Epidermal clitoral inclusion cyst after type I female genital mutilation

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OBJECTIVE: To document the occurrence of long-term sequelae after type I female genital mutilation (FGM) and describe the surgical treatment of epidermal clitoral inclusion cyst.

STUDY DESIGN: Twenty-one women presented with epidermal clitoral inclusion cyst after type I FGM at the Department of Obstetrics and Gynecology at King Fahad Armed Forces Hospital, Jeddah, Saudi Arabia. The duration (mean \pm SD, range) of symptoms was 10.3 \pm 5.4, 2 to 20 years. They were treated by excision of the cyst with particular attention to preserve the remaining part of the clitoris. The technique involves making a vertical incision in the skin, dissecting and excising the cyst, removing the excessive skin, and reap-proximating the skin edges.

RESULTS: The procedure was done on all patients without intraoperative complications. All except one were discharged home on the second postoperative day. Follow-up showed no recurrence of symptoms. **CONCLUSION:** Long-term sequelae can occur after type I FGM. The surgical treatment of clitoral inclusion cyst is simple and effective. (Am J Obstet Gynecol 2001;185:569-71.)

Key words: Female genital mutilation, clitoris, cyst

Female genital mutilation (FGM) is defined according to the World Health Organization as any procedure that involves partial or total removal of the external female genitalia or other injury to the female genital organs, whether for cultural or nontherapeutic reasons.¹ FGM is classified in 4 types: type I involves excision of the prepuce with or without excision of part or all of the clitoris; type II involves excision of the prepuce and clitoris together with partial or total excision of the labia minora; type III involves excision of part or all of the external genitalia and stitching/narrowing of the vaginal opening (infibulation); and type IV includes all other procedures, for example: pricking, piercing, or incision of the clitoris or labia, cauterization by burning of the clitoris and surrounding tissues, scraping (angurya cuts) of the vaginal orifice, cutting (gishiri cuts) of the vagina, introduction of corrosive substances into the vagina to cause bleeding, or insertion of herbal substances into the vagina with the aim of tightening or narrowing it. Types I and II are most commonly encountered and constitute about 80% of

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Received for publication December 16, 2000; accepted May 31, 2001. Reprint requests: Abdulrahim A. Rouzi, FRCSC, Department of Obstetrics and Gynecology, King Abdulaziz University Hospital, PO Box 80215, Jeddah 21589, Kingdom of Saudi Arabia. Copyright © 2001 by Mosby, Inc. 0002-9378/2001 \$35.00 + 0 6/1/117660 doi:10.1067/mob.2001.117660 FGM. Type III is the most severe form and is sometimes called "Pharaonic circumcision."

Early complications of all types of FGM include hemorrhage, shock, infection, and sometimes death. The lifelong physical and psychosexual sequelae (chronic pelvic infection, sterility, incontinence, depression, sexual dysfunction, marital disharmony, and obstetrical problems) have been well documented as complications of FGM.²

The development of epidermal clitoral inclusion cyst after type III FGM is one of the most common long-term complications.³ Here, the formation of the cyst results from the embedding of keratinized epithelial cells and sebaceous glands in the line of scar.

On the other hand, the development of epidermal clitoral inclusion cyst with long-term sequelae after type I FGM is rare, and there are few reports of the effective management of this complication. This study is based on 21 women with epidermal clitoral inclusion cyst developed after type I FGM, and it describes the surgical technique of excision of the cyst.

Materials and methods

Between August 1991 and December 1999, 21 women with epidermal clitoral inclusion cysts were seen in the Department of Obstetrics and Gynecology at King Fahad Armed Forces Hospital, Jeddah, Saudi Arabia. They all came from the southern part of the Arabian Peninsula and had type I FGM. Their ages (mean \pm SD, range) at presentation were 18.81 \pm 9.1, 5 to 45 years. Twelve women were married and 9 were single.



Fig 1. Clitoral cyst.



Fig 2. Dissection of the cyst.

In terms of symptoms, all presented with a mass in the vulva; one also complained of dysuria, and another complained of dyspareunia. The duration (mean \pm SD, range) of symptoms was 10.3 ± 5.4 , 2 to 20 years. The sizes of the cysts (anteroposterior diameter \times transverse diameter) were 4 ± 1.9 , 1.5 to $7 \times 3 \pm 1.2$, 1 to 5 cm.

The surgery was performed, with the patient under general anesthesia, by removing the epidermal inclusion



Fig 3. Suturing of skin.



Fig 4. Intact clitoral inclusion cyst.

cyst, with particular attention paid to preserving what remained of the clitoris. The technique involves making a vertical incision in the skin, dissecting and excising the cyst, removing the excessive skin, and reapproximating the skin edges (Figs 1-4). Drainage of the urinary bladder by a Foley catheter was routinely done for one postoperative day.

Results

The technique proved easy in all cases, and the cysts were removed intact with minimal bleeding and no occurrence of intraoperative complications. All patients had unilocular cysts, and final pathologic examination showed epidermal inclusion cyst as previously described.⁴ All patients were discharged home on the second postoperative day, except one who had a postoperative fever, which required therapeutic antibiotics. She was then discharged home on the fourth postoperative day. Follow-up of the patients revealed no recurrence of symptoms.

Comment

It is estimated that there are between 100 and 132 million girls and women around the world who have been subjected to FGM procedures.¹ Each year, a further 4 to 5 million procedures are performed in female infants and young girls, mostly occurring in African countries but also in the Middle East and Asian countries.⁵ An increasing number of women with FGM now live in Western Europe and North America, and it is estimated that 10,000 girls and young women in Britain are at risk for FGM.⁶ In spite of this, FGM and its consequences remain unfamiliar to many health care professionals in the developed world.

A range of short- and longer-term complications resulting from the different types of FGM have been noted. The frequency of these complications is related to the type of FGM and the experience of the person who performs it. The more severe forms are associated with higher rates of complication, and the most common of these, long-term after type III infibulation, is the formation of epidermal inclusion cyst.

In 1992, Dirie and Lindmark⁷ reported that among 290 women of the population of Mogadishu, the capital of Somalia, 36 (12.4%) women had epidermal inclusion cyst after infibulation. In 1995, Hanly and Ojeda⁴ reported from another hospital in Saudi Arabia that 10 women, migrants from Sudan and countries in the African Horn, had epidermal inclusion cyst with infibulation. In Saudi Arabia, infibulation is almost never performed.⁸

Female genital mutilation is usually done without anesthesia and in poor conditions by elderly women specially designated for this task. This may lead to unintended additional damage, even after type I FGM, with the development of subsequent complications. Our study documents the occurrence of long-term sequelae after type I FGM. The long duration of symptoms reflects the amount of unnecessary anxiety, shame, and fear these girls and women felt before seeking medical care. Therefore, an increased awareness of long-term complications after type I FGM is necessary.

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