Reasons for Delay in Presentation of Vesicovaginal Fistula Patients at Tertiary Health Facility

Athar Mahmood,[1] Hamza Farooq,[2] Asad Ali Shah,[3] Muhammad Farooq,[4] M. Shafi Ghouri,[5] M. Shahzad Anwar[6]

Abstract

Objective: To explore the factors that lead to the delayed presentation of VVF in our circumstances.

Method: This is a retrospective case series study which was conducted in department of Urology Services Hospital Lahore from January,2021 to March,2022. Patient name, age and possible factors that can lead to delayed presentation of VVF to the tertiary care hospital were entered in pre designed Proforma. All data was analyzed with SPSS 25.

Results: Total 82 patients with diagnosis of VVF were included in this study. The mean age of patients was 38.50 years. The average period from the onset of symptoms to presentation at Services Hospital Lahore was 23.34 months. Approximate distance from the hospital was 34.1% patients from within 50km, 30.5% from 50 to 100 km, 17.1% patients from 100 to 200km and 18.3% patients were more than 200km. Regarding educational status, 30(36.6%) patients were uneducated, 30(36.6%) studied up to primary level and 22 (26.8%)were educated to secondary level. Out of 82 patients, 18 (22%) had a monthly income of 10000 to20000 Rupees, 45(54.9%) had a monthly income of 20000 to 30000 thousand Rupees, and 19(23.2%) had a monthly income of more than 30000 Rupees. All the patients in this research were initially treated by a local health care practitioner i.e. GP, Quacks, Homeo dr, RHC doctor and Hakeem etc.

Conclusion: Vesicovaginal fistulas patients present late at specialized centers because most of them are poor, illiterate, from far furlong areas and also because they get initial treatment from untrained practitioners.

Keywords: Obstetric fistulas, Vesicovaginal fistula, VVF, delayed presentation,

How to cite: *Mahmood A, Farooq H, Shah AA, Farooq M, Ghouri S, Anwar AS. Reasons for Delay in Presentation of Vesicovaginal Fistula Patients at Tertiary Health Facility. Esculapio - JSIMS 2022;18(04):108-113*

DOI: https://doi.org/10.51273/esc22.2518413

Introduction

Genitourinary fistula is a serious public health challenge in areas where women have inadequate access to qualified professional emergency obstetric and gynecological care.[1] Due to the closeness of the bladder, ureters, uterus, and vagina, genitourinary fistulas can develop after obstetric or gynecologic surgery and result in an abnormal communication between the bladder or ureter and the uterus, cervix, or vagina.[2] Contrary to the previous trend, a significant shift has been observed regarding the etiology of female urogenital fistula. Recent studies have shown a growing incidence of iatrogenic fistula while doing pelvic surgeries i.e. caesarian section, hysterectomies for obstetric as well as gynecological reasons. In under developed nations, still prolonged obstructed labor constitutes the most common etiology of VVF (>90%), especially in Sub-Saharan African countries.[3] Pathology of VVF in case of obstructed labor is pressure necrosis which develops as a result of compression of bladder between symphysis pubis and fetal head. So any instrumentation in this area can lead to VVF formation.[4] Simple vesicovaginal fistulas are isolated, tiny (0.5 cm), and seen in patients who have not been exposed to radiation. They do not show any signs of malignancy involvement. A vesicovaginal fistula is categorized as intermediate if its size

1-6. Department of Urology, SIMS/ Services Hospital, Lahore

Correspondence:
Dr. Athar Mahmood, *Assistant Professor, Urology Department, SIMS/Services Hospital, Lahore. Pakistan.*
E-mail.mahmoodathar1980@gmail.com

Submission Date: 25-08-2022
1st Revision Date: 12-09-2022
Acceptance Date: 31-11-2022

ranges from 0.5 to 2.5 cm. Large (>2.5 cm), complex vesicovaginal fistulas are linked to chronic illness, radiation, or failed fistula repairs in the past.[5] WHO classification of VVF is as mentioned in table1.[6] Trend that observed in various studies conducted over a period of 13 years in Pakistan show a significant increase in iatrogenic fistula.[7] Among all Genitourinary fistulas, vesicovaginal fistulas(VVF) are more common.[8] Vesicovaginal fistula is an abnormal communication between bladder and vagina that usually presents with continuous incontinence of urine.[9] The true incidence of VVF is difficult to estimate because of social stigma i.e. continuous wetness, odor, attached with this disease.[3] It is estimated that at least three million women in poor countries have unrepaired VVF and that 30 thousand to 130 thousand new cases develop each year in Africa.[9] Poor socioeconomic status, malnutrition, early marriages, low literacy rate contribute to high prevalence of VVF in under developed countries.[3] The objective of this article is to explore the factors that lead to delayed presentation of VVF in our circumstances.

Material and Methods

This is retrospective case series study which was conducted at department of Urology Services Hospital Lahore from January, 2021 to March, 2022. All patients with preoperative diagnosis of VVF who were admitted in ward were included this study. Name of patient with age and possible factors that can lead to delayed presentation of VVF to the tertiary care hospital i.e. time from symptoms to presentation at this tertiary care hospital, distance, monthly family income, educational status of patient, primary health care taker who treated her initially were entered in pre designed proforma. All data was analyzed with SPSS 25.

Results

Total 82 patients with diagnosis of VVF included in this study. The mean age of patients was 38.50 years (Range 22 to 59 years). The average period from the onset of symptoms to presentation at Services Hospital Lahore was 23.34 months (3 to 170 months). Patients came from periphery all around Lahore. The estimated distance was recorded, as given in Table 2. In terms of educational status, 30(36.6%) patients were uneducated, 30(36.6%) patients were educated up to primary school level, and 22(26.8%) patients were educated up to secondary school level. The patients' family income was also tracked on a monthly basis. Out of 82 patients, 18 (22%) had a monthly income of 10000 to 20000 Rupees, 45 (54.9%) had a monthly income of 20000 to 30000 thousand Rupees, and 19(23.2%) patients had a monthly income of more than 30000 Rupees as mentioned also in Figu-1. All the patients in this research were initially treated by a local health care practitioner, as shown in Table 3.

Table 1: *Type of Fistulas.*

SIMPLE FISTULA (GOOD PROGNOSIS)	COMPLEX FISTULA (UNCERTAIN PROGNOSIS)
• Simple Fistula < 4cm • Vesicovaginal fistula • Closing mechanism not involved • Minimal tissue loss • Ureter not involved • First attempt repair	• Fistula >4cm • Multiple fistula • Rectovaginal, mixed, cervical fistula • Closing mechanism involved • Scarring • Circumferential defect • Extensive tissue loss • Intravaginal ureters • Failed previous repair • Radiation fistula

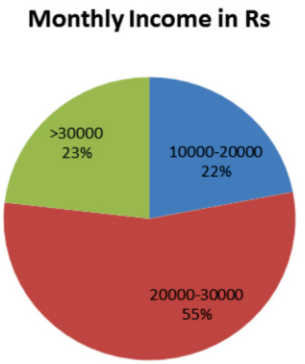

Fig -1: *Monthly family income.*

Table 2: *Distance from hospital.*

Distance(km)	Number of Patients	Percentage %
0-50	28	34.1
50-100	25	30.5
100-200	14	17.1
>200	15	18.3
Total	82	100.0

Table 3: *Primary health care provider*

	Number of patients	Percentage%
GP	22	26.8
Quack	24	29.3
Homeopathic dr	20	24.4
RHC dr	9	11.0
Hakeem	7	8.5
Total	82	100.0

Discussion

Where females are still second degree citizens especially in rural areas these people hesitate to spend money for cure of disease. This gender discrimination becomes more visible when females are poor, illiterate and unemployed. This gender inequality and its effect on female population in seeking treatment in India are well mentioned in article by Milind Deogaonkar, MD.[10] In Indian society, men typically make critical family decisions, but women abstain from making any decisions, not even those pertaining to their own health. It is well documented in this study that delayed in reaching tertiary care facility by pregnant women is because of lack of autonomy in decision making even in emergency situation by pregnant women.[11] Poverty plays major role in hindering women for seeking treatment in vesicovaginal cases. Another factor which is well mentioned in article by Muhammad Anka Nasiru is positive behavior of health care professional towards the sick is very important. Positive attitude goes long way in promoting communication between sick and health care provider and ultimately it leads to quality health care.[12] All factors which we have mentioned i.e. distance from tertiary care hospitals, lack of education, poor family income, and initial treatment from quacks contribute somehow in delaying presentation at tertiary care hospitals. Delay in seeking treatment is defined as: if a woman has incontinence of urine and/or feces and does not seek medical help for more than 3 months then this is considered as a delay to seek medical help (WHO 2006).[13] In our study we have noticed almost all age group adult female patients with mean age 38.50 (Age ranges from 22 to 59) and mean presentation time was 23.34 months. Most of our patients travelled from far-flung areas 35.4% patients in our study travelled from more than 100 km away to reach to services hospital Lahore among which 18.3% travelled from even more than 200 km. This shows how much shortage of tertiary care facilities at periphery hospitals. Literacy ratio which we have documented and that is 36.6% patients were illiterate and same percentage of patients were educated just up to primary level education. A similar study was conducted at medical college in Udaipur Rajisthan by CP Sharma et all documented education status of patients were as 41.5% illiterate, 37.5 %just educated up to primary level like our study.[14] It is worth mentioning most of our patients from poor socio economic status with average monthly income in76.9% of patients less than 30000 rupees. It is already mentioned in many studies that vesicovaginal fistula is problem of poor population and countries with poor resources.[15] And it is also documented that 29.3% patients still were under treatment initially from quacks at areas where they were living. This shows still even in this modern era patients having difficulty in reaching to qualified medical personals who can manage such complications at periphery hospitals. It is also mentioned in study done at Patna Medical College and Hospital Behar that emergency obstetric hysterectomy is one marker of obstetric morbidity. Although it is life-saving procedure in life threatening catastrophes i.e. uterine rapture, densely adherent placenta, uncontrollable hemorrhage but it is also associated with complications like hemorrhage, shock, iatrogenic bladder injury and later VVF.[16] According to statistics from throughout the world, the incidence rate of emergency obstetric hysterectomy in developing and wealthy nations differs dramatically.[17] All this high prevalence rate of such complications i.e VVF among our women because factors like high parity, early marriages, lack of family planning, inadequate qualified maternity services at rural areas, prolonged labor, illiteracy, lack of proper referral system for complicated cases.[18]

Conclusion

As mentioned in detail already that vesicovaginal fistula patients present late at specialized centres because most of them are poor, illiterate and from far furlong areas, get initial treatment from untrained practitioners. To reduce the incidence of obstetric fistulas, adequate antenatal health services, timely identification of high-risk cases, public awareness, interconnected close relationships between primary health services and tertiary hospitals, early referral with backup system, and improvement of existing health facilities in a teaching hospital with involvement of seniors, skilled, and experienced per-sonnel in the management of obstetric emergencies should be implemented.

Conflict of Interest *None*

Funding Source *None*

References

1. Raassen, T.J., C.J. Ngongo, and M.M. Mahendeka, Iatrogenic genitourinary fistula: an 18-year retrospective review of 805 injuries. International Urogynecology Journal, 2014. 25(12): p. 1699-1706.
2. Abrams, M. and R. Pope, Obstetric and Gynecologic Genitourinary Fistulas. Clinical Obstetrics and Gynecology, 2021. 64(2): p. 321-330.
3. Rajaian, S., M. Pragatheeswarane, and A. Panda, Vesicovaginal fistula: review and recent trends. Indian journal of urology: IJU: journal of the Urological Society of India, 2019. 35(4): p. 250.
4. Elahi, F., et al., Outcome of Vesicovaginal Fistula Repair at Urology Department STH Swat. Journal of Saidu Medical College, Swat, 2020. 10(2).
5. Medlen, H. and H. Barbier, Vesicovaginal fistula, in StatPearls [Internet]. 2022, StatPearls Publishing.
6. Streit–Ciećkiewicz, D., et al., Predictive value of classification systems and single fistula-related factors in surgical management of vesicovaginal fistula. Neurology and Urodynamics, 2021. 40(1): p. 529-537.
7. Tasnim, N., et al., Rising trends in iatrogenic urogenital fistula: A new challenge. International Journal of Gynecology & Obstetrics, 2020. 148: p. 33-36.
8. Moses, R.A. and E. Ann Gormley, State of the art for treatment of vesicovaginal fistula. Current Urology Reports, 2017. 18(8): p. 1-7.
9. Stamatakos, M., et al., Vesicovaginal fistula: diagnosis and management. Indian journal of surgery, 2014. 76(2): p. 131-136.
10. Deogaonkar, M., Socio-economic inequality and its effect on healthcare delivery in India: inequality and healthcare. Electronic Journal of Sociology, 2004. 11.
11. Swain, D., et al., Prevalence and risk factors of obstetric fistula: implementation of a need-based preventive action plan in a South-eastern rural community of India. BMC women's health, 2020. 20(1): p. 1-10.
12. Nasiru, M.A. and F.U. Abubakar, Sociopsychological Factors Inhibiting Treatment-Seeking Behaviour Among Women With Vvf In Northern Nigeria: A Proposed Conceptual Model. International Journal of Nursing and Medical Sciences, 2019. 8(4).
13. Woldeamanuel, S.A., Factors contributing to the delay in seeking treatment for women with obstetric fistula in Ethiopia. 2012, Citeseer.
14. Sharma, C., et al., A study to assess genuineness of obstetrics/ gynecological patients coming or being referred to medical college hospital in southern district of rajasthan. Age (In years), 2013. 20(27): p. 9.
15. Sohail, S., R. Lubna, and I. Khalid, Vesicovaginal fistula-still a major problem in rural areas of Punjab. PJMHS, 2016. 10: p. 3.
16. Ranjan, N.K., Prospective Observational Study of Emergency Peripartum Hysterectomy in Modern Obstetrics. International Journal of Pharmaceutical and Clinical Research, 2022. 14(4): p. 6.
17. Akbar, R., et al., Frequency of Emergency Obstetric Hysterectomy in Patients Presenting at PMC Hospital Nawabshah. Pakistan Journal of Medical & Health Sciences, 2022. 16(02): p. 1215-1215.
18. Swain, D., et al., Obstetric fistula: A challenge to public health. Indian Journal of Public Health, 2019. 63(1): p. 73.

Authors Contribution

AM: Conceptualization of Project
MF: Data Collection
AAS: Literature Search
SG: Statistical Analysis
HF: Drafting, Revision
MSA: Writing of Manuscript