

## EIGHTEEN YEARS OLD VESICO-VAGINAL FISTULA CAUSED BY FORCEPS DELIVERY: A SAGA OF SUFFERING

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### ABSTRACT

Vesicovaginal Fistula (VVF), also called 'obstetric fistula', is an abnormal fistulous tract that extends from the urinary bladder ('vesico') to the vagina, resulting in an involuntary continuous discharge of urine into the vagina (urinary incontinence). It most commonly results from neglected and obstructed labor. Here we report a case of VVF with 18 years of distressing urinary incontinence after a difficult forceps delivery.

**Keywords:** Vesico-vaginal fistula, forceps, obstructed labor

### 1. Introduction

Unaccounted hundreds of thousands of young mothers suffer childbirth injuries; injuries which reduce them to the ultimate state of human wretchedness. Constantly in pain, incontinent of urine or faeces, bearing a heavy burden of sadness in discovering their child stillborn, ashamed of a rank personal offensiveness, abandoned therefore by their husbands, outcasts of society, unemployable except in the fields, they live, they exist, without friends and without hope. Because their injuries are pudendal, affecting those parts of the body which must be hidden from view and which a woman may not in modesty easily speak, they endure their injuries in silent shame. No charitable organization becomes aware of them. Their misery is utter lonely and complete<sup>1</sup>.

Genito urinary fistula is a devastating condition affecting the physical and psychological health of women. Vesico-vaginal Fistula (VVF), also called 'obstetric fistula', is an abnormal fistulous tract that extends from the urinary bladder ('vesico') to the vagina, resulting in an involuntary continuous discharge of urine into the vagina. With advanced obstetric care, these fistulas are rare in industrialized world, but they continue to plague women in the third world. The true incidence of this problem is unknown as many such women with fistula never come to medical attention. An incidence of 1-2 per 1000 deliveries has been estimated worldwide, with an annual incidence of upto 50,000 to 1,00,000<sup>1</sup>. In developing countries, including

India, 90% of these fistula are a consequence of neglected and obstructed labour<sup>2,3</sup> as opposed to developed countries, where they are a complication of surgery or radiation therapy for cancer<sup>4</sup>. Management of such fistula continues to be a challenge, testing the ingenuity and versatility of the operating surgeon.

We are reporting our experience of such a case. The woman had difficult forceps delivery 18 years back at a primary health care centre. After around 10-15 days of delivery she discovered that she was having urinary incontinence. After suffering from distressing incontinence for 18 years, she reported to our institution for management and relief from this stressful condition. Here, the case details, clinical features, possible reasons and treatment modalities are discussed.

### 2. Case Details

A 38 years old woman, para 5 with 2 living children was admitted in the Gynaecology department of a rural tertiary care hospital of central India with chief complaints of urinary incontinence since 18 years. Her past history revealed a difficult forceps delivery 18 years back at a primary health care centre after 15 days of which she developed urinary incontinence. She kept on suffering this distressing leakage of urine in silence for many years. The reason for not consulting a doctor for relief of her symptoms was feeling of shame and lack of finances. When her grown up children repeatedly pleaded with her, then she became willing to undergo treatment. She was

terrified of the hospital environment relating the pain and the feeling of helplessness to the time of her parturition. We had to take help of a psychologist to calm her down and convince her that we would be able to allay her symptoms. When she was examined in the outpatient clinic, dribbling of urine was noted on speculum examination from an area below the urethra but the fistulous opening was not visible to the naked eye. At this point in time a vesico-vaginal fistula was suspected and the patient underwent further investigations. Examination under anaesthesia was done and Methylene blue dye was instilled into the bladder via a catheter placed in the urethra. The dye was seen coming out through a large opening of size 3x3 cm on the under surface of urethra hidden from vision by a flap of anterior vaginal wall and the diagnosis of vesico-vaginal fistula was made. Urine culture was done and patient was investigated from anaesthesia point of view and repair was planned by vaginal route.

The dissection was difficult as the bladder tissue was densely fibrosed and adherent to the vaginal wall and holding the fibrous tissue with allis tissue forceps for counter traction was resulting in slippage of the tissue repeatedly. However with patience and perseverance the bladder was dissected and was separated from the vaginal mucosa by sharp dissection and the fistulous opening was exposed. Wide mobilization of tissue was done. The bladder was first closed by horizontally placed interrupted delayed absorbable sutures and then the first layer was buried by a second layer of horizontally placed interrupted sutures in pubovesical fascia so as to release tension on first layer of sutures. Martius flap of fat was mobilized from the right labia majora and the bladder sutures were completely covered with the flap. Vaginal mucosa was sutured with interrupted sutures placed vertically. Continuous drainage of the bladder was ensured via a per urethral catheter kept for 21 days. Post-operative recovery was uneventful and patient was subsequently discharged with normal continence of urine. She is under regular follow up and is symptom free.

### 3. Discussion

The true incidence of genito-urinary fistula is unknown as many women do not reach hospital, and continue to be neglected by their husbands and ostracized from society. An

overall prevalence has been estimated at 0.2 to 2% in different societies<sup>6</sup>. Its occurrence reflects the level of maternity care in a community and most are a consequence of mismanaged labor and a sequelae to obstructed labor. Most cases (up to 80%) of VVF occur when during a prolonged labor the unborn child presses against the pelvis, thus cutting off the blood flow to the vesico-vaginal wall, which can result in tissue necrosis and the development of a hole between the vagina and the urinary bladder. This type of VVF is also called obstetric fistula, and is often seen during unattended and/or prolonged labor, in very young women whose pelvis is still too small for harboring a baby, or in malpresentation of the baby, or due to poor uterine contractions during labor. It can also be the result of a difficult forceps delivery or Cesarean section. Other less common obstetric causes include bladder injury during craniotomy, symphysiotomy or a complication of criminal abortion. The diagnosis of fistula is straight forward, yet a preoperative evaluation must be done. Diagnosis can be achieved by cystoscopy, vaginoscopy, cystography, or excretory urography. Methylene blue dye instilled into the bladder through the urethra or through catheterization of a visible lesion in the bladder wall can also confirm the fistula. This test, however, does not show directly the fistulous tract and its specific location.

Surgery is the mainstay and definitive treatment of VVF, although spontaneous healing occurs in 5% of cases<sup>7</sup>. Many differences in opinion exist as regards timing, route and technique of repair of genitourinary fistula. All obstetric fistulas should be repaired at least 3 months after delivery to allow edema and inflammation to subside. While excellent results have been reported by early repair by some surgeon<sup>8, 9</sup>, it may not be appropriate in all cases. In our society many such women are neglected and malnourished, suffering from untreated urinary infections and anemia. Deferring surgery in such women allows tissue to recover and treat infection<sup>10</sup>. However a woman with urinary fistula not seeking medical care for 18 years, directly points towards her loss of faith in the health care system.

As for the route of repair, both vaginal and abdominal route can be used but we preferred vaginal repair because of low complication rate, minimum blood loss, rapid post operative recovery and shorter hospital stay. Abdominal repair is reserved for fistula high up on bladder

wall, supra trigonal (post hysterectomy or post abortal) fistula and uretrovaginal fistulas. Prophylactic antibiotics are administered routinely in all repairs even through a recent randomized controlled trial suggests that they do not improve the outcome of repair<sup>11</sup>.

#### 4. Conclusion

Genitourinary fistulas are not life threatening but are socially debilitating. In the case of obstetric fistula the patient suffers a tremendous psychological trauma and even during the treatment and the subsequent 21 days of postoperative continuous catheter drainage of urine, she has a haunting fear that she is going to start leaking again. Correct surgical technique and tender loving care in the postoperative period ensures positive outcome. The best chance of successful repair is at the first attempt. A surgeon with adequate training and experience can optimize outcome of surgery by modifying techniques according to the site, size and complexity of fistula.

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**Figure 1 showing large vesicovaginal fistula marked by black arrow**



**Figure 2 - Methylene blue dye instilled via a per urethral catheter spilling through the fistulous opening**

