

Fistula: A Human Right Issue

Dr. Shahid Shamim, Dr. Shershah Syed

Excerpt

Vesico-vaginal fistula (VVF) is a distressing condition characterized by an abnormal connection between the urinary bladder and the vagina, leading to continuous leakage of urine. Beyond its physical impact, VVF profoundly affects the psychological and social well-being of affected women. Although not rare, reliable national data on its prevalence in Pakistan are lacking. Globally, the burden of this condition remains significant, particularly in developing countries where prolonged obstructed labor is the leading cause, in contrast to developed nations where pelvic surgeries and radiation are the main etiological factors.

Keywords

Vesico-vaginal fistula, urinary bladder, vaginal fistula, Pakistan, prevalence, obstetric fistula, prolonged labor, pelvic surgery, radiation injury, developing countries, women's health, reproductive morbidity.

Introduction

A Vesico-vaginal fistula (VVF) is an abnormal communication between the urinary bladder and the vagina that results in the continuous involuntary discharge of urine into the vaginal vault. It is a highly disabling condition with not only physical, but also, psychological and social implications on patients' lives.

Unfortunately, it is not an uncommon condition. However, it is difficult to estimate how common it is in our country. There are no nationwide published studies or data available on the prevalence of VVF in Pakistan. The magnitude of the fistula problem worldwide also is unknown but believed to be immense. In Nigeria alone, Harrison (1985) reported a Vesico-vaginal fistula rate of 350 cases per 100,000 deliveries at a university teaching hospital. Frequency of VVF in developed countries is less and they are etiologically different. Commonest cause in developing countries is prolonged labor, while in developed countries is pelvic surgeries and radiation.

History & Etiology

The history of VVF dates back to prehistoric era and became evident in 1923 by Derry while examining the mummified body of Queen Henhenit from 2050 BC. These dissections revealed a large VVF in a markedly contracted pelvis. However, not until 950 AD did Avicenna correlate the combination of pregnancy at a young age and difficult labor

with the formation of a Vesico-vaginal communication. The term fistula (previously called ruptura) was not used until 1597, when Luiz de Mercado first coined the term.

Basic surgical principals for the repair of VVF were first described by Hedrik von Roonhuyse in 1663. He stressed the use of a speculum and the lithotomy position to gain adequate exposure and denudation of the margin of the bladder wall, with reapproximation of the edges. Johann Fatio documented the first successful VVF repair in 1675. However, not until the 19th century did successful repair of VVEs become common.

In Pakistan and other developing countries, the predominant cause of VVF is prolonged obstructed labor (97%). VVFs are associated with marked pressure necrosis, edema, tissue sloughing, and cicatrization. The frequency of VVF is largely underreported here. There are many factors that contribute to development of VVF in developing countries. Early age marriage and conception, often before full pelvic growth has been achieved and chronic malnutrition are to name a few. Lack of educated obstetrical facilities is an added mega problem in our region. In most of the rural areas and many parts of urban land, few women are attended by qualified health care professionals or have access to medical facilities during childbirth; their obstructed labor may be protracted for days or even weeks.

Clinical Care

An accurate diagnosis is paramount before consideration of repair. The uncontrolled leakage of urine into the vagina is the hallmark symptom of patients with Urogenital Fistulas (UGFs). Patients may complain of urinary incontinence or an increase in vaginal discharge following a complicated child birth, pelvic surgery or pelvic radiotherapy. Cases that present late have psycho-social elements attached to their clinical picture.

All patients with VVF require treatment. Few early cases with small fistula may respond on conservative treatment, however, most of the fistulas require some type of surgical intervention. In general, no absolute contraindications exist for the attempted correction of a VVF in patients who can medically tolerate a surgical procedure.

The differential diagnosis for the discharge of urine into the vagina includes single or multiple vesicovaginal, urethrovaginal, or ureterovaginal fistulas and fistula formation between the urinary tract and the cervix, uterus, vagina, vaginal cuff, or (rarely) ureteral fistula to a fallopian tube.

A full vaginal inspection is essential and should include assessment of tissue mobility; accessibility of the fistula to vaginal repair; determination of the degree of tissue inflammation, edema, and infection; and possible association of a rectovaginal fistula.

Surgical Techniques

The best chance for a surgeon to achieve successful repair is by using the type of surgery with which he or she is most familiar. Techniques of repair include (1) the vaginal approach, (2) the abdominal approach, (3) electrocautery, (4), fibrin glue, (5) endoscopic closure using fibrin glue with or without adding bovine collagen, (6) the laparoscopic approach, and (7) using interposition flaps or grafts.

Vaginal and abdominal approaches for repair are mostly practiced. They usually have good results if the following general surgical principles are followed:

(1) complete preoperative diagnosis, (2) exposure, (3) hemostasis, (4) mobilization of

tissue, (5) tissue closure under no tension, (6) watertight closure of bladder with any cystotomy repair (7) timing to avoid infection and inflammation of Issue, (8) adequate blood supply at area of repair, and (9) continuous catheter drainage postoperatively.

Abdominal approach procedures carry additional risks of abdominal and pelvic adhesions. Vaginal approach procedures carry increased risks of dyspareunia, and diminished vaginal length and caliber.

Integral to all major surgeries are risks of infection; hemorrhage; injury to other organs, particularly the ureters; surgical failure of fistula repair; possible new fistula formation; thromboembolism; and death. Preoperatively, patients should be informed of the possibilities of sexual dysfunction or dissatisfaction, new-onset incontinence, and the progression of preexisting urge and/or stress incontinence symptoms. Many authors also recommend cesarean delivery for subsequent pregnancies.

Final Comments

VVF is a woman right issue. It is a disease which will remain in community till the government takes the responsibility of providing emergency obstetrical care to every woman of the country. Patients with fistula shows that our health care system is not providing care to the poorest of poor and government just can't ignore the issue of EmOC and claim that everything is well in society and community.

References

1. American College of Obstetricians and Gynecologists: Genitourinary Fistulas. ACOG Technical Bulletin 1985; 83: 1-6.
2. Angioli R, Penalver M, Muzii L: Guidelines of how to manage vesicovaginal fistula. Crit Rev Oncol Hematol 2003 Dec; 48(3 295-304[Medline].
3. Aycinena JF: Small vesicovaginal fistula. Urology 1977 May; 9(5). 543-5[Medline].
4. Blaivas JG Heritz DM, Romanzi LI: Early versus late repair of vcicovaginal fistulas: vaginal and abdominal approaches. J Urol 1995 Apr; 153(4): 1110-2; discussion 1112-3[Medline].
5. Carr LK, Webster GD: Abdominal repair of

- vesicovaginal fistula. *Urology* 1996 Jul; 48(1): 10-1 [Medline].
6. Davits RJ, Miranda SI: Conservative treatment of vesicovaginal fistulas by bladder drainage alone. *Br J Urol* 1991 Aug; 68(2): 155-6[Medline].
7. Falk H, Tancer M: Vesicovaginal fistula: a historical survey. *Obstet Gynecol* 1954; 3: 337-41.
8. Goodwin WE, Scardino PT: Vesicovaginal and ureterovaginal fistulas: a summary of 25 years of experience. *J Urol* 1980 Mar; 123(3): 370-4[Medline].
9. Langkilde NC, Pless TK, Lundbeck F: Surgical repair of vesicovaginal fistulae--a ten-year retrospective study. *Scand J Urol Nephrol* 1999 Apr, 33(2): 100-3[Medline].
10. Miller EA, Webster GD: Current management of vesicovaginal fistulae. *Curr Opin Urol* 2001 Jul; 11(4): 417- 21[Medline].
11. Nezhat CH, Nezhat F, Nezhat C: Laparoscopic repair of a vesicovaginal fistula: a case report. *Obstet Gynecol* 1994 May; 83(5 Pt 2): 899-901[Medline].
12. Smith GL, Williams G: Vesicovaginal fistula. *BJU Int* 1999 Mar; 83(5): 564-9; quiz 569-70[Medline].
13. Sotelo R, Mariano MB, Garcia-Segui A: Laparoscopic repair of vesicovaginal fistula. *J Urol* 2005 May; 173(5): 1615-8[Medline].
14. Von Theobald P, Hamel P, Febbraro W: Laparoscopic repair of a vesicovaginal fistula using an omental J flap. *Br J Obstet Gynaecol* 1998 Nov; 105(11): 1216-8[Medline].
15. Wall LL, Arrowsmith SD, Briggs ND: The obstetric vesicovaginal fistula in the developing world. *Obstet Gynecol Surv* 2005 Jul; 60(7 Suppl I): S3-S51[Medline].
16. Warwick RT, Worth P, Milroy E: The suprapubic V-incision. *Br J Urol* 1974 Feb; 46(1): 39-45[Medline].
17. Zimmern PE, Hadley HR, Staskin D: Genitourinary fistulas: vaginal approach for repair of vesicovaginal fistulas. *Clin Obstet Gynaecol* 1985 Jun; 12(2): 403-13[Medline].