ORIGINAL RESEARCH PAPER
Volume - 14 | Issue - 08 | August - 2025 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

VULVAL FIBROADENOMA: A CASE SERIES OF ECTOPIC MAMMARY-LIKE LESIONS IN THE ANOGENITAL REGION

Histopathology

Dr. Qurrat Ul Aein Khoja* Assistant Professor, NIMS University, Jaipur. *Corresponding Author

Dr. Pranshu Mehtani Resident, NIMS University, Jaipur.

ABSTRACT

Background: Fibroadenoma is a common benign breast neoplasm rarely found outside the mammary gland. Vulval fibroadenomas represent exceedingly rare ectopic mammary-like lesions of the anogenital region. **Objective:** To report three cases of vulval fibroadenoma and discuss their features. **Methods:** We retrospectively reviewed three cases of vulval fibroadenoma diagnosed in our pathology department between 2022 and 2025. Detailed clinical and histologic evaluations were performed. **Results:** Patients ranged from 22 to 45 years. All presented with painless, slow-growing vulval masses. Histopathology showed classic biphasic fibroadenoma morphology with one showing features of Juvenile fibroadenoma. **Conclusion:** Vulval fibroadenoma, though rare, should be recognized as part of the spectrum of anogenital mammary-like gland lesions. Accurate diagnosis requires awareness of this entity to distinguish it from more sinister vulval masses.

KEYWORDS

vulval fibroadenoma, ER, PR, anogenital, female genital pathology.

INTRODUCTION

Fibroadenoma is a well-characterized benign breast tumor typically arising in young women. However, rare occurrences in the vulval region challenge the diagnostic acumen of pathologists. The anogenital region harbors mammary-like glands, first described by van der Putte, which can give rise to benign and malignant tumors histologically indistinguishable from their mammary counterparts. Herein, we present a series of three cases of vulval fibroadenoma and highlight the histopathological, and differential diagnostic considerations.

Case Presentations

Case 1

A 24-year-old nulliparous woman presented with a painless left labial mass of two years duration. On examination, a mobile, firm, non-tender 3 cm mass was noted in the left labia majora. Surgical excision was performed. Grossly, the lesion was well-circumscribed and fibrous. Microscopy revealed a biphasic lesion comprising epithelial and stromal components. Peri canalicular and intracanalicular patterns were observed. Immunostaining was positive for ER and PR.

Case 2

A 45-year-old multiparous woman presented with a slowly enlarging vulval mass noted during routine gynecological screening. The lesion measured 2.5 cm and was located adjacent to the clitoral hood. Histologically, features mirrored classic fibroadenoma with mature ducts and compressed stroma. No atypia or mitotic activity was seen. Immunohistochemistry confirmed the lesion's mammary phenotype.

Case 3

A 22-year-old student reported a labial nodule of one year, gradually increasing in size. The mass was excised and revealed histological features of a juvenile fibroadenoma variant with prominent epithelial proliferation but no evidence of malignancy. Ki-67 index was low (<5%). ER/PR positivity confirmed hormonal responsiveness.

DISCUSSION

The presence of mammary-like glands in the vulva underscores the complexity of embryologic development in this region. Unlike true ectopic breast tissue along the milk line, anogenital mammary-like glands are now recognized as a normal constituent of vulval histology. These glands are capable of undergoing the same physiological and pathological processes as mammary tissue, including benign and malignant transformations.[1]

Vulval fibroadenomas are histologically identical to their breast counterparts, characterized by a well-circumscribed, biphasic pattern of epithelial and stromal proliferation. The stroma is typically fibroblastic, and the epithelial component consists of benign ducts lined by inner epithelial and outer myoepithelial cells. In our cases, the immunohistochemical positivity for estrogen and progesterone receptors supports hormonal responsiveness and further links these lesions to mammary-type pathology.[2]

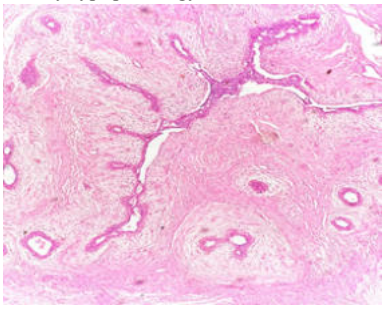

Figure 1: Fibroadenoma with intra and peri-canalicular pattern.

Differential diagnosis of vulval fibroadenoma includes other benign adnexal tumors such as hidradenoma papilliferum, which usually presents as a cystic lesion with papillary architecture and apocrine differentiation. Phyllodes-like tumors of the vulva, though exceedingly rare, may exhibit increased stromal cellularity and atypia, necessitating careful histologic evaluation. Bartholin gland adenomas, though glandular in nature, are anatomically and histologically distinct and typically do not express ER/PR.[3]

From a clinical standpoint, the slow-growing, painless nature of these lesions often delays diagnosis, with many being discovered incidentally or during routine gynecologic examination. Complete surgical excision with clear margins remains the treatment of choice, with excellent prognosis and negligible recurrence risk. Given the rarity of these tumors, histopathological confirmation is essential to avoid overtreatment or misdiagnosis, particularly in settings where more aggressive neoplasms may be considered.

In summary, vulval fibroadenoma is a rare, benign neoplasm arising from anogenital mammary-like glands. Awareness and understanding of its histologic and immunophenotypic profile are crucial for accurate diagnosis and appropriate clinical management.

CONCLUSION

Vulval fibroadenoma, while rare, is a benign tumor arising from mammary-like glands in the anogenital region. Familiarity with this entity among pathologists and clinicians is essential to avoid misdiagnosis. Surgical excision is curative, and recurrence is rare.

REFERENCES

1. Van der Putte SCJ. Anogenital mammary-like glands: normal anatomy, pathology, and differential diagnosis. Histopathology. 1994;24(3):295–303.
2. Kazakov DV, Spagnolo DV, Kacerovska D, et al. Lesions of anogenital mammary-like glands: an update. Adv Anat Pathol. 2011;18(1):1–28.
3. Hoda RS, et al. Vulvar fibroadenoma: a case report and review of literature. Diagn Cytopathol. 2008;36(6):420–423.