

Fibroepithelial stromal polyp of vagina in pregnancy - A mimicker

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ABSTRACT

A rare mesenchymal neoplasm of the lower female genital tract, fibroepithelial stromal tumor, may be confused with other more aggressive lesions. The appearance in pregnancy may further complicate a normal vaginal delivery and lead to confusion with a more unfavorable diagnosis. Even on histological examination, it is pertinent to rule out other stromal tumors of the region. To avoid overdiagnosis, the pathologist must be aware of the specific histomorphology. We report a case of fibroepithelial stromal polyp in a 32-year-old pregnant woman as an incidental finding during a routine antenatal check-up.

Key words: Fibroepithelial stromal polyp, Lower genital tract lesions, Mesenchymal tumors

Fibroepithelial stromal polyp, also known as cellular pseudosarcomatous fibroepithelial stromal polyp, is a relatively rare condition seen in the lower female genital tract. It is a benign polypoidal mesenchymal neoplasm occurring in the vagina, vulva, and even the cervix. It has also been reported in rare sites such as breast and labia [1,2]. The other stromal tumors in this region include superficial (cervicovaginal) myofibroblastoma, cellular angiofibroma, mammary type myofibroblastoma, angiofibroma, superficial angiofibroma, and aggressive angiofibroma. The similar histomorphology, immunohistochemistry, and rarity may cause these to be a diagnostic challenge to the pathologist [3,4].

CASE REPORT

A 32-year-old full-term primigravida presented to our hospital for safe institutional delivery. There was no relevant past history and the period of gestation was uneventful though no records were available.

On examination, she was full term with no pain, leaking, or bleeding PV with a fetal heart rate of 130/min. She was well-nourished with a pulse of 90/min and blood pressure of 120/90 mm Hg. On per vaginal examination, a cystic soft mass, of about 3 × 3 cm was felt in the posterior fornix. It was clinically diagnosed to be an inclusion cyst. The patient was induced for normal vaginal delivery. Artificial rupture of membranes was tried under all aseptic precautions. However, due to blood-stained

meconium and suspicion of abruption of placenta, an emergency lower segment cesarean section was done and a healthy male baby with an APGAR score of 9 was delivered. Subsequently, the excision of the vaginal cyst was undertaken.

We received a single, well-defined, pedunculated, and globular soft-tissue mass measuring 4 × 2 × 1 cm with a gray white external surface. The cut surface was solid, homogeneous, and gray tan with few hemorrhagic areas in the peduncle (Fig. 1).

On histopathological examination, sections studied showed overlying stratified squamous epithelium with sub epithelium showing loose fibrovascular core. The stroma showed spindle-shaped cells as well as stellate cells with bland nuclei. Few bizarre multinucleated cells were noted. There were areas of congested blood vessels and diffuse chronic inflammatory cell infiltrate. Some of the stromal cells showed atypical features. No evidence of mitotic activity was noted (Fig. 2a and b).

On immunohistochemical studies, variable positivity for estrogen receptor, progesterone receptor, and desmin was seen (Fig. 3). An opinion of fibroepithelial stromal tumor was offered.

DISCUSSION

The fibroepithelial stromal tumor usually presents in the reproductive age group. Clinically, these neoplasms may show varied presentations ranging from asymptomatic to pressure sensation, dyspareunia, obstruction, vaginal prolapse, abdominal pain, and bloody discharge [5].

The exact etiology of the lesion is not established. It is proposed that the lesion may be due to granulation tissue reaction

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Figure 1: Gross appearance of the polyp typically described as “mushroom shaped”

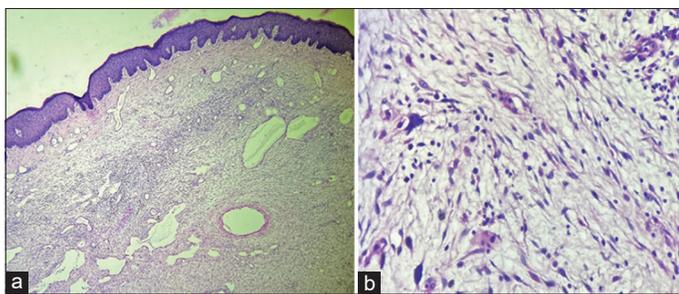


Figure 2: Histopathological examination showing (a) overlying normal squamous epithelium with underlying stromal cells and vascular channels. Cellularity is more toward the center of the lesion (H&E, ×10); (b) cellular areas with spindle and stellate cells. Few bizarre cells are also noted (H&E, ×40)

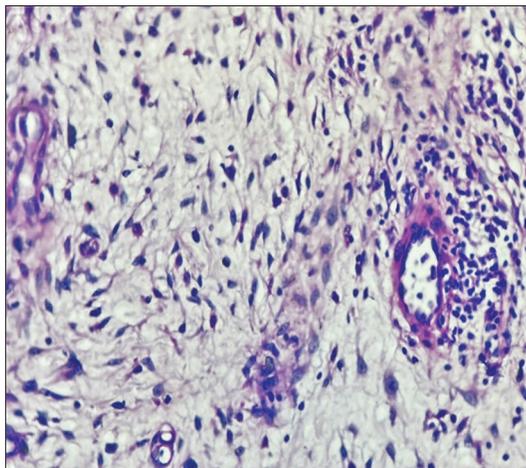


Figure 3: Spindle and stellate cells with perivascular inflammatory infiltrate (H&E, ×40)

after local injury to the vagina. This may be caused as a result of myofibroblastic differentiation which impedes the contraction of the granulation tissue and instead leads to polyp formation [5,6]. The hormone dependence of these lesions is established and may be the cause of occurrence during pregnancy, as is seen in our case. The lesion may become larger, edematous, and abnormal in appearance during pregnancy [3,7]. Moreover, fibroepithelial

stromal polyps are known to occur more often with hormone replacement therapy or treatment with tamoxifen. These lesions are known to regress after delivery. Hartmann *et al.* reported that the stromal cells in FESP expressed vimentin, desmin, estrogen receptors, and progesterone receptors [8].

The distinct appearance of this lesion on histopathology consists of a near-normal or hyperplastic overlying squamous epithelium, a cellular stroma with polypoid proliferation, and central fibrovascular core. The stromal cells may be spindle to stellate shaped with occasional multinucleated stromal cells typically located at the stromal epithelial junction. These cells usually have a bland appearance but may show bizarre forms which lead to confusion. This entity though rare must be kept in the differential diagnosis of mesenchymal tumors in the cervicovaginal and inguinoscrotal regions. The histomorphological distinction from more malignant mimickers is essential.

Although it is a benign tumor, the bizarre histology may make the distinction from more aggressive lesions such as sarcoma botryoides, rhabdomyosarcoma, and mixed mesodermal tumor rather difficult. Some lesions may be large with myxoid stroma mimicking aggressive angiomyxoma [9]. Therefore, the understanding of histomorphology and distinction from other lesions with distinct biology is of utmost importance. The bizarre-looking cells, stellate cells, and mitosis seen in this lesion lead to confusion with a more ominous diagnosis. In children, the distinction from rhabdomyosarcoma is paramount. The fibroepithelial stromal polyp of the vagina is treated with simple local excision, and its recurrence is uncommon in patients [10,11].

CONCLUSION

The fibroepithelial stromal polyp of the vagina is a rare and usually asymptomatic soft-tissue neoplasm of the vulvovaginal area. They probably arise from the subepithelial mesenchymal cells in the region. They are known to be hormone dependent and hence their occurrence during pregnancy. These lesions may mimic more aggressive and malignant neoplasms in the area and must be distinguished from them to avoid overtreatment. The confirmation of the diagnosis is by histopathological examination and the pathologist must be aware of the lesion and its varied appearance.

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