

DOI: <https://dx.doi.org/10.18203/2320-1770.ijrcog20234095>

Case Report

## A vulval leiomyoma: a rare camouflaging tumor

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**Received:** 04 August 2023

**Accepted:** 02 December 2023

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### ABSTRACT

Uterine leiomyomas are a benign tumor of human uterus and common problem in gynecology. Despite this, leiomyomas of the vulva are rare, masquerading, and usually misdiagnosed as Bartholin cyst preoperatively. These benign smooth muscle tumors are typically painless, solitary, and well circumscribed and can affect female of any age group. We hereby present a case of a 39-year-old female that presented in OPD at ESIC model hospital, Bapunagar, Ahmedabad with left labial mass and was misdiagnosed as Bartholin cyst initially and later on histopathology final diagnosis of vulvar leiomyoma was made.

**Keywords:** Leiomyoma, Bartholin cyst, Vulva

### INTRODUCTION

A wide spectrum of benign, premalignant, and malignant tumors can occur in the vulva region. These smooth muscle tumors are greatest diagnostic challenge and are usually misdiagnosed as Bartholin cyst preoperatively. Only around 160 cases have been reported in the literature so far.<sup>1-3</sup>

Vulvar leiomyomas are typically painless, solitary, and well circumscribed.<sup>4</sup> They mostly affect female of age group between 30 and 60 years of age.<sup>4</sup>

Typical vulvar leiomyomas demonstrate spindle shaped cells, but other histological types such as epithelioid tumors are also reported.<sup>5</sup>

### CASE REPORT

A 39-year-old female, P3 L3, presented in OPD with complaint of swelling over left labia in the last 9 months. The mass slowly progressed over the period of time from 1×2 cm to current size. It was associated with mild local pain. Patient gave no history of fever, discharge, recent sexual experience or trauma or similar complaints in the past.

On general examination, a soft, mobile mass over left labia nearly 5×3 cm in size was noted. The mass was diagnosed as Bartholin's cyst. Patient was counselled for management options and opted for surgical intervention. Patient was admitted for elective Bartholin cyst excision under short general anesthesia.

The incision was made at the mucocutaneous junction of about 4cm in length. The mass was enucleated very easily as compared to the Bartholin cyst, which raised the suspicion of something other than Bartholin cyst. A soft, well circumscribed mass of around 4×3 cm was enucleated and sent for histopathological examination.

The dead space was obliterated and skin approximated. Postoperative was uneventful and patient was discharged on 3<sup>rd</sup> postoperative day.

On histopathological examination, gross specimen showed 4×3×2 cm of grey white soft tissue. Microscopic examination of the section showed whirling and interlacing bundle of smooth muscle fibers intervened by connective tissue. Nuclei were spindly ovoid. No nuclear atypia or mitosis was seen.

The final diagnosis was benign vulval leiomyoma.



**Figure 1: Cut section of (a) vulvar leiomyoma and (b) under microscope.**

## DISCUSSION

Leiomyomas are benign tumors that arise from smooth muscle cells in possibly any anatomical site within the body of which vulvar leiomyoma is a rare type.<sup>6</sup>

Commonly vulvar leiomyoma is mistaken as Bartholin's cyst, as both share similar presenting symptoms such as vulvar lump, redness, and swelling of the area. The features that support the diagnosis of Bartholin's cyst are everted labia minora and cystic consistency of the swelling, position of the mass at the site of Bartholin gland; however, finding inverted labia minora and firm consistency of the swelling support the diagnosis of vulvar leiomyoma.<sup>7</sup>

Histologically, the vulvar myoma is generally well-circumscribed and composed of spindle cells with some myxoid stroma. Cytologic atypia is infrequent, and all tumors are positive for muscle markers. Most are also positive for ER and PR.<sup>8</sup> Thus, treatment with receptor modulators in adjuvant to surgery may be beneficial.

Imaging can also help in differentiating between Bartholin's cyst and a leiomyoma. Trans perineal ultrasonography can be helpful in the diagnosis of vulvar

myoma. Magnetic resonance imaging (MRI) is the most suitable technique for determining whether the tumor is benign or malignant. T2-weighted images of a myoma reveal the low signal intensity, whereas iso-intensity is revealed in T1-weighted images. The tumors are generally enhanced homogeneously with contrast.<sup>9</sup> However, we did not perform an ultrasound or MRI in our case owing to Bartholin's cyst being the first impression. If a diagnosis other than Bartholin's cyst was made, ultrasonography and MRI might have been useful during the differential diagnosis.

Regarding the treatment of vulvar myoma, the mainstay therapy is surgical excision. Long-term follow up is suggested owing to the possibility of recurrence and malignancy.

## CONCLUSION

Vulvar leiomyoma being a rare tumor is forgotten in differential diagnosis of Bartholin's cyst. Though there are few clinical features differentiating them but histopathological examination is the mainstay for the diagnosis. The current best treatment is Surgical excision of the mass. Continuing follow-up after treatment is highly recommended.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: Not required*

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**Cite this article as:** Mehta S, Jain S, Borole S, Gupta S. A vulval leiomyoma: a rare camouflaging tumor. *Int J Reprod Contracept Obstet Gynecol* 2024;13:160-2.