CASE REPORT

Massive epidermal vulval cyst: an unusual late complication of female genital mutilation

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SUMMARY

Vulval epidermal cysts are rare and infrequently described in literature. They present a difficult diagnostic dilemma and surgical challenges. They most commonly occur as a late complication of female genital mutilation (FGM) and manifest as a primary condition. We present a case of a large vulval epidermal inclusion cyst, lined by vulval squamous epithelium, in a woman with a background of FGM who was referred with suspected vulval cancer. We discuss the clinical presentation, MRI findings, surgical treatment and outcome.

BACKGROUND

Female genital mutilation (FGM) encompasses procedures that involve removal or partial removal of the external female genitalia. Social, cultural and religious reasons have been cited for this practise. The prevalence of FGM is becoming more evident in frontline obstetrics and gynaecology. Unicef estimates that at least 200 million girls and women worldwide have been subjected to this practice.¹

It is most prevalent in Africa, where 29 countries practise FGM, with the highest numbers reported in Somalia.² The practitioners who perform FGM are mostly untrained and use crude instruments without anaesthesia on girls as young as 5 years of age.²

Over time, migration has increased and it is estimated that 137 000 women and girls in England and Wales, born in countries where FGM is traditionally practised, have undergone FGM.² As a result, we as clinicians need to be aware of the physical manifestations as well as the ethical, legal and psychological aspects.

The classification of FGM was initially described by Toubia,³ in 1994. The current guidance which is now widely accepted was revised by the world health organisation (WHO) in 2007.⁴ This describes the degree of FGM from type I to type IV. In summary, types I and II involve clitoridectomy and excision of the labia minora and/or labia majora. Type III involves reinfibulation to create narrowing of the vaginal orifice and type IV involves all other procedures to the female genitalia for non-medical purposes.⁴

Early complications of FGM include severe pain, haemorrhage, infection, abscesses, voiding difficulties and psychological trauma. Long-term implications are mostly associated with the act of infibulations rather than clitoridectomy alone since the former interferes with the drainage of urine

and menstrual blood. These include pain, chronic infections, dermoid cysts within the line of the scar, keloids, obstetric complications and importantly psychological ill health.³

We present a rare late complication of FGM.

CASE PRESENTATION

A 44-year-old woman was referred urgently to our gynaecology department with suspicion of a vulval malignancy. She complained of a vaginal lump that had been present for 20 years but had recently increased significantly in size and was causing pain and pruritus. The lump was causing difficulty in walking, dyspareunia and embarrassment. She reported three previous unsuccessful operations to this lesion in Sudan. She could not recall any specific details of these procedures. She had a history of FGM as a child. She had a regular menstrual cycle and a normal smear history. Her obstetric history included three vaginal births and one caesarean section. The vaginal birth history was uncomplicated, with no reports of perineal trauma or episiotomy. There was no other medical or surgical history and she was not on any regular medications.

On clinical examination, the abdomen was soft and non-tender. There was no inguinal lymphadenopathy. Vaginal and pelvic examination revealed a massive cystic swelling of the left hemivulva, extending to the mons pubis, measuring approximately 10×10 cm (figure 1). The lesion was firm, mobile and tender on palpation. There was no evidence of ulceration or clinical suspicion of malignancy. There was no clinical evidence of previous episiotomy or a perineal tear repair. It was in close proximity to the urethral meatus. It was difficult to ascertain the degree of FGM in view of the significantly distorted anatomy, but was thought to be at least type II or type III.

INVESTIGATIONS

A MRI (figure 2) was arranged to further characterise the mass, define its anatomical relations to the urethra, adjacent blood vessels and plan safe surgical removal.

This showed a large cyst in the anterior midline of the labium, measuring 10×7 cm. It was deviating (but not involving) the urethra to the right. It showed water signal intensity with a thin septum within. Findings were thought to represent a Skene's duct cyst in keeping with the water signal demonstrated on MRI scan. No suspicious malignant features were seen.

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Figure 1 Clinical findings during examination of vulval lesion in the preoperative stage. The lesion is displaced medially by the surgeons hand for demonstration purposes.

DIFFERENTIAL DIAGNOSIS

Differential diagnosis in the case of a large swelling of the hemi-vulva includes vulval malignancy, obstructed paraurethral or Bartholin's gland, cyst of the canal of Nuck, endometrioma and Skene's gland cyst.

TREATMENT

The patient was registered with the FGM database preoperatively.

In view of the clinical and radiological findings, the patient was planned for examination under anaesthesia (EUA), followed by excision or drainage and marsupialisation of the vulval cyst. During EUA, the patient was found to have FGM type III, with absent clitoris and labia minora, as well as narrowing of the vagina. After incising the wall of the cyst, it was evident that the cyst wall was comprised by inverted squamous epithelium and contained sebum and exfoliated skin. In view of the intraoperative findings, a decision was taken to fully excise the cystic lesion. The cyst was meticulously dissected and removed completely (figure 3). Part of the excess skin overlying the cyst laterally to the vulva was removed and the incision was closed in two layers, taking care to preserve any remnants of the vulva that were present (figure 4).

Figure 2 MRI findings showing sagittal section and demonstrating the vulval mass which is not involving the urethra.

Figure 3 Intraoperative dissection of the vulval mass and evidence of the squamous epithelium which led to the diagnosis of an epidermal cyst.

The patient was discharged the following day without any postoperative complications.

Histology confirmed that no vulval structures were seen within the wall of the cyst. Normal skin with underlying sebaceous units and fibrovascular tissue was present. The findings correlated with the clinical findings of pigmented squamous epithelial skin, lining the internal walls of the cyst (figure 5). This confirmed that the cyst was a vulval epithelial inclusion cyst, rather than a Skene's gland cyst as previously suggested on MRI.

OUTCOME AND FOLLOW-UP

The patient was reviewed in gynaecology outpatients department 5 months after surgery. There was no postoperative complication. Reassuringly, the wound had healed very well and resulted in an excellent aesthetic result. The patient was satisfied

Figure 4 Postoperative result showing resolution of the vulval cyst.

Figure 5 Epidermis and underlying tissue. The epidermis comprises keratinising stratified squamous epithelium.

with the surgical result and her clinical condition had improved considerably.

DISCUSSION

FGM affects many women and girls worldwide. In every society in which it is practised, FGM is a manifestation of gender inequality that is deeply embedded in social, economic and political structures.⁴ It is mostly carried out on girls from infancy to 15 years of age and is a violation of human rights.¹² FGM is a harmful practise that confers a serious threat to a woman's psychological and physical health. It is often practised even when it is known to inflict harm on girls because the perceived social benefits are deemed higher than its disadvantages.⁴

There are no known health benefits but short-term and long-term complications exist. The latter of which has been presented in our case report.

The genitourinary complications of FGM were reviewed by Vella *et al* in 2015.⁵ Some studies suggested that in women with the consequences of FGM, there is an important role for reconstructive surgery.⁵ The aim is to restore normal anatomy and offer the potential for improved female sexuality.⁵ The same review demonstrated that reconstructive surgery after FGM is associated with reduced pain and restored pleasure. The 1-year follow-up data was encouraging, with most patients reporting an improvement, or at least no worsening, in pain and improved sex life.⁵

Five cases of large epithelial vulval cysts have been reported worldwide,^{6–10} and not all of them have been on a background of FGM.⁹ This is the first case to be reported in the UK. In all of these cases, MRI was used as the imaging modality to plan surgery. The age range was from the teens to the late 40s. This may suggest that some women are not seeking help for many years and continue to live with the stigma of a traumatic past.

The psychological burden of FGM is difficult to ascertain and as always women in this setting must be treated with utmost sensitivity and a non-judgmental attitude to achieve mutual trust.

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Patient's perspective

- ▶ Before the operation was carried out, I was feeling uncomfortable while having swellings. This kept on growing with the constant anxiety, and it affected my movements while being very itchy around the area.
- ▶ After the operation was carried out, I started moving comfortably without swellings or the feeling of anxiety. And everything was better because I was healthy again.
- ▶ I send a message to all the women with this cultural habit to stand against it for their families and the whole community.
- ▶ I thank my doctors for the excellent care they took of me in and out of the operation. And this was all followed with great checkups.

Learning points

- ▶ Women with female genital mutilation (FGM) have a lifetime risk of complications and we are seeing an increasing number of these cases in the UK.
- ▶ Vaginal epidermal cysts are a rare but important differential diagnosis in the presence of a large vulval swelling, especially in women with a background of FGM.
- ▶ MRI is an important imaging modality to define the relationship of the lesion to adjacent anatomical structures prior to planning surgical removal.

Contributors The case was identified by AM. The clinical input including the surgery was made by the same author. The literature review and overall write-up was done by TK-D with support from AM. The final submission was reviewed by both authors and the content was agreed and finalised.

Competing interests None declared.

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