

Pseudosarcomatous Fibro Epithelial Stromal Polyp Mimicking Carcinoma Cervix – A Clinical Dilemma

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Abstract: Pseudosarcomatous fibroepithelial stromal polyps are benign lesions exhibiting clinical dilemma with malignancy. The histological spectrum varies from hypo cellular to hyper cellular which can further add to diagnostic dilemma that is why they continue to be under recognized and are often mis interpreted as malignancy. Awareness of the spectrum of histological feature that these lesions exhibit is crucial in their accurate diagnosis thus avoiding unnecessary overtreatment. Immuno histo chemistry is greatly helpful to confirm the diagnosis as these lesions are Estrogen receptor, Progesterone receptor and Desmin positive. Due to the clinical, histological diagnostic problems and rarity of the lesion, we hereby report a case of Pseudosarcomatous fibroepithelial stromal polyp mimicking Carcinoma cervix.

Keywords: Pseudosarcomatous fibroepithelial stromal polyps, Carcinoma cervix, Immuno histo chemistry, Estrogen receptor, Progesterone receptor and Desmin.

INTRODUCTION

Pseudosarcomatous lesions are rapidly growing tender soft tissue lesions and tumours misinterpreted as sarcoma. These lesions are potential pitfalls to both the clinicians and pathologist due to their presentation, resemblance to malignant lesions and their rarity [1]. It can occur in any age group from infants to elderly with median age of 32 years, range being 16-75 years, often in pregnant and post-operative patients, it may recur locally but no metastasis have been reported [2]. These lesions have in common cells that exhibit different levels of myo fibroblastic differentiation either from morphology, immuno histo chemistry, or ultra structure. These are unusual benign lesions of vagina and uncommonly found in the vulva, endometrium, cervix, nose, oral cavity, gastrointestinal tract and genitourinary tract. They are recognized as benign lesions when they are hypo cellular and the lesional cells are bland. There is also a subset of these designated as cellular Pseudosarcomatous fibroepithelial sarcomata's polyps which exhibit bizarre, worrisome cytomorphological features that are different from the usual forms [3]. Due to the rarity of

this lesion we report a case of cervico-vaginal polyp that mimicks carcinoma cervix.

CASE REPORT

A 52 year old P3+0 L2 postmenopausal women presented to gynaecology OPD with complaint of something coming out of vagina for 1 year. On examination her vitals were stable, systemic examination was within normal limits and on per abdomen examination no abnormality was detected. On local examination a foul smelling cauliflower like growth of approximately 5 x 4 cm was seen coming out of introitus (Fig.1) which was tender on touch. As the mass was very tender, examination was planned under general anaesthesia. Routine investigations were within normal limits and ultrasound pelvis shows normal uterine size, shape and echogenicity with endometrial thickness of 2.5 cm. Under GA, the growth was seen on posterior lip of cervix extending laterally and involving the posterior fornix (Fig.2). On per vaginum examination uterus was normal in size, anteverted with fullness in bilateral fornices. On per rectal examination right parametrium was involved.



Fig-1: Cauliflower growth seen coming out of introitus.



Fig-2: Growth arising from posterior lip of cervix and involving the posterior fornix.

Gross: Large polypoidal mass of 6 x 5.5 x 3.5cm, outer surface ulcerated. Cut section shows predominantly solid, grey white tumour with myxoid area. **Microscopic:** Multiple section examined, show proliferating spindle cells arranged haphazardly and also in form of fascicles. There are hypo cellular areas showing myxoid change and hyper cellular area showing nuclear atypia with mitosis >5/10 HPF. Occasional scattered giant cells and Meta plastic bone also seen. There is no mucosal sub mucosal interface, no identifiable lesional margin, and no area of necrosis. Biopsy showed acanthotic stratified squamous epithelium with minimal dysplasia, haemorrhage present & inflammation also seen. Immunohistochemistry revealed Desmin positive lesion.

DISCUSSION

Current studies indicate that pseudosarcomatous cellular Fibro epithelial stromal polyp (FSP) in the lower female genital tract includes lesions previously reported as pseudo sarcoma botryoides as well as fibroepithelial polyps with

atypical stromal cells. These polyps characteristically have atypical stromal cells with or without mitoses or atypical mitoses. These on immuno histo chemistry are ER (estrogens receptor), PR (progesterone positive), and DESMIN positive. Similar to Pseudosarcomatous cellular FSP in the lower female genital tract, such polyps have recently been reported in the renal pelvis and cutaneous lesions [4].

Although the pathogenesis of FSP is not well understood, it likely represents a reactive hyperplastic process involving the sub epithelial stroma rather than a true neoplasm. This assertion is based on the fact that these lesions have no clearly defined margins. Another hypothesis is based on the finding that the stromal cells of FSPs can express ER and the PR, suggesting that hormonal influences could play a role in the pathogenesis of this lesion.

Moreover, cellular pseudosarcomatous FSPs should be distinguished from sarcomas, including leiomyosarcoma, rhabdomyosarcoma, low-grade endometrial stromal sarcoma (ESS), and malignant

fibrous histiocytoma. Cellular FSPs can occasionally exhibit a fascicular architecture, which, in combination with an increased mitotic rate, atypical cells, and / or atypical mitoses, can be suggestive of leiomyosarcoma. Nevertheless, leiomyosarcomas do not display a clear boundary between the lesional cells and the overlying epithelium, and a polypoid or pedunculated appearance. In addition, the neoplastic cells of leiomyosarcomas tend to exhibit features of smooth muscle differentiation with elongated nuclei in a characteristic "box-car" or "cigar" shape, as well as abundant eosinophilic cytoplasm. Meanwhile, the stromal cells of cellular FSPs are commonly Desmin positive and, occasionally, actin positive; therefore, the immunophenotype must be interpreted in light of the morphological features on haematoxylin and eosin staining. Moreover, FSPs occasionally show a grape-like or botryoid appearance, mimicking botryoid rhabdomyosarcoma. However, the latter occurs in young children, grows rapidly with greater mitotic activities, and shows skeletal muscle differentiation both histologically and immunohistochemically.

Furthermore, aggressive angiomyxoma and angiomyofibroblastoma (AMF) are also included as differential diagnoses. Aggressive angiomyxoma is a nonpolypoid lesion that is subcutaneous and typically sizeable by the time it is recognized. In addition, it tends to have myoid bundles that cuff the vascular component, which is not observed in cellular FSP. AMF has peculiar histomorphological features, including superficial sub epithelial location; good margination; multi-patterned growth of uniform, spindled, and stellate-shaped cells; blood vessels of variable sizes; as well as highly collagenous and focally myxoid stroma. The stromal cells of AMF characteristically cluster around the vasculature-a feature that is not prominent in cellular FSP [5].

CONCLUSION

Pseudosarcomatous FSP is an under-recognized lesion often lead to overdiagnosis as a sarcoma. Clinical history, especially the age or lack of mobility as well as lesion's size and site, histopathology & immunochemistry play a very important role in diagnosis. The aim of knowing pseudosarcomatous fibroepithelial polyp is to increase awareness about this benign lesion which will be essential for avoiding unnecessary radical surgery or chemoradiation as to avoid more morbidity in patient's life.

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