

# VESICOVAGINAL FISTULA;

A complication of obstructed labor

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## INTRODUCTION

Vesicovaginal fistula is a catastrophic obstetrical complication in which an abnormal opening forms between bladder and vagina, resulting in urinary incontinence. In developing countries 90% of fistulas are due to prolonged obstructed labor. Lack of skilled birth attendants, lack of emergency obstetric care and long distance to maternity homes contribute to the high rates of prolonged obstructed labor resulting in fistula formation. Obstetric fistula is rare in developed world as emergency obstetric care is readily available there<sup>1</sup>. Fistulas upset the life of patient socially, sexually and obstetrically. Successful repair of vesicovaginal fistula gives good name to surgeon as well as imparts better medical, social and psychological relief to the patients<sup>2</sup>. In developing countries the gynecologist must be acquainted with such problems and should have special training to deal with this situation.

## CASE REPORT

A 24 year old woman admitted through emergency at 41<sup>th</sup> week of gestation with labor pains and inability to deliver for last 24 hrs. She was G2P1+0. Previous delivery was done by cesarean section. Patient took trial of labor by Dai in this pregnancy. She was given injection Syntocinon in drip and intra muscularly by Dai. Her general physical examination revealed toxic look, pale with pulse rate of 120/min and respiratory rate of 50/m. Fundal height was 38 weeks, longitudinal cephalic, fetal parts were easily palpable, tenderness all over abdomen and fetal heart sounds were not audible. Vaginal examination revealed cervical dilation of 6-7cm, vertex was high and not well applied on

cervix. Membranes were absent and no liquor was draining. Patient was catheterized and few cc of frank blood drained in tubing. A provisional diagnosis of ruptured uterus was made, fetal death confirmed on ultra-sonography. Patient was resuscitated by giving IV fluids, oxygen and antibiotics.

Plan for emergency laparotomy was made. Operative findings were hemoperitoneum, fetus and placenta both were in peritoneal cavity, about two litre blood removed from peritoneal cavity, uterus was ruptured badly in lower segment extending more towards left side. As patient was having only one daughter, her uterus was repaired and hemostasis secured. There was frank blood in urine bag, vaginal bleeding was mild. On second post operative day urine slowly became clear but patient started soaking pad with urine. She had multiple episode of frank hematuria alternating with clear urine. A diagnosis of vesicovaginal fistula was made after examining the patient by speculum. A hole of about 4 cm felt on anterior vaginal wall and urgent intravenous pyelography was done to see the status of urogenital system especially ureters. Examination under anesthesia and cystogram performed after 11 days which revealed a rent of about 2x3 cm near the base of bladder away from the ureter opening which was due to sloughing of necrotic tissue. As tissues were edematous and friable, fistula was not repaired at that time. Patient was advised to retain catheter for 6 weeks and have regular follow-up. Her renal function tests were done and cystogram was advised to be repeated after 4-6 week. During this period her anemia was corrected by nutrition and blood transfusions. After 3

month cystogram was repeated and patient was planned for repair of fistula abdominally. Repair was done by urologist. Abdomen was opened by sub umbilical midline incision. Bladder opened after stay sutures. There was a rent of 2x3cm near the base of bladder but away from ureteric openings. It was adherent with uterine anterior wall in lower segment. The adhesions were broken down and margin of fistula refreshed. Greater omentum was mobilized for inter position between bladder and uterus. Bladder closed in single layer with vicryl. A supra pubic catheter of 16 Fr passed with balloon dilated up to 5cc. Hemostasis secured and abdomen closed. Close monitoring was done for drainage and patency of catheter. Urethral catheter of 18 Fr was also passed. Both catheters were left in place for three weeks, 1<sup>st</sup> supra pubic catheter was removed and after one week the urethral Catheter was also removed.

## DISCUSSION

Vesicovaginal fistula are seen mostly in child bearing age and are associated with marked necrosis, edema, tissue sloughing and cicatrization. In developing countries the true incidence of vesicovaginal fistula is unknown. Many patients with these conditions suffer in the silence and isolation<sup>3</sup>. Prevalence of VVF in worldwide is as high as 2 million women are suffering<sup>1</sup>. In developing countries the most common cause of this problem is prolonged obstructive labor (86.6%) which corresponds to other studies carried out in Pakistan<sup>4,5</sup>. In developed countries the most common cause is total abdominal hysterectomies accounted for more than 70%. Studies show that fistula patient tend to live in remote area and are impoverished. These factors are typically associated with inadequate health care during pregnancy or delivery and thus with increased risk of obstructive complication. With less access to obstetric care, rural women are more likely to suffer from fistula than urban women. Among rural women those with low socio-economics status are more likely to suffer from fistula and other obstructive complication<sup>5</sup>. Although obstructed labor and fistula

formation can occur at any age but is more common in adolescent women who are under nourished or underweight. Women typically present with specific intervals after the various antecedent events (child birth, pelvic surgery) with primary complaints of constant, painless urinary incontinence. If fistula is related to traumatic child birth most patients experience urine leakage with in 1<sup>st</sup> 24 hours to 48 hours as in our case<sup>6</sup>. Following the pelvic surgery symptoms usually occur within 1<sup>st</sup> 30 days. In our case the patient presented with ruptured uterus and hematuria, her uterus was repaired and she developed urinary incontinence on the second post-operative day. If fistula is suspected immediately following the obstructed labor, the patient may initially receive continuous bladder drainage to avoid stretching of injured tissues, which would impede healing<sup>7</sup>. Prompt catheterization increased the likelihood of spontaneous closure of some fistulas or at least decrease the size of fistula as in our case. We kept the patient on continuous drainage for 6 weeks which resulted in decrease in size from 4x3.5cm to 2x2.5cm. Successful repair depend upon both the initial state of fistula and skill of the surgeon, as well as on the quality of post-operative care. Repair of the fistula either abdominally or vaginally depends upon the site of fistula and surgeon's choice<sup>6,8</sup>. Majority of VVF are repaired transvaginally but VVF that are high up, large, complex or multiple in number transvaginal route is used. When there is concurrent uterine or bowel involvement, ureteral reimplantation, trans abdominal approach is used<sup>9,10</sup>. Recovery after surgery takes two weeks during which patients needs to drain her bladder through catheter. Continuous bladder drainage for 10 to 40 days following repaired is vital for successful repair of VVF<sup>7</sup>.

## CONCLUSIONS

VVF is distressing condition physically, socially and psychologically for patients whatever the cause may be. The proper diagnosis and surgical repair by skilled personnel's can improve the outcomes and reduce

stress of the patient. Proper availability of maternity services, education of population regarding labor and delivery can reduce the rate of fistula formation due to obstructive reason.

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