Large vulvar mass in young adult female

Marguerite O’Quinn

CASE REPORT

A 24-year-old African-American woman with no significant medical history presented with an enlarging mass on her right labium for two years. It had grown more rapidly in the past few months and occasionally bled. A gelatinous 5.5 × 6.5 cm polyp with surface ulceration on a 4 cm stalk was on the right labium majus (Figure 1).

The patient was scheduled for surgical removal. Two clamps could be placed on the stalk before removing the lesion and using interrupted hemostatic sutures. Pathology report demonstrated a fibroepithelial stromal polyp (FSP) with surface ulceration and reactive atypia including koilocytic type changes (Figure 2). Human papillomavirus (HPV) testing on follow-up pap smear was negative. Fibroepithelial stromal polyphor “pseudosarcoma botryoides” were associated with elevated hormone levels and chronic inflammation. Due to the large size of this presentation, histologic evaluation was required to rule out angiomyxomas or other malignant conditions. There has been no recurrence to date.

DISCUSSION

Mesenchymal tumors of the vulva are rare and can present with similar features. Aggressive angiomyxoma (AA), angiomyofibroblastoma (AMF), cellular angiofibroma, superficial cervicovaginal myofibroblastoma, vulval fibroma, and FSP should all be considered in the presentation of a vulvar or vaginal mass. Differentiating between these diagnoses is essential as they vary widely in their prognosis. Histological staining and immunoreactivity become integral for diagnosing vulvovaginal masses.

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Figure 1: Gelatinous 5.5 × 6.5 cm polyp with surface ulceration on a 4 cm stalk is on the right labium majus before removal.

Figure 2: Hematoxylin and eosin stain of surface ulceration demonstrates cellular atypia with koilocytic change. Fibroepithelial stromal polyps may be hypocellular or hypercellular, but both are present on edematous stroma with thin-walled vessels.
Very little has been published on the epidemiology of FSP. While the incidence is still uncertain, FSPs are quite rare; only about 60 vulvar cases have been reported. FSP is most common in reproductive aged women, indicating a hormonal influence [1]. In one review of 61 cases, 23% occurred during pregnancy [2]. Rexhepi and associates propagated an association of FSP and obesity [3]. Recurrence, while rare, has been documented in women who are started on hormonal contraceptives. Hormonal drivers of proliferation are further supported as stromal cells within FSP which are often estrogen (ER) and progesterone receptor (PR) positive [4]. Otherwise, cases have been reported in patients with chronic inflammatory diseases, such as Crohn’s [1, 5], psoriasis [6], and congenital lymphedema [1]. Most patients with FSP have a negative or benign medical history [7].

It is essential to confirm the diagnosis of FSPs by biopsy and histologic analysis, especially as most of them rarely grow larger than 3 cm. They may be singular or polyploid and generally grow over a few years. Recurrence is very rare and is associated with incomplete excision and chronic inflammatory processes [8]. Swift diagnosis and removal of FSP can prevent inordinate growth and patient anxiety or social isolation.

Histologically, FSPs may be hyper or hypocellular with or without cellular atypia. Few of them are associated with HPV infection. Generally, the appearance is of a focally edematous fibrous stroma with or without mast cells, multinucleated giant cells, and spindle cells. Inflammatory cells are often involved and may promote the formation of giant cells [1, 6, 7]. Vessels are thin walled, differentiating from AA. Additionally, a distinct feature is that the lesion extends up to the dermal-epidermal junction without an uninvolved grenz zone, unlike angiomysfibroblastoma, cellular angiofibroma, and superficial cervicovaginal myofibroblastoma [4]. The immunoreactivity can be variable. ER and PR positivity may be seen. Conflicting reports have been reported on the positivity of desmin, cytokeratin, and S100 [5, 9–11].

CONCLUSION

Differentiating giant FSP from other lesions is critical for patient mental wellbeing. Many other differential diagnoses have poor prognoses, but FSPs rarely recur after surgical removal. Histologic analysis displays a bland myxoid stroma with or without atypical and infectious cells.

Keywords: Benign neoplasm, Fibroepithelial polyp, Labial mass, Pedunculated polyp

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