ORIGINAL PROF-811

GENITO-URINARY FISTULA

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ABSTRACT ... Genito Urinary Fistula is an abnormal communication between the urinary and genital tract. Vesico vaginal Fistula (VVF) is the commonest type. **Setting:** Department of Obstetrics & Gynaecology, Lady Willingdon Hospital, Lahore **Period:** From Jan 2000 to Dec 2003. **Patients & Methods:** Forty seven (47) patients admitted with genitourinary Fistula (GUF). Twenty-five out of 47 cases were in third decade of their life and 19 women were Para 5 or more. Majority of the patients (37 out of 47) had fistula due to obstetrical trauma. **Results:** Among the 43 cases repaired, 95% were done through the vaginal route. Overall success rate was 88.5%. **Discussion & Conclusions:** Prevention of obstetric fistula poses a great challenge for obstetricians in developing countries. It should be the highest priority of reproductive health care. Efforts should be directed towards creating awareness, better education and provision of emergency obstetric care at the grass root level. Physicians, philanthropists and public should also take initiative in this regard.

INTRODUCTION

Genito-Urinary Fistula (GUF) is an abnormal communication between the urinary and genital tract. Vesico vaginal Fistula (VVF) is the commonest type. Uncontrolled leakage of urine into the vagina is the hallmark symptom. This most devastating complication undermines the quality of life due to its disabling nature and dire psychological, physical and social consequences. It is also a challenge for the health services.

The estimated third world incidence is 1-2 per 1000 deliveries. Margolis however cites an incidence of 3-4 cases per 1000 deliveries in West Africa. 100-700 cases of fistula are dealt in Sudan, Nigeria and Ethiopia every year[1]. Yet there are approximately 500,000 untreated cases worldwide[(2)]. In developed countries, pelvic surgery results in 75% of urinary fistula[3,4]. Contrary to this, in most of the developing countries, 90% of the urinary fistulae are due to obstructed labour[5]. These are usually large and complex[(6)]. Pakistan is a developing country and 80% of its population lives in villages. Obstetric causes are still responsible for 80-90% of Vesico vaginal fistulea[7]. The reasons are ;

No concept of antenatal care
Non-availability of emergency obstetric care in the remote villages.
Delay in decision to seek medical help.
Inadequate roads and transport.

Late admissions to the hospital.

All these factors lead to neglected obstructed labour for 2-3 days ending in a dead fetus, ischaemic pressure necrosis of the bladder base, urethra, anterior vaginal wall and fistula formation[8].

Johann Fatio documented the first VVF repair in 1675. James Morison Sims published his famous discourse on the treatment of VVF in 1852. Sims achieved success on his 30th surgical attempt on a slave named Anarcha in Alabama. In 1861 Maurice Collins first reported layered closure technique.

In 1893 Schuchardt described a Para rectal incision to facilitate improved exposure for a high VVF repair. VVF continued to frustrate many well-known surgeons. The management of VVF still remains controversial as regards;

The timing of repair.
The approach for operation.
Excision of fistulous tract.
Freshening of the margins.
Use of local tissue flaps.

This study was aimed at prospective analysis of patients undergoing VVF repair in LWH regarding their etiology and evaluation of the results of repair in order to improve our prevention and treatment strategies.

PATIENTS & METHODS

All the patients admitted to the department of Obstetrics and Gynaecology, Lady Willingdon Hospital, Lahore with genitourinary fistula from January 2000 to December 2003 were included in the study. A detailed history including the pattern of incontinence, desire for voiding, past obstetric history with possible cause of fistula formation and previous attempts at repair was obtained.

Thorough physical examination was carried out to assess the number, site and size of fistulae.

Haemoglobin estimation, blood group and Rh factor, urine analysis, renal function test, blood sugar levels and IVU were done.

EUA was performed in all cases to confirm the site and size of fistula, to assess mobility of the tissue and to decide the route of operation and patient's position on the operation table.

Following basic principles of fistula repair were followed;

Nutritional repletion and build up in case of malnourished and anaemic patients.
Well vascularized healthy looking tissues for repair.
Adequate exposure of the fistulous tract.
Judicious use of cautery.
Water tight closure preferably of each layer.
Multiple layer closure.
Good haemostasis.
Tension free non-overlapping suture line.
Continuous bladder drainage for 10-14 days post-operatively.
Prophylactic broad-spectrum antibiotic cover.

Women were encouraged to take plenty of fluids to maintain adequate hydration. Urine examination was done on third post-operative day and then on alternate days to detect and treat urinary tract infection.

RESULTS

The maximum number of patients with genitourinary fistula was between 21-30 years of age. Our youngest patient who developed VVF 20 days after caesarean section in hospital for eclampsia and obstructed labour was 16 years old. The oldest patient was 55 years whose urinary fistula was caused by obstructed labour 20 years ago and she had an attempt of repair 8 years back (Table – 1).

Regarding antecedent causes, 78.72 %(n=37) were due to various obstetric injuries and 21.28 %(n=10) were due to gynaecological operation (Table – III).

Table – I: Age Distribution (n = 47)		
Age in years	No of patients	%age
<20	04	8.51%
21-30	25	53.19%
31-40	08	17.02%
41-50	09	19.14%
>50	01	2.12%

The distribution of parity is as shown in Table -II.

Table – II : Parity of the Patients		
Parity	**No of patients**	**%age**
P1	10	21.27%
P2-P4	18	38.29%
P5 & above	19	40.42%
Total	47	100%

Table –III : Causes of GUF (n = 47)		
Causes	**No. of Pts**	**%age**
Obstetrics	37	78.70
Obstructed Labor	20	42.55
Instrumental Forceps deliveries	02	4.25
C. Section Caesarean	13	27.65
Hysterectomy	2	4.25
After Gynae Surgery	10	21.30
Abdominal Hysterectomy	9	19
Vaginal Hysterectomy	1	2.3
Total	47	100

Out of 47 patients admitted with genitourinary fistula, 43 were repaired in Lady Willingdon Hospital, Lahore. Two cases having coincidental large retro vaginal fistula (RVF) were referred to Mayo Hospital for diversion colostomy and possible RVF repair. Other two women with anaemia and vulval excoriation disappeared from the ward during their stay for work up, nutritional repletion and correction of anaemia.

Among 43 patients who had repair operation, 41 (95.35%) were repaired through vaginal route, one through the abdominal route and another through abdomino-vaginal approach. Overall success rate was 88.9 % (38 out of 43) and 11.5% (5 of 43) were failure. Four out of 43 women had previous one or more fistula repair attempts while for 39 women, it was the first operation. Success rate in relation to this is shown in (Table – IV).

Table – IV: Previous Attempt		
Previous attempt	**Success**	**Failure**
None (n=39)	38(97.4%)	1 (2.6%)
1 or > attempts at repair (n=04)	0.1 (25%)	3 (75%)

DISCUSSION

Pakistan is the seventh most populous country of the world with a population over 140 million. Out of total births, about 95% in rural areas and 60-70% in urban areas are conducted by traditional birth attendants (TBA's). As a result, in addition to being among the countries having one of the highest MMR in the world, women in Pakistan are at a significant risk of severe complications of pregnancy. GUF is one of the most crippling obstetric complication a women may suffer. It results in mutilation of body, loss of self respect, social excommunication and psychological trauma to which there is usually no end.

The causes of GUF are obstructed labour, forceps and vacuum delivery especially in combination with disproportion and possible full bladder. The bladder base, urethra and anterior vaginal wall are compressed against the pubic symphysis leading to pressure necrosis[9,10]. Urinary fistulas are also formed after caesarian section for obstructed labour and after caesarian hysterectomy for ruptured uterus.

Iatrogenic urinary tract injuries sustained during

obstetric intervention are rarely reported[11]. In our study 78.7% of fistulas were obstetrically caused including 36.5% of those after obstetric intervention. Similar findings have been reported by Parveen et al[7]. Different studies on iatrogenic injuries during gynaecological operations in Pakistan show wide variation i.e. from 5.26%, 17.5% and 25%[7,12,13]. In our study 8 out of 10 cases with post gynaecological surgery fistula (80%), the operation had been done at some private clinic by under-skilled personnel. Neglected foreign body which is a rare cause of fistula formation[10,11] was not seen in our study. However one patient with post-obstructed labour fistula formation had multiple bladder stones (0.5-2cm in size).

WHO argues that poor socioeconomic development is the underlying factor, the standards of health are low and situation worsens in remote villages where health services are deficient or absent.

More than half of our patients were between 21-30 years of age. This is comparable to other reports[7,11,12,14]. High parity was identified as a risk factor for fistula formation similar to the findings by Sachdeve PS[12]. With increasing parity, there is increase in birth weight, mal-presentation, mal-position and a slight decrease in pelvic dimension. This predisposes multipara at a high risk of obstetrical injury. Controversy remains over the time of repair and the preferable route. Like Khero RB et al[13], who repaired 90% of cases through vagina, we performed repair operation through vaginal route in 95% of cases. During our study period, women waited three months for repair after fistula formation or after previous attempt at repair. Duration of 3-6 months allows possible healing; good vascular supply and clears off the infection. Some authors however favour an earlier repair for fistula but for those which are not due to radiation therapy[9,15,16]. Our success rate was 88.5%. It is similar to the success achieved by others[7,13].

CONCLUSIONS

Urinary fistula, on account of its psycho-social implications, is one of the most devastating complication of neglected child birth. The height of tragedy is that most causes of fistula formation are avoidable. The existing health delivery system is bereft of appropriate, accessible and acceptable health care. Unequal distribution of government resources and lack of infrastructure such as clean water, health centers, schools and electricity worsen the situation.

Prevention of fistula formation should be the highest priority of reproductive health care. This is only possible by boosting female literacy rate and thus raising the status of women, imparting health education, encouraging them to deliver in a health facility and provision of emergency obstetric care at their door steps.

Once fistula is formed, the health personnel even at a remote health center should be able to recognize the complication and refer the women to an appropriate hospital. Recently, International agencies like WHO and UNICEF have taken some steps in this direction. It is indeed the responsibility of government to prevent such act of violence against women which leaves them in a never ending misery of life. After all women's rights are human right! However, it is recommended that physicians, philanthropists and public should also take initiative in this regard.

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