERE OBSTETRIC SERVICES ARE SUBSTANDARD – HOWEVER LESS COMMON) [1]

MOST COMMON SITES OF INJURY – (figure 6)

1. dorsal to infundibulopelvic ligament near or at pelvic brim
2. In the broad ligament while clamping uterine vessels
3. In the ureteric tunnel in the cardinal ligament
4. At the vault of the vagina before it enters the bladder – Intramural portion

Incidence- 0.5 to 2.5 % - iatrogenic urological injury

Most Common Presentation - constant urine leak 1 to 4 weeks post surgery with normal voiding

Investigations -

CT UROGRAM is the test of choice, however if that is negative and nothing is being picked up it can be combined with a CT cystogram to rule out VVF.

ON TABLE RGP / URETEROSCOPY is the single best test. [3] [4]

Goals Of Management

1. EXPEDITIOUS RESOLUTION OF URINARY LEAKAGE
2. AVOID UROSPESIS
3. PRESERVE RENAL FUNCTIONS

Management

Once a diagnosis is made, we must also exclude VVF. Prompt drainage of the upper tracts to preserve renal function as some amount of obstruction would be present.

Definitive management should not be delayed. An on table RGP and URETEROSCOPY would delineate the fistula well. Attempt to pass a stent 5/6 Fr. Keep the stent in situ for 6 to 12 weeks. Also continuous bladder drainage is advisable for sometime. Bladder relaxants should be added. If however a stent placement is not possible the patient needs a ureteroneocystostomy.

Direct localization of the injured ureteral site by difficult dissection is usually avoided as this was found to be unnecessary with ureteroneocystostomy because this procedure bypasses the site of the injury to the ureter.[3]

Sometimes a psoas hitch / boari flap may also be needed. Post stent removal the patient should be followed up by a repeat imaging to confirm resolution of fistula.

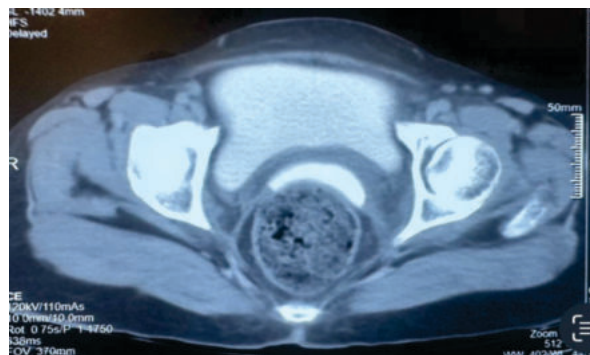


Figure 1 - Figure 1 – Ct Images Showing Pooling Of Contrast In The Vagina



Figure 2 - 3D Reconstructive Image Showing The Ureteric Injury Site With Proximal Hun

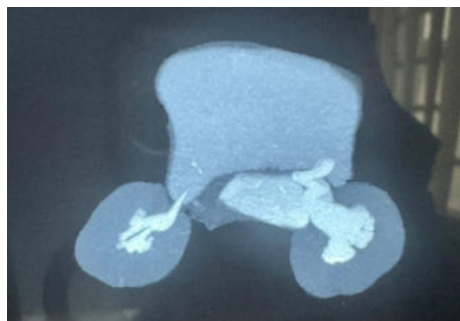


Figure 3 - CT Urogram Showing Contrast In Vagina And Dilated Pcs And Proximal Ureter



Figure 4 – Ureteroscopic Image Of The Rent In The Ureter

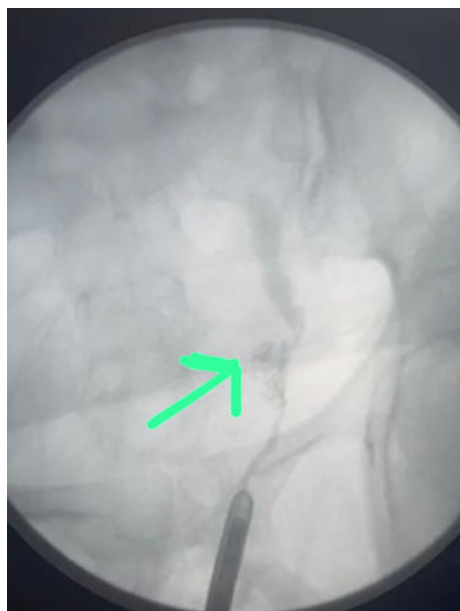


Figure 5 – On Table Rgp Showing Contrast Extravasation

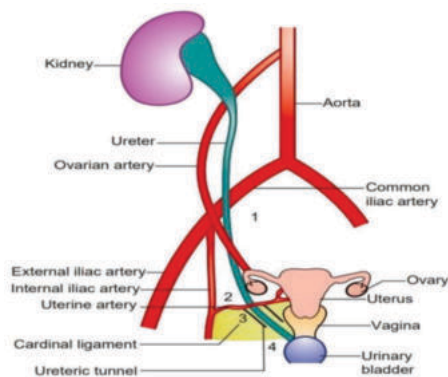


Figure 6 – common sites of ureteric injury in Gynaecological surgeries

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