

Female genital mutilation/cutting: an update

A.A. Rouzi¹, F. Alturki²

¹*Department of Obstetrics and Gynecology, King Abdulaziz University, Jeddah (Saudi Arabia)*

²*Department of Obstetrics and Gynecology, McGill University, Montreal (Canada)*

Summary

Female genital mutilation/cutting (FGM/C) is a cultural practice involving several types of external female genitalia cutting. FGM/C is known to occur in all parts of the world but is most prevalent in 28 countries in Africa and the Middle East and among immigrant communities in Europe, Australia, New Zealand, Canada, and the United States. Studies of FGM/C suffer from many methodological problems including inadequate analysis and an unclear reporting of results. The evidence to link FGM/C to infertility is weak. The management of epidermal clitoral inclusion cysts includes expensive investigations like comprehensive endocrinology tests and MRI resulting in unnecessary anxiety due to delay in surgical treatment. Similarly, unnecessary cesarean sections or rupture of the infibulation scar continue to occur because of the inadequate use of intrapartum defibulation. A significant amount of efforts is required to improve and correct the inadequate care of FGM/C women and girls.

Key words: Female; Genital Mutilation; Cutting.

Introduction

In 1997, the World Health Organization (WHO), United Nations Children's Fund (UNICEF), and United Nations Population Fund (UNPFA) jointly defined female genital mutilation (FGM) as "all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for cultural or any other non-therapeutic reasons" [1]. In 2008, as a result of the involvement of more United Nations agencies and human rights organizations, a new statement was issued [2]. The terms FGC and female genital mutilation/cutting (FGM/C) were used instead of FGM to "reflect the importance of using non-judgmental terminology with practicing communities". The United States Agency for International Development, American College of Obstetricians and Gynecologists (ACOG), and the American Academy of Pediatrics (AAP) use FGC instead of FGM for "cultural sensitivity" [3-5]. FGM/C is a cultural practice involving several types of external female genitalia cutting. This review aims to assist health-care providers in recognizing and addressing the vast medical needs of the women and girls with a history of FGM/C.

FGM/C Types and Terminology

WHO classified female genital cutting into four types according to the extent of the cutting (Table 1) [2].

- Type I: the cutting, whether partial or total, of the clitoris together with the prepuce.

- Type II: the cutting, whether partial or total, of the clitoris together with the labia minora, while keeping or removing the labia majora.
- Type III: With or without the clitoris, either both labia minora and labia majora or just the latter is removed.
- Type IV: Includes piercing, pricking, and cauterization.

The WHO classification made the distinction between removal of the prepuce only (Type Ia) and removal of the prepuce with excision of part or all of the clitoris (Type Ib) [2]. In Type III (also known as infibulation) following the cutting, the two sides of the vulva are usually sutured together leaving a small tunnel for passage of urine and menstrual blood. The skin heals by forming a scar tissue bridging the vagina. Without suturing, the tissue will seal together with increased scarring. The latter is known as pseudo-infibulation [6]. Other terminologies are defibulation and refibulation. Defibulation implies incision of the scar tissue, usually prior to baby delivery. Refibulation is the re-joining the scar tissue after child birth to retighten the vaginal opening.

Prevalence

It is estimated that up to 140 million females worldwide have been subjected to FGM/C and that currently three million girls, most of them under 15 years of age, undergo the practice every year [2]. In addition, over 91 million African women are presently experiencing consequences of FGM/C. FGM/C is practiced mostly in Africa. However, it is also performed in Asia and the Middle East, and among immigrants in Europe, United States, Canada, Australia,

Table 1. — *WHO classification of female genital mutilation.*

Excision of	Type I		Type II		Type III		
	a	b	a	b	c	a	b
Clitoral hood	●	or					
Prepuce	●	●					
Clitoris		●	●	●			
			Partial or Total	Partial or Total		With/or without	
Labia majora				●			●
Labia minora			●	●			
			Partial or Total	Partial or Total			

and New Zealand. In the United Kingdom alone, an estimated 86,000 women and girls have experienced FGM/C in their countries of origin, 10,000 are at risk, and another 3,000-4,000 experience FGM/C each year. In France, 20,000 women and 12,500 girls either have undergone or will undergo FGM/C [7]. Data from Switzerland suggest approximately 6,000 women and girls had experienced FGM/C [8]. Based on current trends, the majority of European countries will need to address growing numbers of women and girls who were victims of FGM/C [9]. In the United States, the 1990 census data showed an estimated 168,000 women have undergone or may undergo FGM/C. Based upon data from the 2000 census, approximately 228,000 women and girls have either experienced or are at risk for FGM/C (35% increase) [10].

Health consequences of FGC/M and its management

FGM/C has no proven health benefits; however, the existing literature documenting the complications associated with FGM/C has many shortcomings. Surveys from countries and areas in which FGM/C is practiced are lacking or nonexistent. Furthermore, many of the reported complications come from expert opinion rather than from large population-based surveys or studies with control groups. Therefore, uncertainty has persisted regarding the magnitude of the medical complications and consequences of FGM/C [11]. Despite all recent publications, the same concerns exist and even more damaging arguments about the motives for abolishing FGM/C have been raised [12]. FGM/C has been associated with short and long-term complications. Immediate complications include hemorrhage, pain, infection, fever, and death. Infections may be the result of use of non sterile equipments and may include localized infection, abscess formation, HIV, hepatitis, septicemia, gangrene, or tetanus.

Long-term complications include dysmenorrhea, dyspareunia, recurrent vaginal and urinary tract infections, cysts, abscesses, keloid formation, consequences sexual dysfunction, infertility, and obstetrical complications can also occur. It appears that the more aggressive the type of

cutting the more severe the complications. In Somalia, 39% of women reported complications after FGM/C [13]. The most common complications were haemorrhage (18.3%), infection (15%), urinary retention (4%), and /or septicemia (4 %). Urinary retention in the first three days after the procedure is usually due to patient-avoidance of urination. Contact of urine with the recently operated raw parts of the external genitalia causes pain. Blood clot formation may also contribute to the urinary retention. Late complications were reported in 44 % of the study population.

The most frequent delayed complication of FGM/C is epidermal clitoral inclusion cysts (ECICs) formation [14]. It develops due to filling of pockets of epithelium by fat, hair or fluid. The lack of anesthesia, poor hygiene, primitive instrumentation, and imprecision associated with FGM/C directly contribute to the formation of ECICs, which have been documented even after Type 1 [15]. A definitive history of previous FGM/C can be found in half of the ECIC cases. Spontaneous ECICs are exceedingly rare with only five documented cases in the literature [16]. ECICs can initially appear during the adolescent years or even later in life long after the initial procedure [17]. For clinicians unfamiliar with ECICs following FGM/C, the appearance of ECICs may generate unnecessary anxiety and work-up, including comprehensive endocrinology tests, chromosome analysis, ultrasonography, intravenous pyelography, and magnetic resonance imaging (MRI) [18-21]. The cyst may enlarge during pregnancy due to increased vascularity. Excision of the cyst during pregnancy may result in severe bleeding.

Surgical options regarding cyst excision include cystectomy with total clitoridectomy to prevent possible reoccurrence [22-25], cystectomy with clitoroplasty to preserve the clitoris for sexual fulfillment [26-27], and a surgical approach recommending only preserving the ventral clitoral skin for sexual satisfaction [28-29]. Osifo reported the presentation of a total of 37 females with post-genital mutilation clitoral epidermoid inclusion cyst, presented at two centers in Benin City, Nigeria, between January 2005 and December 2009 [30]. Fifteen (40.5%) were post pubertal girls at an average age of 17 who could no longer cope with giant cysts measuring more than 3.5 x 6.5 cm in size. Ignorance, financial limitations, and the apprehension from anti- FGM/C agencies were reasons for late presentation. Subsequently, medical consultation was approached for the following reasons: rapid increase in size of cysts (100%) producing discomfort in the vulva (93.3%) patient, social stigmatization (80%), sexual difficulty (66.7%), and irritating swelling in the perineum (66.7%). Outpatient cystectomies including total clitoridectomy were performed with local anesthesia. The author recommended lifting the cyst and placing the incision distally and continue dissecting proximally to relieve the clitoris, thereby, preserving the ventral clitoral skin to attain orgasm and sexual satisfaction. No incidences of recurrence were recorded up to four years postoperatively.

Urinary problems are common complication of FGM/C. Progressive scar shrinkage may result in urethral strictures, urine retention, and slow urine streaming. Urinary calculi may develop under the infibulated scar resulting in sharp intermittent pain. Dirie and Lindmark reported dysuria (19.6 %) and poor urinary flow (5 %) [13]. Recently, Pelterman and Johnson reported their findings regarding urinary and/or fecal incontinence using the most recent Demographic and Health Surveys in sub-Saharan Africa [31]. No evidence was found to suggest that FGM/C contributes to incontinence. Obstructed vaginal opening may cause candida and bacterial vaginitis. The infibulated scar makes the use of suppositories and topical medication ineffective. Oral medications are preferable. Dysmenorrhea and menorrhagia are typical complications of the infibulated scar which may be relieved by deinfibulation.

The psychological and sexual ramifications of FGM/C include psychological trauma, anxiety, depression, painful intercourse, and anorgasmia [32]. Studies on sexuality in women with FGM/C suffer from inadequate analysis and an unclear reporting of results. Obermeyer reviewed the available studies on sexuality in women with a history of FGM/C and found no evidence that it prevented sexual activity or the enjoyment of sexual relations [33]. However, a recent study using the female sexual function index questionnaire (a brief, multidimensional, validated tool for the assessment of sexual function) documented that women with FGM/C (even type I and II) experienced a statistically significant decrease in arousal, lubrication, orgasm, satisfaction, and overall scores, but not pain and desire scores, compared to women with no history of FGM/C [34].

The link between infertility and FGM/C is based on weak scientific evidence [35]. FGM/C may be indirectly responsible for infertility if sexual intercourse cannot occur, but this is very rare. However, a small case-controlled study was published indicating a positive association between the extent of FGM/C and primary infertility [36]. Despite all the problems and shortcomings of the study (study design, small number of patients, and lack of written consent as acknowledged by the authors), this study has been widely used as a “solid evidence” to link FGM/C with infertility [37]. Similarly, the transmission of sexual diseases, including HIV, and FGM/C has not been definitively proven [38].

The obstetric complications associated with FGM/C are well-documented. The risks of caesarean section, postpartum hemorrhage, episiotomy, extended maternal hospital stay, resuscitation of the infant, and inpatient perinatal death were significantly increased among African women who had undergone FGM/C [39]. The obstetrical risks were further increased in infibulated women. Deinfibulation is necessary for a safe vaginal delivery. WHO recommends this procedure be performed by all health care providers, including nurses and midwives

[40]. In contrast, in countries unfamiliar with FGM/C, deinfibulation is done in specialized clinics by “a senior person with extensive experience in dealing with reversal of the mutilation” [41].

Conclusion

FGM/C is performed for many reasons (*e.g.*, cleanliness, aesthetics, prevention of still births in primigravida, promotion of social and political cohesion, prevention of promiscuity, improvement of male sexual performance and pleasure, increased matrimonial opportunities, and enhancement of fertility). Efforts have been made to abolish the practice; however, recent evidence suggests FGM/C continues among Muslims [42-44]. Actually, FGM/C predates Islam and is practiced by Christians, Jews, and followers of indigenous African religions [45]. The holy Quran, which is the first source of Sharia law, does not mention FGM/C. The second source is Hadith, and controversy exists about FGM/C and Hadith. Some scholars believe that there is reliable evidence in Hadith that cutting of the prepuce only is Sunna while others disagree. The traditional religious approach to abandon FGM/C adopted by the West has been propagated as a “unanimous agreement” among Muslim scholars, and states not only is there no religious evidence for FGM/C but also significant medical consequences associated with the procedure. Overall, this blanket approach has failed and has created resistance against abandoning the practice. The argument against FGM/C based on the medical consequences led to an increasing “list” of complications without appropriate scientific documentation, as well as the medicalization of the procedure [46]. In this updated review of the literature of the complications of FGM/C concerns still exist regarding epidemiological flaws of the studies. With respect to the management of women and girls, fear of criminalization and prosecution may lead to an unnecessary delay in reporting the complications of the procedure [30]. Similarly, unfamiliarity with the practice may lead to unnecessary, extensive, and expensive work-ups and treatment. Proper education of all health providers is needed to manage current victims of this practice.

References

- [1] World Health Organization. Female genital mutilation: a joint WHO/UNICEF/ UNFPA statement. Geneva: World Health Organization, 1997. Available at: http://www.childinfo.org/files/fgmc_WHOUNICEFJointdeclaration1997.pdf. Accessed March 24, 2011.
- [2] World Health Organization. Eliminating female genital mutilation. An interagency statement. Geneva: 2008. Available at: <http://www.who.int/reproductivehealth/publications/fgm/9789241596442/en/index.html>. Accessed March 24, 2011.
- [3] International violence against women: U.S. response and policy issues. Available at: <http://fpc.state.gov/documents/organization/103698.pdf>. Accessed March 24, 2011.
- [4] Female Genital Cutting: Clinical management of circumcised women. Washington, DC: The American College of Obstetricians and Gynecologists, 2008.

- [5] Committee of Bioethics: "Ritual genital cutting of female minors". *Paediatrics*, 2010, 125, 1088.
- [6] Rushwan H.: "Female genital mutilation (FGM) management during pregnancy, childbirth and the postpartum period". *Int. J. Gynaecol. Obstet.*, 2000, 70, 99.
- [7] Gallard C.: "Female genital mutilation in France". *BMJ*, 1995, 310, 1592.
- [8] Thierfelder C., Tanner M., Bodiang C.M.: "Female genital mutilation in the context of migration: experience of African women with the Swiss health care system". *Eur. J. Public. Health*, 2005, 15, 86.
- [9] Powell R.A., Leye E., Jayakody A., Mwangi-Powell F.N., Morison L.: "Female genital mutilation, asylum seekers, and refugees: the need for an integrated European Union agenda". *Health Policy*, 2004, 70, 151.
- [10] "Number of women and girls with or at risk for female genital cutting is on the rise in the United States". Brigham and Women's Hospital. Available at: http://www.brighamandwomens.org/Departments_and_Services/obgyn/services/africanwomenscenter/research.aspx. Accessed April 19, 2011.
- [11] Obermeyer C.M.: "Female genital surgeries: the known, the unknown, and the unknowable". *Med. Anthropol. Q.*, 1999, 13, 79.
- [12] Johnsdotter S., Essén B.: "Genitals and ethnicity: the politics of genital modifications". *Reprod. Health Matters*, 2010, 18, 29.
- [13] Dirie M.A., Lindmark G.: "The risk of medical complications after female circumcision". *East Afr. Med. J.*, 1992, 69, 479.
- [14] Rouzi A.A.: "Epidermal clitoral inclusion cysts: not rare complication of female genital mutilation". *Hum. Reprod.*, 2010, 25, 1672.
- [15] Rouzi A.A., Sindi O., Radhan B., Ba'aqueel H.: "Epidermal clitoral inclusion cyst after type I female genital mutilation". *Am. J. Obstet. Gynecol.*, 2001, 185, 569.
- [16] Anderson-Mueller B.E., Laudenschlager M.D., Hansen K.A.: "Epidermoid cyst of the clitoris: an unusual cause of clitoromegaly in a patient without history of previous female circumcision". *J. Pediatr. Adolesc. Gynecol.*, 2009, 22, e130.
- [17] Asante A., Omurtag K., Roberts C.: "Epidermal inclusion cyst of the clitoris 30 years after female genital mutilation". *Fertil. Steril.*, 2010, 94, 1097.e1.
- [18] Linck D., Hayes M.F.: "Clitoral cyst as a cause of ambiguous genitalia". *Obstet. Gynecol.*, 2002, 99, 963.
- [19] Schmidt A., Langb U., Kiessa W.: "Epidermal cyst of the clitoris: a rare cause of clitorimegaly". *Eur. J. Obstet. Gynecol. Reprod. Biol.*, 1999, 87, 163.
- [20] Lara-Torre E., Murchison A.B., Lewis S., Garcia E.: "Large epidermal cyst of the clitoris: a novel diagnostic approach to assist in surgical removal". *J. Pediatr. Adolesc. Gynecol.*, 2010, 23, e61-e62.
- [21] Fedele L., Fontana E., Bianchi S., Frontino G., Berlanda N.: "An unusual case of clitoromegaly". *Eur. J. Obstet. Gynecol. Reprod. Biol.*, 2008, 140, 275.
- [22] Ezem B.U.: "Delayed presentation of clitoridal cyst: a case report". *Niger. J. Med.*, 2007, 16, 272.
- [23] Osifo D.O., Evbuomwan I.: "Female genital mutilation among Edo people: the complications and pattern of presentation at a pediatric surgery unit, Benin City". *Afr. J. Reprod. Health*, 2009, 13, 17.
- [24] Adekunle A.O., Fakokunde F.A., Odukogbe A.A., Fawole A.O.: "Female genital mutilation - postcircumcision vulval complications in Nigerians". *J. Obstet. Gynaecol.*, 1999, 19, 632.
- [25] Rizk D.E., Mohammed K.H., Joshi S.U., Al-Shabani A.Y., Bossmar T.R.: "A large clitoral epidermoid inclusion cyst first presenting in adulthood following childhood circumcision". *J. Obstet. Gynaecol.*, 2007, 27, 445.
- [26] Foldes P., Louis-Sylvestre C.: "Results of surgical clitoral repair after ritual excision: 453 cases". *Gynecol. Obstet. Fertil.*, 2006, 34, 1137.
- [27] Rodriguez S.W.: "Rethinking the history of female circumcision and clitoridectomy: American medicine and female sexuality in the late nineteenth century". *J. Hist. Med. Allied Sci.*, 2008, 63, 323.
- [28] Yoong W.C., Shakya R., Sanders B.T., Lind J.: "Clitoral inclusion cyst: a complication of type I female genital mutilation". *J. Obstet. Gynaecol.*, 2004, 24, 98.
- [29] Thabet S.M., Thabet A.S.: "Defective sexuality and female circumcision: the cause and the possible management". *J. Obstet. Gynaecol. Res.*, 2003, 29, 12.
- [30] Osifo O.D.: "Post genital mutilation giant clitoral epidermoid inclusion cyst in Benin City, Nigeria". *J. Pediatr. Adolesc. Gynecol.*, 2010, 23, 336.
- [31] Peterman A., Johnson K.: "Incontinence and trauma: sexual violence, female genital cutting and proxy measures of gynecological fistula". *Soc. Sci. Med.*, 2009, 68, 971.
- [32] Elnashar A.R., Abdelhady R.: "The impact of female genital cutting on health of newly married women". *Int. J. Obstet. Gynecol.*, 2007, 97, 238.
- [33] Obermeyer C.M.: "The consequences of female circumcision for health and sexuality: an update on the evidence". *Cult Health Sex.*, 2005, 7, 443.
- [34] Alsibiani S., Rouzi A.: "Sexual function in women with female genital mutilation". *Fertil. Steril.*, 2010, 93, 722.
- [35] Chen G., Dharia S.P., Steinkampf M.P., Callison S.: "Infertility from female circumcision". *Fertil. Steril.*, 2004, 81, 1692.
- [36] Almroth L., Elmusharaf S., El Hadi N., Obeid A., El Sheikh M.A., Elfadil S.M., Bergström S.: "Primary infertility after genital mutilation in girlhood in Sudan: a case-control study". *Lancet*, 2005, 366, 385.
- [37] van Dessel T.: "A positive association existed between the extent of female genital mutilation and primary infertility". *Evidence-Based Obstet. Gynecol.*, 2006, 8, 38.
- [38] Dave A.J., Sethi A., Morrone A.: "Female genital mutilation: What every American dermatologist needs to know". *Dermatol. Clin.*, 2011, 29, 103.
- [39] WHO study group on female genital mutilation and obstetric outcome. Female genital mutilation and obstetric outcome: "WHO collaborative prospective study in six African countries". *Lancet*, 2006, 367, 1835.
- [40] World Health Organization: "Female genital mutilation: the prevention and the management of the health complications. Policy guidelines for nurses and midwives". Geneva: World Health Organization, 2001. Available at: http://www.who.int/reproductivehealth/publications/fgm/RHR_01_18/en/index.html. Accessed April 19, 2011.
- [41] Royal College of Obstetricians and Gynaecologists: "Female genital mutilation and its management. Green top guideline, no 53", 2009. <http://www.rcog.org.uk/female-genital-mutilation-and-its-management-green-top-53>. Accessed July 27, 2011.
- [42] Masho S.W., Matthews L.: "Factors determining whether Ethiopian women support continuation of female genital mutilation". *Int. J. Gynecol. Obstet.*, 2009, 107, 232.
- [43] Gage A.J., Van Rossem R.: "Attitudes toward the discontinuation of female genital cutting among men and women in Guinea". *Int. J. Gynecol. Obstet.*, 2006, 92, 92.
- [44] Satti A., Elmusharaf S., Hibba B., Idris T.M., Hashim M.S.K., Suliman G., Almroth L.: "Prevalence and determinants of the practice of genital mutilation of girls in Khartoum, Sudan". *Ann. Trop. Paediatr.*, 2006, 26, 303.
- [45] Toubia N.: "Female circumcision as a public health issue". *New Engl. J. Med.*, 1994, 331, 712.
- [46] Shell-Duncan B.: "The medicalization of female 'circumcision': harm reduction or promotion of a dangerous practice?" *Soc. Sci. Med.*, 2001, 52, 1013.

Address reprint request to:
A. ROUZI, M.B., Ch.B., FRCSC
PO Box 80215
Jeddah 21589 (Saudi Arabia)
e-mail: aarouzi@gmail.com