Demographic and Medical Profiles of Patients with Obstetric Fistula in Kenyatta National Hospital, Kenya

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ABSTRACT

Introduction: Obstetric fistula (OF) was eliminated in the developed world but remains prevalent in developing countries. OF occurs mainly due to obstetric causes such as prolonged and obstructed labor, difficult instrumental delivery, obstetric manipulations and ruptured uterus.

Methods: The objective of the study was to determine the demographic and medical profiles of OF patients attending a national repair camp in August 2008 at Kenyatta National Hospital, Nairobi, Kenya. Using a retrospective approach, data was obtained from all consenting patients.

Results: Seventy patients were interviewed. Majority (76.5%) of fistulae resulted from obstructed/ prolonged labor. The mean age was 29 years; mean height 153cm; 19 (27.2%) had completed primary school education while 56 (80%) were unemployed. Fifty nine (61.4%) were married and received social support mostly from their spouses and only eight (11.5%) were separated/divorced. ANC attendance during the causative pregnancy was 61 (87%); 33 (47.1%) were primigravida while 27 (38%) were repeat repair cases. Skilled birth attendance was 80%. There were regional significant differences in terms of marital status (p=0.04), education (p=0.03), birth order (p=0.01) and antenatal care (p=0.02).

Discussion: The findings are in agreement with what is documented in similar settings. However, the majority of our patients present late for care and have higher rate of social support. This implies a gap in health care access and better opportunities for partner involvement and social reintegration that could be a resource in prevention and management of fistula in the Kenyan setting. In addition, there is reasonable family support that could be utilized in patients' management and social re-integration to their communities.

Keywords: *Obstetric fistula; social support; treatment, prevention*

Introduction

In Kenya, there is an estimated 1000 new obstetric fistula (OF) cases each year, with only 7.5% currently treated.[1] It is probable these figures are underestimates since not only has there been generally a lack of commitment in addressing and resolving this problem, but also these young girls or women tend to live with their fear and stigmatization in silence and isolation, unknown to the health-care system.[2] The incidence of urinary fistula reflects the standard of obstetric and gynecological care and its availability to the population.[3]

Women living with OF not only suffer from physical, psychological and social problems and stigmatization, but are often from the most vulnerable and marginalized groups of society. In 95% of cases, the infant dies before delivery. Hence, the care and support they require to rebuild their lives goes far beyond the initial medical interventions.[1] Available research indicates that women suffering with OF are mostly young,[4, 5] tend to have had little or no access to prenatal care, and even if they had access to antenatal screening, they are often nonetheless

delivered at home attended by family members or traditional midwives. If they have sought help from trained midwives or medical doctors, this often occurs late in labor after serious complications have already set in.[6] In addition the overarching outcome in OF is largely documented as divorce or separation among married women: and where the woman has to wait for a long period before fistula surgery the couple often lives separately in over 50% of the cases.[4,7]

Several publications are available on the topic in other similar contexts; however, there is a paucity of information cutting across a nationwide sample in Kenya. We therefore sought to establish the demographic and medical backgrounds of patients seen during a national fistula camp in Nairobi, Kenya. The study findings will be useful in devising effective strategies to prevent obstetric fistula and also give direction to guide future research in obstetric fistula in the country.

Methods

This was a descriptive and analytical study aimed at documenting the demographic and medical profiles of patients attending a national OF camp in August 2008 at Kenyatta National Hospital, Nairobi, Kenya. The AMREF (African Medical & Research Foundation) OF project has been running on an outreach basis to the remote hospitals in the region since 1992. In 2007 the project initiated annual national fistula camps in Kenyatta hospital. The initiative was mandated to increase access to treatment in order to address the heavy backlog of unrepaired OF patients, provide a training ground for aspiring OF surgeons and to raise awareness on OF occurrence and prevention. An average of 300 patients were screened for OF during the exercise and those diagnosed with OF were admitted for immediate surgery. The patients are then repaired and discharged from the hospital two weeks- post repair.

In this study an interviewer administered pretested questionnaire was used to retrospectively assess the women's demographic information along with their obstetric and gynecological history prior to surgery. A nurse working in the ward was trained to collect the data. Informed consent was obtained prior to the interview. All the women diagnosed with OF were included in the study. Chi square was used to obtain levels of statistical association between the study parameters. Ethical approval was obtained from Kenyatta National Hospital Medical and Ethical Review Board.

Results

a) Demographic profiles

Data was obtained from 70 women admitted to the ward. Their age ranged between 13 and 76 years (mean 29). Nearly half of the patients (48.6%) were 25 years old and below; 30% were 26-35 years old, while the rest were sparsely distributed between ages 36-76 years. The height of the patients ranged from 128 – 170cm, with a mean of 153cm; only a quarter (26.2%) was below 150cm. Table 1 shows further demographic characteristics of the women.

Table 1: Demographic characteristics

	Frequency	%
Region (Province)		
Rift Valley	14	20.0
North Eastern	7	10.0
Central	10	14.3
Eastern	13	18.6
Western	4	5.7
Nairobi	11	15.7
Nyanza	5	7.1
Coast	6	8.6
Age at marriage (n=54)*		
Below 18	11	24.4
18 and above	43	45.7
Marital status		
Single	16	22.9
Married	43	61.4
Separated/Divorced	8	11.5
Widowed	3	4.3
Education		
None	19	27.2
Primary	42	60.0
Secondary and above	9	12.8
Occupation		
Unemployed	38	54.3
Business/farming	22	31.4
Employed	10	14.3

*Not everyone was married.

b) Obstetric Characteristics

The majority of women (77.1%) experienced prolonged/ obstructed labor lasting for over 24 hours (range 1-240 average =41 hours). Skilled deliveries were recorded in 80% while the remainder delivered with unskilled assistance either delivering on their own, using traditional birth attendants or family members. When the women who received skilled birth attendance were asked to give reasons why they chose to deliver in hospital, 42.9% cited failed home delivery, while 27.5% said they had easy access to the hospitals. Referral from health centers accounted for 14.3% while the rest (15.3%) perceived the hospital to be safer. The average distance to the nearest health facility with delivery services was 16 kilometers for most mothers (85%), with some living up to 150 kilometers away. Most of the patients cited having to walk to get to these centers (68%). The infant birth weight ranged from 2.7kg to 6kg with heavy babies (>3.5kg) reported in 40% of women. Male infants were more common (69%) than females (31%). See Table 2 for more information on the obstetric characteristics of the women interviewed.

c) Clinical history

The patients had lived with the condition for an average of six years with the longest duration recorded at 37 years. Complications after delivery included foot drop in one or both legs in 31% of mothers. One out of five, (21%) had symptoms of infertility characterized by prolonged amenorrhea for over 12 months. Further clinical characteristics are detailed in Table 3.

Table 2: Obstetric characteristics

Parity at time of index pregnancy	N	%
Primip	33	47.1
Multigravida	37	52.9
Number of living children		
None	27	38.6
1-2	22	31.4
3 and above	21	30.0
Attended ANC		
Yes	61	87.1
No	9	12.9
Duration of labour		
0-12hrs	16	22.9
>12hrs	54	77.1
Place of delivery		
Home	13	18.5
Clinic	3	4.3
Tried at home then went to hospital	13	18.6
Hospital	41	58.6
Mode of delivery		
SVD	27	38.6
Caesarean	39	55.7
Vacuum extraction	4	5.7
Outcome of delivery		
Live birth	20	31.4
Fresh Stillbirth	40	57.1
Macerated stillbirth	5	7.1
Live but died shortly	3	4.3

Table 3: Clinical characteristics

Type of fistula	N	%
VVF*	54	77.1
RVF*	11	15.7
RVF & VVF	5	7.1
Duration of fistula		
< 1 year	17	24.3
1-5 years	21	30.3
>5yrs	32	45.4
Previous repairs		
Yes	26	37.1
No	44	62.9
Number of previous repairs (n=26)		
Once	18	69.1
Two or more times	8	30.9
Infertility		
Yes	15	21.4
No	55	78.6
Foot drop		
Yes	22	31.4
No	48	68.6
Social support following fistula		
None	11	15.7
Husband	43	61.4
Other relatives	16	22.9

*RVF: rectovaginal fistula; VVF: vesicovaginal fistula

d)Geographical variations in relation to selected profiles

Data analyses revealed regional differences in relation to marital status (p=0.04), education level (p=0.03), primip (primigravida) status (p=0.01) and antenatal care (p=0.02) across the eight provinces in Kenya (Table 4).

Discussion

Though the sample size is small, the demographic profiles in our women resonate with the typical characteristics documented in other similar studies.[1, 4-6] For instance, about half of the patients were young, primigravida, single or were married at a tender age, and had heavy weight babies. Factors that contribute to occurrence of fistula as they may render women and girls prone to pregnancy related health risks, and more so obstructed/ prolonged labor.[5-7] In parts of the world where obstetric fistula is most common, including Kenya women often marry as adolescents, sometimes as young as ten years of age, and many become pregnant immediately thereafter.[8-9]

Results also indicate that labor became obstructed even in women who previously delivered vaginally. Women who successfully had an uncomplicated normal delivery the first time probably developed 'false security' and did not see the need for skilled birth thus opted to deliver at home. A similar tendency was found in Addis Ababa, Ethiopia.[4] On the other hand patients' physical characteristics (height) in this study were within normal in about three quarters of cases. In addition although seven out of the eight separated/divorced women attributed their marital status to fistula occurrence, most of the patients were married and received social support from their spouses. This contradicts earlier findings that patients tended to be short in stature and divorced.[7,8]

Even though the quality of care was not assessed, antenatal care attendance was remarkable. In addition a large proportion obtained skilled delivery (80%), but the women still developed OF. Among those who delivered in health facilities, over three quarters had assisted births (Caesareans and instrumental vaginal deliveries), with almost half of this group getting stillbirths. This could be explained by failed home deliveries and thus prolonged labor, long distances to health facilities, poor means of transport, late referrals and inadequate health services resulting in delay in accessing emergency obstetric care. Education and occupation data show low socio economic status, findings that tally with other researchers extrapolation that many of those who suffer from fistula are often illiterate and poor.[1, 9-10] There were also regional and significant differences in terms of marital status, primigravidas, education, utilization of health services and ANC attendance. With the remote areas in the North Eastern parts of Kenya showing poorer indicators than those with better access to health care services. However, it was interesting to note that several patients in this study were based within the City (Nairobi) environs where health facilities are available and accessible in terms of distances. This finding could possibly be an indication of other

Table 4: Association between residence and demographic characteristics

Regions (Province)	Primip P = 0.01	Marital status P = 0.04		Women receiving no ANC care P = 0.02	Reason for delivering in hospital P =0.03	Women with no education P = 0.03
		separated	single			
Rift valley	85.7	7.1	28.6	7.1	53.8	35.7
North Eastern	60.0	60	0	60	60	100
Central	20.0	10	10	0	0	0
Eastern	38.5	7.7	30.8	7.7	38.5	7.7
Western	0	0	0	0	0	0

hindering factors to adequate emergency obstetric care such as low access due to affordability or unfriendly maternal health services.

In this study infertility was also reported, characterized by prolonged amenorrhea for over 12 months. A significant finding as so many women experience stillbirths and amenorrhoea reduces their subsequent pregnancy chances. Further research is needed to establish factors behind this observation. In addition, some patients were noted to have suffered foot drop which is a result of neurological injuries known to follow obstructed labor. In their review of 947 patients in Nigeria, Waaldjik and Elkins found that foot drop was more commonly apparent in the first two years after the obstetric trauma causing the fistula.[11]

The co-morbidity of both VVF and RVF was in keeping with the conventional trend of 10% -15%.[11] The women were also noted to have lived with the condition for a long duration of time. This is partly attributable to lack of information on the causes and availability of treatment of OF. The implications are disturbing as in similar studies, some patients were found to present for surgery over 40 years after the initial injury. The wasted years of human lives represented by such cases is said to be mind-numbing.[12]

Conclusion

Despite the fact that most women received antenatal care; there was still unacceptable delay in seeking skilled delivery and subsequent occurrence of fistula. There were also delays in accessing fistula treatment. However, the study shows that most of the women were still married, which presents a window of opportunity for partner involvement in fistula prevention and management programs. We recommend the adoption of an integrated approach geared towards improvement of access and utilization of maternal health services in the country. The priority should emphasize birth preparedness and early skilled birth attendance during the time mothers turn up at the ANC clinics and increase awareness in obstetric fistula occurrence and treatment. Comprehensive care should be provided, considering that the women afflicted with OF have other co-morbidities. This study was limited due to the nature of the project's mandate which is mainly at hospital level and also the small sample size. We recommend long-term interventions that support patients follow up and systematic research focused on outcomes in patients following surgery.

Acknowledgment: African Medical and Research Foundation (AMREF) and Kenyatta National Hospital (KNH) for financial and logistical support during the camp.

Conflict of Interest: None

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