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ORIGINAL RESEARCH

Cervical cellular angiofibroma: A poorly known entity

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Abstract
Cellular angiofibroma is a rare type of benign mesenchymal tumor. Most commonly found in the distal genital region of both genders.These tumors are usually misdiagnosed as Bartholin cysts, vulvar cysts, myoma and unspecified complex tumors. It has a predilection for the vulvovaginal region and needs to be distinguished from other neoplasm. They can cause abnormal swelling, uterine bleeding and protruding mass from vulvovaginal region. The tumor show peak incidence in 5th-6th decades of life.

Keywords: Cellular angiofibroma,benign mesenchymal tumor, distal genital region

INTRODUCTION

Cellular angiofibroma (CA) is a rare benign mesenchymal tumor in distal genital area first reported by Nucci*et al*. in 1997. This tumor mostly occur in vulvovaginal region of middle aged women, where as it affects the adult men in the inguinoscrotal region.[1-4] It is most commonly found in the distal genital region and is generally well circumscribed and small sized.[3] The differential diagnosisinclude other (malignant) tumors and a distinction is to be made on histopathologicalandimmunohistochemical characteristics.[5,6] Complete local excision is the treatment of choice.[5,7] Metastasis, however, has not been reported, not even in tumors with atypical histopathology or sarcomatous transformation.[3]

Case Report

We present a case of 42 years female patient who attendant a gynae outpatient departmentwith the chief complaint of lower abdominal pain and something coming out of vaginal with stress urinary incontinence from last 1 year. ON EXAMINATION: P/A soft, nontender. P/S fibroid polyp 4x2cm arising from cervix. All hematological and biochemical investigation are with in normal limits. Vaginal Hysterectomy was performed for this and the specimen was send for histopathological examination. On gross examination specimen of uterus with cervix measured 6x7x3 cm. Endocervical canal was 2.5 cm and is attached to nodular growth measured 2.2x1.8x1 cm in size which is well circumscribed and on cut section solid greyish white. Endometrium measured 0.3cm and myometrium 2 cm.

On Microscopic examination: Endometrium

Section shows round to oval to few cystically dilated glands along with compact to focally loose stroma. No evidence of hyperplasia or neoplastic pathology identified.

Myometrium: Section from the myometrium is unremarkable.

Cervix: Section from the cervix shows features of chronic non-specific cervicitis with squamous metaplasia. Sections from the nodule was lined by stratified squamous epithelium. The subepithelial tissue showed a well circumscribed tumor comprising of spindle to round to oval cells arranged in cords, nests and around the blood vessels. Nuclei having

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vesicular chromatin, with inconspicuous nucleoli.Occasional cells shows nuclear grooving. The cytoplasm was pale eosinophilic with indistinct ill-defined borders. The stroma was abundant, containing wispy collagen along with few short bundles of densely eosinophilic collagen fibres with numerous thick and thin walled hyalinised blood vessels. Focally myxoid areas and entrapped adipose tissue with many lymphoid follicles, scattered mast cells and lymphocytes were also seen. No atypia or increase in mitosis noticed. Immunohistochemistry was done to support the diagnosis which revealed variable positivity for vimentin, desmin, CD 34, smooth muscle actin. The histopathological diagnosis was given as Cellular Angiofibroma of cervix.

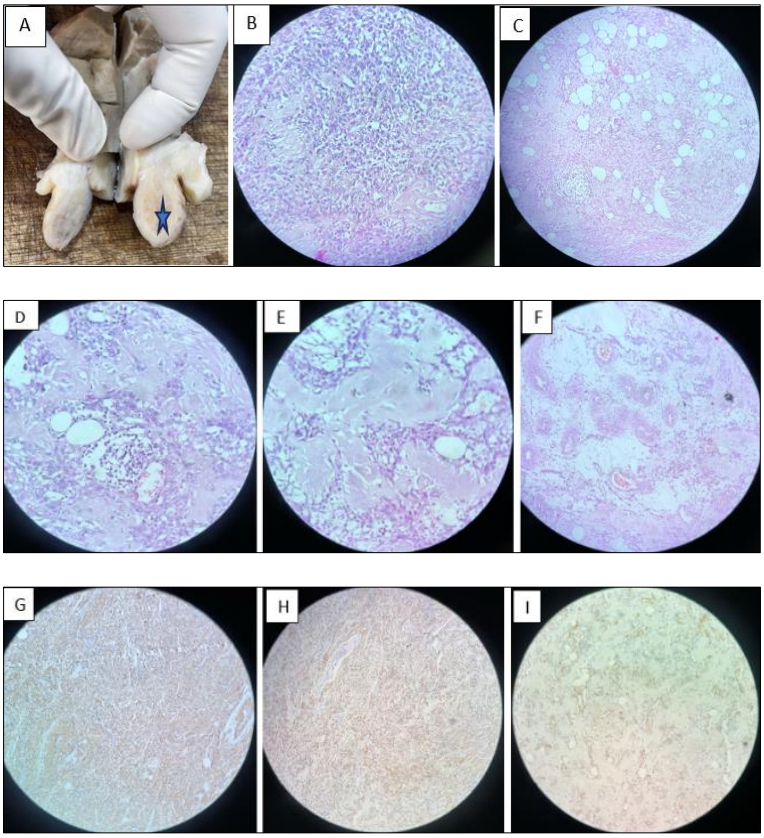

Fig1: (A) - Nodular growth in cervix measuring 2.2x1.8x1cm in size which was well circumscribed and on cut section solid greyish white. **(B)**- Showed a well circumscribed tumor comprising of round to oval cells arranged in cords, nests (10x). **(C)**- Showing entrapped adipose tissue with many lymphoid follicles was seen (10x). **(D)**showing entrapped adipose tissue (40x).**(E)**-Bundles of densely eosinophilic collagen fibres (40x).**(F)**- Numerous thick and thin walled hyalinised blood vessels (10x). **(G)**- IHC is Positive for vimentin (10x). **(H)**- IHC is Positive for SMA (10x). **(I)**- IHC is Positive for Desmin (10x)

Discussion

CA is a rare benign soft tissue tumor that mostly occurs in the distal genital region. It was first described in 1997 by Nucci *et al*. and has an equal predilection in both men and women in 4^{th} -5^{th} decades.[1] In this case report, we describe a mass originating from the cervix and patient was presented with abdominal pain and something coming out of vagina. The differential diagnosis of CA are solitary fibrous tumor, leiomyoma, angiomyofibroblastoma and deep aggressive angiomyxoma. Angiofibromas are benign mesenchymal tumors, generally well circumscribed and small sized.[5, 6] These tumors are mostly asymptomatic and typically slow growing, gradually increasing in size over 1-2 years, causing a delay in seeking medical advice. The most common site for CA is the vulvovaginal region (particularly the labium majorum and vulva) and therefore, it is usually misdiagnosedas a Bartholin cyst. The diagnosis of CA is mainly based on a combination of histopathological features and immunohistochemical markers.[7] CA is a well-demarcated, though unencapsulated tumor consisting of short fascicles of uniform spindle-shaped cells.[1]Between the fascicles, interspersed delicate collagen bundles are found. Moreover, numerous medium-sized thick-walled vessels are found. The number of mitotic figures can vary from few to many. Besides the clinical presentation, histopathological feature and immunohistochemistry, other aspects need to be taken into account when facing differential diagnosis. The treatment of choice for these type of tumors is complete local excision of the mass and a single case recurrence and meta stasis reported till date to our knowledge. Complete local

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excision is adequate and effective in preventing recurrence.[2]

Conclusion

Diagnosing a cellular angiofibroma of cervix can be challenging, as morphological similarities with other soft tissue tumors. Therefore, a differential diagnosis must be considered.[3,4,5,6] The diagnosis of cervical cellular angiofibroma is difficult as it resembles to other disease such as Angiomyofibroblastoma, Aggressive angiomyxoma and Leiomyoma.[1] A definite diagnosis can be made by histochemical examination. The use of immunohistochemistry can help to determine cell differentiation and possible.

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Conflict of interest

The authors declare that they have no conflict of interest.

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