Epidemiology of Vesico-Vaginal Fistula at the University of Ilorin Teaching Hospital, Ilorin, Nigeria

Munir-deen A. Ijaiya[1], Abiodun P. Aboyeji[1] and Zainab B.B. Ijaiya[2]
Departments of [1]Obstetrics & Gynaecology and [2]Nursing Services, University of Ilorin Teaching Hospital, Maternity Hospital Wing, Ilorin, Nigeria

Abstract

Context: Vesico-vaginal fistula (VVF) is a major public health problem in Nigeria.
Objective: To describe the causes and patterns of presentation of vesico-vaginal fistula in a tertiary hospital in Central Nigeria.
Subjects and Methodology: Records of all patients with VVF seen over a 10-year period (1st January, 1988 to 31st December, 1997) at the University of Ilorin Teaching Hospital were reviewed. The patients' social and demographic data, aetiological factors, anatomical types and complications of VVF were analysed.
Results: There were 44 cases of VVF during the period. Obstetric VVF accounted for 37 (84.1%) of the cases. Most of the patients were illiterate 39 (88.6%), and of low social class 37 (84.1%). Most had poorly supervised deliveries; 33 (89.2%). The age of the patients ranged between 15 and 73 years with a mean age of 29.4 years. The highest frequency was in the 15-19 years age bracket (25%) and 43.2% were primiparous women. Prolonged obstructed labour (65.9%) was the commonest cause of VVF in the patients. Other causes include advanced cervical cancer 6 (13.6%), ruptured uterus 3 (6.8%), caesarean section 3 (6.8%), forceps delivery 1 (2.3%), caesarean hysterectomy 1 (2.3%) and total abdominal hysterectomy 1 (2.3%). Twelve (27.3%) patients were separated/divorced from their husbands. Of the 33 VVF patients that had VVF repair, 29(87.9%) were successful; 27 (81.8%) at the first attempt and 2 (6.1%) at the second attempt.
Conclusion: Urinary fistulae are still a major health problem for women in this locality and prolonged obstructed labour is the major cause.

Key Words: Vesico-Vaginal Fistula, Obstructed Labour, Urinary Incontinence [Trop J Obstet Gynaecol, 2002, 19: 101-103]

Introduction

Vesico-vaginal fistulae (VVF) are the most common communication between efferent urinary passages and the genital tract [1]. In our society, as it is elsewhere, VVF is an unpleasant experience for the patient and it is considered as one of the most dehumanising conditions that afflict women [2,3,4]. It constitutes a major public health problem in developing countries [3].

The estimated incidence range in West Africa is 3-4 per 1,000 deliveries [5]. The prevalence is higher in the developing countries because of poor obstetric care. This results from poverty, illiteracy, ignorance and poor road and communication network, with resultant non-availability or poor utilisation of health facilities. Majority of VVF in developing countries are due to obstetric trauma while in developed nations, most of the urogenital fistulae are complications of gynaecological surgery [5,6,7].

The University of Ilorin Teaching Hospital is located in the Middle Belt of Nigeria and the hospital serves a dual role of being both a secondary as well as a tertiary health institution. Most of the patients are Yoruba, while Nupe, Ebira, Hausa and Fulani make up the rest. The purpose of this review is to describe the pattern of presentation of VVF and the outcome of VVF repair in this institution.

Materials and Methods

This is a descriptive study of forty-four patients with vesico-vaginal fistulae encountered at the Maternity Wing of the University of Ilorin Teaching Hospital, Ilorin, Nigeria from 1st January 1988 to 31st December 1997. During the study period, there were 32,188 deliveries in the hospital. The case notes of the patients that had VVF were retrieved from the Medical Records Department and data on age, ethnicity, literacy status, and the occupation of the patient's husbands were extracted from the notes. Other information extracted included parity, aetiological factor, anatomical type, complications and outcome of surgical treatment. Standard occupational classification (OPCS 1990) was used for social class classification [8]. All the cases of VVF repair during the period were done through the vaginal route.

Correspondence: *Dr. M.A. Ijaiya, Department of Obstetrics & Gynaecology, University of Ilorin Teaching Hospital, Maternity Wing,P.M.B. 1339, Ilorin, Nigeria.*

Results

During the period of study, there were 32,188 deliveries and 44 cases of VVF giving a frequency of 1.4 fistulae per 1,000 births. There were associated recto-vaginal fistulae in 6 (13.6%) of the cases. Obstetric VVF accounted for 37 (84.1%) of all the cases. Most of the patients (36; 81.8%) were Yoruba, while Fulani, Hausa and Nupe were 4 (9.8%), 3 (6.8%), and 1 (2.3%) respectively.

Table 1

Social Characteristics

Variable	Number (%)
(a) Patient's Literacy Status	
Non-literate	39 (88.6)
Literate	5 (11.4)
(b) Social Class	
I. Professional	Nil (0.0)
II Managerial	Nil (0.0)
III(N) Skilled non manual	2 (4.5)
III(M) Skilled manual	5 (11.4)
IV Partly Skilled	16 (36.4)
V Unskilled	21 (47.7)
(c) Place of Delivery	
Hospital Delivery	4 (10.8)
Attempted/Home Delivery	33 (89.2)

Thirty-nine (88.6%) of the patients were illiterate. The lower the social class, the higher the frequency of VVF. Low social classes (IV and V) accounted for 37 (84.1%) of the cases. There was no patient in social classes I or II. Majority of the obstetric VVF patients (33; 89.2%) attempted delivery or delivered at home and only 4 (10.8%) delivered in hospitals. This is depicted in Table 1.

Table 2

Age Distribution of the Patients

Age (years)	Number (%)
15 – 19	11 (25.1)
20 – 24	9 (20.4)
25 – 29	6 (13.6)
30 – 34	7 (15.9)
35 – 39	3 (6.8)
40 – 44	4 (9.1)
45	4 (9.1)
Total	***44 (100)***

Table 2 reveals age distribution of the patients. The age of patients ranges between 15 and 73 years with a mean age of 29.4 years. The peak incidence was in 15-19 years age group.

The highest frequency of VVF was in primiparous patients whoaccounted for 19 (43.2%) of the cases, followed by the grandmultipara: 14 (31.8%). Prolonged obstructed labour was the commonest aetiological factor, responsible for 29 (65.9%) of the cases. The other aetiological factors included advanced cervical cancer 6 (13.6%), ruptured uterus 3 (6.8%) and caesarean section 3 (6.8%). Forceps delivery, caesarean hysterectomy, and total abdominal hysterectomy were responsible for one case each.

Of the 44 cases of VVF, 19 (43.2%) were juxta-cervical fistulae, while 12 (27.3%), 8 (18.2%) and 5 (11.4%) were juxta-urethral fistulae, midvaginal fistulae and large fistulae respectively. In all, repair was attempted in 33 cases. Four of the patients did not turn up for surgery while one was referred to University College Hospital, Ibadan because of possibility of technical difficulty. The overall success rate was 29 (87.9%). Successful repair was achieved in 27 (81.8%) and two (6.1%) at first and second attempts respectively. There were 4 (12.1%) failed procedures.

Twelve (27.3%) of the VVF patients were divorced/separated from their husbands while 11 (25.0%) and 6 (13.6%) patients had amenorrhoea and gynaetresia respectively. Some had multiple complications.

Discussion

The frequency of VVF in this study is 1.4 per 1,000 births. This is lower than the estimated incidence range of 3-4 per 1,000 deliveries reported for West Africa [5]. This disparity may be as a result of differences in religious, traditional and socio-cultural factors such as early/child marriage and "Gishiri cut" that is prevalent in some parts of West Africa, especially among the Hausa population [2,9,10]. Majority of the patients were of low social class, and non-literate, which is similar to reports of other writers on the subject [2,3]. None of the affected patients belong to the high social classes (I and II). This may be due to fact that they make use of hospital services and they tend to receive a more specialist attention [8].

Obstetric VVF accounted for 84.1%, which is close to 92.7% and 93% recorded in Benin, Nigeria (11) and Gabon (12) respectively. This high percentage is a reflection of inadequate obstetric care, which typifies a developing nation. Conversely, obstetric VVF is rarely encountered in Western countries

because of their excellent obstetric services [2,3,5,13]. The risk of developing VVF was highest among primipara and teenagers. This finding is similar to other reports [2,10,12,14,15,16]. The probable explanation is that the pelvis is not fully developed in teenagers to allow for normal vaginal delivery and majority of these patients had unsupervised labour. In our series, pressure necrosis from prolonged obstructed labour was the leading cause of VVF. This experience is similar to findings from other centres in Nigeria [2,3,4,10,11,17] and other developing countries [2,6,13,16,18] and it is in contrast to findings in the developed countries. Juxtacervical fistula was the commonest type of VVF, as a result of significant contribution from advanced cervical cancer. This finding is similar to that of Gharoro and Okonkwo's [11].

The overall success rate of 87.9% noted in this series falls within the generally quoted 60 – 98% success rate [19]. The success rates from Nigeria in recent years vary between 75 and 99% [4,20]. It is not unexpected that psychosocial complication (separation/divorce) was the leading complication of this condition in our centre. Their husbands deserted the patients because of the smell of urine, which makes them socially unacceptable. This is contrary to Amr's findings in Jordan where the patients were accepted because of the strong family ties that operate there [21].

As it is stated earlier on, the sequel of poor obstetric care and advanced cervical cancer are the major aetiological factors of VVF in our environment. Prevention of these conditions is the key to preventing VVF here.

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