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### RESEARCH ARTICLE

#### RETROPERITONEAL LEIOMYOMA OF GYNECOLOGIC TYPE: A CASE REPORT AND REVIEW OF THE LITERATURE

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#### Abstract

Retroperitoneal leiomyomas are rare benign tumors with smooth muscle differentiation, because of its scarcity and non-specific presentation, the preoperative diagnosis might be challenging. This current paper we reported a case of 60years old , who was seen in OPD with abdominal pain. Ultrasound demonstrated a mass which was initially thought to be related to the ovary. CT scan was done which showed possible uterine mass. Patient undergone laparoscopy, the tumor was clearly retroperitoneal fibroid. Report of histopathology report demonstrated Leiomyoma.

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#### Introduction:-

Leiomyomata is a common benign conditions arising from smooth muscle cells. Approximately 20%–30% of women older than 35 years have uterine leiomyomata that are manifested clinically. Retroperitoneal leiomyomata has a rare occurrence and has recently been recognized as distinctive lesions with similar histological features as uterine leiomyoma. [1]

Because of its scarcity and non-specific presentation, the preoperative diagnosis might be challenging and may be confused with renal tumors . [2,3]

Diagnostic workup should include ultrasonography, CT, and/or MRI, but final diagnosis is obtained after a pathohistological examination has been performed. [4]

The prevalence of leiomyomas is up to 20-30% among women older that 35 years. Another study have discovered increases of myoma prevalence in older age, almost 70% among >40 years old, with most incidences in African ethnic at >80% of all population. [7]

Leiomyosarcoma (LMS), a subset of soft tissue sarcomas, refers to malignant smooth muscle neoplasms accounting for about 5%–10% of all sarcomas.

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The LMS of the retroperitoneum arises from the inferior vena cava, its tributaries, or any small vessel. When diagnosed, they often emerge as a mass, usually in enormous size.[9]

**Case Report:**

60years old P12+0 , 9vaginal deliveries and 3 caesarean sections .

Menopause since 5years , not on hormone replacement therapy.

She has significant medical history of hyperthyroidism and hypercholesterolemia on treatment .

History of previous 3 caesarean section.

Presented to Gynecology OPD with complain of lower abdominal pain for 2weeks prior to her presentation . No abnormal vaginal bleeding , no urinary or GIT complain , no history of loss of appetite or weight loss.

On general examination, no abnormal findings recorded .

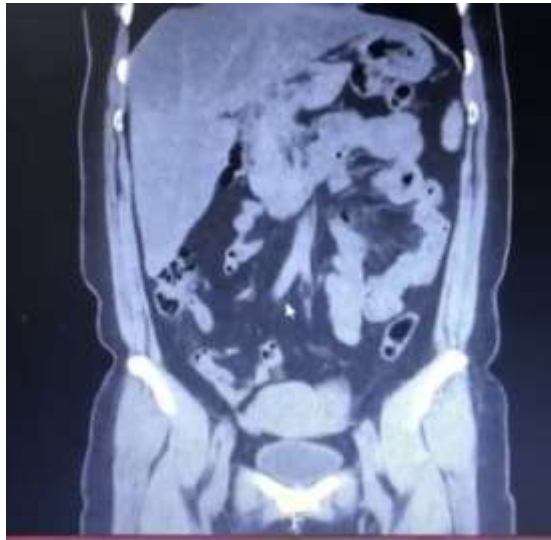
Gynecological examination did not reveal abnormal findings . She was seen in another facility was refereed for further management as case of suspected ovarian ovarian mass.

Bedside ultrasound demonstrated leomyoma



**Image1:-** Ultrasound depicting fibroid.

CT scan abdomen + pelvis with contrast was done which showed Bulky uterus , a soft tissue mass lesion measuring (55x44mm) seen related to the lower posterior wall, likely subserous myoma.

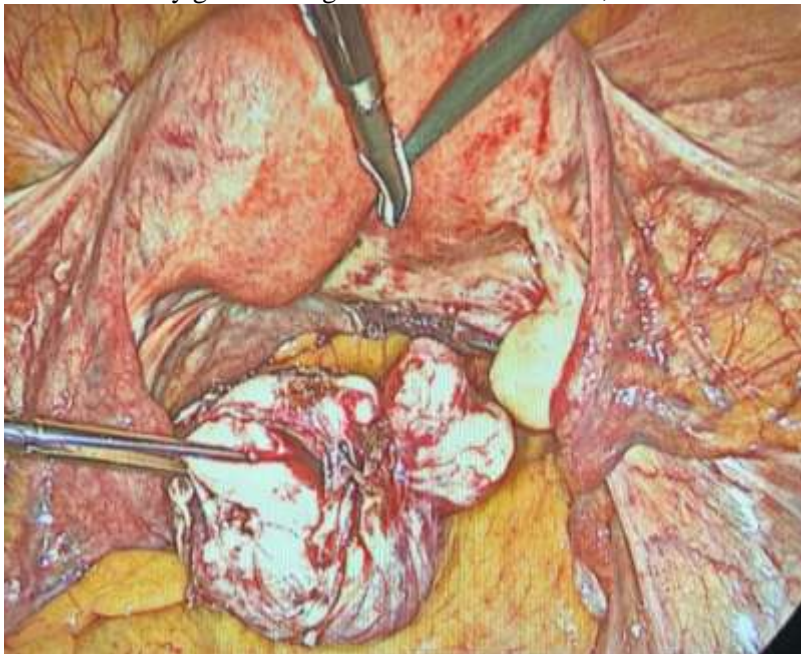


**Image 2:-** CT scan showing the lesion.

In view of suspicious mass ? Ovarian mass/ uterine mass laparoscopy was planned .

#### **Intra-operative findings:**

No lesions were seen in the upper and middle abdomen, in the pelvic region following are seen. The uterus was mildly enlarged, both adnexa were normal, on the right side in the retroperitoneal area between the ovary and the uterosacral ligaments, the ureter seen clearly. Carefully and slowly incision of the peritoneum over the tumor, carefully inoculation of the tumor from its bed, the tumor clearly a fibroid, removal of the fibroid after morcellation, the ureters after removal of the fibroid clearly seen . Bed of the fibroid was checked by general surgeon which was normal, heamosuasis secured.

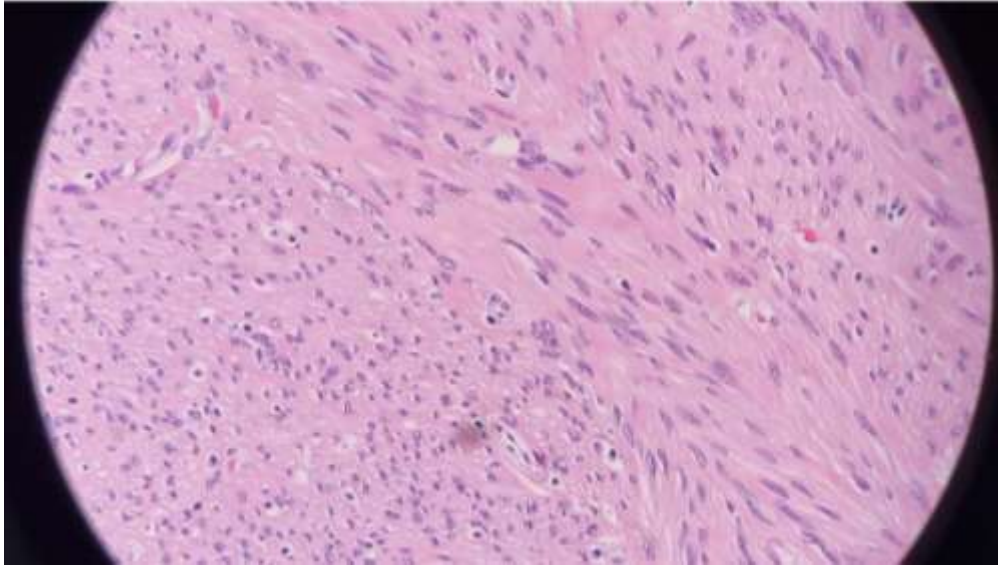


**Image3:- (a)(b)** intra-operative , depicting retroperitoneal fibroid.

Post operative period was smooth .  
Patient was discharged home in stable condition.  
The specimen was sent for histopathology examination .

**Histopathology report:**

Histology diagnosis based on heamatoxylin and eosin consist of fragments of smooth muscle, no significant cytological atypia, findings consistent with leiomyoma .



**Image 4:-** Histology slide demonstrating fragments of smooth muscle ,no atypia.

**Discussion:-**

Uterine fibroids are the most common benign solid pelvic tumours in women and are present in about 80% of all hysterectomy specimens .The most common sites of fibroid are uterus and GIT; however, it can originate wherever smooth muscle cells exist .The extrauter- ine leiomyoma presentations mentioned in the literature are benign metastasizing leiomyoma, disseminated peritoneal leiomyomatosis, intravenous leiomyomatosis, parasitic leiomyomata, and retroperitoneal growth, and the unusual sites of origin include the vulva, ovaries, urinary bladder, and urethra. [1]

Clinically, presenting symptoms of retroperitoneal leiomyomas are often non-specific (including discomfort, fatigue, and back pain) or are related to compression of adjacent structures, as these tumors may extend to the upper retroperitoneum, being as high as the level of the renal hilum .Pathogenesis of these lesions remains unclear. [2]

The pathogenesis of retroperitoneal leiomyomas is still unclear , the diagnosis is rarely established preoperatively, symptoms are not specific and are related to the mass effect of the tumors.

It is important to mention that most retroperitoneal leiomyomas are independent from the uterus in the pelvic floor.Differential diagnoses concern other spindle cell tumors, such as leiomyosarcomas and stromal tumors.[3]

Recently, as the increasing morcellation during myomectomy or hysterectomy, the theory of "iatrogenic" parasitic leiomyoma was suggested, as tumor growing by the fibroids 'seeding during morcellation. Retroperitoneal parasitic leiomyoma is very rare condition. [5]

Preoperative diagnosis of retroperitoneal leiomyoma can be very challenging, because of the rarity of this tumor. [5]

The initial investigation, just as in cases of a patient presenting with a pelvic mass, should therefore include a pelvic ultrasound. MRI may further help in distinguishing benign leiomyomas from other solid pelvic and abdominal tumors. When the parasitic leiomyoma detached from the uterus, it may result in a misdiagnosis into an adnexal tumor, such as ovarian tumor.[7]

**Consent:**

Written informed consent was obtained from the patient to publish this report .

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