



Obstetrical Complications Linked to Female Genital Mutilation in the 3rd Reference Obstetric Service at Chu Point G. Bamako/Mali

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Abstract

Aim: To study obstetric complications linked to female genital mutilation (FGM).

Patients and Methods: Our study was carried out in the obstetrics department CHU Point G. It was a case/control study. The case being the excised woman and the witness, the non-excised woman. Our study lasted sixteen months, from 01/01/2019 to 04/30/2020. Were included, primiparas from 14 to 49 years old excised or not. Not all non-consenting women were detained. The sample size was calculated based on the case/control sample. Data collection was done on individual questionnaires. Data analysis and processing was done on SPSS 12.0 and Word 2013. Statistical tests: Chi². P < 0.05.

Results: During our study we had 1518 deliveries of which 266 women included. The major age group was 14 - 19, or 51.1% in the cases and controls. The Bambara's and Songhai's were the majority ethnic groups in the two cases with respectively 34.6% and 31.1% with P < 0.00. The illiterate and the secondary level were respectively in the majority in the cases and the controls with respectively 57.8% and 59.3% with P < 0.00. Type 3 circumcision accounted for 12%. Episiotomy was performed in 56.4% of the cases and 5.3% in the controls with P < 0.05. The tears were noted in 51.1% in the cases against 11.3% in the controls and complicated in 23.5% with P < 0.05.

Conclusion: FGM was a frequent practice in our countries and can be a source of obstetric complications such as hemorrhage due to tear of the soft parts. Measures must be taken to eradicate this scourge.

Keywords: Female Genital Mutilation; Childbirth; Episiotomy; Perineal Tears

Introduction

The World Health Organization (WHO) defines female genital mutilation/excision (FGM/C) as "all procedures that include the partial or total removal of the external female genital organs, us-

ing a blade or a piece of glass for non-medical reasons". FGM/C is mainly practiced in girls between infancy and the age of 15 who are practiced for cultural or other reasons and not for therapeutic purposes". The term "circumcision" is used to designate a traditional

act that was practiced throughout the world, but later abandoned in most countries; Only Africa and the Middle East currently practice it [1]. The exact prevalence of women worldwide who have undergone Female Genital Mutilation/excision is still unknown. However, more than 200 million women have undergone this procedure in 30 countries in Africa, the Middle East and Asia where FGM/C is concentrated; 3,000,000 new girls undergo it, that is to say one every four to six minutes [2]. The World Health Organization (WHO) classifies female genital mutilation into four distinct categories [3]:

- **Type 1:** Excision of the foreskin with or without partial or total ablation of the soft parts.
- **Type 2:** Circumcision of the foreskin, clitoris and partial or total ablation of the labia minora.
- **Type 3:** Partial or total excision of the external genitalia and suturing/narrowing of the vaginal opening (infibulation).
- **Type 4:** Unclassified interventions.

FGM/C is a harmful procedure with no benefit to the health of women and is well known as a procedure that violates a person's human rights and increases their risk of health complications [4]. These complications include bleeding, severe pain, infections, and severe psychological trauma. Long-term complications include urinary problems, obstetric complications, including emergency cesarean, varying degrees of vaginal laceration, and ongoing sexual and psychological problems [5-7]. In Mali the prevalence of Female Genital Mutilation is very high, around 89% which is underestimated and few studies are done on FGM because of cultural, religious barriers etc [8]. That is why we have initiated this study with the objective to study the obstetric complications of female genital mutilation.

Patients and Methods

Our study was carried out in the obstetrics department of the CHU Point G in the District of Bamako. It was a case/control study. The case being the circumcised woman and the witness, a non- circumcised woman. An excised woman was matched with a non- circumcised woman according to the age and parity criteria which should be identical. Our study lasted sixteen months, from 01/01/2019 to 04/30/2020. Affected by this study, all the women who came to give birth in the obstetrics department of CHU Point G during the investigation period. Inclusion criteria: Primigestes from 14 to 49 years old circumcised or not circumcised with or

without complications, who came to the said department to give birth during our study period. Non-inclusion criteria: All non-consenting and multiparous women. The sample size was calculated based on the case/witness sample size:

- Witnesses report/case: 1: 1.
- Interesting Odds ratio to be detected: 0.1.
- Proportion of exposure in the patients: 11,9%.
- Power: 80%.
- Trust level: 95%.
- Number of cases: 133.
- Number of witnesses: 133.
- Total: 266.

Data collections were done on identical individual questionnaires for the case and for the witnesses. The techniques we used during the investigation were interrogation, observation and physical examination.

The variables on which we are interested are: Age, place of birth, marital status, ethnicity, level of literacy, parents' profession, excision yes, not excised, types of circumcision, obstetric complications: tears, episiotomy, the mode of childbirth. Analysis and data processing were done on Epi Info 12.0 and Word 2013. Different statistical tests were used: Chi². P < 0.05 is considered significant. This study was carried out in the interest of the population in order to publish the results, to treat problem cases and to allow information, education, and communication for health (IECS) of the population on FGM.

The largest age group was 14 - 19, or 51.1% among those who were circumcised and those who were not circumcised. Average age: 19.5 years among circumcised and non- circumcised.

The Bamanan were predominant in circumcised (34.6%: 46/133).

The sonrhais were predominant in non- circumcised women (33.1% (44/133). The statistical test was significant with Chi-square: 40.61; dof: 7; P < 0.00.

Most of our women whether circumcised (47.4%: 63/133) or not excised (57.1%: 76/133) came from Bamako. The insignificant statistical test.

Single women were predominant among the circumcised, i.e. 50.4% (67/133), against 64% (85/133) of the non- circumcised women were married.

Illiterates have predominated among mothers of circumcised women (57,8%: 77/133). Secondary level represented 59,3% (79/133) among mothers non- circumcised women. Chi²: 98,07; ddl: 3; P < 0,00. 101/133 mothers of circumcised women is 75,9% were housewives against 91/133 (68,4%) mothers of non- circumcised women were civil servants Chi-square. Chi²: 92,76; ddl: 2; P < 0,00.

SNP: Don't know.

85.7% (114/133) of circumcised women didn't know at what age they were circumcised.

3.7% (5/133) of our patients have been cut by health staffs.

56.4% (75/133) of our circumcised patients underwent an episiotomy, however the episiotomy was performed only in 5.3% (7/133) of the non- circumcised patients. Chi-square: 79.14; P < 0.05. There was a correlation between excision and episiotomy.

The tears were found in 51.1% (68/133) in circumcised women against 11.3% (15/133) in non- circumcised women. The statistical test is significant with Chi-square: 44.38; P < 0.05. Complicated tears were observed in 23.5% of our patients, i.e. 16/68 patients. The statistical test was positive. Chi-square: 11.53; P < 0.05.

Results and Discussion

During our study which took place from 01/01/2019 to 30/04/2020 in the obstetrics department of CHU Point G Bamako/ Mali, we encountered many difficulties among others: refusal to participate in the investigation, fear of stigmatization of girls, fear of revealing their status to the public. During our study we collected 1,518 parturients and 1,385 excised parturients, i.e. a frequency of 91.2% of which 133 parturients included, i.e. a frequency of 09.6%; in non- circumcised women all parturients were included, i.e. 100% (Figure 1). In Saudi Arabia 93.8% were aware of female genital mutilation [1]. In Africa the prevalence varies according to the country: in Burkina it is 72.5%; Gambia: 78.3%; Guinea-Conakry: 95.6%; Mali: 85.2%; Senegal: 20% and Somalia: 97.9% [9]. In our series the age group 14 - 19 years was the largest in the cases and in the witnesses with 51.1% in the two groups. Average age = 19.5 years. This was related to the type of study and inclusion criteria. According to a study done in Ethiopia in 2017, the average age of the women surveyed was 22 years [10]. In Mali according to EDSM VI: the largest age group was 15-19 years old [8]. The

Bamanan were predominant in the cases (34.6%: 46/133). The sonrhais were predominant in the witnesses, i.e. 33.1% (44/133) with P < 0.00 according to our study (Figure 2). According to the EDSM-VI in the majority of regions, almost all of the women were circumcised, for example, in Kayes (95%), Koulikoro (96%) or even in Sikasso and Ségou (respectively 96% and 92%) or in the Bamako district (91%) [8]. The Timbuktu region has a lower prevalence. Finally, in regions like Gao and Kidal, excision is a marginal practice (1% and < 1% respectively). In the regions of Kayes, Koulikoro, Sikasso and Ségou, the bambaras are the majority who practice female genital mutilation while in the regions of Timbuktu, Gao and Kidal it is the Sonrhais who are dominant and do not practice female genital mutilation our thesis. Single women were predominant among the circumcised, i.e. 50.4% (67/133) in our series. In our study 64% (85/133) of the women who were not circumcised were married. Henceforth circumcision is no longer justified because one of the reasons mentioned for excision is the preservation of virginity until marriage. Illiterate people predominated among mothers of circumcised women (57.8%: 77/133). The secondary level represented 59.3% (79/133) among the mothers of non- circumcised women with P < 0.00 according to our series (Figure 3). 101/133 mothers of circumcised women, i.e. 75.9% were housewives, against 91/133 (68.4%) mothers of non- circumcised women were civil servants with P < 0.00 in our series. According to EDSM-VI [8] the percentage of girls circumcised tends to increase with the level of education of the mother and with the level of economic well-being, passing from 10% when the mother has no level to 17% when they have high school or more and from 7% in the lowest economic quintile to 20% in the highest. circumcision type 3 represented 12% (16/133) of our sample (Figure 4).

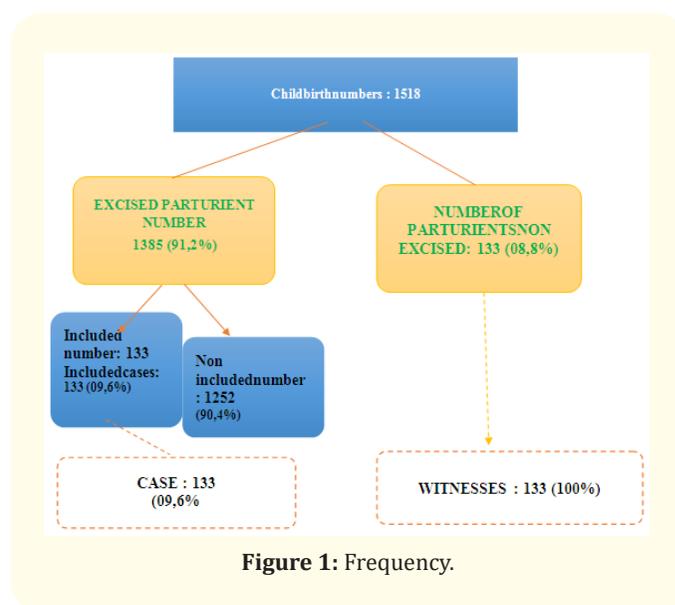


Figure 1: Frequency.

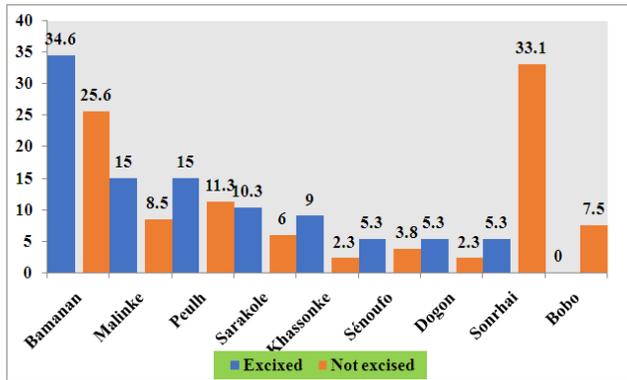


Figure 2: Ethnic groups of women surveyed.

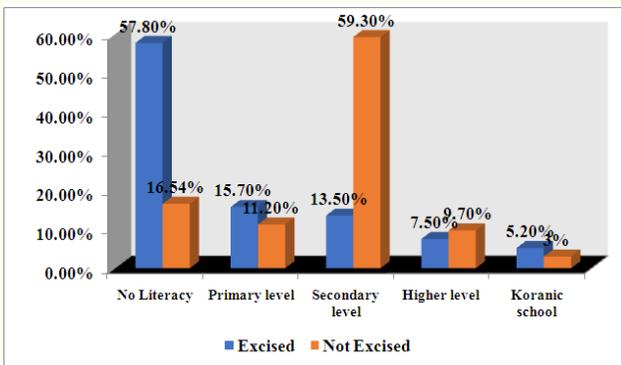


Figure 3: Educational level of mothers of women surveyed.

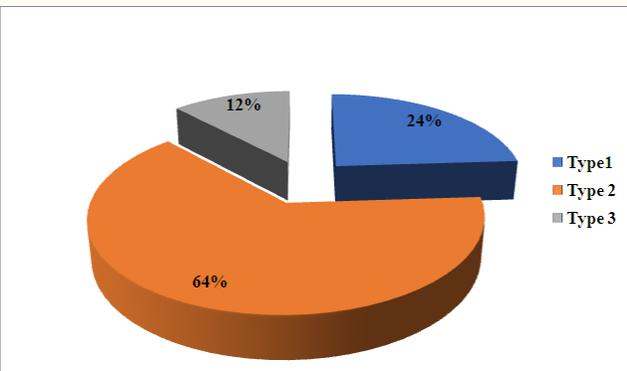


Figure 4: Les different types of circumcision.

The practice of infibulation was more widespread in Bamako (23%) than in other cities (7%) and in rural areas (10%). The most common form of circumcision involves cutting and removing flesh (41%). In addition, in 25% of cases, women suffered a simple cut and in 8% of cases, infibulation was performed. It should also be noted that 26% of women were unable to give an answer [8]. In our study 85.7% (114/133) of circumcised women did not know at what age they were circumcised (Figure 5). The results on the age at the time of the circumcision show that in approximately three quarter of the cases (76%), the circumcision took place before the age of 5 years, including in early childhood. In addition, 16% of women were circumcised at the age of 5 - 9 years, 4% were circumcised between 10 and 14 years, and finally, less than 1% of women were circumcised at a later age, that is to say at 15 years or more [8]. According to Andualem M., *et al.* the age of the girls, the level of education of the parents, the residence, the history of circumcision of women, culture, education were risk factors for the practice of female genital mutilation [11].

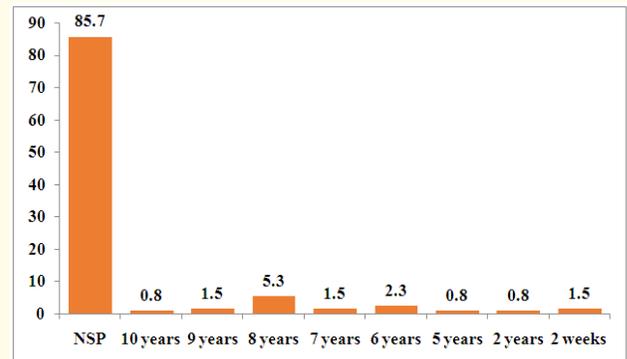


Figure 5: Age of women in circumcised.

In our study, 3.7% (5/133) of our patients were circumcised by health staffs (Figure 6). It can be seen that circumcisions are mainly performed by traditional excisers: 94% of girls aged 0 - 14 and 89% women aged 15 - 49 have been excised by traditional excisers, but health workers also practice there (matron/birth attendants) traditional: 3.72%; doctor: 0.48%; midwives: 1.02% and others: 1.14%) in 1.59% [8]. Episiotomy was performed in 56.4% (75/133) of our circumcised patients against only 5.3% (7/133) of non- circumcised patients with $P < 0.05$ in our series. The episiotomy was performed in 60.1% in type 2 and 100 in type 3 with $P <$

0.00 (Table 1). Perineal tears were found in 51.1% (68/133) of our cases compared to 11.3% (15/133) of the controls. The statistical test is significant with $P < 0.05$ (Table 2). In Gudu W's study, and all: 64.5% required episiotomies, 83.3% had a previous episiotomy, 29% had perineal tears [10]. According to another study by Aswini A., *et al.* There has been a significant increase in the use of episiotomy in the group of female genital mutilation with $P = 0.009$ [12-15].

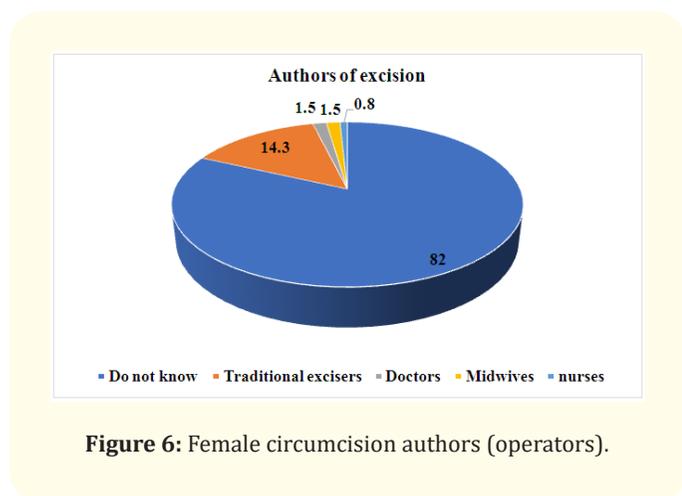


Figure 6: Female circumcision authors (operators).

Episiotomy Type of circumcision	Positive episiotomy		No episiotomy		Total
	Count	Percentage	Count	Percentage	
Type 1	10	7,5	22	16,5	32
Type 2	80	60,1	5	3,7	85
Type 3	16	12	0	0	16
Total	106	79,6	27	20,2	133

Table 1: Relationship between type of circumcision and the practice of episiotomy.

The episiotomy was performed in 60.1% in type 2 and 100% in type 3 with Chi-square: 12.42; dof: 2; $P < 0.00$.

Tears were common in patients who had type 2 circumcision in 66.1% (45/68) of the cases. Chi-square: 7.04; dof: 2; $P < 0.02$.

Tear Type of circumcision	Positive tear		Non tear		Total
	Count	Percentage	Count	Percentage	
Type 1	17	25	15	23	32
Type 2	45	66,1	40	61,5	85
Type 3	6	8,8	10	15,3	16
Total	68	100	65	100	133

Table 2: Relationship between type of circumcision and the occurrence of perineal tear during childbirth.

Chi-square: 7.04; dof: 2; $P < 0.02$. Tears were common in patients with type 2 in 66.1% (45/68) of the cases.

Conclusion

Practices of female genital mutilation are frequent in Africa, the Middle East and particularly in Mali. FGM is a major public health problem, henceforth the establishment of means and mechanisms to prevent and combat these harmful practices.

Conflict of Interest Statement

The authors have declared that there is no conflict of interest.

Human Ethics

All participants in this study have given their consent.

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