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Leiomyoma Of The Uterine Round Ligament: A Case Report

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I. Introduction

Leiomyomas are benign tumours that may arise in any anatomical structure containing smooth muscle. (1) Leiomyomas of the uterine round ligament may appear in multiple different anatomical locations at any point along the length of this structure, and are commonly classified as intra- or extra-abdominal (inguinal or labial). Intra-abdominal leiomyomas of the uterine round ligament typically remain asymptomatic. On pelvic and ultrasound examination, the differential diagnosis of leiomyomas from pedunculated subserosal myomas or solid ovarian neoplasms is difficult. (2)

Even following computed tomography and magnetic resonance imaging examinations, the lack of specific findings, as leiomyomas appear as encapsulated heterogeneous tumours, hinders final diagnosis prior to surgical intervention and histological examination. (3) On the other hand, extra-abdominal leiomyomas are frequently detected by the patient as a mass lesion with synchronous symptoms, including pain, and differential diagnosis from hernias or enlarged lymph nodes is necessary. (2,4) Leiomyoma of the round ligament is rare. The majority of cases are commonly located in the extraperitoneal region of the round ligament. Patients presenting with round ligament leiomyosarcoma sometimes experience abdominal pain, but many patients are asymptomatic. (5)

In this paper, we present an unusual case of a patient with an intra-abdominal right sided leiomyoma of the round ligament and provide a review of the related literature.

II. Case Report

A 42-year-old woman consulted the Department of Obstetrics and Gynaecology of General Hospital sector -6, Panchkula, Haryana. She reported that she had a history of abdominal distention for 4-5 months with lower backache and a dull dragging sensation in lower abdomen. The patient's menarche was 28 years back, she was gravida 2, she had no history of oral contraceptive use, and menopause had not occurred. Patient had history of regular menstrual cycles with her LMP being 24/4/24. There was no weight loss, night sweats, nausea, chills, vomiting, or bladder symptoms, and her previous medical and operational history was also uncharacteristic. Hypertension was detected during PAC. The ultrasound showed a 10.1 cm × 9.5 cm × 4 cm mass, which was oval with a clear boundary and was present in right adenexal, separate from the right ovary, suggestive of round ligament fibroid or mass. Her CA-125 was 28.6 U/ml.

A contrast enhanced magnetic resonance imaging (CEMRI) scan showed a large mass in the left pelvic cavity with slight enhancement. There was no evidence of local infiltration or lymphadenopathy. Both ovaries were normal and separate from the mass. Patient was taken up for elective explorative laparotomy after taking proper informed consent. Surgery revealed a normal uterus with normal bilateral adnexa. A well-defined solid mass about 10 cm × 9 cm in size originated from the right round ligament of the uterus. Subsequently, the right round ligament mass of the uterus was removed followed by total abdominal hysterectomy.

The specimen was examined by histopathology, which showed a staggered fascicle of smooth muscle cells. The diagnosis was leiomyoma of the round ligament. There were no malignant findings from the uterus, cervix or adnexae. The postoperative period was uneventful and the patient was discharged on postoperative day 4 without complications. No recurrence is identified till now.

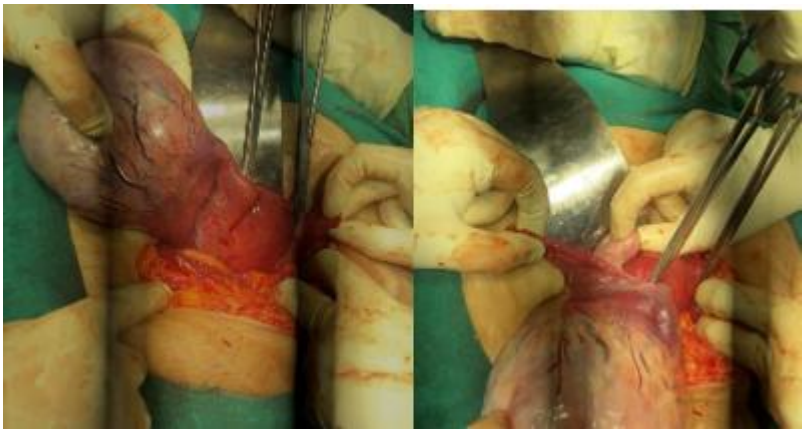

Figure 1,2:- Intraoperative Photographs Collected At Laparotomy Showed That The Mass Was Located In The Right Round Ligament Of The Uterus.

Figure 3,4:- Gross Findings Showed The Central Tissue Was Yellow, Solid, And Soft.

III. Discussion

Large leiomyoma of the round ligament is very rare. (5) There are no specific symptoms of round ligament leiomyoma. A small percentage of patients have abdominal pain; however, most patients are not symptomatic. Round ligament leiomyoma is usually found during a medical examination, ultrasound, or MRI. The symptoms are determined by the size, location, and growth rate of the tumor. (6) Leiomyomas of the uterine round ligament are primarily solitary and unilateral, although they have also been reported to be multiple and bilateral. A number of studies have reported that leiomyomas appear more frequently on the right compared with the left uterine round ligament. (7)

Traditional detection modalities for round ligament leiomyoma include ultrasound, CT, and MRI. The same methods of detection are applied to round ligament leiomyoma. The key to the diagnosis of leiomyoma is Doppler ultrasound, which shows the vascular connections of the leiomyoma with the uterus. In this case, the MRI scan showed an oval mass with a clear boundary without any pathological lymph nodes, which was suggestive of a benign mass. MRI is necessary to distinguish between malignant and benign pelvic masses.

The most common way to manage round ligament leiomyoma is open surgical excision or laparoscopy. Furthermore, robot-assisted laparoscopic myomectomy is suitable for patients with round ligament leiomyoma. With regard to their size and location, open surgical excision, laparoscopy, or robot-assisted laparoscopic myomectomy can lead to a satisfactory result. We opted for open surgical excision of the mass.

IV. Conclusion

Routine gynaecological examination is necessary to prevent women from experiencing life-threatening conditions that affect the reproductive system. The vast majority of patients may be asymptomatic even when they reach a large size. Surgical intervention remains the optimal therapeutic strategy, following appropriate preoperative evaluation, as a means of definitive diagnosis, as well as curative treatment in cases of large intra-abdominal tumours with a challenging differential diagnosis.

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