# PROFILE AND REPAIR SUCCESS OF VESICOVAGINAL FISTULA IN NWFP

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## ABSTRACT

**Objective:** To describe the profile of patients with vesico vaginal fistula (VVF) and success rate of surgery.

**Material and Methods:** This study was carried out as a Project funded by UNFPA in collaboration with Ministry of Health Pakistan at Regional Fistula Centre at Lady Reading Hospital Peshawar. Patients with VVF were referred from all over the North West Frontier Province. All the patients got free surgical repair of fistula along with travel and food charges. All the patients diagnosed as cases of VVF were included in the study. Those patients who had previous unsuccessful repair were also included. Their demographic profile and repair success was determined.

**Results:** Thirty eight (38) patients were included in this study. Obstetrical cause was found in 32 (86.84%) cases. The age of patients ranged between 15 -50 years and parity varying from one to nine. The commonest site of fistula was vault and upper one third of vagina (57.89%). Size of fistula varied from 0.3cm to 5cm. Obstructed labor contributed to 17 (44.73%) cases while ruptured uterus ending in subtotal abdominal hysterectomy (STAH) accounted for 11 (28.94%) cases. Instrumental delivery and Caesarean section contributed to 7.89% and 5.26% cases . Successful surgical repair was done in 68.42% of cases. Transvaginal repair was done in twenty six (68.42%) cases and transabdominal repair was done in 12 (31.57%) cases.

**Conclusion:** The most common cause of VVF in this study was obstetrical (86.84%) due to obstructed labour which is preventable.

Key Words: Vesico-Vaginal Fistula, VVF, Subtotal Abdominal Hysterectomy (STAH).

## **INTRODUCTION**

Vesico-vaginal fistula (VVF) is an abnormal communication between bladder and vagina that causes continuous involuntary loss of urine into the vagina. The existence of the VVF as a clinical entity is believed to have been known to the physicians of ancient Egypt, from the mummified remains of Egyptian Queen Henhenit (2050BC), Vesico vaginal fistula (VVF) continues to remain a challenging condition for the gynaecological surgeon<sup>1</sup>. The first successful repair of VVF was achieved by John Fatio in 1675<sup>2</sup>.

The problem of urinary fistula has almost been eradicated from developed countries, but it remains a major problem in the developing countries, the predominant cause (97%) of VVF is prolonged labor, while in developed world most cases of VVF (80%) occur as a complication of gynaecological surgery<sup>3</sup>.

The actual incidence of VVF is not known. In developing countries condition may follow 1-2/1000 deliveries, with annual world wide incidence upto 50,000 cases<sup>4</sup>. However, the incidence of vesicovaginal fistula resulting from hysterectomy for gynaecological indications is estimated to be less than 1%<sup>5</sup>. VVF is a condition caused by interplay of numerous physical factors, the social, cultural, political and economic condition of the women. This interplay determines the status of women, their health, nutrition, fertility, behavior and susceptibility to VVF<sup>6</sup>. Early marriage and repeated pregnancies are the major contributing factors, but poor nutritional status resulting in short stature is also important. Frequent vaginal deliveries and a lack of obstetric care has remained the main factor for the persisting high prevalence of urinary fistula. The

frequency, etiology, and presentation of VVF differ from country to country and even within the various regions of the same country<sup>7-11</sup>. The objective of this study was to describe the profile and success rate of VVF repair in our province.

#### **MATERIAL AND METHODS**

This study was carried out as a part of UNFPA funded Project started all over Pakistan for Prevention and Treatment of Postpartum complications i-e fistula. Lady Reading Hospital Peshawar was selected as Regional Fistula Centre in NWFP. Awareness seminars and workshops were arranged for Gynaecologists, Lady Health Workers and Lady Health Visitors about this fistula centre. Letters were sent through Director General Health Services to all DHO Hospitals so that patients with fistula could be referred to our centre. We started receiving patients from all over NWFP. Surgical repair of fistula cases was started from Jan 2006. The study included the patients of VVF treated at Fistula Centre LRH Peshawar from Jan 2006 to Dec 2006. During the study period, all the patients coming with complaints of continuous leakage of urine and diagnosed on the basis of history and clinical examination as cases of vesico vaginal fistula were included. The patients with previous unsuccessful repair were also included. The surgery was planned after three months of trauma or previous attempt at repair.

Evaluation of cases was done by gynaecological and urological examination. Initial assessment was done by vaginal examination. There after the patient was examined under Anaesthesia and dye test was done to locate the site and to assess the size of fistula. Apart from routine investigations, intravenous urography and cystoscopy were done in selected cases. Route of repair was decided after examination under anaesthesia, according to nature of fistula. Lithotomy position was used for vaginal repair in all patients. The patients were kept hospitalized for 2-3 weeks and urethral catheter was retained for same duration. The patients were advised to avoid coitus for three months. Follow up visits were planned after six weeks and three months. Elective Caesarean Section was advised for future pregnancy in successful repairs. Patients with failed repairs were counseled and booked for repeat surgery.

## RESULTS

Thirty eight patients of VVF were included in this study. The age of patients ranged between 15-55 years, 20(52.78%) cases occurred in women aged between 26-35 years.

The parity of patients ranged from 1-9. Eighteen patients (47.36%) were para six or

higher. Obstetric cause was found in 32 (86.48%) cases and 5 (13.15%) were due to gynaecological surgical procedures (Table1&2).

The size of fistula ranged from 0.3 cm to 5cm or more. Eleven cases (28.94%) were upto 1cm size and 19 (49.99%) cases were upto 3 cm size. Giant fistula of 5cm or more occurred in 5 (13.15%) cases.

The site of fistula is given in Table no 3. Twenty two (57.88%) cases had VVF in the vault and upper  $1/3^{rd}$  of vagina. Twenty six (68.42%) patients had vaginal repair of fistula, while11 (28.94%) had abdominal repair. One patient had combined abdominal and vaginal approach. The outcome of repair and reasons for failure are given in Table-4 and 5. The success rate of surgery in our study was 68.42%.

#### DISCUSSION

Urinary fistula in young women remains a problem in many developing countries. The causative factors include poor nutritional state, illiteracy, and limited access to health care, early marriages, high parity, and mismanagement of deliveries by unskilled practioners<sup>12</sup>. Fistulae are not only the cause of immense physical, emotional, and psychological suffering in women in the prime of their lives but they are also frequently responsible for adverse social consequences such as remarriage for husbands and even divorce.

All major studies have shown that 70-95% of the VVF in developing countries are of obstetric etiology.<sup>3,5,6,10</sup> In our series 86.84% fistulae had an obstetric etiology. These findings are in line with other studies from Pakistan<sup>13-18</sup>. In Africa where the problem appears to be most prevalent, have at least 70% of the women with fistula are less than 30 years of age and most of them develop VVF during the first pregnancy<sup>19-21</sup>. The reason for fistulae developing in young age and in first pregnancy is the android type of pelvis in the women of African countries resulting in obstructed labor and hence fistula. Similar observations have been made by Hilton<sup>10</sup> from Southern Nigeria.

The comparison of the age and parity of our patients with those of women with fistula in Nigeria showed major statistical differences. In our study 52.63% of women were aged between 26-35 years compared to 16.9% in Nigerian study. We had only 15.78% women aged between 15-25 years compared with 35% in Nigerian study.<sup>20</sup> Similar observations were reported by Sachdev<sup>15</sup> from Hyderabad.

In our study there were 18.4% primipara compared with 52% in the Nigerian study, there were 34.2% multipara while Nigerian study showed 31.1%, and there were 47.3%grandmultipara compared with 14.5% in the Nigerian series.<sup>20-22</sup> Studies from Pakistan<sup>14-16</sup> and present study, pointed to a higher parity of VVF patients. Demographic details of age and parity in our study are comparable to study conducted by Ahmed S in Lady Reading Hospital Peshawar.<sup>12</sup>

In majority of patients the size of fistula ranged between 1-3 cm 19 (49.99%) and these were the patients in whom maximum success rate has been observed. Giant fistula was found in 5 (13.15%) of cases. Hafeez M from Lahore has reported similar observations<sup>13</sup>. We had four patients who had repeat surgery after previous failed repair in our centre. Two of them were successful after second attempt, while other two are booked for repeat surgery in near future.

We achieved a successful closure rate of 68.42% which is similar to other National and International studies<sup>22,23</sup>.

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