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Urological Complications of Female Genital Mutilation: A Case Report of 15 Patients

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Abstract

Objective background: This was a retrospective study of the clinical and therapeutic aspects of urological complications of female genital mutilation in the urology department of Bamako's Gabriel Touré University Hospital. **Methods:** Our study took place from 2002 to 2017 in the urology department of the Gabriel Touré University Hospital in Bamako and concerned cases of complications of female genital mutilation. Our study included all girls or women presenting with urinary disorders related to complications of genital mutilation and received in urological consultation and surgical management. **Results:** The average age of our patients was 2.5 years, with extremes ranging from 3 months to 35 years. The oldest patient had presented with dystocia during both deliveries. Acute urine retention (n = 7) was the most frequent reason for consultation. Other signs included urinary incontinence, pollakiuria and burning. Physical examination revealed clitoridectomy and abrasion of the labia minora in 13 patients. Type III of the WHO classification of female genital mutilation was the most frequent and corresponded to infibulation.

Keywords

Acute Retention of Urine, Clitoridectomy, Female Genital Mutilation

1. Introduction

Female genital mutilation (FGM) is defined as the partial or total removal of the external female genitalia or injury to the female genital organs for traditional, cultural or religious, non-medical reasons [1] [2].

The terms female circumcision and excision have long been used.

It is estimated that between 100 and 140 million girls and women have undergone some form of this practice, with around 3 million girls having to undergo it annually. Genital cutting is most common in Indonesia, sub-Saharan Africa,

Egypt and Sudan in Mali [1].

Clitoridectomy, excision and infibulation are associated with infections, urinary retention, severe pain, shock, bleeding and hemorrhaging, and sometimes even death.

Bleeding and hemorrhaging are caused, for example, when the clitoris is amputated, which involves a cut through the clitoral artery, characterized by intense flow and pressure. If the bleeding is intense and cannot be controlled, it can lead to death. Young girls may also suffer shock from the sudden and intense loss of blood and/or the excruciating pain following the cutting/cutting. Urine retention occurs as a result of the pain and burning sensation of urine on the raw cut, following injury to the urethra and surrounding tissue, and in the case of infibulation, following almost complete closure of the vaginal orifice. Excision can lead to sexual problems, including painful intercourse. Psychological consequences such as post-traumatic stress disorder, anxiety, depression and memory loss have been presented in detail [2]-[4].

Female circumcision has been practiced in Mali for a very long time. Despite the many awareness-raising campaigns conducted by the government, it is still practiced today. It is practiced by all ethnic groups.

Genital mutilation is recognized as being harmful to girls and women, both physically and psychologically, with no medical benefits [4], and can be responsible for trauma and medical complications [3] [4].

In most cases, the consequences of this form of mutilation are unknown to the people who undergo it. Indeed, the majority of circumcised women who encounter these problems are unaware that they are linked to the circumcision they underwent as children, as most of these problems do not arise until puberty. This is why, to eradicate the practice, it is vital to inform people about the consequences of excision, and the various problems associated with it.

2. Methods

Retrospective study of 15 cases of urinary complications related to female genital mutilation collected in the urology department of Gabriel Touré University Hospital, Bamako, Mali, during the period 2002 to 2016.

Informed consent was obtained from the girls' parents and patients of legal age.

Our study included all girls and women presenting with urinary disorders related to complications of genital mutilation and received in urological consultation.

Data were collected from the consultation registers, the operating room report register and the hospitalization register. Statistical tests were not used due to the small sample size.

The following parameters were studied: age, clinical symptomatology and physical examination data, as well as the classification of female genital mutilation. Proposed treatment and evolution were also studied.

The mutilations were classified according to the WHO system [5]:

Type I, excision of the prepuce, with or without partial or total excision of the

clitoris type II, excision of the clitoris, with partial or total excision of the labia minora; type III, partial or total excision of the external genitalia and suturing or narrowing of the vaginal orifice (infibulation).

Type 4 includes other forms not mentioned in the other types.

3. Results

The average age of our patients was 2.5 years, with extremes ranging from 3 months to 35 years (Table 1). The oldest patient had presented with dystocia during both deliveries. She had consulted for acute repletion cystitis. Acute urine retention (n = 7) was the most frequent reason for consultation. Permanent urinary incontinence was found in a 4-year-old girl whose urethra had been removed during excision. One patient had a firm vagina and had not been able to have intercourse for the first time. One woman had recurrent acute cystitis (Table 2).

Physical examination revealed clitoridectomy and abrasion of the labia minora in 13 patients (Table 3).

Total transection of the urethra was evident.

Type III of the female genital mutilation classification was the most frequent and corresponded to infibulation or Pharaonic excision (Table 4).

One patient underwent vaginal uretroplasty. Thirteen patients underwent desinfibulation (Figures 1-6).

Table 1. Age distribution.

Age	Frequency	Percentage
Age inf 1an	4	26.66
1 - 4	5	33.33
5 - 7	3	20
8 - 10	1	6.66
13	0	0
14 - 15	0	0
16 - 18	1	6.66
35	1	6.66
total	15	100

Table 2. Clinical symptomatology.

Signs	Frequency	Percentage
dysuria	5	33.33
Acute urine retention	7	46.66
urinary incontinence	1	6.66
Pollakiuria + urinary burny+ urinary impériosity	1	6.66
Impossibility of vaginal penetration	1	6.66
Total	15	100

Table 3. Distribution of patients according to physical examination.

Physical examination	Frequency	Percentage
Clitoridectomy and abrasion of labia minora	13	86.66
Subtotal vulvectomy	1	6.66
Urethra removal	1	6.66
Total	15	100

Table 4. Distribution according to the WHO FGM classification.

FGM classification	Frequency	Percentage
Type I	0	0
Type II	1	6.66
Type III	13	86.66
Type IV	1	6.66
total	15	100

Table 5. Distribution by treatment.

surgery	Frequency	Percentage
Uretroplasty in vagina	1	6.66
vaginosplasty	6	40
desinfunbilization	8	53.33
Total	15	100

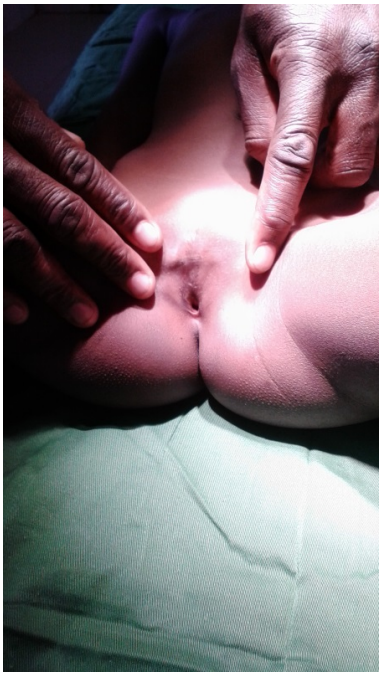

Figure 1. Closed ureter.

Figure 2. Start of operation.

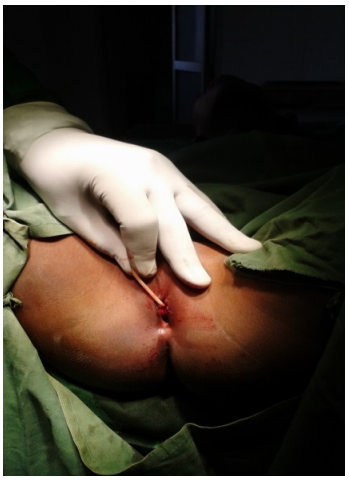

Figure 3. End of intervention.

Figure 4. Infibulation.

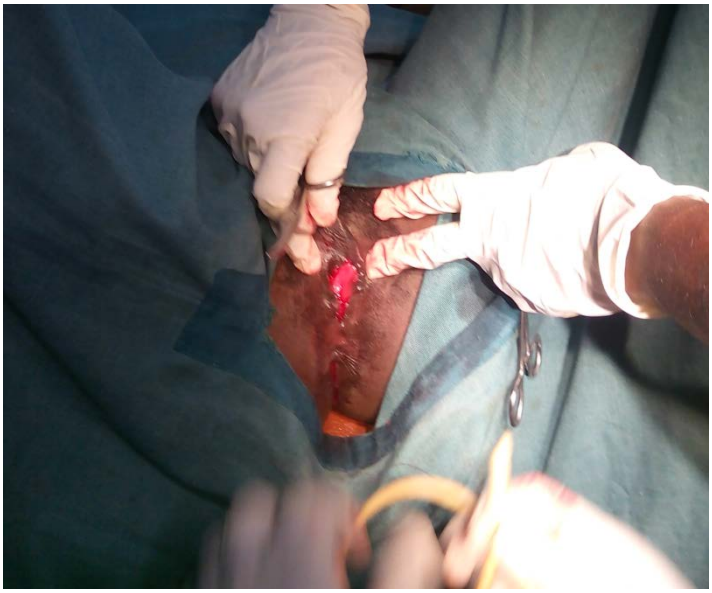

Figure 5. Disinfubilation.

Figure 6. Disinfibulation + insertion of bladder catheter.

All patients underwent surgery under general anesthesia, and postoperative recovery was straightforward in all cases, with normal micturition.

4. Discussions

Female genital mutilation (FGM) is a scourge that poses a public health problem in the countries where it is practiced. Female genital mutilation has no known health benefits [5].

In our series, female genital mutilation is practiced by all ethnic groups in Mali. The majority of our patients were under 4 years of age, which indicates that excision is mainly performed on minors. At an advanced age, genital complications

such as dystocic childbirth appear, exposing the woman to the risk of caesarean section.

Frequent urinary disorders were dominated by acute urine retention and dysuria linked to obstruction of the urethral meatus by small and large levers.

Immediate and subsequent complications depend on several factors, such as the level of medical expertise of the excise or the use of sterile instruments and antibiotics. In the case of type III FGM, the size of the orifice left for urine and menstrual flow and the repetition of the operation must also be taken into account [6]. This state of affairs would lead to urinary disorders in our 15 patients (**Table 2**).

Late complications depend on the type of female genital mutilation performed. Jasmine Abdulcadir, notes that infibulation is often followed by painful menstruation and difficulty in urinating [6]. The excision procedure can also damage the urethra (n = 1), vagina and bladder, leading to problems of incontinence, pain during intercourse and infertility [7].

All our patients had presented with urinary disorders (**Table 2**), which is why they did not consult a gynecologist. Other medical complications cited in the literature include cysts that can become infected, and neuromas of the nerves supplying the clitoris [8], which were not identified in this study. They may also develop depression and post-traumatic stress disorder, as well as a sense of shame and betrayal when they leave their traditional environment and discover that their situation is not the norm [7]. The young age of our patients did not allow us to identify these psychological disorders. A 2006 study of 28,393 deliveries in 28 medical centers in Burkina Faso, Ghana, Kenya, Nigeria, Senegal and Sudan shows that the risk of newborn death is increased by 15% for type I, 32% for type II and 55% for type III; overall, this represents between 10 and 20 additional deaths per 1000 births [9] [10]. Only one patient had experienced recurrent cystitis and dystocia during childbirth. Our patients underwent desinfubilation (n = 8), vaginal uretroplasty to form a neoureter and vaginoplasty (n = 6).

All patients had a good outcome.

In the fight against female genital mutilation, education can be the best long-term strategy. Many of our partners are working in schools to raise awareness of children's rights and the dangers of female genital mutilation. In some ethnic groups, there is a close link between female genital mutilation and early marriage. Girls are circumcised before marriage, and often drop out of school afterwards. The approach of promoting girls' education encourages them to continue their studies, and in some cases, empowers them to oppose female genital mutilation.

Practitioners of female genital mutilation can sometimes be persuaded to cease their activity through information and awareness-raising, and by helping them to find alternative sources of income. However, this does not change the social convention behind the demand for their services. Such awareness-raising efforts are only useful if they are accompanied by approaches that address the problem of demand for female genital mutilation, but on their own they cannot put an end to these practices.

Informing communities and individuals about the health risks of female genital mutilation is an essential aspect of most strategies to encourage people to abandon the practice.

5. Conclusion

Excision is a public health problem and must be eradicated because of the complications. Village elders and religious leaders should be included in community programs and take part in discussions. This approach has been used in Muslim and Christian communities in several countries.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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