Post-female-circumcision clitoral epidermal inclusion cyst: a case report and a review of literature

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Cysts involving the female external genitalia are rare. These cysts are either congenital or acquired. Iatrogenic epidermoid cysts have been reported after female genital mutilation, which is common in some parts of Africa and the Middle East. We report a case of acquired epidermoid inclusion cyst of the clitoris following female circumcision in a 5-year-old girl. The cyst was surgically excised and histopathologic evaluation revealed an epidermal-type inclusion cyst. *Ann Pediatr Surg* 10:61–63 © 2014 Annals of Pediatric Surgery.

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Introduction

The practice of female genital circumcision is still common in some rural areas, especially in the Middle East and Africa; however, the exact incidence and prevalence is not well documented. Genital circumcision is performed in various ways and often include clitoridectomy [1–3]. The occurrence of inclusion cysts in the female external genitalia following circumcision is well documented in the literature [4–12]. It may affect the clitoris, vulva, and even the vagina. The etiology of these cysts is traumatic transplantation of the epidermis into the subcutaneous tissue with subsequent proliferation of epidermal cells [4–12]. It has an outer wall of epidermis with a center filled with keratin material arranged in laminated layers as seen on histopathologic examination.

This study reports the case of a 5-year-old girl with clitoral swelling after circumcision that was proved to be an epidermal inclusion cyst.

Case report

A 5-year-old Saudi girl was referred to the pediatric urology clinic for enlarging clitoral mass. She had a history of female circumcision at the age of 1 month. Clinical examination revealed a midline cystic mobile and nontender mass at the site where two labia majora fuse together above the vestibule (Fig. 1). Both urethral and vaginal openings were normal in shape and position.

After a formal consent from her parents, the patient underwent surgical excision of this cyst under general anesthesia. Intraoperatively, there was a well-demarcated plane of cleavage between the cyst wall and the overlying skin. The cyst was excised intact (Fig. 2) and the vulva was remodeled after excision of the redundant skin (Fig. 3). The postoperative course was uneventful and she was discharged on the second postoperative day.

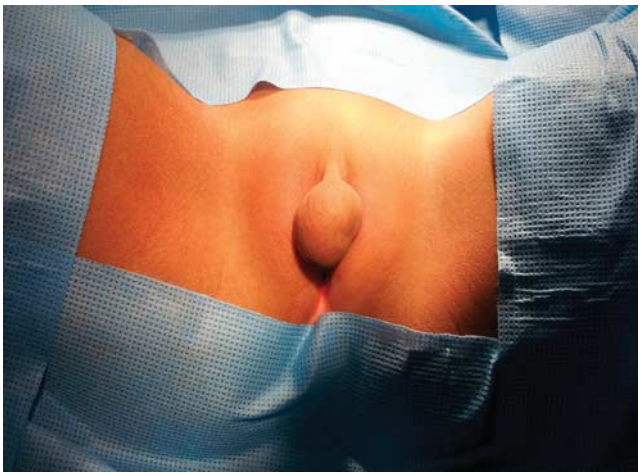
The gross histopathologic evaluation revealed a cystic mass measuring $2.2 \times 2 \times 1.8$ cm (Fig. 4). The microscopic examination showed an epidermal inclusion cyst lined with stratified squamous epithelium. A follow-up visit after 3 months revealed acceptable cosmetic appearance of the external genitalia and no evidence of recurrence of the cyst.

Discussion

Female circumcision is also called female genital mutilation (FGM). It is defined by the WHO as all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs [1–4]. Efforts have been made to increase the awareness of the population about the adverse consequences of female circumcision. We believe that significant progress has been achieved in the campaign against FGM and the practice nowadays is declining. Female circumcision is usually performed by nonmedical trained traditional people. In addition, this practice is not officially performed and in some areas it is illegal.

Both immediate life-threatening and long-term complications, including infertility, recurrent urinary tract infections, and obstetric, sexual, and psychological problems, have been documented [3,4]. Epidermoid inclusion cysts are considered a late complication of female circumcision.

Fig. 1



Clitoral cyst in a 5-year-old girl.

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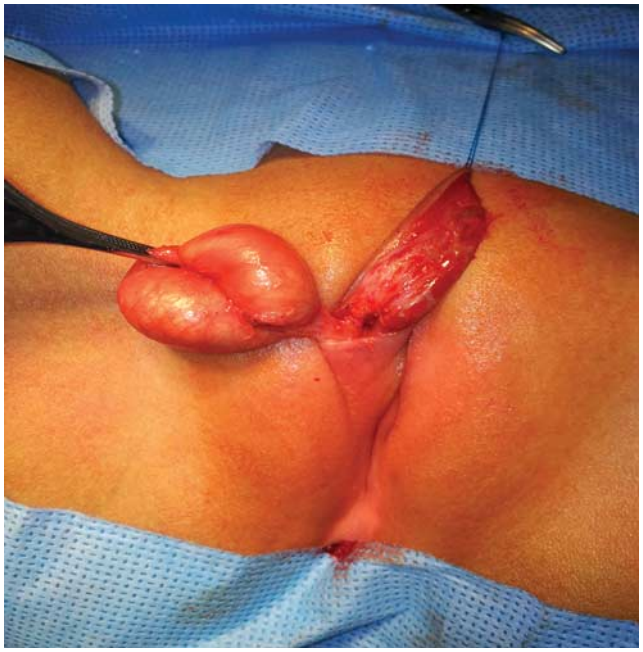
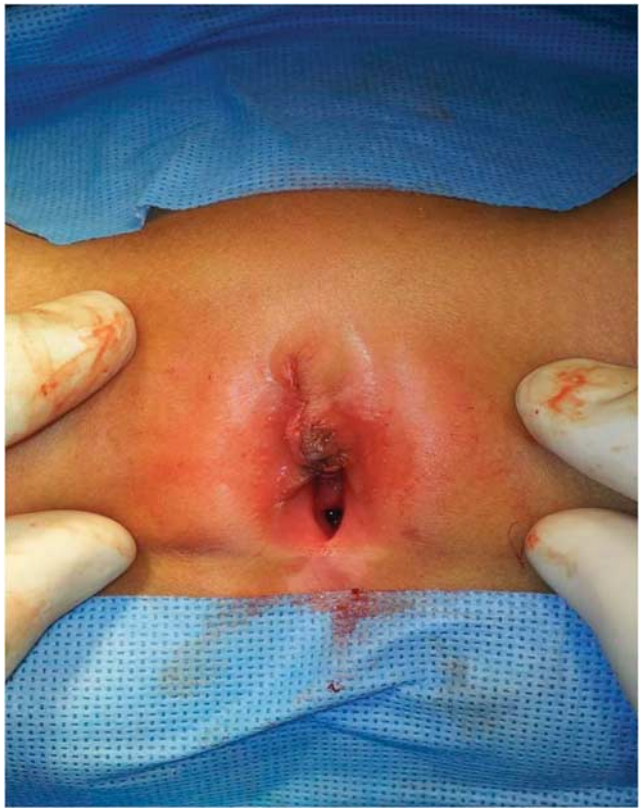
Fig. 2



Dissection of the cyst with an intact capsule.

Fig. 3



The reconstructed external genitalia after excision of the cyst.

There are several factors that can lead to the formation of inclusion cysts, including the circumstances at which FGM is performed, the person who is doing it, and the used instruments. The evolution of the practice of FGM,

Fig. 4

Gross image of the cyst after excision.

from being performed by traditional birth attendants to being carried out by medically trained personnel, did not eliminate the occurrence of its adverse consequences.

The exact incidence of these cysts has not been determined. However, a more common incidence than previously thought was documented in the recent study by Rouzi [4] who presented 32 cases of clitoral inclusion cysts that underwent surgical excision in his tertiary hospital. Almost 50% of patients treated for epidermal clitoral cysts have a definite history of FGM. In contrast, only five cases of spontaneous clitoral epidermoid cysts without a history of FGM have been reported in the literature [9].

These inclusion cysts are usually asymptomatic; however, if infected they may present with pain and discharge [3–6]. Because of the slow rate of growth, delayed presentation of clitoral inclusion cysts has been reported even 30 years after circumcision [8]. A case of inclusion cysts of the vulva containing multiple stones following circumcision has been reported [6].

Treatment of epidermal inclusion cysts is classically by complete surgical excision [4–12]. There have been no reports of postoperative recurrence [4,8]. Histopathologic examination of the cyst after excision is of utmost importance to differentiate it from other types of cysts and tumors that present the same way.

Finally, social and medical education is of paramount importance in educating societies about the adverse consequences of such practices.

Acknowledgements

Conflicts of interest

There are no conflicts of interest.

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