

CASE REPORT

Uterine Fibroid Tumour Mimicking Adnexal Mass

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Abstract

44-year-old healthy woman presented with 2 weeks of lower abdominal pain. Vaginal and abdominal ultrasound revealed a well-circumscribed structure measuring approximately 8x5 cm with anechogenic inclusions. The tumour was considered to belong to the left ovary. The tumour had a solid centre with positive Doppler signal, circumscribed by cystic structures. . Due to consistent pain a laparoscopic examination of the pelvis was performed. It revealed a tumour originating from the lateral uterine wall, growing into the broad ligament towards the anterior abdominal wall. Tumour was grey white, firm and hydropically degenerated. The histology revealed a uterine leiomyoma with hydropic degeneration.

Keywords: Uterine Fibroid Tumour. uterine leiomyoma.

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Introduction

Uterine leiomyomas (fibroids or myomas) are the most common pelvic tumour in women. After the age of 35 they are found in almost half of women and the prevalence increases during reproductive age.^{1,2} Majority of leiomyomas are small and asymptomatic, but infrequently they can cause pain from degeneration or torsion of pedunculated tumour.¹

Case Report

44-year-old patient presented with two weeks of lower abdominal pain. Her medical history revealed she was otherwise healthy and had been operated on once due to umbilical hernia. Her menstrual cycle was regular, but during the last two years she noticed the menstrual bleeding was heavier and prolonged. She visited her gynaecologist and the vaginal ultrasound revealed cystic formation on the left ovary with adjacent fluid formation. Bimanual vaginal examination revealed tenderness in left lower abdominal quadrant. At vaginal and rectal examination, a firm solid structure was palpable, but its size was difficult to assess. Uterus, uterine cervix and external genitalia appeared normal. Vaginal ultrasound revealed cystic septate structure

measuring approximately 8x5 cm with an echogenic inclusion; its position was difficult to assess but it was considered to belong to the left ovary (Figure 1).

Abdominal ultrasound examination revealed a well-circumscribed formation on the left side between the uterus and the bladder, measuring 10x7 cm, centrally solid with positive Doppler signal, circumscribed by cystic part (Figure 2). The results of routine laboratory testing (complete blood count, serum electrolyte levels), levels of C-reactive protein and cancer antigen 125 were within reference values. Haemorrhagic corpus luteum was suspected and the patient was treated with analgesics. The pain didn't subside and the diagnostic laparoscopy was performed to establish the correct size and origin of the mass. Laparoscopic examination of the pelvis revealed tumour originating from the lateral uterine wall in a broad base, growing into the ligaments and projecting towards the anterior abdominal wall, measuring approximately 10 cm. The uterus was mobile, both ovaries and fallopian tubes seemed unremarkable. We proceeded to laparotomy, performing total hysterectomy with tumorectomy and bilateral salpingectomy. Both ovaries were left in place.

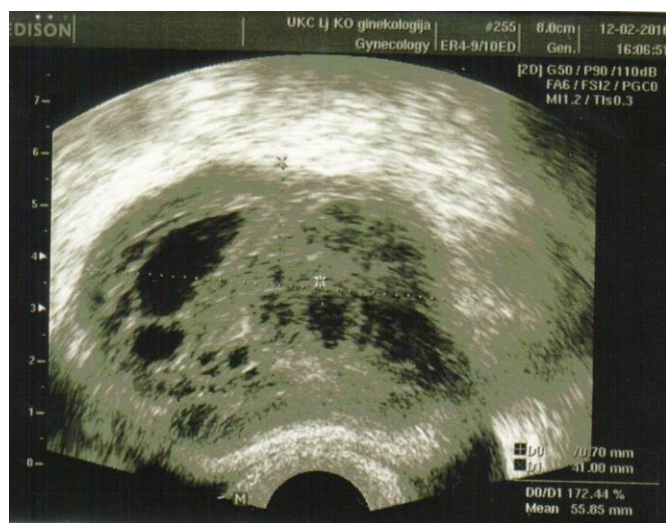


Figure 1. A tumour as seen with vaginal ultrasound.



Figure 2. A tumour as seen on the abdominal ultrasound in the location of adnexa.

Gross pathologic examination revealed a tumour originating from myometrium on the left lateral side of the uterus, just beneath the round ligament (Figure 3). Its size reached 7x6 cm, whereas uterine size was 8x6x6 cm. On cut section, tumour was sharply circumscribed, grey white, firm and hydropically degenerated. There was another, 0.4 cm sized intramural leiomyoma in the body of the uterus. Endometrium, cervix and fallopian tubes were normal. Histology revealed a smooth muscle tumour with a fascicular pattern of growth with focal hydropic degeneration. Smooth muscle cells were elongated with eosinophilic cytoplasm and cigar shaped nuclei, that showed mild atypia and low mitotic rate. The final diagnosis was uterine leiomyoma with hydropic degeneration. After the surgery the patient's pain

subsided and she was planned for regular postoperative examinations with her surgeon.

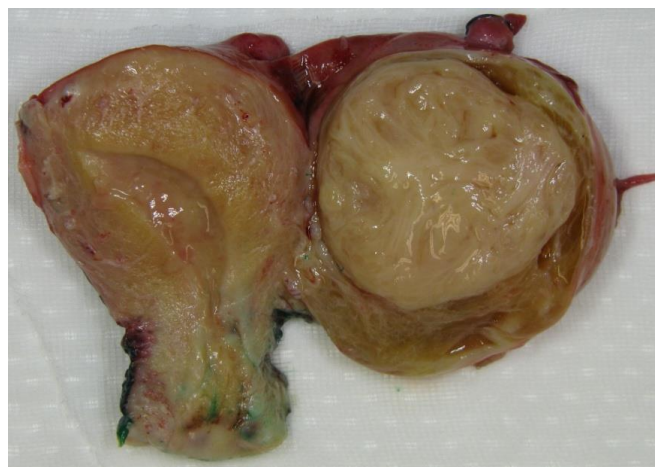


Figure 3. A well-circumscribed, gray white tumor lay od the left lateral uterine side, beneath the round ligament and presented focal, mainly periferal hydropic change.

Discussion

Most often leiomyomas are found within the uterus, including intramural, submucosal and subserosal locations. By contrast they can also be found in unique positions, such as the intra ligament (broad ligament), cervix and round ligament, although myomas in these locations are rare. When symptomatic, these unusual locations challenge the differential diagnosis.⁴ Among the extrauterine leiomyomas, broad ligament leiomyomas are the most common. The false broad ligament leiomyoma has a pseudo capsule which can be divided and dissected, allowing to easily enucleate the leiomyoma, whilst a true broad ligament leiomyoma lacks a pseudo capsule, therefore its enucleation is much more difficult and associated with greater risk of injury to the ureter.^{5,6}

Rarely leiomyomas cause an acute pain because of either torsion of pedunculated leiomyoma or leiomyoma degeneration. Degenerative changes are considered to result from excessive growth that outmatches the blood supply, or mechanical compression of feeder arteries.⁷ Cystic degeneration of a leiomyoma can result in the appearance of a complex mass on ultrasound imaging. Degeneration can be suggested when pain is present while scanning with the vaginal probe over the leiomyoma.

In addition, degenerated leiomyomas can cause elevated serum carcinoma antigen 125 concentration, which raises concern of malignant ovarian neoplasm.⁸ Hydropic degeneration is the accumulation of watery oedema fluid within connective tissue of leiomyoma. It is usually a focal process and noted in up to 50% of leiomyomas, seldom hydropic degeneration may be diffuse, which can bring about diagnostic difficulties. Although hydropic leiomyomas present with benign clinical behavior, their differential diagnosis includes myxoid leiomyosarcoma and intravenous leiomyomatosis, which should be excluded with ancillary testing (mucin stains, immunohistochemistry).

Conclusion

Although leiomyomas typically have characteristic ultrasound appearance, degenerated leiomyomas can acquire variable patterns. Pedunculated, broad ligament and particularly degenerated leiomyomas should be considered in the differential diagnosis of a multilocular and predominantly cystic adnexal mass.

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