

ORIGINAL ARTICLES

THE CONTRIBUTION OF GISHIRI CUT TO VESICOVAGINAL FISTULA IN BIRNIN KUDU, NORTHERN NIGERIA

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Objective: To review the cases of vesico-vaginal fistulae (VVF) seen at the Federal Medical Center Birnin Kudu since it was established in 2001, with emphasis on those cases that were caused by Gishiri cut.

Patients and Methods: The patient files of 50 consecutive cases of vesico-vaginal fistulae (VVF) managed at the Federal Medical Center, Birnin Kudu, Jigawa State, Nigeria between January 2001 and December 2004 were retrieved from the Medical Record Department and analysed. The data obtained included age, parity, tribe, booking status, place of delivery, etiological factors of VVF, complications, outcome of repair and fetal outcome. Where Gishiri cut caused the fistula, the reason why it was done was determined.

Results: The majority of the patients were teenagers (64%) and primipara (46%). The commonest cause of VVF was prolonged obstructed labor followed by Gishiri cut both being responsible for 74% and 18% of the

cases respectively. Other causes of VVF included ruptured uterus(2%), complicated vacuum delivery (2%), complication of hysterectomy (2%) and labor in a woman who had earlier been successfully treated for VVF (2%). Local barbers inflicted all the Gishiri cuts. The cuts were inflicted in five patients (55.6%) in order to relieve an obstructed labor, in two patients (22.2%) in order to remove a vaginal mass and in two others (22.2%) for dyspareunia. The only mortality recorded was that of a patient who had a Gishiri cut and went into hemorrhagic shock. Of the 34 patients who had their VVF repaired at the center, success was achieved in 26 (76.5%).

Conclusions: Health education, interaction with local and religious leaders as well as legislation against Gishiri cut are suggested preventive strategies for VVF.

Key Words: vesicovaginal fistula, epidemiology, etiology, traditional medicine, labor complications, Nigeria, risk factors.

INTRODUCTION

Vesicovaginal fistula (VVF) has remained a problem especially in the developing countries. An incidence of 1-2 per 1000 deliveries has been estimated worldwide with an annual incidence of 50,000 to 100,000 and a prevalence of untreated fistula of 500,000 to 2,000,000¹. In Nigeria, it is

estimated that 150,000 to 200,000 cases are in existence and about 10,000 new cases are seen annually^{2,3}. Most of the cases are seen in Northern Nigeria. While prolonged obstructed labor is the commonest cause of VVF, a common cause in some centers is some form of cutting of the genital tract. Gishiri cut which is a cultural practice means cutting the anterior vagina with a sharp instrument

to relieve or prevent obstructed labor or to treat dyspareunia, infertility, amenorrhea, dysuria, backache or other complaints^{4,5}. Its contribution to the etiology of VVF varies from 6.2%^{6,7} to 13%⁴. Gishiri cut has also been reported in Nigerian children⁸.

Gishiri cut is a Type IV form of female genital cutting (FGC)⁹. FGC is a sociocultural practice that has been reported from many parts of Africa. However, its prevalence varies widely from country to country. It ranges from nearly 90% or higher in Egypt, Eritrea, Mali and Sudan, to less than 50% in the Central African Republic and Côte d'Ivoire, to 5% in the Democratic Republic of Congo and Uganda. Women who have undergone FGC are also found among African immigrant communities in Europe, Canada, Australia and the United States⁹.

A recent decrease in FGC has been reported among Ibo girls in Nigeria, and largely attributed to the rising rate of formal education among women¹⁰. Girls who have undergone female genital cutting suffer lifetime risks of complications. These health risks depend on the severity of the procedure, the practitioner's skill, the instruments used, and the postoperative care. Immediate complications include cellulitis, sepsis, urinary retention, hemorrhage, shock, and even death. Long-term complications include cysts, abscesses, recurrent infections, dyspareunia, and dysmenorrhea¹¹. The World Health Organization held a conference in Khartoum, Sudan in 1979, criticizing FGC and bringing it to the world's attention. Since then, many countries and major world organizations, such as UNICEF, oppose FGC in any of its forms. The United Nations regard FGC as a direct violation of fundamental human rights and advocates a "zero tolerance" policy¹².

The objective of the study was to review all the cases of VVF seen at the Federal Medical Center in Birnin Kudu, a semi urban area located in Jigawa state in Northern Nigeria, since it was established in 2001, with emphasis on those cases that were caused by Gishiri cut. The hospital is a tertiary health facility, which handles about 1,500 deliver-

ies annually. It is also a referral center for patients from the neighboring states of Kano and Bauchi.

PATIENTS AND METHODS

In this retrospective study the files of 50 consecutive patients with VVF managed at the Federal Medical Center, Birnin Kudu from January 2001 to December 2004 were retrieved from the Medical Record Department and analysed. The data obtained included age, parity, tribe, booking status, place of delivery, etiological factors of VVF, complications, outcome of repair and fetal outcome. Where Gishiri cut caused the fistula, the reason why it was done was determined.

RESULTS

Of the 50 patients seen, VVF were pregnancy related in 48 (96%) patients, while they were seen in two (4%) non-pregnant patients. The age and parity distribution is shown in Table 1. There was one Fulani woman while the rest were Hausas. All the patients were muslims. Of the pregnant patients, 45 (93.8%) were unbooked while three (6.2%) were booked.

The etiological factors are shown in Table 2. The commonest was prolonged obstructed labor, which was the identified factor in 37 (74%) patients. This was followed by Gishiri cut in 9 (18%) patients. Local barbers inflicted all the Gishiri cuts. The reasons for the cuts were prolonged obstructed labor in 5 (55.6%), dyspareunia in 2 (22.2%) and vaginal mass in 2 (22.2%) patients.

Anatomically, the fistulae were mid vaginal in 25 (50%), large in 12 (24%), juxtacervical in 8 (16%) and juxtaurethral in 5 (10%) patients.

The place of delivery for the pregnant women was a health facility in 37 (77.1%) patients and home in 10 (20.8%), while one patient (2.1%) delivered on the way to a health facility. However, virtually all those who delivered in a health facility did so as a last

Table 1: Age and Parity Distribution of the 50 VVF Patients

AGE (YEARS)	PARITY						TOTAL
	0	1	2	3	4	5 or more	
12-20	30	2	0	0	0	0	32
21-30	0	10	0	1	1	0	12
31-40	0	1	1	2	1	0	5
41 or more	0	0	0	0	0	1	1
TOTAL	30	13	1	3	2	1	50

Table 2: Etiological Factors of VVF

ETIOLOGICAL FACTOR	No. of Patients	%
Prolonged obstructed labor	37	74 %
Gishiri cut	9	18 %
Ruptured uterus	1	2 %
Complication of hysterectomy	1	2 %
Complication of vacuum delivery	1	2 %
Labor following previous successful VVF repair	1	2 %
TOTAL	50	100%

alternative, having attempted labor for many days at home. Forty-three (89.6%) babies were delivered dead while only five (10.4%) were delivered alive.

Other complications were recorded in 21 (42%) patients and included eclampsia in three (6%), foot drop in five (10%), anemia in three (6%), rectovaginal fistula in five (10%), ruptured uterus in two (4%), and puerperal sepsis, gynecetresia, stress incontinence, urinary tract infection, in one patient each. Some patients had more than one complication. One patient, who had a Gishiri cut bled from the cut, went into hypovolemic shock and died before she could be fully resuscitated.

Thirty-four (68%) patients had their VVF repaired at the center. All were repaired by the

vaginal route. In 26 (76.5%) patients repair was successful; while in 22 (64.7%) patients, repair was successful at the first attempt, a second attempt was necessary in two (5.9%) and a third attempt in the remaining two (5.9%) patients. The repair failed in 8 (23.5%) patients. Out of the 16 (32%) remaining patients, one (2%) died before the repair, 7 (14%) were awaiting surgery and 3 (6%) were referred to a higher centre. Five (10%) failed to show up for surgery which was most likely due to their inability to afford surgery.

DISCUSSION

The commonest etiological factor for VVF in this study was prolonged obstructed labor, which was the identified factor in 74% of the patients. This finding is similar to that of other recent reports on VVF in Nigeria¹³⁻¹⁶. It is a

sad reflection on the poor state of maternal health typical of a developing country. The finding that Gishiri cut was the cause of 18% of the VVF in this study is higher than the 13% reported by Tahzib⁴ and 12% reported by Jido et al¹⁷. It signifies that it is not yet time for health workers to rest on their oars in the struggle for the elimination of VVF. Gishiri cut is still practised in our environment, especially among the poor, and more effort has to be done to ensure that its contribution to the already embarrassingly high incidence of VVF is eliminated at a time where the world is recording significant medical and technological advancement.

The majority of women with VVF in this study were teenagers and primipara. This finding tallies with the finding of other studies^{6,14}. Delayed child bearing could have played a preventive role. However, early marriage has remained common as a result of traditional and religious beliefs in the environment.

Although 77.1% of the pregnant women with VVF in this study delivered in health facilities, yet they presented after prolonged labor at home, by which time the complication of VVF had already been inflicted. It thus appears that an important strategy for the prevention of VVF for women in labor is to avail themselves to modern skilled birth attendants who will be able to monitor the progress of labor. Should there be cephalopelvic disproportion, the labor could be terminated early by cesarean section before a complication such as VVF occurs. Alternatively, early referral to a health facility, which is able to offer cesarean section, could be ensured. In this way, the significant role of obstructed labor in causing maternal mortality will also be reduced. Women therefore need to be educated to utilise health facilities during labor.

The only mortality recorded in the study was that of a patient who had Gishiri cut, and it is very likely that there are many more women dying at home from this practice. This underlines the importance of forbidding the Gishiri cut by law. A number of African coun-

tries have already enacted laws banning all forms of FGC. For instance, Burkina Faso in West Africa, with an estimated prevalence rate of 70%, enacted specific legislation to ban FGC in 1996, as did Côte d'Ivoire (prevalence 43%) in 1998, Djibouti (prevalence 98%) in 1995, Ghana (prevalence 30%) in 1994, Senegal (prevalence 20%) in 1999 and Togo (prevalence 50%) in 1998⁹.

The high perinatal mortality of 89.6% recorded in our VVF patients also demonstrates the double tragedy experienced by the women, since the majority of them ended up with no baby to show for their effort. In addition, a rather high rate of other complications (42%) was recorded.

For those who had their VVF repaired at the centre, success was recorded in 76.5%. This is within the generally quoted 60-98% success rate^{14,18}.

Preventive strategies for VVF include health education, formal education for the girl child, deferment of marriage and childbearing, establishment of more obstetric units, delivery at health facilities, training of health personnel and improvement in the general socioeconomic status of the citizens^{1,4-7,16}. Universal health and formal education, legislation against Gishiri cut as well as discussions with local religious and traditional leaders on the harmful effects of Gishiri cut will go a long way in preventing other women from undergoing unnecessary and dangerous trauma to their genital tracts.

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RESUME

LA CONTRIBUTION DE L'EXCISION/MUTILATION GENITALE FEMININE (GISHIRI) DANS LA FISTULE VESICOVAGINALE AU BIRNIN KUDU, NIGÉRIA NORDIQUE

Objectif : Réaliser une revue des cas de fistule vesico-vaginale (VVF) vues au centre médical fédéral Birnin Kudu établi en 2001, avec un accent sur les cas qui ont été provoqués par l'excision Gishiri. **Patients et méthodes :** Les fichiers patients de 50 cas consécutifs de fistules vesico-vaginales (VVF) contrôlés au centre médical fédéral, Birnin Kudu, l'état de Jigawa, Nigéria entre janvier 2001 et décembre 2004 ont été recherchés au service d'enregistrement médical et analysés. Les données obtenues ont inclus l'âge, la parité, la tribu, le niveau de scolarité, le lieu de l'accouchement, les facteurs étiologiques de VVF, les complications, les résultats du traitement et les résultats foetaux. Là où l'excision de Gishiri a causé la fistule, la raison pour laquelle elle a été faite a été déterminée. **Résultats :** La majorité des patientes étaient des adolescentes (64%) et primipares (46%). La cause la plus commune de VVF était un travail obstétrical prolongée (74%) suivi de l'excision Gishiri (18%). D'autres causes de VVF incluses sont la rupture utérine (2%), une délivrance compliquée (2%), complication d'hystérectomie (2%) et du travail chez une femme qui plus tôt avait été traitée avec succès pour VVF (2%). Les coiffeurs locaux ont infligé toutes les excisions de Gishiri. Les excisions ont été infligées chez cinq patientes (55.6%) afin de soulager un travail laborieux, chez deux patientes (22.2%) afin d'enlever une masse vaginale et chez deux autres (22.2%) pour dyspareunie. La seule mortalité enregistrée était celle d'une patiente qui a eu une excision de Gishiri et qui a eu un choc hémorragique. Des 34 patientes qui ont eu leur VVF réparée au centre, un succès a été réalisé chez 26 (76.5%). **Conclusions :** L'éducation sanitaire, l'interaction avec les meures locales et religieuses comme la législation contre l'excision de Gishiri sont des stratégies préventives suggérées pour la VVF.

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