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Case Report

Uterine Leiomyosarcoma: A Rare Case Report

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ABSTRACT:
Malignant change in a leiomyoma or uterine fibroid is known as leiomyosarcoma.It is a rare uterine malignancy and most of the patients lack symptoms or present with rapidly growing pelvic mass.This case report presents a 38yr old P1D1 women who came to opd with complaint of heavy menstrual bleeding since 2 months and mass per abdomen which increased in size over 3 months. On evaluation-usg s/o uterine mass of size 14*14cm- ? endometrial neoplastic etiology and CECT s/o-large abdominopelvic lesion seen, with uterus not separately seen from lesion and multiple necrotic areas noted .Patient was posted for elective total abdominal hysterectomy and bilateral salphingoophorectomy and histopathological finding of the specimen revealed leiomyosarcoma.Uterine sarcoma are rare due to which they are not suitable for screening .Its diagnosis is done by histopathological examination and surgery is the only treatment.Early diagnosis and complete surgical clearance gives the most promising chance of improved survival .

INTRODUCTION:

Uterine leiomyosarcoma is a rare uterine malignancy. Most of the patients lack symptoms or present with a rapidly enlarging pelvic mass[1].It arises from smooth muscle of the uterus and is a rare tumor that accounts for 2% to 5% of all uterine malignancies[2].

CASE REPORT:

A 38yr old P1D1 women came to opd with complaints of heavy menstrual bleeding since 2 months with passage of clots with 4-5 pads soakage per day , presented with mass per abdomen which increased in size over span of 3 months.She had no significant medical or family history . On examination general condition was fair ,pallor present with vital signs normal,she was averagely built , per abdominal examination revealed uterine size corresponding to 22weeks gravid uterus,firm to hard in consistency with restricted mobility , upper and lateral borders of mass could be made out but lower border could not be ascertained, on per speculum examination-bleeding present.On evaluation-usg s/o uterine mass of size 14*14cm-?endometrial neoplastic etiology and CECT s/o-large abdominopelvic lesion seen, with uterus not separately seen from lesion and multiple necrotic areas seen.

On admission her hb-8.8g ,1 pint pcv was transfused ,her thyroid function test revealed raised TSH-8.55 with T3 and T4 within normal limits for which physcian opinion was taken and started on tb thyronom 75ug.After correction of her haemoglobin and anesthesist fitness patient was posted for elective total abdominal hysterectomy with bilateral salphingoophorectomy ,intraoperative blood loss was 1-1.5 litre for witch 1 pint pcv was transfused during the procedure followed by 1 pcv postoperative recovery phase.

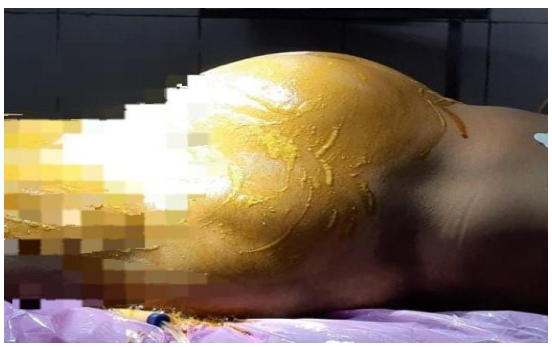

Fig-1 Preoperative view of patient in supine position

Fig-2 Intraoperative view of the uterus

Gross characteristics of the mass such as loss of whorl pattern ,yellow color and soft consistency felt different than a leiomyoma.

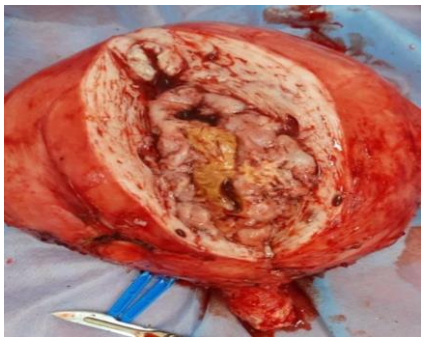

Fig - 3 Cut section of uterus

Postoperative histopathological evaluation showed large areas of necrosis and increased mitotic activity. Tumor cells were spindle shaped, pleomorphic and had moderate to severe atypia suggestive of leiomyosarcoma.Patient and her relatives were counselled and patient was refered to oncology centre for further management.

DISCUSSION:

Uterine leiomyosarcoma is a rare uterine malignancy. It has the highest prevalence during pre and perimenopause[1].Most of the patients lack symptoms or present with a rapidly enlarging pelvic mass[2].It arises from smooth muscle of the uterus and is a rare tumor that accounts for 2% to 5% of all uterine malignancies[3]. The pathogenesis of uterine leiomyosarcoma is not completely known;however chromosomal rearrangement has been identified as an oncogenic mechanism by genome-wide studies conducted recently.Cell cycle regulators,p16 and p53,are frequently overexpressed and appear to be associated with the major modifications of the sarcomagenesis[4].

The risk factors for development of uterine leiomyosarcoma include nulliparity, obesity, menopausal use of estrogen and progestin,oral contraceptives,tamoxifen use,and nulliparity[5,6]whereas cigarette smoking has been associated with a reduced risk of developing leiomyosarcoma[6].

Uterine leiomyosarcoma may present with vague clinical symptoms and imitate benign conditions such as leiomyoma[7]. Patients may present with abnormal uterine bleeding, pelvic pain, and/or uterine mass, although some patients remain asymptomatic. Our patient presented with heavy menstrual bleeding and growing mass per abdomen.

In women suspected of having symptomatic leiomyoma or leiomyosarcoma, USG is the preferred initial imaging, while MRI is an excellent modality for imaging the pelvis. Although MRI findings helps to differentiate leiomyoma from leiomyosarcoma, it is not a pathognomic imaging criterion because the currently available data are limited to demonstrate its utility[8]. On computed tomography it may show irregular central zones of low attenuation,suggesting extensive necrosis and haemorrhage,foci of calcification may be present but rare[9].

Most leiomyosarcomas are detected at the time of histopathological evaluation of a hysterectomy or myomectomy specimen.The pathological diagnosis of leiomyosarcoma depends upon the presence of necrosis, mitosis, and cytologic atypia in the proliferating muscle cells[10]. According to the Stanford criteria, reported by Bell et al., the histologic diagnosis depends upon the presence of at least two of the following criteria: diffuse moderate-to-severe atypia, a mitotic count of at least 10 mitotic figures/10 HPF, and tumor cell necrosis[11]. Leiomyosarcoma is highly aggressive and has a very unfavorable prognosis. The age of the patient, race, and the International Federation of Gynecology and Obstetrics stage are the main prognostic factors along with the mitotic index and the hormonal receptor expression in the tumor[10]. Thus, the diagnosis of leiomyosarcoma before the age of 50 in an early stage with an absence of vascular invasion along with low myometrial invasion and histologic grade signifies a good prognosis[12].

It is universally accepted that surgery is the primary treatment for uterine leiomyosarcomas. Total hysterectomy has been established as the safest surgical procedure in younger women . Although there is no definite treatment for advanced and recurrent disease, significant progress has been made recently.

CONCLUSION:

Uterine leiomyosarcoma is a rare uterine malignancy that arises from smooth muscle of uterine wall and are very aggressive tumors diagnosed incidently at surgery with unusual appearance of the content and confirmed by histopathology . Hysterectomy is the preferred treatment for early-stage disease.

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