

# Vulvar Leiomyoma Mimicking a Bartholin's Gland Tumour

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DOI: <https://doi.org/10.52403/ijrr.202302112>

## ABSTRACT

Bartholin's cyst is frequently the cause of unilateral vulval enlargement in a woman of reproductive age. We discuss a noteworthy occurrence of vulvar leiomyoma that was initially misdiagnosed as a recurrent Bartholin's cyst in this article. Intraoperatively, it was observed that the 35-year-old lady who had been scheduled for marsupialization really had a tumour of vulvar or Bartholin's gland origin rather than a cyst. It was discovered to be rather hard in consistency and well encapsulated intraoperatively. The vulvar leiomyoma was proven to be the diagnosis by histopathology. Extrauterine leiomyomas are uncommon and more challenging to diagnose. Bartholin's cysts, fibromas, lymphangiomas, soft-tissue sarcomas, and neurogenic tumours are among the differential diagnoses. Following surgery, it is advised that all patients have long-term follow-up.

**Keywords:** Vulvovaginal leiomyoma, Vaginal wall mass, Benign tumor, Bartholin's gland, Vulvar mass, Misdiagnosis, Excision, Enucleation, Bartholin's cyst

## CASE REPORT

A 35 year old woman presented with a left-sided vulvar mass that increased in size compared to the previous year. There were no signs of infection such as fever or vaginal discharge, dyspareunia, irregular menstrual cycles, abnormal bleeding, or a history of malignancy in the family. The patient also reported no history

of painful micturition or sexually transmitted diseases. However, the patient was experiencing discomfort at the perineum, especially in sitting and walking.

## CLINICAL FINDINGS

Local examination revealed a solitary swelling measuring 5 × 5 cm occupying the entire left labia minora at the site of the Bartholin gland in a characteristic S shape, involving the left lateral vaginal wall also. The mass was soft in consistency, partially movable, non-tender with no inguinal lymphadenopathy. The case was initially diagnosed as a Bartholin's cyst, but due to the long-standing course of the lesion, tumour of the Bartholin's gland was also considered.

## SURGICAL INTERVENTION

Under spinal anesthesia, the mass was inspected. It was found that the left labia minora was occupied by a tumour of size 6 X 6 cm (figure 1) extending into the left lateral wall. A 1 cm incision was made at the mucocutaneous junction and a firm encapsulated mass was successfully enucleated after dissection along its capsular plane. Base was obliterated with interrupted sutures and overlying skin incision was closed.



Figure 1: the firm mass being enucleated from its capsule

### HISTOPATHOLOGY REPORT

A macroscopic examination of the removed tissue showed a grey white nodular mass measuring  $5.5 \times 4 \times 3$ cm (figure 2). Microscopically, showed a circumscribed neoplasm composed of interlacing fascicles of smooth muscle bundles with cigar shaped nuclei, suggesting vaginal leiomyoma. The tumor was diagnosed as vulvar leiomyoma based on histologic features.



Figure 2: whitish grey well circumscribed mass with whorled appearance

### DISCUSSION

A benign tumour with smooth muscle origin is called a leiomyoma. Leiomyoma is frequent in the uterus but rare in the vulva, ovaries, urethra, and urinary bladder [1]. The incidence of vulvar leiomyoma is exceptionally rare at 0.07% among the extrauterine locations. Vulvar leiomyoma is commonly misdiagnosed, and the most prevalent preoperative diagnosis was Bartholin's gland cyst [2]. This is

because both vulvar leiomyoma and Bartholin's cyst have some of the same presenting symptoms, such as a painless lump and swelling of the region. Bartholin's cyst was clinically identified in the current case as well. Bartholin's cyst and vulvar leiomyoma may be distinguished from one another using the orientation of the labia minora and the consistency of the cyst. While an inverted labia minora and a firm cyst consistency point to vulvar leiomyoma, an everted labia minora and a soft cyst consistency point to Bartholin's cyst [3].

Transperineal ultrasonography aids in making the diagnosis of vulvar leiomyoma, whereas MRI aids in distinguishing between benign and malignant forms in situations when it is uncertain [4]. Vulvar leiomyoma shouldn't be considered safe until a histological analysis has been completed. Out of the 25 vulvar leiomyomas reported by Nielsen et al., four and five were discovered to be atypical or sarcomas, respectively. In one instance, the leiomyosarcoma of the vulva resulted in death. For comprehensive histological and immunological analysis, it is advised to surgically remove any vulvar mass [5]. To assess preoperative soft tissue invasion and to distinguish between a Bartholin's gland cyst and a leiomyoma, this should be done after the appropriate ultrasonographic test stated above or even magnetic resonance imaging. Additionally, the patient should receive preoperative counselling on the possibility of recurrence [6].

### CONCLUSION

Leiomyoma of the vulva can occasionally be confused with a Bartholin's cyst.

Following an unusual clinical presentation, the tumour should be surgically removed with a safety margin of healthy tissue for histology and immunohistochemistry. Ultrasonography and/or magnetic resonance imaging should also be performed to rule out vulvar or vaginal cancer.

**Declaration by Authors**

**Acknowledgement:** None

**Source of Funding:** None

**Conflict of Interest:** The authors declare that there is no conflict of interests regarding the publication of this paper.

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How to cite this article: Anju Joseph, Minnu Dev, Usha Christopher. Vulvar leiomyoma mimicking a Bartholin's gland tumour. *International Journal of Research and Review*. 2023; 10(2): 947-949.  
DOI: <https://doi.org/10.52403/ijrr.202302112>

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