

## Diagnostic dilemma: A rare clinical entity -Vulval Leiomyoma

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### Abstract

**Background:** Vulvar leiomyoma is a rare benign solid tumor of the vulva. It represents only 0.03% of all patients with gynecologic neoplasms.

**Case:** A 33 year old P5L4, presented to us with complaints of a mass arising in the genital region. On examination the mass was arising from the lateral half of the right labium majus 8 x10 x8 cm, enucleation was done and the histo-pathological report showed a well differentiated tumour of mesenchymal origin, consistent with the diagnosis of Cellular leiomyoma.

**Key words:** Bartholin cyst, Leiomyoma, Vulva.

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Date of Submission: 26-05-2020

Date of Acceptance: 13-06-2020

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### I. Introduction

Leiomyomas are benign mesenchymal tumors representing the most common uterine neoplasms. It is normally a benign smooth muscle tumor and behaves as a hormone sensitive tumor. Previous reports show multiple sites of leiomyoma outside the uterus eg. vagina, oral mucosa or mandible vascular leiomyoma.<sup>1</sup> Vulvar leiomyoma is a rare benign solid tumor of the vulva.<sup>2,3</sup> It represents only 0.03% of all patients with gynecologic neoplasms.<sup>3</sup> Most cases are asymptomatic and local excision is recommended as initial therapy and also for recurrences.<sup>2</sup> Leiomyoma at vulva and scrotum are much larger and better circumscribed.<sup>4</sup>

In the literature, only a few cases have been reported.<sup>2,3</sup> For this reason, we consider that this case is of interest and worthy of reporting.

### II. Case Presentation

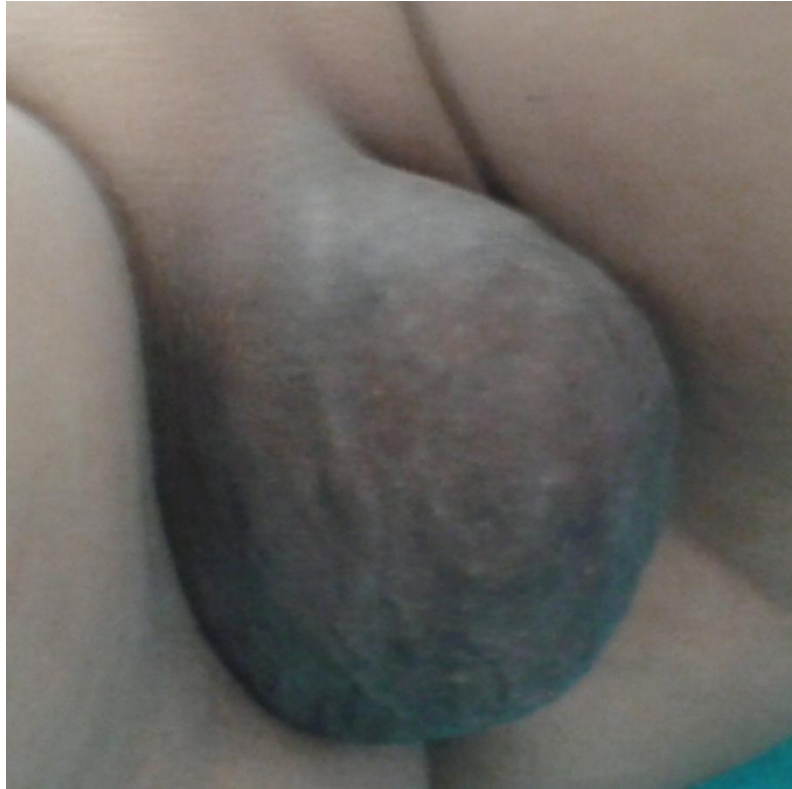
#### Clinical presentation

Mrs. Barfo Devi, a 33 year old P5L4, presented to us with complaints of a mass arising in the genital region interfering with her locomotion. The patient first noticed the mass three years ago. The mass initially, to start with, was the size of a pea-nut. It gradually increased in size and length over the past three years, with a history of surface ulceration few times due to local trauma. She complains of pain in the swelling on and off and while intercourse. Her previous 5 deliveries were normal deliveries with last child birth three months back and there was no practice of any form of contraception. There is no other significant past, personal or family history.

#### Examination finding

The patient was of average build and nourishment. General examination revealed no significant abnormality other than the presence of pallor. Breasts were normal and there was no swelling in the region of the thyroid gland. Per abdomen examination was normal.

On examination of the genitalia, there was a mass arising from the lateral half of the right labium majus 8 x10 x8 cm



**Figure 1:** Vulval swelling

The whole mass was hard and firm in consistency, non-tender, with no palpable expansile cough impulse. Lymph nodes were not palpable.

On the basis of the above findings, the patient was planned for enucleation of the mass under short GA. Pre-operative investigations revealed a Hb of 8.5 gm% and a normal bleeding and clotting time. Her RFT's, LFT's were within normal limits. She was sero-negative for HIV, HbsAg, VDRL. Transabdominal sonography showed a normal uterus and adnexa bilaterally. Two units of blood transfusion were given. Her consent was taken for surgery as well as for photography and for publishing of the case. The patient underwent an uncomplicated enucleation of the tumour with reconstruction of vulva. On gross examination it was 8 x7x6 cm mass yellowish in colour.

On cut section it was solid, yellow-tan, homogenous, there was whorled or slightly nodular pattern with few areas of degeneration.

The specimen was labeled and sent for histo-pathological examination. The histo-pathological report showed a well differentiated tumour of mesenchymal origin, consistent with the diagnosis of Cellular leiomyoma.

She was discharged on postoperative day 4, and no evidence of tumor recurrence or occurrence of symptoms occurred 3 months later.

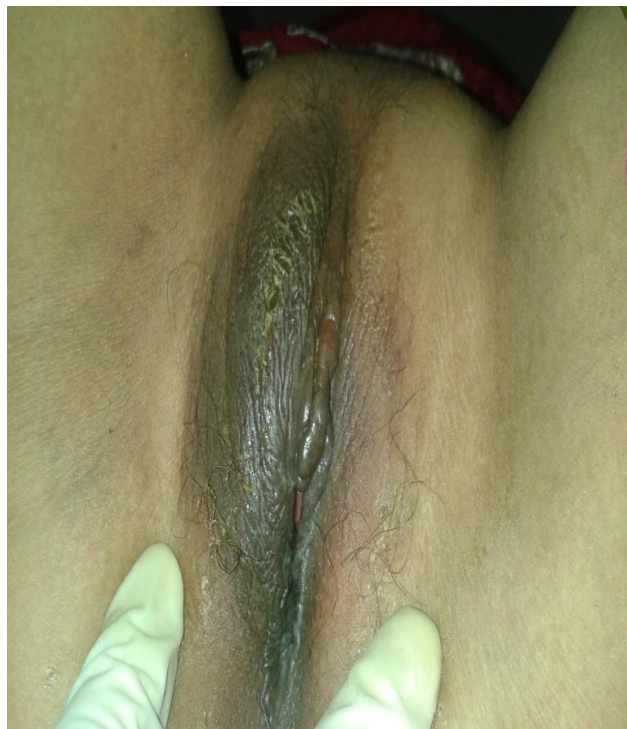


Figure: 2 follow up after three months

### III. Discussion

Rarely, extrauterine leiomyomas may be seen along the labia majora. Fewer than 120 cases of smooth muscle tumors of the vulva have been reported in the literature. The lesions may enlarge during pregnancy, and biopsy specimens frequently test positive for estrogen and progesterone receptors at histopathologic analysis. Among those affected by these tumors, the average age at presentation varies from 13 to 71 years. The average tumor size varies from 0.5 to 15 cm<sup>5</sup>. With regard to pathologic origin, the tumors are thought to arise from smooth muscle cells within erectile tissue or blood vessel walls, the round ligament, the dartos muscle.<sup>5,6</sup> Findings at preoperative MR imaging may be suggestive of the benign nature of these tumors. CT may not be of much use in delineating these tumors because of its inherent poor soft-tissue contrast. Percutaneous or surgical biopsy is required for a definitive diagnosis. The differential diagnosis includes benign and malignant entities such as Bartholin cysts, fibromas, lymphangiomas, soft-tissue sarcomas, and neurogenic tumors. Rarely, Epstein-Barr virus-induced smooth muscle tumors also manifest as vulvar masses in immunocompromised patients. Labial leiomyomas are treated with conservative surgery, after which close long-term follow-up is required.

### IV. Conclusion

This case emphasizes the importance of detailed history and meticulous examination. Bartholin's cyst or abscess is commonly seen in sexually active women. Smooth muscle tumors though rare but do occur in the vulva. Surgical excision is the treatment with a long term follow up is required.

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**Neha Mahajan, Harleen Kour , Pooja Sharma** "Diagnostic dilemma: A rare clinical entity - Vulval Leiomyoma." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, 19(6), 2020, pp. 35-37.