Bilateral vulvar lipomas in a premenopausal woman: A case report

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1. Introduction

Vulvar lipoma is a benign mesenchymal neoplasm that is well defined, small, and painless [1]. It closely resembles the pathology and presentation of any lipoma found in the body. It is commonly found in young and middle-aged women [1]. It can appear well demarcated, pedunculated, or ill-defined on the labia majora but rarely presents as bilateral [3]. It is often diagnosed clinically since many of the characteristics are apparent upon examination [6]. The differential diagnoses encompass both benign and malignant presentations. The benign differentials include Bartholin’s gland cyst, apocrine adenoma, lipoma, sclerosing adenosis, phyllodes tumor, hidradenoma papilliform, fibrocystic disease, and syringoma. Malignant differentials include but are not limited to extramammary Paget’s disease, ductal carcinoma, vulvar carcinoma, and mucinous carcinoma [7]. Here we report a case of bilateral lipoma in a 37-year-old woman.

2. Case Presentation

A 37-year-old patient, G3P2, presented with a history of vulvar “bumps” bilaterally on the labia majora for 4 months. She denied any symptoms of vaginal bleeding, discharge, abdominal pain, or fever. She said the mass was initially small but had grown progressively. Physical exam showed a 4 × 2.5 cm mass on the upper left vulva and a 1.5 × 1 cm mass on the right vulva (Fig. 1). Both masses were located subcutaneously of the labium and were firm, mobile, and non-adherent to the skin or other underlying structures. Pelvic, abdominal, and chest exam were normal. Chest x-ray, CT scan of the pelvis, and pelvic ultrasound revealed no masses.

A provisional diagnosis of Gartner’s cyst was made, and vulvar excision was planned. The lesion was excised under LMA and IV sedation. The left vulvar mass was visualized at 3 o’clock and the right vulvar mass was visualized at 9 o’clock. Bilateral vulvar masses were obtained and sent to pathology. The patient was then discharged and follow-up was scheduled.

Upon pathological review the specimens were found to have no cyst. Areas of hemorrhage and necrosis were seen. Glandular elements were benign, and microscopy showed epithelial and stromal proliferation. No evidence of atypia was seen. Pathology of the mass demonstrated a well circumscribed lesion of fatty tissue (Fig. 2). Histopathologic examination confirmed lipoma with foci of organizing fat necrosis. The patient was discharged after surgery and a follow-up examination 2 months later found complete restoration of normal vulvar anatomy.

3. Discussion

Vulvar masses can have various differential diagnoses, some benign and some malignant. Liposarcoma and squamous cell carcinoma are the most common malignant lesions arising in the vulva, whereas lesions like Bartholin cyst, Gartner cyst, lymphangiomas and hidradenoma papilliform are benign [1].

Bilateral lipomas are extremely rare. When a Medline search on PubMed using keywords “vulvar,” “vulva,” “lipoma” was performed only one article was found, by Kwak et al., which reported a case of bilateral vulvar liposarcoma. This is clinically relevant and significant considering another important differential diagnosis of a lipoma is liposarcoma given the presentation and nodularity found on pathology.

Vulvar lipomas are benign mesenchymal tumors consisting of mature fat cells interspersed with fibrous connective tissue [2]. Typically, the presentation is a soft, subcutaneous multi-loculated neoplasm that arises...
from the vulvar fatty pads [3]. It can be found in infancy all the way to the ninth decade of life [4]. The pathogenesis and precise etiology of how these tumors arise are yet to be determined but trauma has been implicated in some patients [5]. In our patient, significant vulvar trauma was evident during her two prior vaginal deliveries.

While this patient was not sent for MRI to rule out a malignant neoplasm, most malignant masses share similar MRI characteristics, i.e. moderate high signal intensity on T2-weighted images compared to subcutaneous tissue. In this case, it was the clinical presentation which guided the differential diagnosis. Ultrasound (transperineal, introital) can be applied as another modality to differentiate between cystic and solid lesions. This patient had had bilateral palpable masses for six years that originally started as small, non-tender, mobile masses that then grew over time. Clinically, other differentials had to be ruled out for the swelling, including Bartholin cyst, Gartner cyst, and swelling of the canal of Nuck.

Bilateral lesions do not necessarily indicate malignancy. It was determined that surgical excision would be the best way to treat this patient as well as provide a specimen for histopathology to confirm the diagnosis. The cystic fat necrosis found on histopathology could have been related to a myriad of factors. Some include the rate at which the lipoma grew, vascular insufficiency and/or trauma to the vulvar area during childbirth. In a literature review of encapsulated fat necrosis done in 2000, fat necrosis was shown to be a common finding in the lower extremity, and none was seen in the vulvar region [6].

Reda and Gomaa in 2018 noted that the surgical removal with the complete excision of the capsule was the treatment of choice to prevent recurrence of lipomas [7]. Considering this patient had described discomfort when walking, dyspareunia and dull/dragging pain in the vulvar area, surgical excision seemed the most appropriate treatment. On the patient’s 2-month post-operative visit she expressed how well she felt. Her quality of life had drastically improved and the discomfort she felt while walking had disappeared.

4. Conclusion

The purpose of this case report was to present a rare case of bilateral masses that were not malignant. The growth of lipomas can be rapid and surgical excision of the mass can give concrete evidence for a benign pathology.

Contributors

Ashley Thakur was involved in patient care, was responsible for the conception of the case report, and revised the article critically for important intellectual content.

Lucia Di Francesco and Liasian Uzianbaeva were involved in patient care, participated in the conception of the case report, acquired and interpreted the data, and drafted the manuscript.

Aruna Mishra and Magdy Mikhail contributed to data interpretation and revised the article critically for important intellectual content.

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The authors declare that they have no conflict of interest regarding the publication of this case report.

References

[1] Y.O. Tüzün, B. Engin, R. Wolf, Distribution and arrangement of multiple lesions in the anogenital region, Clin. Dermatol. 29 (2) (2011) 162–172.
[2] D.M. Sherer, C. Gorelick, A. Wagreich, Y.C. Lee, E. Serur, A. Zigalo, et al., Sonographic findings of a large vulvar lipoma, Ultrasound Obstet. Gynecol. 30 (5) (2007 Oct) 786–787.
[3] J.H. Lee, S.M. Chung, Large vulvar lipoma in an adolescent: a case report, J. Korean Med. Sci. 23 (4) (2008 Aug) 744–746.
[4] D.T. Kehagias, V.E. Smyrniotis, E.E. Karvounis, A.D. Goulamakis, G. Creatas, Large lipoma of the vulva, Eur. J. Obstet. Gynecol. Reprod. Biol. 84 (1) (1999 May) 5–6.
[5] M.C. Aust, M. Spies, S. Kall, A. Gohritz, P. Boorboor, P. Kolokythas, et al., Lipomas after blunt soft tissue trauma: are they real? Analysis of 31 cases, Br. J. Dermatol. 157 (1) (2007 Jul) 92–99.
[6] H. Kiryu, W. Rikihisa, M. Furue, Encapsulated fat necrosis – a clinicopathological study of 8 cases and a literature review, J. Cutan. Pathol. 27 (2000) 19–23.
[7] A. Reda, I. Gomaa, Vulvar lipoma: A case report, Rev. Bras. Ginecol. Obstet. 40 (2018) 647–649.