

VESICOVAGINAL FISTULA: A CASE REPORT

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Abstract- Vesico-vaginal fistula (VVF) is still a major cause of concern in many developing countries. It represents a significant morbidity in female daily routine life. The diagnosis of the condition has traditionally been based on clinical methods, dye testing and new methods has also been evolved. A successful repair of such fistulas requires an accurate diagnostic evaluation and also depends on surgeon's skills and experience.

Keywords: Vesicovaginal fistula, Diagnosis, Surgical repair, Complications.

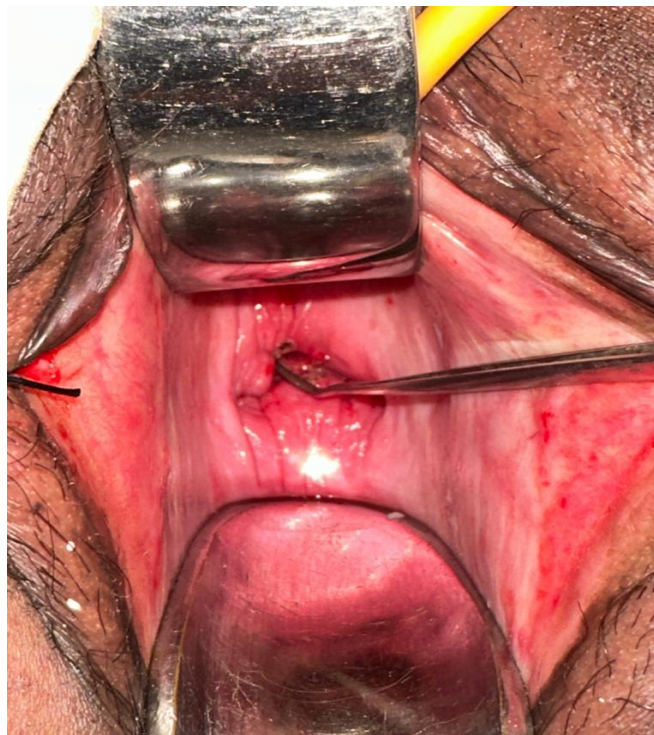
INTRODUCTION:

Urogenital fistulas are abnormal communications between the female genital tract and the bladder, urethra, or ureters. Amongst them Most common is Vesico-vaginal fistula. Although the incidence of VVFs has become rare in the industrialized world, they still commonly occur in developing countries. Most common cause in developing country is obstructed labour. In developed countries many causes like direct injury during surgery, radiation therapy, pelvic inflammatory disease, malignancy etc. can be there. Early marriage, low social status for women, malnutrition, and inadequately developed social and economic infrastructures all more common in the poor areas.

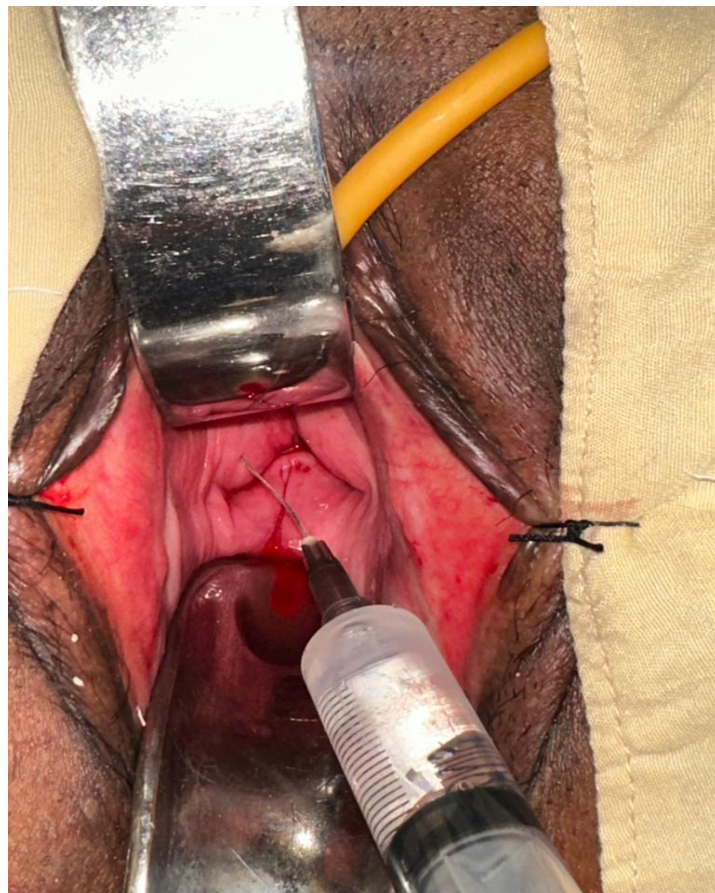
CASE:

A 40 year old female presented to Surgical OPD with complaints of continuous urinary discharge .Discharge was painless, clear watery discharge with no relation to position of patient. Patient was operated for abdominal hysterectomy 3 years ago.No other specific past, personal, family history noted.No comorbidity found.Patient is vitally stable and all investigations were found to be in normal range.

- On local examination: 1cm x 1cm defect noted along anterior vaginal wall near the vaginal vault.No erythema or inflammation noted.

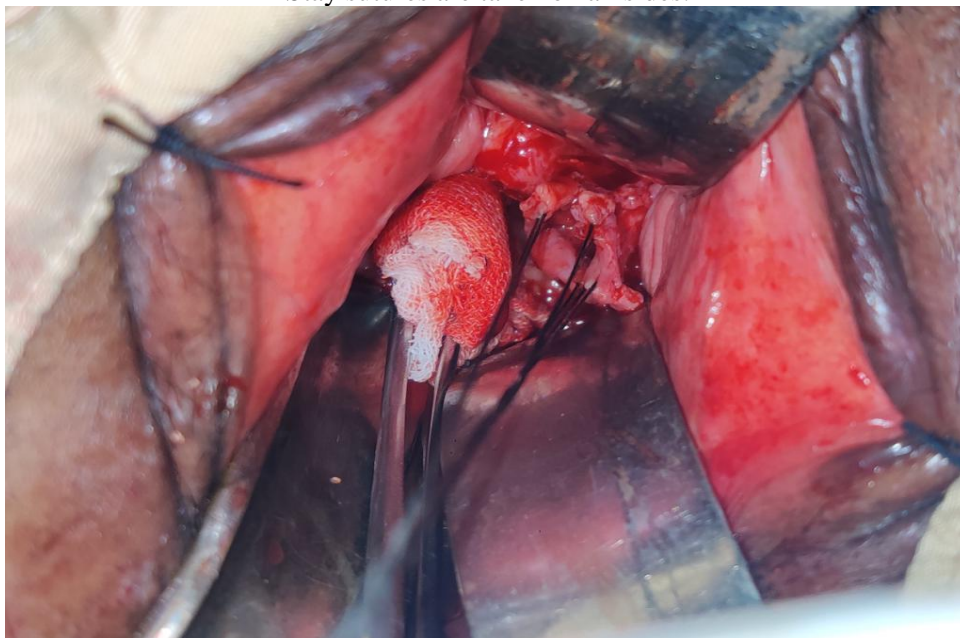


Delayed Repair chosen through transvaginal approach.



Local anaesthesia with diluted adrenaline is injected.

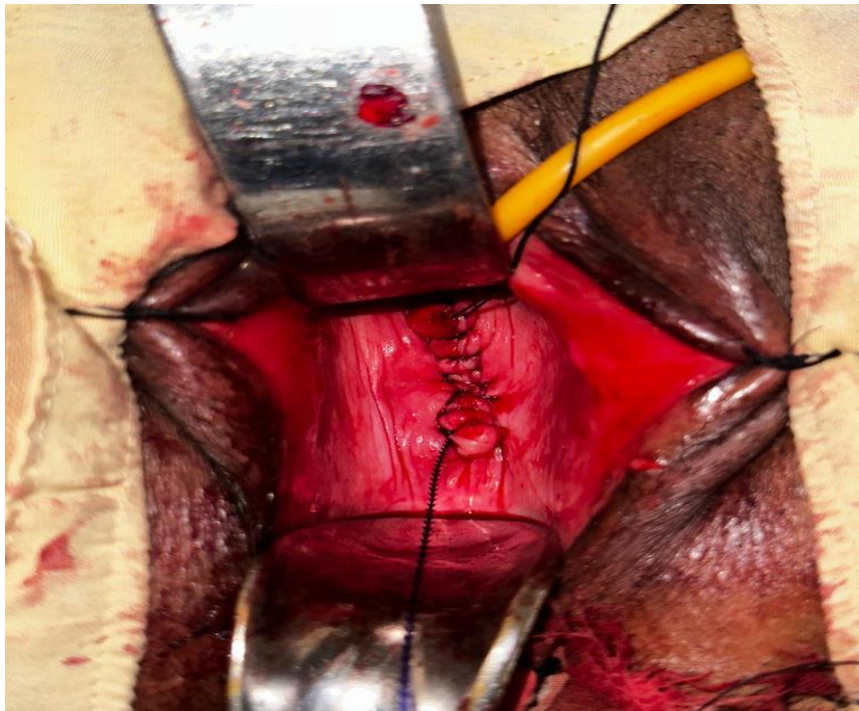
Stay sutures are taken on all sides.



Fistulous tract in excised



Double layer closure has been done.



Catheter was kept for 21 days. Patient was discharged on urinary antibiotics and anti-cholinergic drug. Cystogram done on POD-21 and no leak was found, catheter was removed. Abstinence from sexual intercourse for 3 months is advised and proper local hygiene is explained

DIAGNOSIS

Any dyed sterile fluid like indigo carmine or methylene blue mixed with saline Instilled into the bladder through a catheter. Large cotton swabs are placed in the vagina .If no leakage is seen. Cough or perform a Valsalva maneuver. Blue

staining on the swab from the vaginal apex indicates a vesicovaginal fistula, while wetness with clear fluid may indicate a ureterovaginal fistula.

Physical examination is of utmost importance. The site of the fistula and its surroundings must be observed. If there are signs of associated acute inflammation, edema, necrosis, or other bladder pathologies coexist, then surgery should be postponed until these problems are resolved. Cystoscopy can be done to assess bladder, visualize exact local of fistula & to see number of fistulas in case of multiple fistulas. A high creatinine level of the discharge can confirm the urinary leakage. The advanced but more invasive and/or costlier techniques include combined vaginoscopy–cystoscopy, subtraction magnetic resonance fistulography Transvaginal sonographic evaluation can clearly visualize the exact site, size, and course of the fistula. There are reports that mention it as well-tolerated, less hazardous, and more informative than other conventional investigations. However, it is an operator-dependent procedure.

DISCUSSION

In Treatment of VVF, it is important consider the nutritional and rehabilitative needs of patients. Firstly we have to decide to manage conservatively or an intervention is needed. In cases like Progressively decreasing urine leakage with bladder drainage, Fistula onset <3 weeks, Fistula tract is long and narrow, <1 cm size fistula conservative management can be tried. However conservative management is contraindicated in Radiation-associated VVF, Scarring around the fistula site, Fistula onset >6 weeks, >3 cm size fistula. When a surgical option is chosen you can operate immediately or delayed approach after 3 weeks is chosen. If local inflammation, infection or edema is present it is better to give antibiotics first and delayed approach is preferred. In delayed approach sanitary protection and the local skin hygiene is must. Some methods like electrocautery is used to fulgurate around fistula tract and closure of fistula is expected by fibrosis. Fibrin glue can also be used as an adjuvant. Gel like nature of fibrin plugs the hole until ingrowth occurs from fistula. Platelet rich plasma can also be used expected to work mechanically closes the defect and closes fistula by stimulating neovascularization and fibrosis. [1][2] Once surgery is chosen, we have trans-vaginal and abdominal approach. Vaginal route has certain specific advantages like It avoids abdominal and bladder incisions, Lesser blood loss, Options of interposition flaps are plenty, Shorter operative time, Shorter hospital stay and rapid recovery, When the abdominal wall is scarred by previous surgeries. However Vaginal route is contraindicated if there is Narrow-scarred vagina, Post-radiation fistula, Concomitant rectovaginal fistula. Vaginal approach can be associated with vaginal shortening and the formation of a dead space, where infection and inflammation may develop. [3] The traditional O'Connor operation utilizes suprapubic access for extraperitoneal dissection of the retroperitoneal space to dissect the bladder, followed by long sagittal cystotomy bivalving the until the fistula is reached. The fistulous tract is excised, followed by two-layer closure after tissue transposition between the bladder and vaginal walls. [4] In addition, the abdominal approach has good results with durable success (85–100 %) Transperitoneal approach offers an opportunity for wide exploration and the use of a peritoneal or omental graft in managing larger fistulas. If there is associated intra-abdominal pathology, the abdominal approach allows concomitant procedures. In radiated VVF, tissue should always be repaired using fresh blood supply such as flaps. [5] Flaps can be taken from Martius flap – labial fibrofatty tissue Peritoneum, Omentum, Gluteus muscle, Rectus abdominis muscle Gracilis muscle. Mostly malignancy and radiation induced VVF are treated using such complex flaps. The omental flap is undoubtedly the most versatile; it can be used in abdominal and combined abdominal–vaginal procedures. In some cases urinary diversion procedures can also be tried. Laproscopic and Robotic repair of VVF is now emerging and will soon replace open repair techniques.

CONCLUSION

VVF is a condition which affects patient's physically, socially and mentally irrespective of etiopathology. Their successful treatment poses a significant challenge. Quick and accurate diagnosis is essential. The selective approach to the repair of VVF mostly depends on the surgeons skill and experience. The successfulness of the repair depends on the excision of the pathological tissue, the closure of fistula in a well vascularized tissue and on urine drainage.

REFERENCES:

1. Sims JM. On the treatment of vesico-vaginal fistula. *Am J Med Sci.* 1852;23:59–82. [PubMed] [Google Scholar]
2. Vesicosalpingo Fistula: A Case Presentation And Review of The Literature Taylor G. Maloney, * Alex Kavanagh, MD,† and Rose Khavari, MD†
3. Langkilde NC, Pless TK, Lundbeck F, et al. Surgical repair of vesicovaginal fistulae—a ten-year retrospective study. *Scand J Urol Nephrol.* 1999;33(2):100–103. [PubMed] [Google Scholar]
4. Lewis G World Health Organization, Department of Making Pregnancy S. *Obstetric fistula: guiding principles for clinical management and programme development.* Geneva: World Health Organization; 2006. [Google Scholar]
5. Hilton P. Urogenital fistula in the UK: a personal case series managed over 25 years. *BJU Int.* 2012;110(1):102–110. [PubMed] [Google Scholar]