

Angioleiomyoma of Uterus - A Rare Case Report

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Abstract: Angioleiomyomas are benign mesenchymal tumours commonly occurring in the subcutis of extremities. They are typically composed of interlacing fascicles of smooth muscle cells with intermingling vascular channels. Angioleiomyomas of the uterus are rare and unique variant with only very few case reports available in literature. Herein, we report a case of this rare entity in a 37 yr old female who presented with complaints of urinary retention, dysfunctional uterine bleeding, and abdominal pain at our hospital.

Key Words: Angioleiomyoma, Vascular leiomyoma, Uterus

I. Introduction

Angioleiomyoma is an uncommon type of leiomyoma that originates from smooth muscle cells, and contains thick-walled vessels. Angioleiomyoma usually occurs in subcutaneous tissue, most often in the lower extremities and very rarely in the uterus. They occur usually in the fourth to sixth decades and can present as an abdominal mass or with symptoms of abdominal pain and menorrhagia. These tumors can undergo spontaneous rupture and cause catastrophic intra-abdominal bleeding. Similar to angioleiomyomas elsewhere, uterine angioleiomyomas are composed of smooth muscle bundles with prominent thick walled blood vessels. Three histological subtypes have been recognised: solid, venous, and cavernous.

II. Case Report:

37 yr old female presented with complaints of dysfunctional uterine bleeding, urinary retention and pain abdomen.

ULTRASOUND FINDINGS – Large fibroid with vascular changes in the uterus.

Total abdominal hysterectomy was done and the ovaries were retained. Specimen was sent to Department of Pathology for Histopathological examination.

Gross Findings:

Uterus with cervix measuring 9x5x3.5 cm with lobulated mass on posterior side of lower uterine segment measuring 10x7x6 cm Cut section of the uterus – endometrium measured 0.2 cm, myometrium 2cm. Cut section of lobulated mass was dark brown fleshy.



Figure 1- Gross – Cut section shows dark brown fleshy appearance

Microscopic Examination: Histological sections of the tumors, stained by haematoxylin and eosin showed tumour tissue revealed well circumscribed, moderately cellular with well demarcated nodules of whorled and interlacing fascicles of uniform fusiform spindle cells intermingling with thickened blood vessels. The outer smooth muscle cells of the blood vessels swirled away from the vessel wall and merged with and were indistinguishable from the tumour cells. Individual tumour cells appeared bland with blunt ended cigar shaped nucleus and eosinophilic cytoplasm. [1]

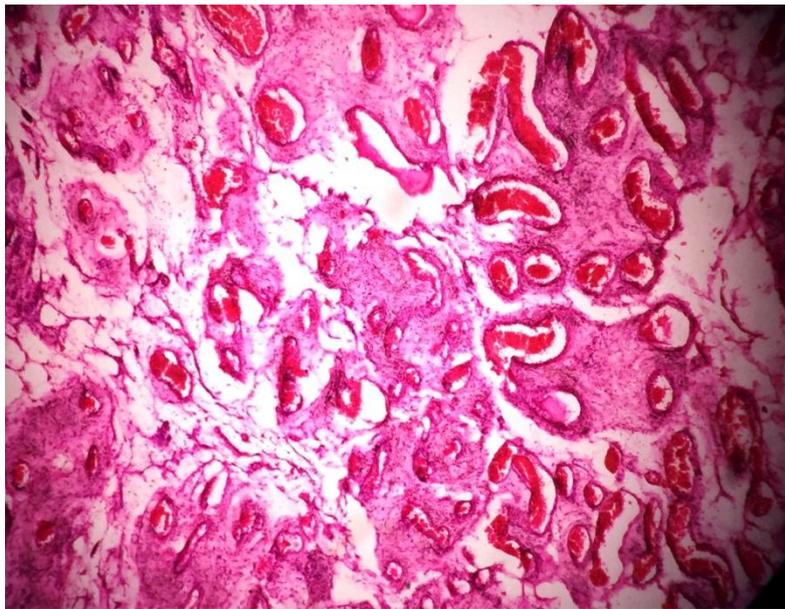


Figure 2- H&E-4X- Well demarcated nodules of whorled and interlacing fascicles of uniform fusiform spindle cells intermingling with thickened blood vessels.

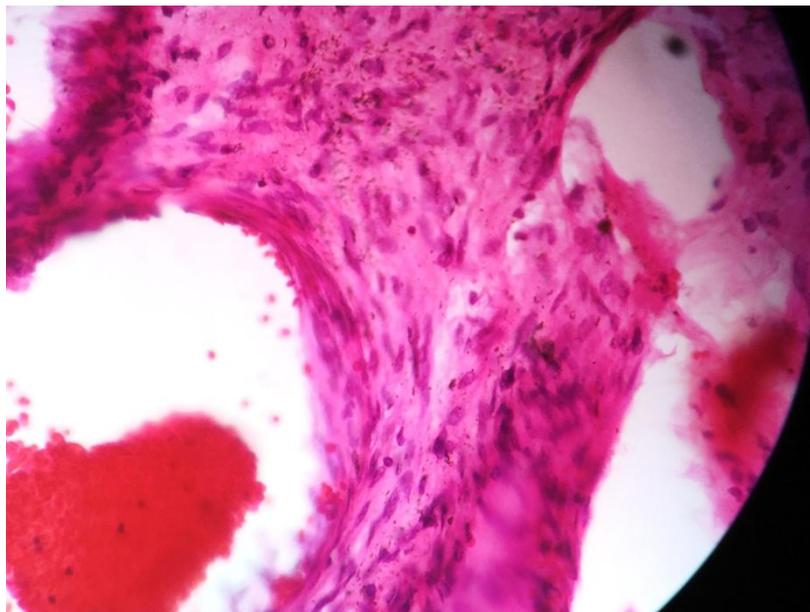


Figure 3- H&E-40X Individual tumor cells appeared bland with blunt ended cigar shaped nucleus and eosinophilic cytoplasm

Immuno-Histochemistry: Tumour cells were strongly positive for α SMA (Smooth Muscle Actin) and Desmin.

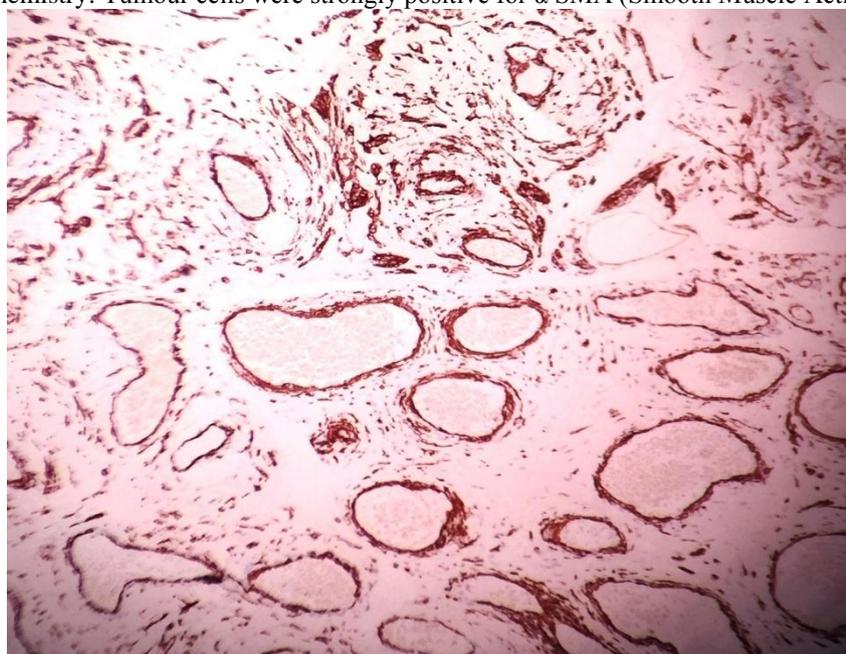


Figure 4-IHC Positive for SMA (Smooth Muscle Actin)

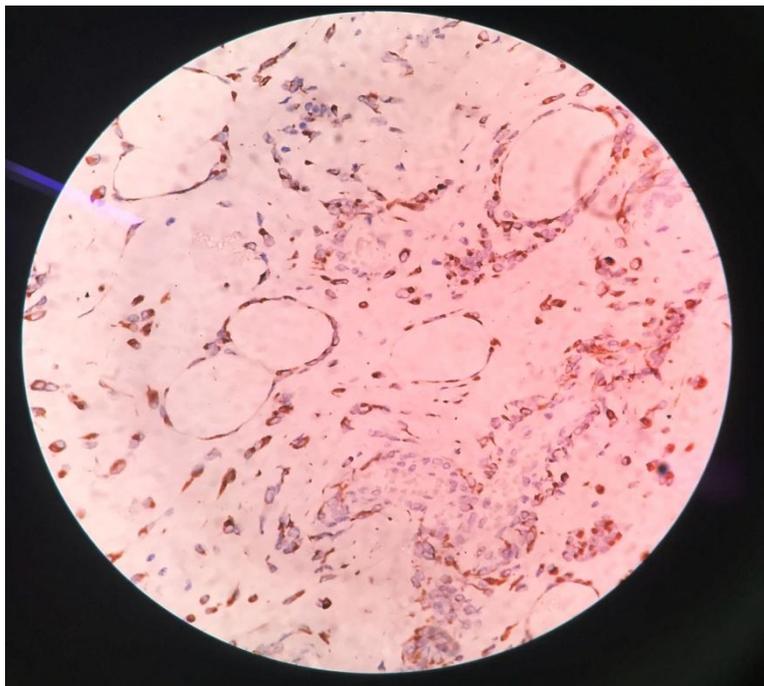


Figure 5- IHC Positive for DESMIN

III. Discussion:

Angioleiomyomas are benign, relatively common neoplasms described in the lower extremities, head, and trunk. However, only very few cases of angioleiomyomas have been described in the uterus[3].The macroscopic features of AL overlap with those of a conventional LM, except for the presence of blood-filled spaces in AL. These spaces may not be pronounced in some ALs, especially if the tumor is small. Thus, it may not always be possible to differentiate AL from a conventional LM by gross examination alone.

The microscopic differential diagnosis includes endometrial stromal nodule, angiomyofibroblastoma, and perivascular epithelioid cell tumor. Although each of these has characteristic morphologic features, at times overlapping histologic features may warrant the use of a proper immunohistochemical panel to arrive at a correct diagnosis [2]

If extensive nuclear atypia is present in the tumor, extensive sampling should be performed. Increased or atypical mitosis, an advancing edge of the tumor, and necrosis should be searched for to exclude leiomyosarcoma.

IV. Treatment:

Either myomectomy with tumour-free margins or hysterectomy proved to be an effective treatment in these cases, and resulted in a good recovery and a satisfactory outcome.

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