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CASE REPORT

Leiomyoma of Broad Ligament a Location with Rare Incidence: A Case Report

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ABSTRACT

Leiomyoma are most common benign tumors of the uterus, mostly situated in the body of the uterus. Rarely, they arise from extrauterine sites with broad ligament leiomyoma being uncommon.[1]

A 49-year-old female, multipara presented in outpatient department with complaints of lower abdominal pain and abdominal distension. Abdominal examination revealed a firm mass arising from the pelvis corresponding to 18 week size. On per vaginal examination, huge mass was palpable occupying whole abdomen; uterus was not felt separately. CECT abdomen and pelvis revealed lesion arising from right adnexa and occupying pelvic region most likely suggestive of neoplastic etiology of ovary? USG was suggestive of an abdominopelvic neoplastic lesion arising from right adnexa. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done. The specimen was sent for histopathological examination.

Histopathological examination revealed broad ligament leiomyoma.

This case is being reported for its rare incidence, diagnostic dilemma with ovarian malignancy and surgical challenge.[1]

KEYWORDS | Broad ligament, Leiomyoma, Ovarian malignancy, case report.

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INTRODUCTION

Leiomyomas are benign tumors of female genital tract with uterine leiomyoma being the mostcommon. Leiomyomas of uterus are the most common myomas and account for 20-30% of cases in women aged less than 35 years.

Leiomyoma of broad ligament is extremely rare having incidence of less than 1%.[1] Further, cellular leiomyoma of broad ligament is the least common variant reported in literature.[2]

The diagnostic dilemma arises when leiomyomas undergo degenerative changes. Broad ligament leiomyomas are rare and therefore can cause specific diagnostic difficulties and may lead to mistaken diagnosis and management. This poses both clinical and radiological difficulty in differentiating with an ovarian tumour.[1] Even in forensic pathology, large pelvic masses are usually associated

with venous thrombosis which has clinical implications.[3]

PATIENT AND OBSERVATION

Patient Information

49-year-old female married for 30 years P2L2 with tubal ligation done with previous full term normal delivery came with chief complaints of pain in abdomen, premenstrual severe dysmenorrhea in the last 4-5 months. She also had complaints of distension of abdomen, hard stools, swelling of bilateral feet and generalized weakness. Her menstrual cycle was regular with average flow. The patient was a known case of hypertension since 2-3 years and was on medication.

Clinical Findings

Abdominal examination revealed a firm mass arising from the pelvis corresponding to 18 week size with solid cystic consistency and restricted mobility. On per speculum examination, the cervix and vagina were healthy. On per vaginal examination, hugemass was palpable occupying whole abdomen; uterus was not felt separately.

Timeline of the Current Episode

Patient was having complaints of pain in abdomen since 4 months and premenstrual severe dysmenorrhea since 4-5 months. Abdominal distension was present. Patient was having generalized weakness and lethargy. She also complained of constipation and hard stools. There was no history of menorrhagia, menstrual irregularity, bladder complaints, per vaginal white discharge or nausea and vomiting.

Diagnostic Assessment

CECT abdomen and pelvis revealed a large well defined peripherally enhancing cystic lesion with large enhancing solid component and enhancing septae within arising from right adnexa and occupying pelvic region with its relations as described most likely suggestive of neoplastic etiology of ovary. CA-125 serum levels were in normal range. USG guided FNAC was suggestive of mucinous epithelial neoplasm of ovary. Cytology PAP smear revealed inflammatory smear with Low Grade Squamous Intraepithelial lesion.

Therapeutic Intervention

Total abdominal hysterectomy with bilateral salpingo-oophorectomy was done.

Intra-Operative findings revealed two true broad ligament fibroids. One was 30x20 cm size extending in both hypochondrium more in right with cystic and red degeneration. The second one was 7x6 cm size present just lateral to cervix on right side.

The specimen was sent for histopathological examination.

Grossly, the mass was solid cystic arising from broad ligament; Total measurement: 15x 12x4 cm.

Fig. 1: Gross

Microscopically, sections from the broad ligament mass revealed intersecting and interlacing fascicles of closely packed spindle cells arranged in whorled pattern.

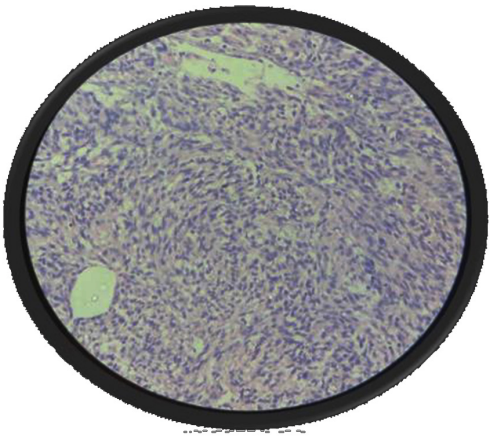

Fig. 2: Microscopy

DIAGNOSIS

A diagnosis of Cellular leiomyoma with extensive cystic change was made on histopathology.

Follow-up and Outcomes

The patient was relieved of acute symptoms of pain in abdomen and abdominal distension. Her menstrual cycle became regular and dysmenorrhea had subsided. Her bowel and bladder habits became normal. Overall, the patient was doing quite well after therapeutic intervention.

DISCUSSION

Leiomyoma is the most common tumour of female pelvis having a prevalence of 20-30%. Extra uterine locations of leiomyoma are rare. Smooth muscles of uterus give rise to leiomyoma. The clinical presentation is determined by the size, number and location. The number varies from one to multiple and size varies from small to huge. They can be intramural, submucosal, or subserosal in location.[4]

Broad ligament, ovary, urinary bladder, urethra, vulva and vagina are the extra-uterine location of leiomyoma. Broad ligament fibroids reach enormous size and present with bowel and bladder abnormalities.[5] Podduturi et al concluded that sudden death can be caused by deep venous thrombosis and pulmonary embolism due to stasis of venous blood caused by large pelvic masses.[3]

We report this case of true broad ligament fibroid measuring 20x18x12 cm due to its rare location and diagnostic dilemma in differentiating it from ovarian tumour and giant fibroid. These are asymptomatic benign tumours. The leiomyoma can push the uterus to contralateral side or it can compress the adjacent pelvis structure when it reaches a significant size; thus, causing various signs and symptoms.[6]

There is great surgical difficulty because it is relatively inaccessible and lies in close proximity to the bladder and uterus. Other severe symptoms include urinary retention and ureteric obstruction.[1]

Degenerations, haemorrhage, necrosis, infections and sarcomatous changes are the most common secondary changes in fibroids. A rare complication of benign fibroid is myxoid degeneration, which mimics metastatic malignant ovarian tumour due to presence of cystic changes.[6]

Diagnosis of parasitic and pedunculated leiomyoma is aided by ultrasonography. As the parasitic leiomyoma are separate from uterus, they are very often mistaken for adnexal tumours such as ovarian tumours.[7]

Broad ligament differential diagnosis includes

1. Masses from ovarian origin-benign or malignant
2. Broad ligament cyst
3. Lymphadenopathy
4. Tubo-ovarian masses

Fatal pulmonary thromboembolism can occur due to huge leiomyomas as they cause compression of pelvic veins which results in stasis and thrombosis in leg veins. Therefore, very large leiomyomas can lead to deep venous thrombosis causing pulmonary thromboembolism which can be a cause

of sudden death.[3] However, deep venous thrombosis associated with large pelvic masses is a rarely reported complication.[8]

Our case was suspicious of ovarian neoplasm on clinical and radiological investigation.

CA-125 serum levels were in normal range. Elevation of CA-125 levels usually directs towards metastatic ovarian neoplasms.For the diagnosis of such cases, histopathology plays an important role.[9] Therefore, properhistopathological evaluation is important for patient management.

Patient Perspective

I was having complaints of pain in abdomen since 4 months. My menstrual cycle was painful. My abdomen had distended. I was suffering with constipation and there was generalized weakness too when I visited Lata Mangeshkar Hospital's Gynecology Out Patient Department.

I underwent numerous pathological and radiological investigations, which suggested a tumour mass in my pelvis Finally, my doctor recommended surgical removal of the tumour.

I was operated. The tumour mass was removed. I was discharged after 3 days from the hospital.

I took the medications advised by the doctors at home. Gradually, I could notice relief of my symptoms. My menstrual cycle was regular, with little or no pain and average flow. My abdominal pain and other symptoms had also subsided.

Informed Consent

Informed consent was obtained by the patient in the study.

CONCLUSION

Broad ligament leiomyomas are rare and they mimic ovarian neoplasm on clinical and radiological examination. Therefore, it is necessary that we keep them as important differential diagnosis for such solid adnexal or ovarian mass. Broad ligament leiomyoma diagnosis is difficult clinically and radiologically due to its rarity and unusual presentation. It is therefore very important for the histopathologist to diagnose it.

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