

Case study

A rare case of round ligament leiomyoma masquerading as inguinal hernia

Abstract: Smooth muscle tumors originating from round ligament are rare with leiomyoma being the most common type among them with unknown exact incidence. Its location at inguinal area/pubis area is confused with the clinical diagnosis of vulvar swelling, inguinal hernia, lymph node, or other nodal masses. Preoperative diagnosis is usually done by a computed tomography or an exploration of the affected area. Curative treatment is excision of the mass. Here, we report a case of a 47-year-old parous woman who presented with swelling over right inguinal region, on exploration, a myoma was found and was confirmed as leiomyoma on histopathology.

Keywords: Round ligament, Leiomyoma, Inguinal hernia

Introduction

The round ligament of uterus attaches the uterus to the mons pubis and labia majora through the inguinal canal. It is composed of connective tissue, smooth muscle fibers, arteries, veins and nerves with a coating of mesothelial layer(1,2). Tumor of the round ligament of uterus is rare, with leiomyoma being the most common followed by mesothelial cysts and endometriosis(1). Leiomyoma usually originates from smooth muscle fibers in round ligament (3). Abdominal, inguinal, and vulvar locations of round ligament leiomyoma have been described (4,12). There are few case reports and case series in the literature but the exact incidence is not known (5). leiomyomas are frequently encountered during reproductive years but there are also reports of menopausal occurrences . Mean age of the

patients varies between 13 and 70 years and mean dimension of tumor from 0.5 to 15 cm (6). Extra peritoneal round ligament leiomyomas are uncommon tumors. Hence, we report this rare case of leiomyoma of round ligament, presenting as a painless swelling over right inguinal region.

Case report

A 47-years-old female patient presented to the outpatient department of gynecological oncology, AHPGIC, Cuttack with painless swelling over right inguinal region. Swelling had been gradually increasing in size for the past 6 months and was not reducible. The swelling measured 7 x 5 cm, was irreducible, and non-tender. On speculum and bimanual pelvic examination, cervix was found to be healthy, uterus was bulky, irregular in shape and contour with no adnexal masses. Preoperative transvaginal ultrasonography revealed multiple myomas with the largest being 5x4 cm and a well circumscribed 7 x 5 cm lesion over the right inguinal area and the ovaries seemed normal. With the above mentioned findings, right inguinal region was explored surgically and a well- circumscribed firm mass of size approximately 7 cm x 5 cm x 4 cm was found. The mass was found to be originating from the inguinal insertion of round ligament (Figure 1) and was removed completely. As there were multiple myomas (figure 2) in the uterus we proceeded with abdominal hysterectomy as patient had completed family. The excised specimen was sent to the pathology department for histopathological examination. The round ligament mass on microscopic examination revealed features of leiomyoma (Figure 3). The patient was discharged on day 3 post operative.

Discussion

Tumors of the round ligament of uterus are quite rare. The most common ones are leiomyomas, endometriosis and mesothelial cysts (1). 50- 70% of leiomyomas occur in the extra peritoneal part of the round ligament and are more common on the right side for unknown reasons (1). Fifty percent of round ligament leiomyomas present with uterine fibroids as in our case (7,11). They are commonly seen in young patients and estrogen and progesterone receptors are positive. However, there had been reports of cases which are diagnosed in postmenopausal females (6,10). It can mimic as vulvar mass or inguinal hernia as in our case or inguinal lymphadenopathy. Preoperatively computed tomography scan and magnetic resonance imaging (MRI) (8,13) shows an encapsulated heterogeneous mass associated with calcifications which helps in making diagnosis; (9,14), but these are non-specific findings. Surgical exploration is the only definitive method to differentiate between leiomyoma, inguinal lymphadenopathy, and inguinal hernia.

The final diagnosis is confirmed on histopathology. So it can be considered as one of the differential diagnosis of inguinal region mass in female patient.

Conclusion

Leiomyoma of the round ligament of uterus is a rare entity and can be mistaken for inguinal hernia. Pre-operative diagnosis can be suspected by CT scan. Treatment of choice is excision which provides symptomatic relief to the patient. Diagnosis is usually made intra operatively and confirmed by histopathological examination.

Disclaimer regarding Consent and Ethical Approval:

As per university standard guideline, participant consent and ethical approval have been collected and preserved by the authors

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Figure -1 showing origin of leiomyoma from round ligament of uterus



Figure -2 showing associated multiple leiomyoma of uterus

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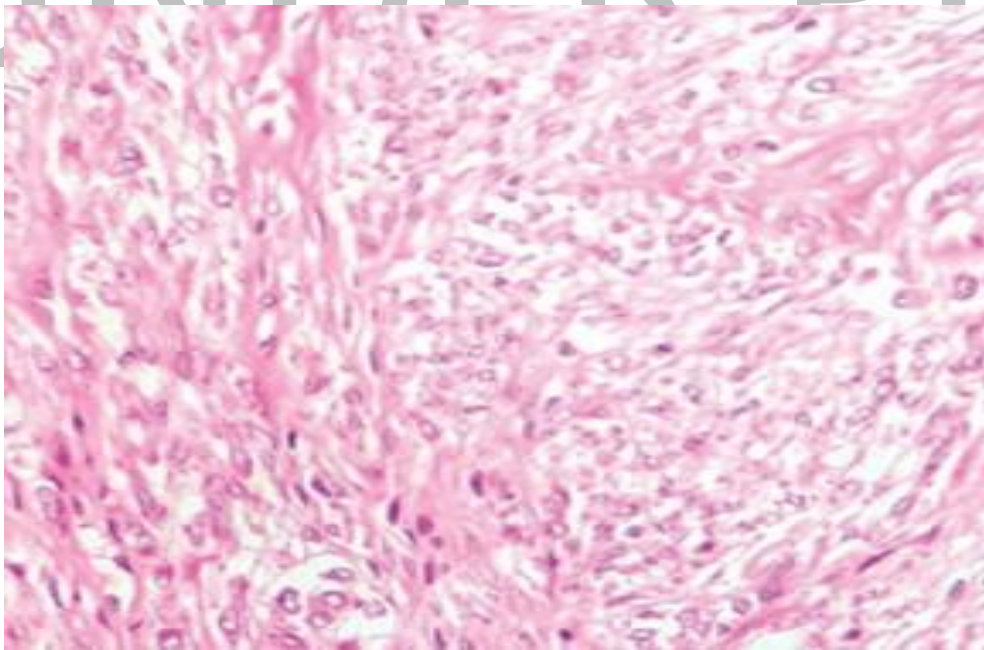


Figure -3 Microscopic view showing spindle cells in fascicles (High power view) suggestive of leiomyoma

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