



Original Article

Study of Urogenital Fistula in Rajshahi Medical College Hospital

N Nahar¹, S Chaudhury², M Zillur Rahman³

Abstract

This cross-sectional study was carried out in the gynae department of Rajshahi Medical College Hospital during the year January 2005 to December 2011, where 202 patients were studied for obstetric history, previous attempt at repair, the condition of the patient, the route of repair, age, etiological factors, techniques of surgery, socio-economic conditions, as well as treatment & results. Among 202 cases, surgery was done in 136 cases (67.33%). Among them 126 were successful (92.65%) and 10 failed (9.35%). Obstetric fistula results from obstructed labour occur mostly in the first pregnancy in young women. Prevention will include education, communication, transport, health care measures and prevention of early marriage. Awareness for mandatory hospital delivery in high risk pregnancies also can reduce obstetric fistulas. With good pre-operative intra-operative and post operative care and attention to surgical details may cure these affected woman.

Key words: V.V.F .trans-abdominal repair, Trans-vaginal repair.

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Introduction

Vesico-vaginal fistula is an abnormal communication between bladder and vagina that causes continuous dribbling of urine in to the vaginal vault¹. Vesico-vaginal fistula is not life threatening medical problem, but the woman faces demoralization and even divorce or separation from their family. These patients are socially segregated and it is difficult for them to continue with their family and religious activities. It is also a major clinical problem confronting gynaecological surgeons in developing countries.^{2,3} Fistulas result chiefly from obstetric injuries (obstructed labour, instrumental deliveries), Operative injuries (total abdominal hysterectomy), RTA, post coital, corrosive application on the prolapsed genitalia, infections, radiation and malignancy etc. Different type of

genitourinary fistulas can occur and among them V.V.F is the commonest. 80-90% of V.V.F are the results of obstetric injuries⁴, and the best known and most common injuries are from obstructed labour. When obstructed labour is unrelieved, wide spread ischemic injuries develop in the bladder and vaginal wall results in tissue necrosis and subsequent V.V.F formation⁵. Fistula should be examined under G/A to assess the nature of the fistula accurately and also to plan the appropriate type of surgery. Repair of genitourinary fistula remains a major challenges to the surgeons world wide with many acceptable surgical techniques. Large defect with partial or total urethral loss are specially difficult to repair. More over other associated conditions such as vaginal stenosis, sphincteric damage, RVF, vaginal stenosis etc makes surgery more difficult. In theses cases

¹ Assistant Professor, Department of Gynae & Obs, Rajshahi Medical College, Rajshahi

² Associate Professor, Department of Gynae & Obs, Rajshahi Medical College, Rajshahi

³ Assistant Professor, Department of Medicine, North Bengle Medical College, Sirajgonj

modified techniques other than flap splitting method have to be applied to achieve the goal. Techniques of bringing new tissues for support and neo-vascularization should be considered. Although in many cases thorough anatomical restoration is possible, physiological recovery is unsatisfactory^{5,6}.

Material and Methods

This cross sectional study was carried out in the department of gynae of Rajshahi Medical College Hospital. Total 202 cases were selected from admitted patients.

Detailed history was taken to record age, parity, nature of trauma, duration of urinary leakage and previous attempts of repair. Thorough physical examination, Hb estimation, serum creatinine Blood sugar level, ECG, X-ray chest was carried out. USG and contrast studies were done to document the fistula. The principle of V.V.F repair followed were adequate pre-operative nutritional repletion, well vascularized healthy tissues for repair, adequate exposure of fistula good haemostasis, judicious use of cautery, watertight closure, multiple layer closure, tension free non-overlapping suture lines, adequate urinary drainage after repair & prevention of infection by the use of pre, post & intra-operative antibiotics. Patients were re-examined before discharge. They were advised to avoid coitus for 3 months. Follow up visits were planned after 2 weeks and then after 2 months. Urinary continence was recorded as success of surgical repair.

Results

Two hundred and two patients with uro-genital fistula were included in this study. Among them operation was done in 136 patients (67.33%); remaining 66 patients (32.67%) were not operated, and was conservatively treated 30(45.45%), During this study period, the etiological factors causing V.V.F are, following obstructed labour in 99(49.01%), following total abdominal hysterectomy in 58. (28.71%), following vaginal hysterectomy in 3(1.48%), following trauma (road traffic accident and post-coital) 5(2.47%), following corrosive application 15(7.42%) malignancy (cancer cervix) 5. (247%) and after caesarean section 17 (8.41%).

Outcome of fistula surgery (n=136)

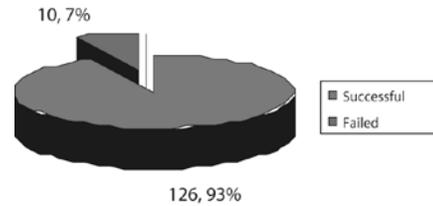
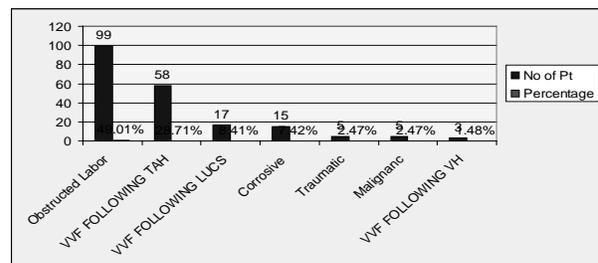


Fig:- 1 Outcome of fistula surgery

Aetiological Factors (n=202)



Bar diagram: Aetiology distribution

Route of repair (n=136)

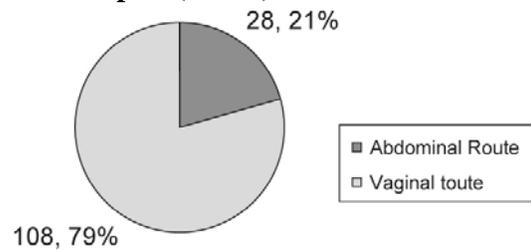


Fig:-2 Route of repair

Among the patients, 6.94% was of 10-20 age group, 30.19% was from 21-30 years of age, 30.69% was from 31-40 years of age, 21.78% of 41-50 years, 6.94% was of 51-60 years of age and 3.46% was from after 60years of age group.

Age distribution of patients (n=202)

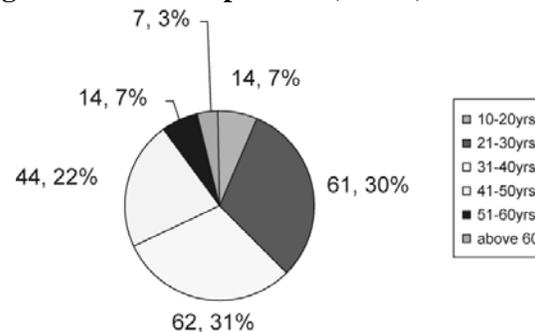


Fig:-3 Age distribution

From our study 110 (54.45%) patients from low socio-economic condition group, 57 (28.22%) were from lower middle class group, 30 (14.85%) patient from middle class community & 5 (2.48%) came from higher class group.

Table 2: Distribution of cases according to socio-economic condition. (n=202)

Socio-economic condition	Number of patient	Percentage
Low socio-economic condition	110	54.45%
Lower middle class	57	28.22%
Middle class	30	14.86%
Higher socio-economic condition	05	2.48%

Additional supports to the repaired site improve the success of surgery. To increase the blood supply at the repair site labial graft was given in 17 (12.51%) cases, peritoneal graft in 1 (0.73%) & layered closure was done in 103 (75.74%) cases. Ureteric stent was used in cases of 9 (6.61%) and ureteric catheter was used in 6 (4.41%) cases.

First attempt is the best attempt for fistula repair. Majority 112 (82.35%) patients in this series had no history of previous attempts of repair, 17 (12.51%) patients had single attempt. Previous two attempts was in case of 6 (4.41%) and there was only 1 (0.73%) which had previous 3 failed attempt to repair.

Table 3: Patient distribution as per previous attempts of repair (n=136)

Number of previous attempts	Number of patient	Percentage
No attempts	112	82.35%
Single attempt	17	12.51%
Two attempt	06	4.41%
Three attempt	01	0.73%

Discussion

Genitourinary fistula is a real misery for the women in the devolving countries. Regarding the approaches to local repair, the present study reveals that the vaginal route is most frequently selected, followed by abdominal & abdomino-perineal. The findings are similar to the study done previously in the Dhaka Medical College Hospital^{6,7}.

The first attempt at repair of vesico-vaginal fistula, has best chances of success. Multiple factors must be considered including the aetiology and duration of fistula, quality of tissues available for repair and probably most importantly the experience and training of the surgeon. Basic surgical principles should be strictly followed. About 3 to 6 months waiting period between the development of a post operative vesico-vaginal fistula and an attempt at surgical repair has been recommended to allow inflammation to resolve. Similar approach has been reported by Tanveer⁸ as well in their study. Our results are comparable to many other published reports⁹⁻¹³.

Recommendation

Obstetric fistula is a preventable tragedy. Propagation of awareness and provision of adequate and quality training to the treating doctors is needed. Also increased utilization of ANC and raising the awareness of the community against teenage marriages and pregnancy is required. Establishment of separate well equipped fistula ward/center in all tertiary hospitals with trained fistula surgeons will also be helpful. VVF following corrosive application is tremendously increasing day by day. Social awareness should be increased about its consequences. The important key message should be conveyed to the community via mass media like radio, TV, posters, leaflets and newspapers. Majority of the iatrogenic fistulas are caused by untrained unskilled doctor's working in the peripheral unregistered substandard clinics of Bangladesh. These must be strictly prohibited.

Conclusion

Hospital deliveries should be mandatory for all high risk cases and all home delivery should be conducted by trained birth attendants. It is further recommended to train former VVF patients as helpers for the dedicated care which needs to be extended to the unfortunate and often stigmatized victims. It is farther recommended that former patients should be trained to help provide care to woman with VVF. The causes of VVF still remaining largely iatrogenic 98 (48.51%). More training and skill of surgeon for repair of fistula,

employing modified technique where applicable can improve the result. The vaginal approach avoids laparotomy, patient's recovery is shorter with less morbidity. Proper preoperative assessment of the patient is mandatory for selection of the surgical approach. An optimum time of at least three months should be given to all patients after the onset of fistula before repair is attempted. Public awareness programmes should be initiated to control the preventable causes of vesico-vaginal fistula.

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All correspondence to:

Nazmun Nahar
Assistant Professor
Department of Gynae & Obs
Rajshahi Medical College, Rajshahi, Bangladesh