Surgical reconstruction in female genital mutilation

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ABSTRACT

Female genital mutilation (FGM) is an unusual condition for our country. However, an increase in FGM in future days can be predicted with the increasing numbers of exchange students coming from African countries, migration of refugees and socioeconomic relations with the African countries. We want to share our experience of two FGM victims admitted to our clinic with the request of reconstructive vulvar surgery before their marriage. Both women had WHO Type III FGM. Physical examination findings and surgical reconstruction techniques were presented.

Keywords: Female circumcision; genital mutilation; iatrogenic labial fusion; urogenital complication; vulvar reconstruction.

Introduction

Previously known as female circumcision, because of nature of the procedure, and its outcomes, and permanent damage (disability) it incurs, it is termed as "Female Genital Mutilation (FGM)" FGM is a prevalent public health problem which injures every year nearly 2 million women. Nowadays 130 million young women, and girl have undergone this procedure.^[1] This procedure is widely applied in Sudan.^[2] FGM which has been still widely applied in Sub-Saharan Africa because of religious, and sociological reasons has been an updated issue of human rights.^[3] Previously FGM was not adequately known by healthcare professionals, and individuals of the developed Western communities as Europe and Northern America, however FGM has become more conspicuous in recent years because of increasing migration waves.

During FGM procedure, and in the short-term severe perineal, and pelvic pain, bleeding, and infection due to non-sterile conditions are seen. While in the long term, increase in the frequency of disorders of urination, and defecation, painful menstrual cycles, recurrent urinary system, and vaginal infections, dyspareunia, loss of libido, anxiety, and depression have been reported. In cases where corrective

surgical procedures could not be performed properly, increases in the rates cesarean birth, low-birth weight infants, intrapartum blood loss, and perinatal mortality, and especially in the neonatal, and maternal mortality rates following prolonged labour Type III FGM patients have been reported.^[4]

The World Health Organization (WHO) classifies FGM in 4 types: a) complete or partial excision of the clitoris, b) Partial or complete excision of labia minora together with clitoris, c) infibulation (excision of external genitalia including clitoris, labium minus, and occasionally including inner lining of labium majora, and subsequent iatrogenic labial fusion, d) other genital mutilation procedures including use of corrosive substances, cauterization or piercing.^[5]

Female Genital Mutation is an unusual entity for our country. However one can predict that they can be more frequently seen as a result of foreign student exchange programs, development of economical, and social relationships with African countries, and increased frequency of migration. Herein, physical examination findings, and the treatment applied for two cases with FMG, and related surgical methods and possible complications have been presented.

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Case presentation

Findings, and treatment results of two cases who had undergone FMG during childhood, and applied to our clinic before marriage whose spouses were in our country for purposes of education will be presented. This unusual entity of FMG which is unusual for our country will be more frequently seen in our clinics in coming years because of increasing rate of migrations, and mutual relationships between countries concentrated on education, health, and trade.

From the anamnesis of cases aged 17, and 19 years, it was learnt that FMG procedure was applied when the patients were 4-5 years of age, and their basic complaints were pelvic/perineal pain, metrorrhagia, and recurrent lower urinary tract symptoms. Based on the information gathered from the patients themselves, and their spouses which were later confirmed by literature screening, it has been learnt that following excision of clitoris, labia minora, and medial parts of labia majora, a mixture prepared from some local plants was applied on vulva, and this topical application was repeated till complete synechia was achieved leaving only two orifices for urination, and discharge of menstrual blood flow. Besides during these applications both legs of the children were tied, and they were laid supine for long periods of time. Genital examinations revealed Type III FMG in both patients according to WHO classification. External genitalia were iatrogenically fused, and only millimetric sized orifices were left open for urethral, and vaginal drainage. A canula with a diameter of 2 mm could easily passed through these orifices, while a standart pipelle could be inserted only with force (Figure 1, 2).

In urinalysis requested (dipstick, and microscopy) at the first admission visit of both patients afebrile urinary infection was detected without any microbial growth in their urine cultures. Preoperative routine hematological test results were also within normal limits. Suprapubic ultrasonographic (US) findings were completely normal in one patient, while in another patient US revealed the presence of hematometra which we thought to be consistent with her menstrual cycle. However both fallopian tubes were normal in appearance. Urinary system US findings were reportedly normal. Sonographic measurements of residual urine performed upon complaints of difficult urination, and prolonged voiding, did not reveal clinically significant amounts of post-void residual urine.

Informed, and undersigned consent forms were obtained from patients, and their spouses for the operation planned under elective conditions. Following physical examination, the patient was laid in the lithotomy position, and we proceeded with the operation under general anesthesia. Since the anatomical relationship of the lesion with the urethral orifice could not be

Figure 1. Type III FMG, urethral, and vaginal orifices
FMG: female genital mutilation

Figure 2. Type III FMG, urethral, and vaginal orifices
FMG: female genital mutilation

determined definitely, we decided to begin the surgery through the opening which allowed drainage of uterine secretions. From this region we advanced to the urethral region with controlled dissection. Sharp dissection was performed beginning with ori-

Figure 3. Appearance of hymenal ring, vaginal introitus, and urethra after dissection

Figure 4. Postoperative appearance of the surgical site

fice which allowed drainage through vagina. Then we observed that synechia was seen only at the level of labial level, and it didn't extend to hymenal plane without any communication between urethral orifice with synechia, and development of adhesion (Figure 3). Digital examination of the vagina, and then examination using speculum revealed unremarkable appearance of vagina starting from hymenal base. Digital examination of vagina revealed normal vaginal wall elasticity, and natural cervical anatomy. Vaginal introitus was evaluated with vaginal digital examination regarding postoperative sexual intercourse.

Easy insertion of two fingers through vaginal introitus was considered to be satisfactory for coitus. Following hemostatic control dissected labial edges were closed primarily with sutures (Figure 4).

Because of FGM procedure performed, and subsequent irritation, and herbal application which probably induced an inflammatory reaction, completely natural urethral orifice in one patient, and development of stricture in the other patient were observed. Urethral bougie dilatation was applied to the patient with urethral stricture. During follow-up visits it was learnt that both patients experienced sexual intercourse without difficulty. At postoperative 1. month-control visits, improvement in lower urinary system symptoms of both patients, and resolution of their subjective urination complaints were observed. Their sexual satisfaction could not be properly questioned, and relevant responses from the patients could not be elicited. The patients, and their spouses received psychological counselling, and recommendations, however they declined our offers.

Discussion

Female genital mutilation is not an only medical problem, it is a current issue of human rights. At first, Western communities assessed FGM as a primitive act of sexual restriction, its more complex nature has been at last comprehended. Indeed, it is a symbol of ethnic identity, an important ritual of entry into puberty, a requirement for marriage, and it has been also related to religious beliefs, and sexual organ esthetics. In some countries as Kenya, and Sudan women who hadn't undergone FGM procedures can marry only as a second or third spouse, and in some cases they are termed as "dirty blood" and they can not marry.^[6] Although it is a frequent application in Sub-Saharan Africa, it has remained as an unusual, and unknown health problem in our country for a long time. However as a result of increasing migration waves, student exchange programs, health tourism, social, and commercial affairs, it has become recognizable in our country, and predictably, cases with FGM will be encountered more frequently in the future. In consideration of the affected age group, it requires a multidisciplinary approach in collaboration with pediatric surgery, gynecology, urology, and psychiatry.

With obstruction of two natural orifices, basically symptoms involving lower urinary system, and geniatl systems are seen. Urinary tract infection (UTI) frequently described in cases with FGM is in the center of debates, and among potential complications. In a Sudanese study on 4.024 cases with FGM encompassing the years between 1962, and 1966, positive urine cultures were reported in cases with Type III (28%), and Type I FGM (8%).^[7] In some publications, despite urine tests suggesting UTI, lack of clinical manifestations of infection

has been debated. The center of debates constitutes accumulation of urine, leucocytes, and other secretions in the region of labial synechia termed as post-urethral 3. compartment leading to local inflammation as a result of anatomic alterations. Therefore, in cases with FGM frequently laboratory findings suggestive of UTI have been reported. However in reality, it has been thought that this condition is restricted to local inflammation, and does not lead to manifestations of clinical UTI. However it has been suggested that urethral stricture, and UTI caused by prepubertal local hypoestrogenic state is not valid for the group aged <7 years, and in cases of leucocyturia further examinations are recommended.^[8,9]

In patients with FGM, restrictions in the drainage of natural secretions, and menstrual blood because of vulvar occlusion, increase the incidence rate of vulvovaginitis. However, it has been reported that vulvovaginitis is a local effect of FGM, and the main problem was involvement of upper genital system. In an investigation performed in the year 2004, it was reported that apart from local effect of FGM, significantly increased concomitant postinflammatory adnexial changes, and infertility problem in advanced stages can be encountered. This condition which is termed as concealed pathology becomes clinically manifest only during surgical correction, and reproductive search in advanced stages. Patients with FGM should be informed on this issue, and necessary opportunities of support, and follow-up should be offered.^[10]

Because of inadequate number of large-scale, and controlled studies, the symptoms directly related to FMG, and the conditions which will require treatment (especially in the presence of laboratory findings suggestive of UTIs) have not been precisely clarified. Corrective surgery is frequently applied before marriage, however in many studies long-term health gains of application of corrective surgery without waiting the time of marriage have been demonstrated. Raising awareness in public, and parents by civil society organizations which demonstrate active interest in especially infertility, and permanent urinary damage will promote developments in this important problem of public health. Although the victims of FMG consult priorly to urology, and gynecology, a multidisciplinary approach which

will require collaborative efforts of pediatric surgery, urology, gynecology, and psychiatry should be preferred.

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