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Unveiling the Giant: Understanding Large Vulvar Fibroepithelial Polyps: A Case Report with Review of Literature

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Abstract

Fibroepithelial stromal polyps (FEPs), commonly known as acrochordons, are benign lesions of mesenchymal origin, typically found in the vulvovaginal area. Their growth is believed to be hormone-sensitive, often stimulated by hormonal changes, pregnancy, or prolonged hormone use, and they mostly occur in women of reproductive age. We present a case involving a 47-year-old woman with a large, painless, pedunculated mass on the right labia majora that progressively grew over a year. The patient had difficulty walking and refrained from intercourse due to the mass. Despite a previous hysterectomy, a pelvic ultrasound revealed no significant changes. Physical examination showed a soft, non-tender, hyperpigmented mass without signs of inflammation or ulceration. A dermatologist diagnosed it as a fibroepithelial polyp, confirmed by histopathological examination after excision. Differential diagnoses include aggressive angiomyxoma, angiomyofibroblastoma, sarcoma, and other conditions, clinical and histopathologic features can differentiate. Complete surgical excision is the preferred treatment to prevent recurrence, with cryotherapy or cauterization as alternatives for smaller polyps. Long-term follow-up is essential to monitor for recurrence.

Keywords: Benign skin tumors; Desmin biomarker; Hormonal changes; Stellate cells; Surgical excision.

Introduction

Acrochordons, another name for fibroepithelial stromal polyps (FEPs), are benign skin tumors or lesions of mesenchymal origin. These site-specific polyps are most frequently seen in the vulvovaginal area. There are varying views about the mechanisms underlying the growth and size of fibroepithelial polyps. It has been suggested that the vaginal tract's FEP epithelium is hormone-sensitive and that growing FEPs can be induced by prolonged hormone consumption, pregnancy, or other hormonal changes.[1,2] The fact that FEPs frequently affect women of reproductive age provides more evidence for the potential function of hormone stimulation as a trigger for FEPs in the vulvovaginal area.

Case report

A 47-year-old married housewife presented to dermatology outpatient with a large, painless pedunculated mass on the right labia majora. Patient noted the pea-sized mass 1 year back, which gradually increased in size. Patient had difficulty in walking and frequently avoided intercourse due to the presence of mass. Patient underwent a hysterectomy 3 years back due to dysfunctional uterine bleeding. Transabdominal USG of the pelvis revealed no remarkable changes. On examination, the mass was soft, non-tender, non-pulsatile, had no impulse on coughing, and on the Valsalva maneuver, no increase in size was noted. On cutaneous examination, the mass was hyperpigmented with no inflammation or ulceration, measuring approximately 7x4x2 cm (Figures 1 and 2). Biopsy and diagnosis were done after thorough examination. The

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mass was removed under local anaesthesia and sent for a histopathological examination, which confirmed the diagnosis. On histopathology, stratified squamous epithelial lining with fibrovascular elements and stellate cells were observed (Figures 3 and 4).

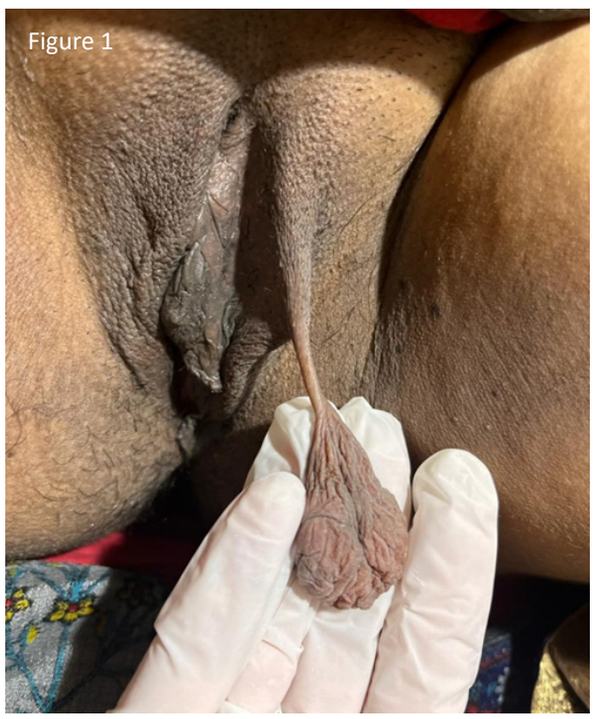

Figure1: Hyperpigmented pedunculated mass measuring 7x4x2 cm on right labia majora

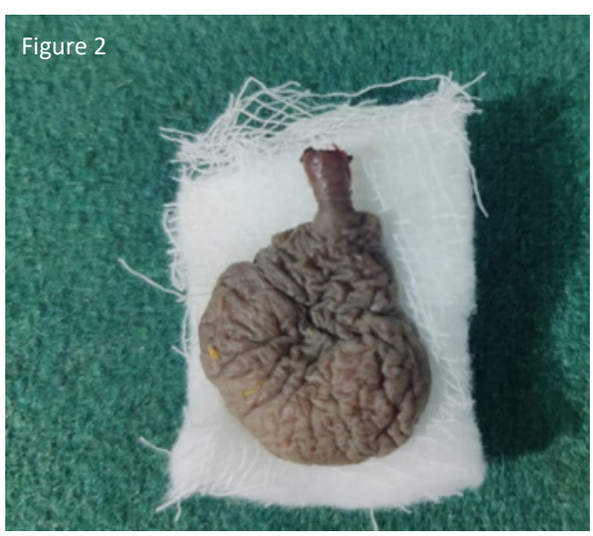

Figure 2: Pedunculated mass after excision

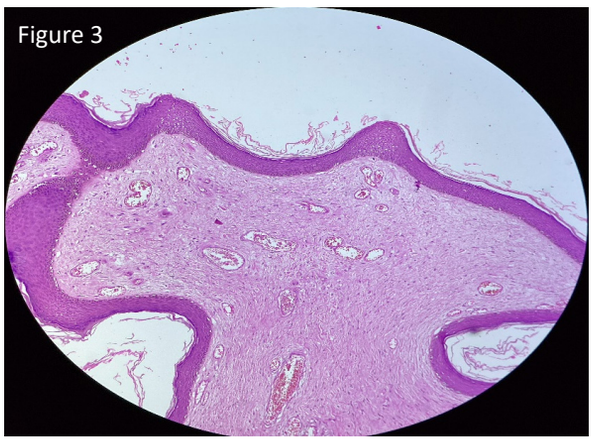

Figure 3: Histopathological examination shows stratified squamous epithelial lining with underlying loosely arranged stroma with fibrovascular elements (H&E,10x).

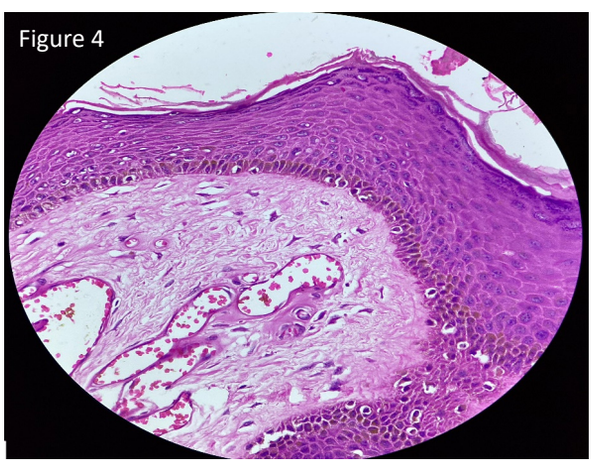

Figure 4: Histopathological examination shows stellate cells at epithelial stromal interface surrounded with variable sized blood vessels (H&E,40x).

Discussion

FEP is associated with a differential diagnosis that includes squamous cell cancer, aggressive angiomyxoma, angiomyofibroblastoma, cellular angiofibroma, superficial cervicovaginal myofibroblastoma, perineurinoma, and botryoid embryonal rhabdomyosarcoma. [Table 1] Since sarcomas can clinically resemble fibroepithelial polyps, histopathology is essential to identifying these conditions. Stellate and multinucleate stromal cells are present in fibroepithelial stromal polyps, which are usually found close to the epithelial-stromal contact.[3]

Feature	Aggressive Angiomyxoma	Angiomyo-fibroblastoma	Cellular Angiofibroma	Fibroepithelial Stromal Polyp	Superficial Angiomyxoma	Prepubeal Vulval Fibroma
Age	Reproductive age	Reproductive age	Reproductive age	Reproductive age	Reproductive age	Prepubertal
Location/ Configuration	Deep seated, not polypoid	Subcutaneous	Subcutaneous	Usually polypoid, exophytic	Superficial subcutaneous	Submucosal
Size	Variable	Usually < 5 cm	Usually < 3 cm	Variable	Usually < 3 cm	Usually < 5 cm
Margins	Infiltrative	Well circumscribed	Usually well circumscribed	Merges with normal	Lobulated, distinct	Infiltrative
Cellularity	Paucicellular	Alternating hypercellular and hypocellular	Cellular	Variable	Hypocellular	Hypocellular
Vessels	Medium to large, thick-walled, hyalinized	Delicate, capillary-sized, numerous	Small to medium, thick-walled, hyalinized	Variable, usually large, thick-walled central core	Delicate, thin-walled, elongated	Small to medium-sized vessels
Mitotic Index	Rare	Usually uncommon	Variable, may be brisk	Variable	Usually uncommon	Uncommon
Biomarkers	Desmin positive, HGMA2 positive	Desmin positive, HGMA2 negative	CD 34 positive; Desmin, SMA variable	Desmin positive, HGMA2 negative	Desmin negative, HGMA2 negative	CD 34

Table 1: Differential diagnosis of mesenchymal lesions in vulvovaginal region.[4]

Surgical removal is the primary method of reducing big polyps. On the other hand, partial resection raises the possibility of recurrence, highlighting the significance of ongoing surveillance. Cryotherapy and cauterization are effective treatments for smaller polyps.[5]

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