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Pathology

A RARE CASE REPORT ON UTERINE LEIOMYOSARCOMA

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ABSTRACT Uterine leiomyosarcoma (LMSs) are rare aggressive tumors, with high recurrence rates, even when confined to the uterine corpus at the time of diagnosis. These tumors are large myometrial masses, which typically spread hematogenously. Patients present with vague symptoms similar to those of patients with leiomyomas. Most patients are diagnosed with LMS postoperatively. We report a case of a 65 year old female who presented with a post menopausal bleeding from 1 year. Tumor marker CA-125 was raised, and CT scan showed mass arising from the pelvis hysterectomy was performed and was diagnosed later to be a case of leiomyosarcoma of uterus by histopathological examination . Because of the rarity , uterine sarcomas are not suitable for screening. Diagnosis is by histopathological examination and surgery is the only treatment. The prognosis for women with uterine sarcomas primarily depends on the extent of disease at the time of diagnosis and the mitotic index.

KEYWORDS : Leiomyosarcoma , uterine tumors

INTRODUCTION

Utrerine sarcoma accounts for 3-8% of all uterine malignancies. leiomyosarcomas (LMSs) are now the most common uterine sarcomas [1]. Although rare, the tumors are devastating with poor prognosis and aggressive biology leading to early metastatic spread both locally and distantly. Consensus with respect to prognosis and treatment are lacking. For pathologists, diagnosis of most leiomyosarcomas using current diagnostic criteria is usually straightforward, as most tumours often possess two or more diagnostic microscopic features, including diffuse atypia, high mitotic count and tumour cell necrosis. Diagnostic difficulties usually relate to tumours having only one of these worrisome features, with or without other additional unusual morphologic findings. These latter tumours have been labelled as uterine smooth-muscle tumours of uncertain malignant potential. Those that are followed by a recurrence are biologically low-grade leiomyosarcomas. Epithelioid and myxoid leiomyosarcomas are less common, and their diagnostic criteria are different to tumours of usual spindle cell differentiation [2].

CASE REPORT

A 65 year old female reported to the gyne opd of Gsvm medical college Kanpur with chief complain of post menopausal bleeding from 1 year, lower abdominal pain & history of wt loss from 6 months. On CT scan there was large well defined heterogenous mass of size 10*8*8 cm arise from the uterus. Both ovaries and other pelvic structure were normal. Patient got operated for this and uterus with bilateral ovaries were sent for histopathology in 10% formalin in the department of pathology Gsvm medical college Kanpur.

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GROSS EXAMINATION

Uterus was distorted, altogether measuring 10*8*8 cm in size. On cut section endometrial cavity was not seen and filled with greyish white to greyish brown, firm to hard tumor mass with areas of hemorrahage and necrosis.

MICROSCOPIC EXAMINATION

Histological examination showed a cellular tumor arranged in interlacing bundles of neoplastic spindle cells with elongated hyperchromatic nuclei, showing severe degree of nuclear pleomorphism and 10-15 atypical mitotic figures per 10 hpf in most mitotically active area, bizarre cells, multinucleated giant cells were observed, coagulative tumor cell necrosis was seen at places. Both sided ovaries and fallopian tubes were free from tumor.

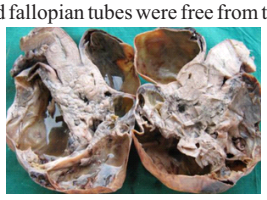

Fig-leiomyosarcoma protruding from myometrium into the endometrial cavity of this uterus

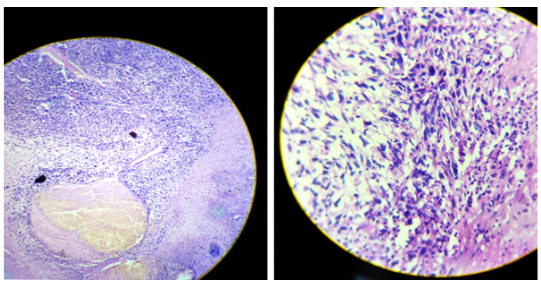

Fig-Microscopic examination showing a cellular tumor arranged in interlacing bundles of spindle cells with elongated hyperchromatic nuclei and nuclear pleomorphism.

DISCUSSION

Uterine leiomyosarcoma is an uncommon malignancy accounting for approximately 1% of uterine cancers . Although leimyosarcoma can occur elsewhere in the pelvis , including the cervix and urinary bladder, it is more commonly found in the uterus as seen in our case[1]. Most common in women over 40 years of age who usually present with abnormal vaginal bleeding , palpable mass and sign and symptoms resembling leiomyoma [2]. Our patient presents with complaints of post menopausal bleeding since one year. Uterine leimyosarcomas are aggressive tumors with high rate of reccurence. They originate from the myometrium or myometrial vessels[3]. The diagnosis of uterine sarcomas is made from histologic examination of entire uterus seen in our case . Treatment consist of total hysterectomy with bilateral salphingo oophorectomy without lymph node dissection as lymph node involvement is less common [4] . Prognostic factor include tumor size> 5 cm and high mitotic index, although they are highly aggressive tumors even with a mitotic count of less than 2/mm2 [5]. The most common mode of spread is hematogenous. Recurrence is common upto 70% [6] . survival rate are dependent on the stages of diseases at diagnosis. 5 years survival rate is 50-555% for stage 1, 8-12% for stage 2-4. Overall , five years survival rate , for all stages ranges from 30-50% [7].

Conclusions

Uterine LMSs are rare, extremely aggressive tumors with high recurrence rates, even when confined to the uterine corpus at the time of diagnosis. When diagnosed preoperatively, patients should be counseled for total hysterectomy typically with BSO unless premenopausal. Complete surgical cytoreduction should be considered when feasible. Lymphadenectomy should be undertaken only in patients with suspicious nodes or extrauterine disease.

Ongoing biomedical research as to the pathways and receptor status

may provide essential insight into the pathogenesis of these tumors and shed light on possible targeted therapies.

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