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Case Report

A 24-Year-Old Female with a Peri-Clitoral Mass

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Abstract

Leiomyomas have a reported prevalence of up to 80% in women, the vast majority of which are intrauterine. We report a rare occurrence of a clitoral myoma, measuring approximately 2cm by 2cm in a healthy, 24 year-old African-American female. The leiomyoma was excised under general anesthesia and confirmed by pathologic examination. Clitoral leiomyomas are uncommon, with only 3 cases were published in the literature over the past 60 years. However, the presence of myomas in this location should be kept in mind in the differential diagnosis of peri-clitoral lesions.

Key Words:

Leiomyoma, fibroids, clitoral mass, clitoromegaly

Introduction

Leiomyomas are benign tumors arising from smooth muscle cells that constitute the most common benign tumors among women [1]. These tumors have a reported prevalence of up to 80% in women and are particularly prevalent in African-Americans [1]. The vast majority of leiomyomas are intrauterine, but other less common locations have been reported. Here we present a case of a clitoral leiomyoma, a presentation that has very rarely been reported but should remain on the differential of any patient presenting with a peri-clitoral mass.

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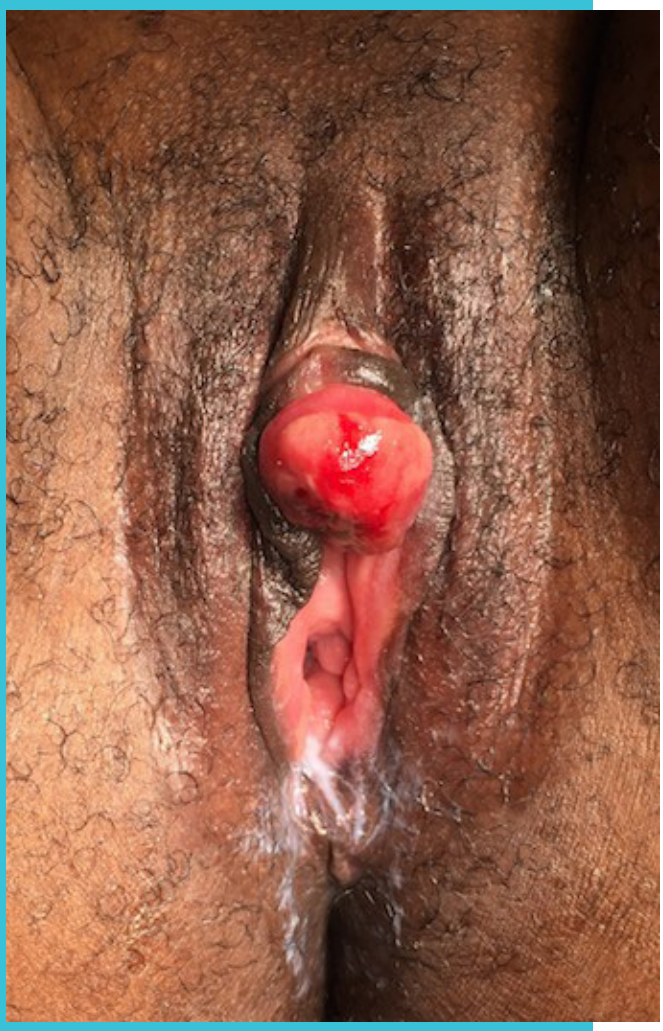
Case Presentation

A 24-year-old African- American gravida 3 para 1-0-2-1 presented in clinic with a peri-clitoral mass that formed 2 months prior and gradually grew in size. Patient reported that the mass was non-tender and only uncomfortable during sexual intercourse. She had tried sitz baths and Tylenol without relief. The patient had one prior normal spontaneous vaginal delivery (NSVD), and she denied any history of leiomyomas, cysts or other gynecological pathology in the past. Patient also denied any significant medical or surgical history and was generally healthy with a body mass index (BMI) of 25.6. Patient reported regular cycles and was not using any form of contraception. On physical examination, a mass under the clitoral frenulum and adjacent to the urethral meatus which was approximately 2 cm. in diameter was detected. The lesion was initially thought to be cystic because it was well-circumscibed and mobile. The overlying mu-

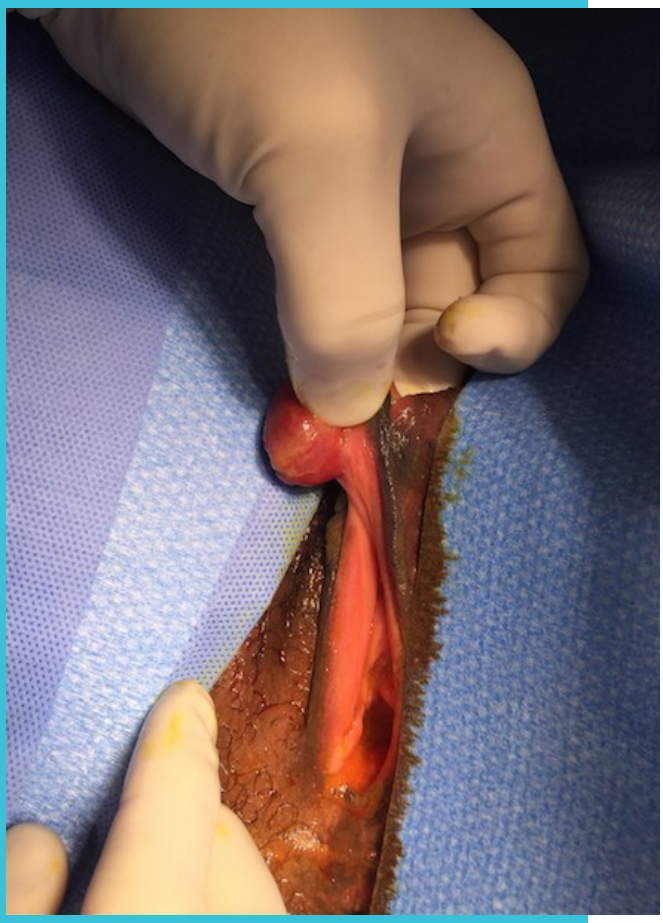
cosa was incised approximately 1 cm, and an incision and drainage was attempted. No fluid was aspirated; the mass was noted to be solid, and a biopsy was performed. The preliminary pathology result reported a hemangioma on hematoxylin eosin (H+E) staining. The patient was sent for an ultrasound to assess vascularity of the mass prior to operating room (OR) excision, which revealed a 2.3 x 1.4 x 2 cm well-defined heterogeneous solid nodule containing both arterial and venous flow. The patient was planned for surgery and placed in the dorsal lithotomy position. Once the mass was dissected from the overlying mucosa, the mass was noted to be attached to the base of the clitoris (Figure 1).

Figure 1.



External appearance of clitoral mass

Figure 2.



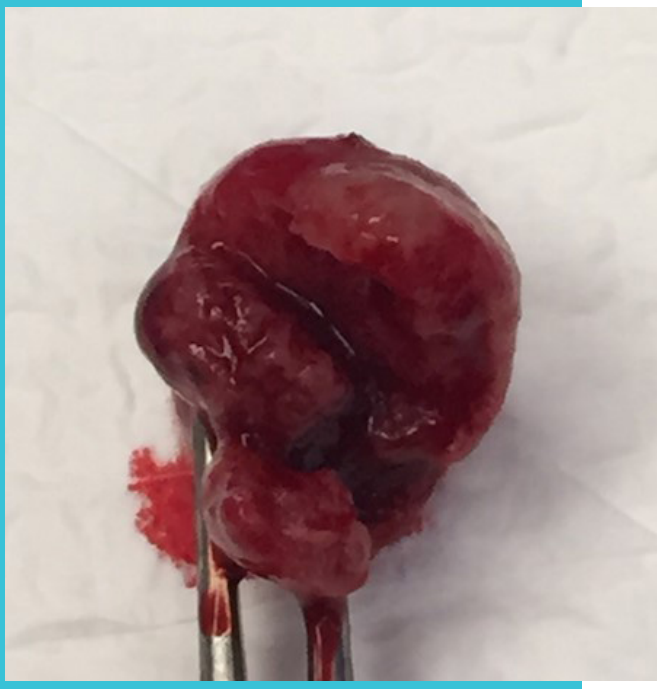
Mass underneath clitoral frenulum prior to excision

The mass was grasped with an Allis clamp, and the Bovie electrocautery was used to make an elliptical incision around the base of the mass (Figure 2). The clitoral mass was completely excised, and the specimen was sent to pathology (Figure 3). The base of the incision was then reapproximated using 0 Vicryl in figure-of-eight sutures. The skin was then reapproximated using 3-0 Vicryl in a running subcuticular stitch. The patient tolerated the procedure well and was transferred to the recovery room in stable condition. The final pathology on the mass was reported as a leiomyoma with underlying inflammation and foreign body giant cell reaction. On follow-up two weeks later, the patient denied pain and reported normal clitoral sensation and sexual function. The incision was well healed and normal anatomy had been restored (Figure 4).

Discussion

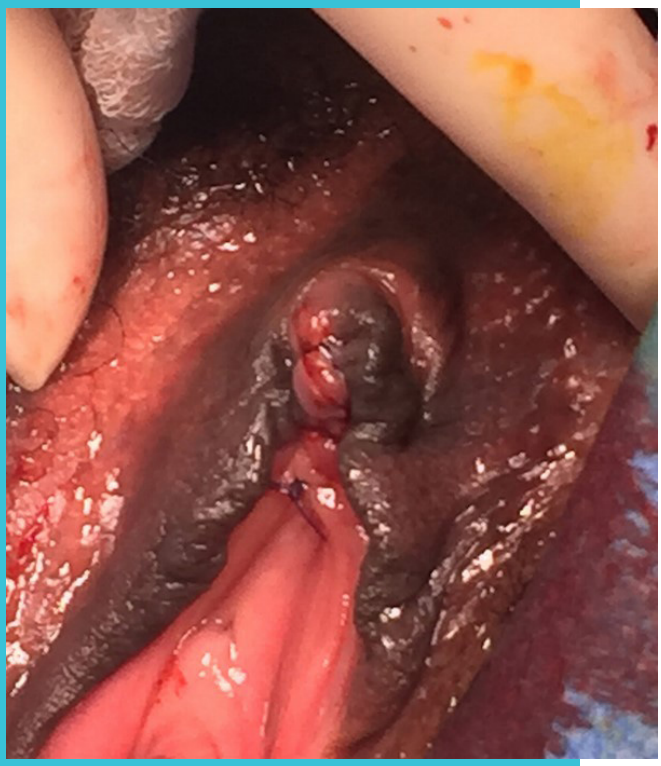
Clitoromegaly is defined by a clitoral length greater than 10 mm or by a clitoral index greater than 35 mm [2]. This increase in size is often the result of excess androgen production.

Figure 3.



Excised mass sent to pathology

Figure 4.



External appearance after excision

Structural causes of clitoromegaly include lymphoma, rhabdomyosarcoma, endodermal sinus tumor, genital neurofibromatosis, and distant metastatic disease [3]. Clitoral hemangiomas have also mimicked clitoral hypertrophy several times in the literature [3], and the preliminary pathology had initially reported the mass as a hemangioma. Prior to taking the patient to the OR for excision, an ultrasound was obtained to assess vascularity, which revealed a 2.3 x 1.4 x 2 cm well-defined heterogeneous solid nodule containing both arterial and venous flow. In this case, a leiomyoma was present abutting the clitoris, a very rare occurrence to date. Clitoral myomas have only been reported three times in the literature [3-5]. Our patient's presentation is unique in not only location but also the rapid growth of the benign tumor over a period of two months with no other associated symptoms.

Leiomyomas are thought to arise from a mutation in a single myometrial cell and are thus described as clonal [6]. While they may form wherever there is smooth muscle, they are usually found in the uterus. For a patient presenting with a clitoral mass, a leiomyoma is typically rare for the differential diagnosis. Excision of these masses is challenging in that preservation of clitoral sensation and future sexual function is of importance as well as relieving patient discomfort.

Acknowledgement
None

Declaration of Interest
None

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