Case Report: Huge inclusion cyst as a long term complication of female genital mutilation

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Female genital mutilation (FGM) is a common practice in Nigeria and is performed for religious and cultural reasons despite associated short- and long-term complications. Epidermoid inclusion cyst of the external genitalia is one of its late complications.

We describe the successful management of a huge painless vulva mass measuring 10cm by 8cm in a 40-year-old woman. She had excision of the cyst with histological diagnosis of epidermal inclusion cyst. There is need for medical practitioners to have a high index of suspicion of epidermal inclusion cyst for vulva swelling especially in Nigeria where FGM is prevalent. However, public enlightenment and enforcement of laws on eradication of FGM as well as management of its complications are crucial.

Key words: FGM, vulva swelling, inclusion cyst

Introduction

A vulva epidermoid inclusion cyst often presents in the perimenarcheal period as one of the late complications of FGM.[1] It may involve the vagina, vulva, or clitoris. The cyst is usually small and painless although large sizes have been reported.[2,3] It may occur years after FGM as a result of implantation of squamous epithelium under the dermis or subcutaneous tissue which leads to accumulation of epidermal desquamations, secretions, and debris in a closed space.[4,5] The cyst is usually slow growing but has a rapid growth in the perimenarcheal period due to increased vagina and vulva secretions resulting from high oestrogen levels.[5,6]

Most patients present late because it is painless and slow growing. However if they develop complications like pain, difficulty in walking or micturition, sexual difficulty, or discharge from the swelling they may present early.[6] The diagnosis is made by clinical examination and confirmed with histology. Ultrasonography and magnetic resonance imaging are useful in differentiating it from other forms of vulva tumours.[5]

Excision is the management of choice but the surgical removal of a large cyst is challenging especially considering cosmetic outcome.[6] Therefore, we present the successful management and outcome of a huge epidermoid inclusion cyst that developed about three decades after FGM was performed.

Case Report

Mrs AA, a 40-year-old P1+1(1Alive) woman, presented with a 7-year history of a progressively increasing swelling in the external genitalia. There were associated sexual difficulty and psychological disturbance but no history of difficulty with walking or urination. She experienced pain with associated tenderness and purulent discharge from the swelling 5 years prior to presentation. Tenderness subsided and the purulent discharge ceased with spontaneous healing of the sinus following course of antibiotics. The swelling however recurred. There was history of circumcision in infancy but no other history of genital trauma. She had a normal menstrual history and an uneventful hospital supervised pregnancy and delivery.

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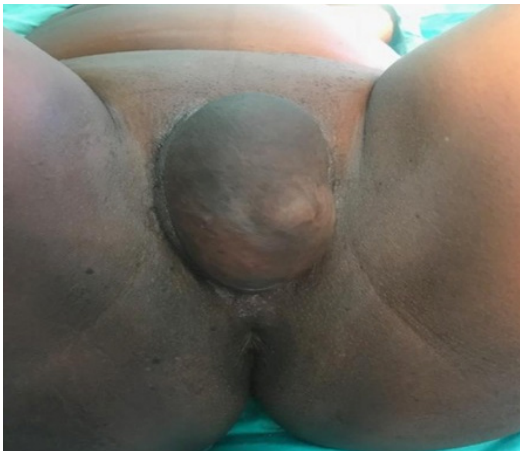

Figure 1. Mass involving right periclitoral area, residual labia minora, mons pubis and obscuring the urethral meatus - before surgery (credit O.O. Bello).

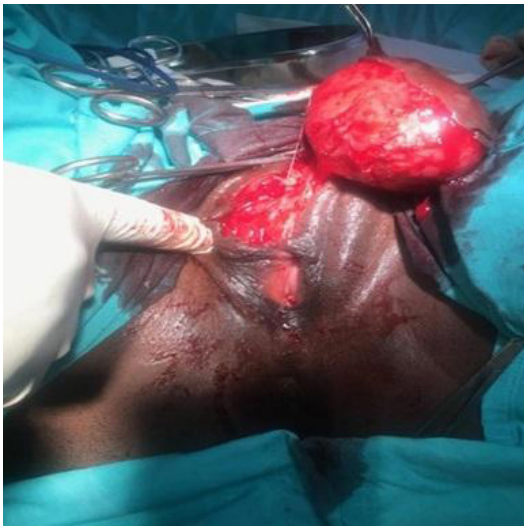

Figure 2. Successful dissection of the surrounding structure (credit O.O. Bello)

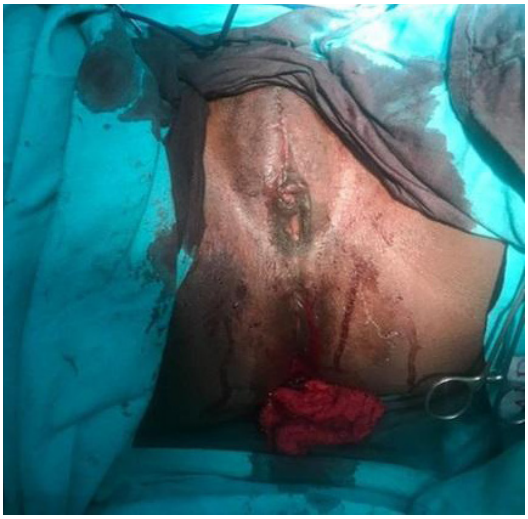

Figure 3. Vulva cosmetically re-fashioned (credit O.O. Bello)

The woman had normal secondary sexual characteristics and no feature of hyperandrogenism. A 10cm by 8cm rounded non-tender, mobile, cystic mass with normal overlying skin involving the right periclitoral area, residual labia minora, mons pubis and stretching the ventral skin of the urethra was noted (Figure 1). The residual clitoris was palpable beneath and separate from the cyst; thereby ruling out clitoromegaly. The vagina, cervix, and uterus were normal on speculum and digital examinations with no palpable inguinal lymph nodes. Other systems were normal as were the investigation results. An informed consent for surgical excision was obtained followed by successful excision without complications (Figure 2).

Operative findings included the presence of a subcutaneous well-encapsulated cystic mass with a well demarcated plane of cleavage between the overlying skin and cyst wall. The cyst was dissected from the surrounding structures and excised intact, redundant vulva tissue trimmed and the skin margin repaired with 3/0 polyglactin (Figure 3). Her postoperative recovery was uneventful. She had no complaints at two weeks and one month follow ups. She had resumed sexual intercourse which was satisfactory, without difficulty or pain, and was psychologically satisfied with her new genitalia appearance (Figure 4). The histology revealed a keratinous smooth cystic wall composed of laminated keratin and lined by stratified squamous cells with a granular cell layer.

Discussion

Epidermoid inclusion cysts are slowly growing tumours that arise due to the invagination of epidermis into the dermis following trauma. While common locations are the face, scalp, neck and trunk, external genitalia can also be affected with scrotal, labial or clitoral involvement.[4,5] This is a possible finding in women with prior history of FGM like the patient presented who had type II FGM in infancy and presenting with vulva swelling more than three decades later.[2,5,7] However, anecdotal cases of epidermal cysts localized on the clitoris and labia in patients without any history of trauma or surgery have been reported.[3]

The period of delay from FGM to development of the epidermoid inclusion cyst varies and this is postulated to be as a result of unopposed oestrogenic stimulation of the embedded epidermal tissue and sebaceous glands into the dermis during the woman's anovulatory stages.[8] This is not true for the patient presented, who was 40 years old and had regular menstrual cycles.

The patients frequently present with an asymptomatic, slowly growing vulva mass and few associated symptoms.[4,6,7] Although purulent discharge and pain at the swelling are relatively uncommon findings, our patient had experienced both symptoms 5 years prior to presentation and was managed with antibiotics only. This calls for medical practitioners to be alert to this long-term complication of FGM and its management because if the residual cyst wall had been excised after antibiotics treatment it would have prevented the recurrent swelling, psychological disturbance and sexual difficulty that this patient experienced.

Management of an epidermoid inclusion cyst is total excision to prevent recurrence. Considering the large size of the cyst and

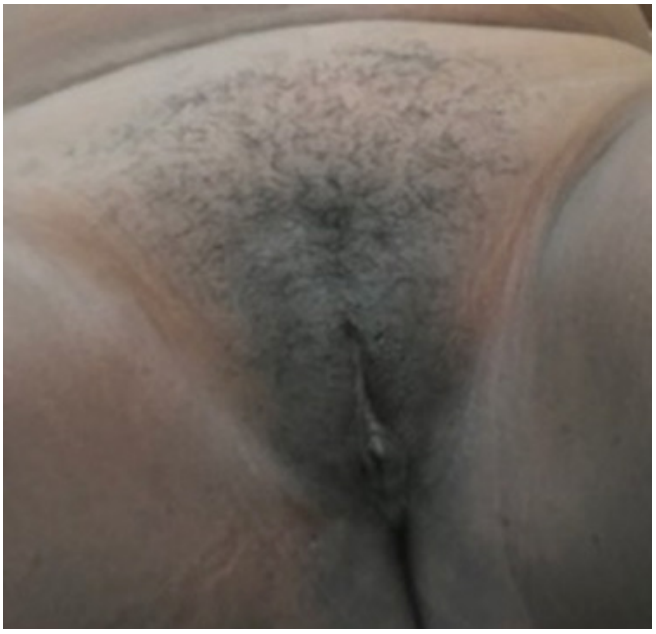

Figure 4. At 1-month follow-up (credit O.O. Bello)

anticipated challenges in our patient, the cyst was carefully enucleated without damage to surrounding structures with haemostasis secured and cosmetic refashioning of the external genital performed. This gives her aesthetically acceptable external genitalia with a normal urethral orifice thus reducing psychological problems or the need for further genital cosmetic surgery.[9]

Differential diagnosis must include vulva benign tumours like cyst of the canal of Nuck and Bartholin's cyst and malignant tumours of the vulva such as liposarcoma.[3] The diagnosis is confirmed on histologic examination which reveals a cyst lined by keratinized stratified squamous epithelium due to invagination of the epidermal keratinized squamous epithelial cells and sebaceous glands in the line of the clitoral circumcision scar, which then desquamates into a closed space to form a cyst.[10]

Conclusion

Medical practitioners should be aware of all the associated complications of FGM as well as the anatomical and surgical technique of excision of huge vulva cysts with the aim of achieving a successful surgical and cosmetic outcome. In addition the psychological and psychosexual impact on women's health should be considered. There is a need for more public health campaigns to educate communities about the complications of FGM and laws associated with its ban be enforced.

Conflict of Interest

All authors declare no conflict of interest.

Consent for publication

A written informed consent was obtained from the patient for publication of this case report and accompanying images.

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