Journal Homepage: - www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI: 10.21474/IJAR01/14379
DOI URL: http://dx.doi.org/10.21474/IJAR01/14379

RESEARCH ARTICLE

SUPERFICIAL MYOFIBROBLASTOMA OF THE GENITAL TRACT : A CASE REPORT OF VAGINAL SMFGT

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Manuscript Info

Manuscript History
Received: 10 January 2022
Final Accepted: 15 February 2022
Published: March 2022

Abstract

Superficial myofibroblastoma of the lower female genital tract is a rare benign, recently recognized neoplasm that mostly affects the vulvovaginal area. In this paper we reported a case of 47years old lady who had 3-Normal vaginal deliveries , she had presented with complain of dysuria , difficult micturition lower abdominal pain, heaviness in the vagina and vaginal discharges. Vaginal examination showed a well demarcated , smooth mass measuring about 7cm x3cm. Transvaginal ultrasound was performed which showed a well -defined isoechoic solid lesion with heterogenous echo pattern which occupied the upper portion of the anterior vaginal wall. Magnetic resonance imaging showed a lesion described as a well defined mass at the level of anterior vaginal wall measuring 3.1APX4.5TVX3.3CC cm. The mass was removed per vaginal route , histopathologically, the tumor was characterized by nodular stromal spindle cell lesion, well defined and partly encapsulated with myxoid degeneration and prominent vascular network. No necrosis is seen .No significant mitotic activity indentified. The findings were consistent with superficail myofibroblastoma. Immunohistochemistry stain was carried out which was positive for CD34, Desmin , Vimentin and weakly positive for ER.

Introduction:-

Superficial myofibroblastoma of the lower female genital tract is a rare, recently described tumor, which has a distinctive clinicopathological profile[2] It Mostly affects vulvovaginal area [3] . Mesenchymal tumours of the female genital tract are well described pathologically. In 2001 Laskin WB et al described a distinctive tumor of the lower female genital tract, which they named ”superficial cervicovaginal myofibroblastoma .

Recent publications have demonstrated that the tumors occurred in the vulva and vagina rather than in the cervix and vagina, the authors proposed the term ”superficial myofibroblastoma of the lower female genital tract.[2]

SMFGT typically arises from the subepithelial stroma of the vagina (40 cases have been described) and, less frequently, of the vulva (5 cases have been described) and cervix (4 cases have been described)[3]

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Histopathologically, it is characterized by a discrete, even though unencapsulated, myofibroblast proliferation located in the subepidermal tissue, with a thick Grenz zone separating the lesion from the epidermis.[4]

Only one case has been described in the ovaryand only one case has been reported during pregnancy. Its clinical presentation has been described as a polypoid or nodular mass of variable size (2– 65 mm) in women ranging in age between 23 and 80 years.[3]

It is constituted by oval to spindle-shaped cells, with wavy nuclei and scant cytoplasm, within a loosely collagenous stroma.[4]

We reported a case of 47years old multiparous woman, who presented to outpatient department with complain of dysuria, lower abdominal pain and vaginitis .

Case report

47years old P3+0, 3 vaginal deliveries presented to outpatient department with complain of dysurea, lower abdominal pain, heaviness in the vagina and vaginal discharges . No dysparonia, no vaginal bleeding.

Past history of carcinoma cervix in situ which was completely treated with cervical conization procedure. No other history of significance, she was not on chronic medications.

She had denied any hormonal therapy in the past , her pap-smear was up-to-date and normal . No history of sexually transmitted infection. No significant current or past medical conditions . The rest of history and review of her system was within normal limit.

There was no abnormality detected on general and systemic examination.

Gynecologic examination revealed a mass measuring about 7x3cm in the anterior vaginal wall occupying approximately last 2/3rd of the vagina about 2cm distal to the cervix . The mass was mobile , smooth surface and with well demarcated borders .

The tumor was firm in consistency, separate from the cervix and uterus , mobile , no other masses of nodularities felt. (img-1)

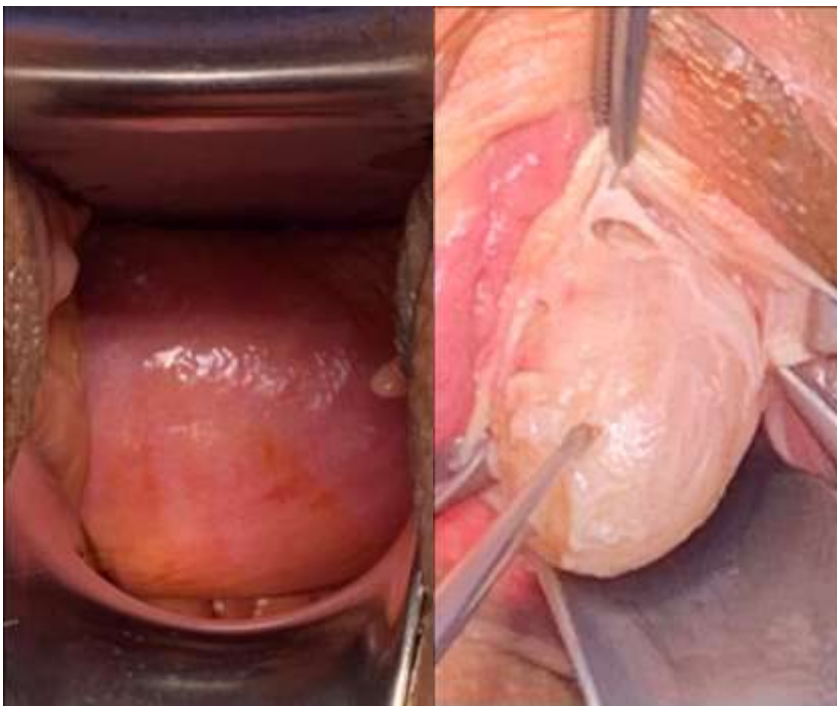

Image 1:- Lesion on exam under anesthesia and gross specimen during dissection.

On speculum examination, remnant of the cervix was pin point and flashed with the vagina . Uterus was of normal size and no adnexal masses palpated.

Transvaginal ultrasonography was performed in the radiology department which showed a well -defined isoechoic solid lesion with heterogenous echo pattern which occupied the upper portion of the anterior vaginal wall. It measured 4x3x3.7cm in dimensions and showed internal vascularity on color doppler examination. No evidence of invasion of the urinary bladder wall or the surrounding structures. (Img-2).

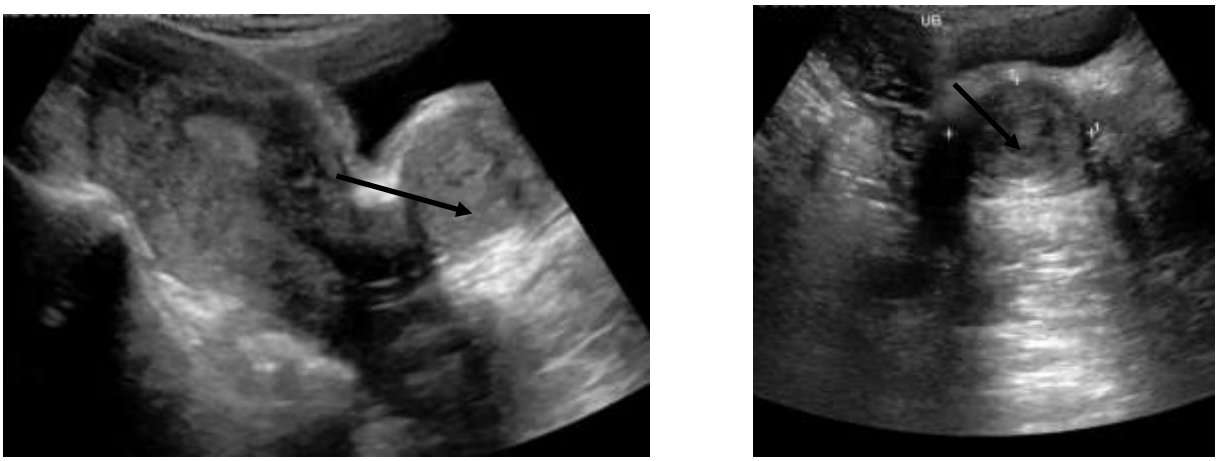

Image 2:- (a)(b)Arrow Transvaginal ultrasound grey scale image well -defined isoechoic solid lesion with heterogenous echo pattern in the upper portion of anterior vaginal wall.

The mass was further assessed by contract enhanced MRI the report was described as a well defined mass at the level of anterior vaginal wall containing areas of internal cystic degeneration and middle enhancement post-gadolinium, measuring 3.1APX4.5TVX3.3CC cm ,resembling a fibroid (Img-3)

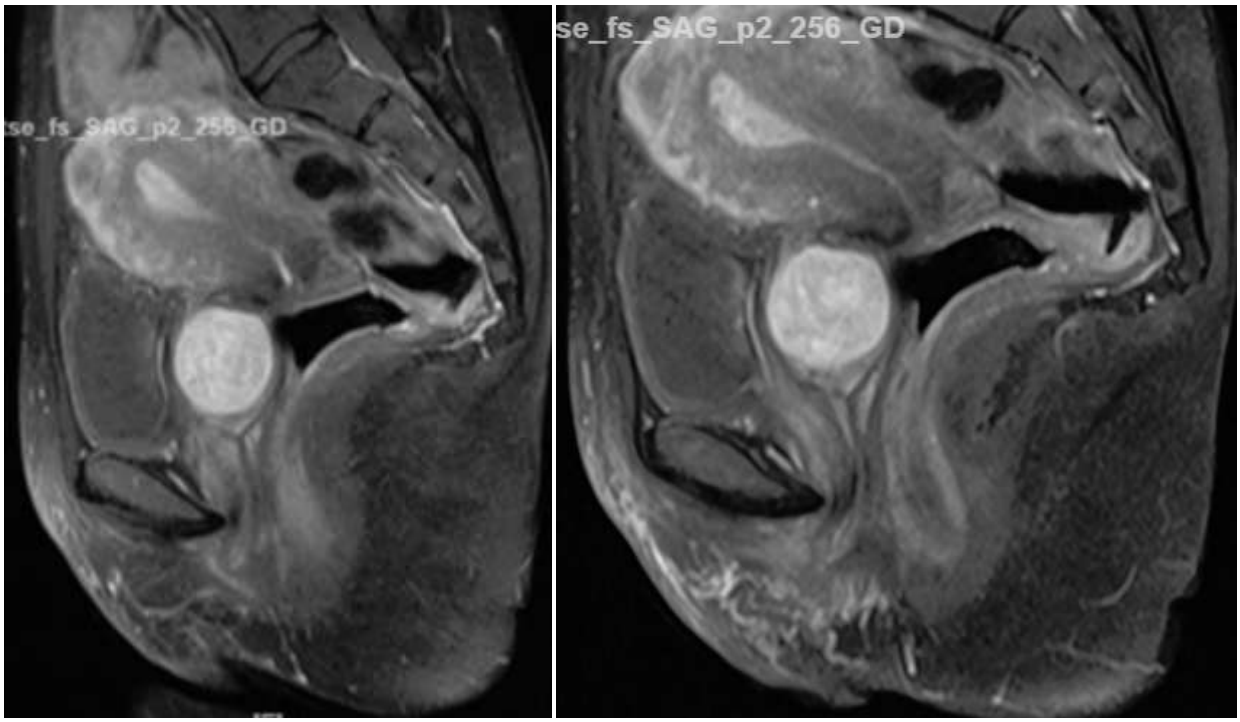

Image 3:- MRI sagital section shows a well defined mass at the level of anterior vaginal wall containing areas of internal cystic degeneration.

The case was suspected of being a vaginal fibroid , Patient was counseled and consented for surgery .

Removal of the mass was done vaginally, after disinfection and sterile cover , urinary bladder was catheterized using in-out catheter . EUA (examination under anesthesia) was done which showed about 5cm mass in the anterior wall of the vagina, diluted vasopressin was injected , incision of the anterior vaginal mucosa was done and careful disection and preparation of the tumor from the vaginal wall and base of the bladder was done.The tumor was removed with its capsule , the tumor was well consulted measuring 5cm x 2cm in size ,heamosuasis was achieved, adaptation suture was done to elevate the bladder base, refreshment of the vaginal mucosa was done with continuous absorbable sutures. Vaginal pack was done using Ribon gauze and indwelling catheter was inserted .

The vaginal pack was removed after 24hours , there was no bleeding , patient had smooth post-operative course.

The specimen was sent to the department of pathology for histopathological examination .

Gross examination

The specimen was fixed in formalin labelled with the patient name, a single fragment of tan soft tissue mass measuring 4.5x3.2cm . Transversely sliced, representative sections taken in two cassettes. Img-4

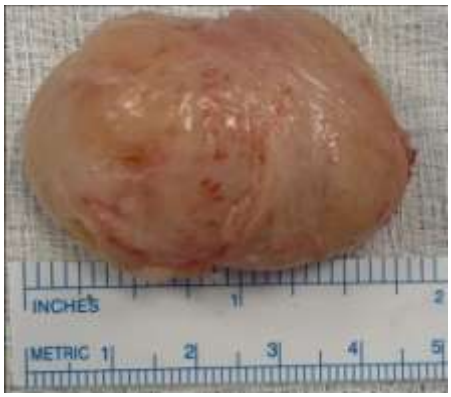

Image 4:- showing a 5cm well circumscribed lesion with smooth surface , no hemorrhage or necrosis seen.

Tumor pathology and immunohistochemical analysis

Microscopic examination

Sections reveal nodular stromal spindle cell lesion, well defined and partly encapsulated with myxoid degeneration and prominent vascular network. No necrosis is seen .No significant mitotic activity indentified.The morphological features were consistent with superficial myofibroblastoma.

Immunohistochemical analysis showed the tumour cells were positive for CD34, Desmin, Vimentin and weakly positive for ER.

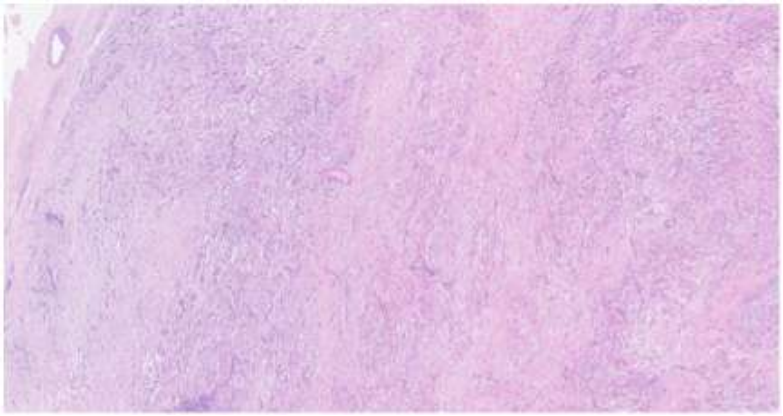

Image 5:- Nodular stromal spindle cell lesion, well defined and partly encapsulated with myxoid degeneration and prominent vascular network.

Discussion:-

Diagnosing genital mesenchymal tumors is usually challenging because they are rare, and some of them show many similar clinicopathologic features.

Superficial myofibroblastomas of the female genital tract are rare tumours but are well documented histologically. They preferentially occur in the lower female genital tract, with majority of cases in the vagina, cervix or vulva.[1,2]

The tumours have been described in patients with a wide age rangeand there is at least one reported case of the tumour presenting in pregnancy. [1]

The classical histological description is of a tumour with bland spindle cells that are weakly eosinophilic, set in loose stroma with multiple vascular channels, oedematous foci and scattered inflammatory cells including lymphocytes and macrophages .[1]

Differential diagnosis of this clinical presentation is broad, including cervical leiomyoma, nabothian cysts, other rare benign tumors of the cervix, and cervical cancer. Leiomyomas with myxoid/hydropic change can have hypocellular areas and resemble SMFGT. Both SMFGT and leiomyoma are characteristically well-circumscribed lesions. However, the small quantity and arrangement of smooth muscle cells in SMFGT are different from leiomyomas.[3]

Consent

Written informed consent for the case to be published (including images, case history and data) was obtained from the patient(s) for publication of this case report, including accompanying images.

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