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Fibroepithelial Stromal Polyp Presenting as Giant Vulval Mass: Case Report

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Abstract: ***Background*: Fibroepithelial stromal polyps are rare identity affecting vulva of the female genital tract. These tumors can also affect other parts of the body and are hormone responsive. These mesenchymal tumors need to be properly diagnosed because of their differential diagnosis. Proper treatment requires complete excision of the vulvar mass. *Case Presentation*: We are describing a rare case report of a 50 years old female presenting with a mass over her vulval region and connected through a short pedicle. Morphological and histopathological appearances are also discussed for the same. *Conclusion*: FESP which may present as giant vulvar mass, need to be differentiated from other mesenchymal tumor of vulva so that proper treatment can be carried out.***

Keywords: Fibroepithelial stromal polyp, vulvar mass, hormone responsive

1. Background

Fibroepithelial stromal polys (FESP) are benign lesion seen in oral cavity, skin urinary tract (1) and genital area (2). Fibroepithelial stromal polyps (3) are hormone - sensitive growths that develop from cells located in the subepithelial layer of the female reproductive tract. They typically occur in women of reproductive age, often developing during pregnancy (4) (5). These polyps exhibits in various forms and size (usually <5cm). After the pregnancy these polyps often regress in size representing benign hyperplastic proliferation in response to altered hormonal environment (6). These lesions have capability to recur if excised incompletely. Other tumors can also mimic FESP are angiomyxoma, angiomyofibroblastoma, cellular angiofibroma, superficial angiomyxoma and mammary type myofibroblastoma.

Here we are presenting only one case of FESP arising from vulva and describing histopathological, gross apperarence of the polyp in the vulvovaginal region.

2. Case Presentation

This is a 50 year old postmenopausal female with no relevant medical history presented to our OPD at Sarojani Naidu Medical Collage, Agra with complaint of a painless lump over the vulva with approximate size of 15X8X4cms, difficulty in walking and cosmetic demise. The patient first noticed her lump during her first pregnancy which kept on increasing in size during her pregnancy and regressed post pregnancy. Again she noticed that lump started to grow over her vulval region during her second pregnancy and kept on increasing until current size. There is no history of any hormonal contraception. On clinical examination lump was large, nontender, nonulcerated, pudenculated. Left labia majora was larger than right labia majora. Dimension of left labia majora were 15X6X4 while right labia majora measuring appoximatly 12X2X3 cms (figure 1A and B). The patient was planned for total excision surgery of the mass.

During intraoperative period lump was attached to labium by a thick pedicle and having numerous thick blood vessels supplying the mass. We completed our surgery with bilateral labial excision (Figure 2). Postoperative period was uneventful and patient was discharged on POD 5.

Mass as an excisional biopsy (Figure3) was sent for histopathological examination. On histopathological examination there was presence of following findings (figure 4A - D): 1) central fibrovasular core, (2) stellate and multinucleate stromal cells, (3) squamous epithelium exhibits varying degree of hyperplasia.

Immunohistochemistry showed lesion positive for desmin.

The patient remained well and on regular follow up showed no regrowth or recurrence.

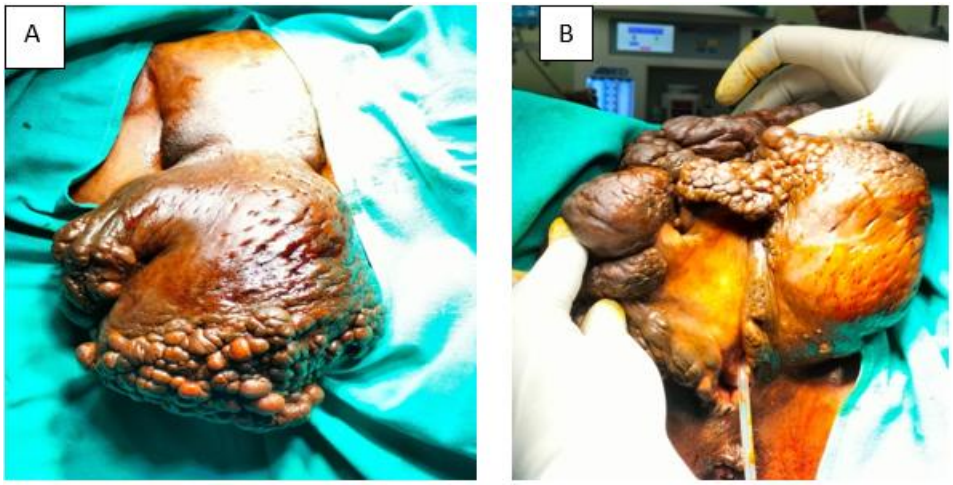


Figure 1: Clinical presentation of the lesion (A - B): Figure showing dorsal and ventral view of the vulva mass. There are multiple polyps seen in figure 1A.

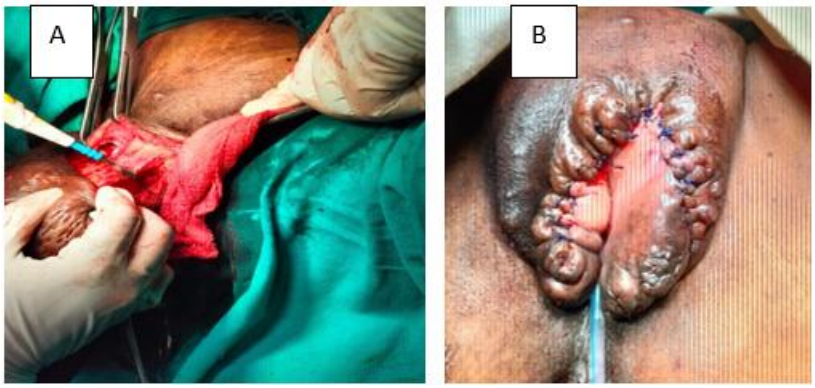


Figure 2: A**)** Intraoperative image showing thick pedicle of the FESP (B) Figure showing wound closure

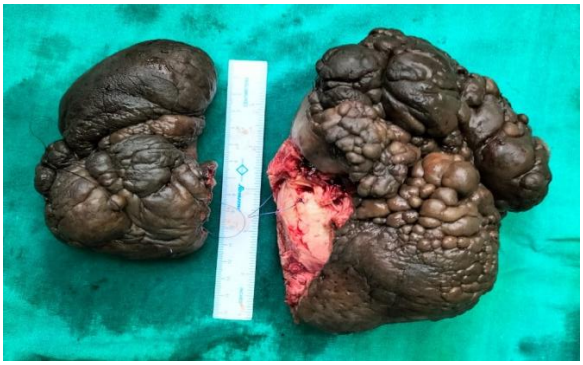
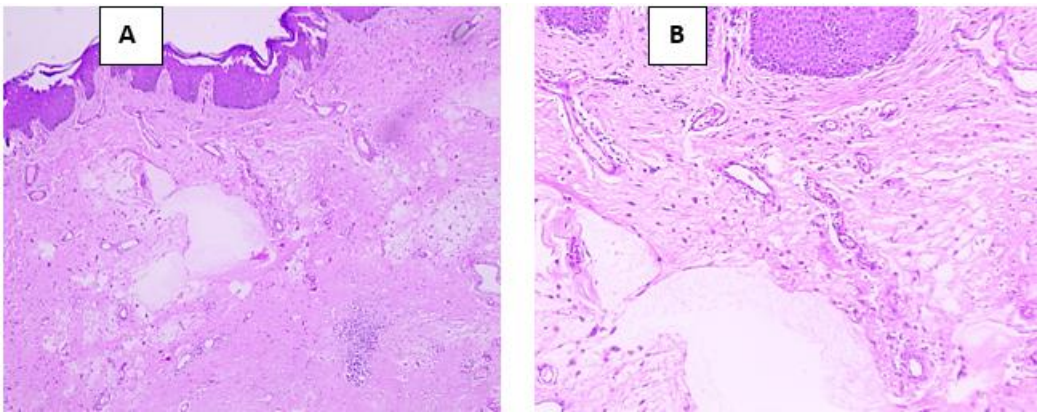


Figure 3: Specimen of the vulva mass



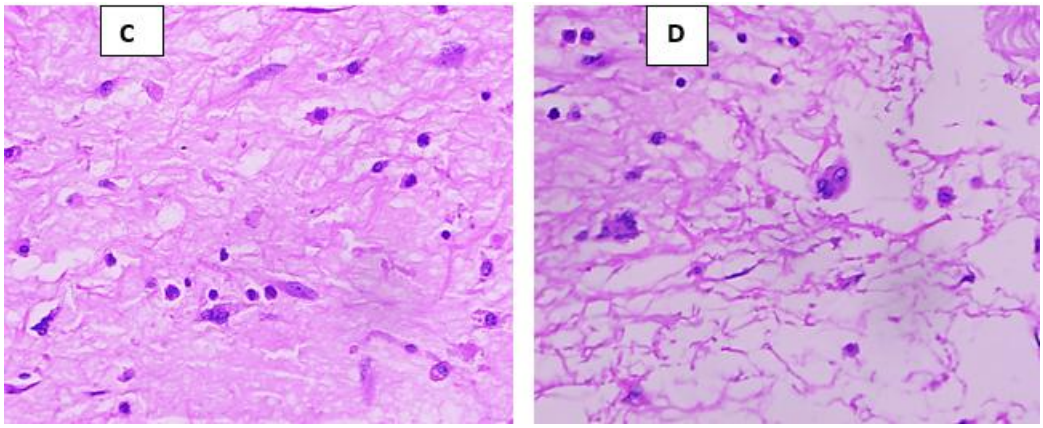


Figure 4 (A- D): microscopic findings of fibroepithelial stromal polyp
(A) Scanner view illustrating variable cellular stroma, fibrovascular core along with overlying hyperplastic striated squamous epithelium (H&E, 40X).
(B) Scattered stellate and multinucleate giant cells are seen near the epithelial - stromal interface along with abundant blood vessels (H&E, 100X).
(C) And (D) Stellate and multinucleate giant cells (H&E, 400X).

3. Discussion

FESP are benign mesenchymal tumors arising from neck, axilla, submandibular area but also seen in genitals affecting cervix, vagina and vulva and usually don't exceed the size of 5mm (7). But in our case report we are dealing with a giant fibroepithelial stromal polyp arising from the vulval region.

Ioannis Korkontzelos et al (8) discussed a case of 45 year old presented with large giant ulcerated fibroepithelial stromal polyps which was only extending into right labium of vulva and was hormone sensitive and grow in size during her pregnancy. In our case there is no ulceration present seen and mass was involving both the labia of the vulval region, there is relation of this tumor with the pregnancy.

Shaaban et al (9) discussed in their case report about large fibroepithelial stromal polyp arising from nipple and also mentioned about histopathological and immunohistochemistry of the FESP. In our case report we also found the peculiar histologic features of the FESP like squamous epithelium is hyperplastic with central fibrovascular core and comprised of stellate multinucleate stromal cells. Also this tumor is desmin positive.

Ostör et al (5)described the first cases of vulvar fibroepithelial polyps. More specifically, Ostör et al. reported eight FEPs arising from the vulva, underlining the importance of their differentiation from sarcoma botryoides, which they resemble both macroscopically and microscopically. Our case also resemble in both the appearance.

These lesions can recur locally if excised incompletely (10) or there is continued exposure to hormones (e. g. pregnancy, HRT), but this is relatively rare. In our patient there is no recurrence noted. Therefore, ideal treatment of this lesion is complete excision and long term follow up to detect recurrence as early as possible if any.

Various differential diagnosis of vulvar mesenchymal lesion (11)**:**

Diagnostic Factors	Aggressive Angiomyxoma	Angiomyofibroblastoma	Cellular Angiofibroma	Fibroepithelial Stromal Polyp	Superficial Angiomyxoma	Mammary-Type Myofibroblastoma
Age at presentation	Reproductive age	Reproductive age	Reproductive age	Reproductive age	Reproductive age	Wide age range, usually >40 years
Location and configuration	Deep-seated, not polypoid	Subcutaneous	Subcutaneous	Usually polypoid, exophytic	Superficial, subcutaneous, or polypoid	Superficial/ subcutaneous
Size	Variable	Usually <5 cm	Usually <3 cm	Variable	Usually <3 cm	Variable
Margins	Infiltrative	Well circumscribed	Usually well circumscribed	Merges with normal	Lobulated, distinct	Well circumscribed
Cellularity	Paucicellular	Alternating hypercellular and hypocellular	Cellular	Variable	Hypocellular	Variable
Vessels	Medium to large, thick walled	Delicate, capillary-sized, numerous	Small to medium, thick-walled, often hyalinized	Variable, usually large, thick walled, and located in central core	Delicate, thin walled, elongated	Variable Often thin walled, inconspicuous
Mitotic index	Rare	Usually uncommon	Variable, may be brisk	Variable	Usually uncommon	Rare
Biomarker	Desmin positive	Desmin positive	Desmin variable	Desmin positive	Desmin negative	Desmin/CD34 positive Rb1 negative/lost
Clinical course	30% local recurrence, may be destructive	Benign, no recurrent potential	Benign, recurrence very rare	Benign, rare recurrences (e.g., during pregnancy)	30% local nondestructive recurrence	Benign, recurrence very rare

From the above mentioned table we can summarize about various mesenchymal lesion of vulva and suggest that these tumors vary in various morphological forms and have specific histopathological appearance.

4. Conclusion

Giant Fibroepithelial stromal polyp of the vulva are rare identity. These polyps are hormone dependent and usually grow up to 5mm but sometimes can grow more than that too. These tumor requires expert pathologic opinion in regards of histopathologic and immunochemistry of the tumor and to differentiate from other mesenchymal tumors. Ideal treatment requires complete excision.

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