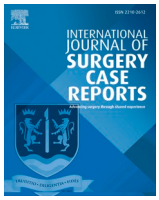
International Journal of Surgery Case Reports 123 (2024) 110181

Contents lists available at ScienceDirect

International Journal of Surgery Case Reports

journal homepage: www.elsevier.com/locate/ijscr



Case report

A rare non-malignant cauliflower vulvar mass in a post-menopausal woman: Case report and insight into vulval fibromatosis

Alim Swarray-Deen [a,b], Enaam Adanu [b], Kareem Mumuni [a,b], Promise E. Sefogah [a,b,*]

[a] Department of Obstetrics and Gynaecology, University of Ghana Medical School, College of Health Sciences, Korle Bu, Accra, Ghana
[b] Department of Obstetrics and Gynaecology, Korle Bu Teaching Hospital, Korle Bu, Accra, Ghana

ARTICLE INFO

Keywords:
Vulva
Fibromatosis
Menopause
Excision
Tumour
Benign

ABSTRACT

Introduction and importance: Vulvar fibromas are benign tumours that primarily occur in women of reproductive age but very rarely among postmenopausal women. Evidence of its occurrence in Sub-Saharan Africa is scant, with hardly any data among postmenopausal women.

Case presentation: A 54-year-old multiparous (para 4) Ghanaian female presented at the Gynaecology Outpatient Department of Korle Bu Teaching Hospital, with a three-year history of a painless vulval mass. Her general condition was satisfactory.

Vulvar examination revealed a prominent, 20 cm × 15 cm cauliflower-like mass originating from the right labium majus, attached by a 5 cm long and 1 cm thick stalk. There was no inguinal lymphadenopathy. Mass was excised under regional anesthesia and histology confirmed benign vulva fibromatosis. The patient made a satisfactory post-operative recovery.

Clinical discussion: This case was managed successfully surgically, and histology confirmed a benign tumour. These benign vulval tumours typically occur in younger premenopausal women, but very rarely after menopause as was in the case of our patient who was 7 years postmenopausal. This further emphasizes the exceptional nature of this pathology.

Conclusion: Our report adds valuable insight to the limited literature on vulvar fibromatosis, particularly in postmenopausal patients, emphasizing the need for careful diagnostic and management strategies for best patient outcomes.

1. Introduction

Vulvar fibromas are a type of benign tumour that primarily occurs in women of reproductive age but can also occur in other age groups. These tumours develop from the deep connective tissues of the vulva, such as the introitus, labia majora, perineal body, or the round ligament. Vulvar fibromas can grow to a substantial size and cause a range of clinical symptoms, such as dyspareunia, ambulatory difficulties, chronic pressure-related discomfort, or acute pain due to necrotic changes. While vulvar fibromas usually occur as solitary lesions, they tend to be multiple in pregnant women. Fibromas are the most common type of benign vulvar neoplasm [1]. Histologically, vulvar fibromas are mesenchymal tumours that have a distinctive pattern, consisting of a cellular stromal component surrounding a central vascular core, capped by an overlying squamous epithelium. These tumours have varied cellular density, with hypo-cellular regions appearing oedematous and myxoid with sparsely distributed, bland spindle cells, while hyper-cellular areas have multinucleated or stellate cells [2].

Documentation of vulvar fibromas in the Sub-Saharan African context is scarce. This report describes a rare case of vulvar fibromatosis that affected the right labium majora in a 54-year-old post-menopausal woman.

2. Case presentation

A 54-year-old multiparous (para 4) female presented at the Gynaecology Outpatient Department of our Hospital, reporting a vulval mass that had been present for three years. The patient was seven years post-menopausal and had been sexually inactive for over eight years. Over the last three years, she observed a progressive increase in the size of the mass, accompanied by itching and an offensive discharge. However, she reported no symptoms such as vaginal bleeding, weight loss, or

* Corresponding author at: Department of Obstetrics and Gynaecology, University of Ghana Medical School, College of Health Sciences, Korle Bu, Accra, Ghana.
E-mail address: promees@hotmail.com (P.E. Sefogah).

https://doi.org/10.1016/j.ijscr.2024.110181
Received 20 June 2024; Received in revised form 11 August 2024; Accepted 14 August 2024
Available online 17 August 2024

abdominal distension, and was otherwise in a state of general well-being. Her medical and surgical history was unremarkable, and she was on no specific medications at the time of presentation.

Upon physical examination, the patient was of average build and her overall health appeared satisfactory. Cardiovascular, respiratory assessments and abdominal examination revealed normal findings.

A detailed vulval examination revealed a prominent, cauliflower-like mass originating from the right side of the labium majora, measuring approximately 20 cm × 15 cm (Fig. 1). This mass was attached by a 5 cm long and 1 cm thick stalk. There was an absence of inguinal lymphadenopathy. Inspection of the vaginal walls and cervix through sterile speculum examination showed no abnormalities.

Further investigations included an abdominopelvic ultrasound scan, which demonstrated a bulky, anteverted uterus with multiple calcified fibroid nodules, but no adnexal masses or free fluid in the pouch of Douglas or the peritoneal cavity. All other abdominal organs appeared normal. A Pap smear was conducted, yielding normal cytological results.

The initial differential diagnosis included a benign vulval mass. However, given the cauliflower-like appearance of the mass, vulvar carcinoma was also considered. Notably, there were no palpable regional lymph nodes, and the growth of the mass was gradual and consistent with a benign process.

1. The patient received comprehensive counselling regarding her condition and the necessity for surgical intervention. Following a preoperative anaesthetic evaluation, she underwent an excision biopsy of the mass under saddle block regional anesthesia. The affected area of the vulva was subsequently repaired using a delayed absorbable suture (Vycril-0) (Fig. 2). Histopathological examination of the mass showed sections of vulval skin tissue with a dermal tumour composed of streaming and interlacing fascicles of spindle and stellate cells with vesicular nuclei and small central nuclei. The cytoplasm was fibrillary and eosinophilic, with the cells set against a loose vascularized collagenous background. The margins were free, and the overlying epidermis had evidence of hyperkeratosis and acanthosis with elongated retes. There was no malignancy seen. The final impression was a vulval fibromatosis. The patient made a satisfactory post-operative recovery. She was reviewed on outpatient basis 2 weeks following discharge, the repair was intact and healed satisfactorily. She was subsequently reviewed monthly for 2 months and then again after 6 months post-surgery. She remained well and her examination found no evidence of recurrence. This work has been reported in line with the SCARE criteria [5].

Fig. 1. Large pedunculated cauliflower-like mass arising from the right labium majus.

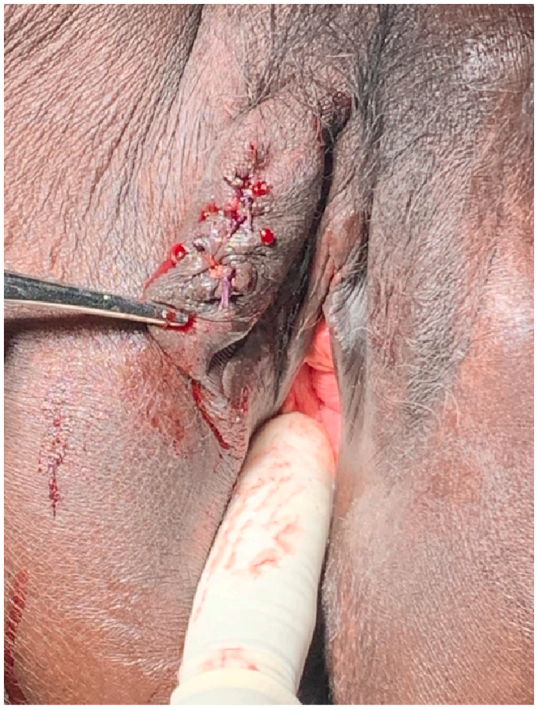


Fig. 2. Vulva immediately post-excision and repair.

3. Discussion

In this report, we detailed the management of a sizable vulvar fibroma in a postmenopausal patient through surgical excision. Benign vulvar masses are uncommon conditions of the lower genital tract with currently no universally accepted system of classification for these benign tumours [4]. These benign vulval tumours predominantly occur in women of reproductive age, with an incidence rate estimated at approximately 0.03 %. Although less common, they are also documented in pre-pubertal and post-menopausal women [2]. The presentation of this case in a patient seven years into menopause underscores its rarity, marking it as the first such case reported at our facility and in Ghana, thereby emphasizing the exceptional nature of this pathology. Majority of the vulvar tumours show no symptoms, until they grow large enough to be noted by affected patients on self-examination [2], as was the case in our patient whose lesion grew very large by the time of presentation.

The aetiology and pathogenesis of vulvar fibromatosis remain inadequately understood. However, a correlation with physiological hormone changes has been suggested, owing to the presence of estrogen and progesterone receptors in the stromal cells of these tumours [1].

Despite this association, our patient did not exhibit any discernible risk factors typically associated with fibroma development. Notably, the emergence of the fibroma in a postmenopausal patient deviates from the more common correlation of these tumours (including the fibroepithelial polyps) with hormonal changes observed in women of reproductive age [3].

The definitive diagnosis of vulva fibromas is made after histological examination of the specimen. The presence of spindle and stellate cells,

with vesicular nuclei against a loose collagenous background is a characteristic histological feature of vulva fibromatosis [4]. Consistently, histological findings in our patient confirmed the presence of spindle and stellate cells with vesicular nuclei and small central nuclei.

Malignancies must always be excluded in cases of vulval fibromatosis. Sarcomas may have a gross morphological features similar to a vulva fibroma [6]. In our patient, one of our differential dignoses considered was a vulva malignancy. We entertained this diagnosis until the detailed histopathological report confirmed the lesion was benign. Malignant lesions of the vulva tend to have ill-defined margins [7], unlike the case of this lesion in our patient that had well-defined margins.

Regarding the management of vulvar fibromas, complete surgical excision is acknowledged as the definitive treatment strategy. In cases where excision is incomplete, there is a noted risk of recurrence [3,8]. In the case of our patient, a thorough excision of the lesion was performed. Follow-up evaluations spanning almost one-year post-surgery have not revealed any clinical signs indicative of the lesion's recurrence. To ensure continued monitoring and early detection of any potential recurrence, the patient was scheduled for biannual follow-up examinations.

4. Conclusion

This report of a large vulvar fibroma in a postmenopausal patient demonstrates the rarity and clinical significance of such cases. This case adds valuable insight to the limited literature on vulvar fibromas, particularly in postmenopausal patients, emphasizing the need for careful diagnostic and management strategies in gynaecological practice.

Ethical approval

Ethical approval was not applicable.

Patient Consent: Written informed consent was obtained from the patient for publication and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal on request.

Funding

N/A.

No funding was obtained for this study.

Author contribution

ASD and EA reviewed the patient prior to surgery, and both performed the surgery and reviewed several drafts of the manuscript. ASD and PES wrote the initial draft of manuscript and revised several drafts of the manuscript. ASD, EA, KM and PES participated in the writing and review of the manuscript. All authors have reviewed and approved the final version for publication.

Guarantor

Dr Alim Swarray-Deen.
Dr Promise E. Sefogah.

Research registration number

1. Name of the registry: N/A.
2. Unique identifying number or registration ID: N/A.
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): N/A.

Conflict of interest statement

All authors declared no conflict of interest.

Data availability

Not applicable.

Acknowledgments

The authors acknowledge and appreciate the support and assistance from the Management and staff of the Gynaecology Unit and Pathology Department of the Korle Bu Teaching Hospital.

References

[1] I. Korkontzelos, G. Mpourazanis, F. Goshi, R. Vogiatzis, D.J. Theodorou, P.-D. Korkontzelou, E. Balassi, V.E. Georgakopoulou, T. Papamitsou, Giant ulcerated fibroepithelial stromal polyp of the vulva: a case report, Cureus 15 (6) (2023) e40017, https://doi.org/10.7759/cureus.40017, 2023.

[2] E. Ndaboine, D. Matovelo, A. Itemba, C. Mbulwa, Giant vulva fibroma presenting as a genital mass: a case report, Tanzan. J. Health Res. 21 (2) (2019) 1–6, https://doi.org/10.4314/thrb.v21i2.2, 2019.

[3] A. Kurniadi, A. Rinaldi, H. Yulianti, A.R. Bazar, R.D. Prasetyawati, K. D. Tjandraprawira, Multiple vulvar giant fibroepithelial polyps: a rare case occurrence, Case Rep. Obstet. Gynecol. 2022 (2022) (2022), https://doi.org/10.1155/2022/5712925.

[4] L.A.H. Bringas, J.A. Billod, Gigantic vulvar masses: a case series of benign large vulvar tumors, Int. J. Reprod. Contracept. Obstet. Gynecol. 2021 (10) (2021) 2476–2481.

[5] C. Sohrabi, G. Mathew, N. Maria, A. Kerwan, T. Franchi, R.A. Agha, The SCARE 2023 guideline: updating consensus surgical CAse REport (SCARE) guidelines, Int. J. Surg. Lond. Engl. 109 (5) (2023) 1136.

[6] Madueke-Laveaux, et al., Giant fibroepithelial stromal polyp of the vulva: largest case reported, Ann. Surg. Innov. 7 (2013) 8.

[7] A.D. Raj, M.M. Soma, S.P. Khajuria, A large fibroma polyp of labia majora, Int. J. Reprod. Contracept. Obstet. Gynecol. 8 (2019) 762–765.

[8] Alhatem A, & Heller D. S. (n.d.). Fibroepithelial (stromal) polyp. Retrieved November 26, 2023, from https://www.pathologyoutlines.com/topic/vaginafibroepithelial.html.