Parasitic Leiomyoma: A Diagnostics Dilemma - A Case Report

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ABSTRACT

Uterine leiomyomas (Fibroids) are common tumour seen in reproductive age group of females. Leiomyoma may occur either intrauterine or extraterine. Extraterine are rarely seen may occurring in broad ligament, peritoneum, or in inguinal canal etc. We are reporting case of parasitic leiomyoma in peritoneum, posterior to uterus in a 40 years female presented with menorrhagia, backache since 2 months. Ultrasonography (USG) revealed mass posterior to uterus, separately. Provisional diagnosis of parasitic leiomyoma was made and abdominal hysterectomy performed. Intraoperative mass of 4x3cm seen separately over the peritoneum not attached to uterine. Histopathologically mass was confirmed as leiomyoma. Parasitic leiomyoma are rare tumour, USG or imaging modalities helps in diagnosis and treatment is surgical excision. Presenting this case due its rarity and diagnostic difficulties posed.

KEYWORDS: Uterus, leiomyoma, ultrasonography, peritoneum.

INTRODUCTION

Leiomyoma (uterine fibroid) common benign condition arising from smooth muscle cells of uterus which occur approximately in 20-30% reproductive age group females [1]. Leiomyoma may occur intrauterine or extraterine. Extraterine are rare, benign, and may occur at any anatomic location. Due to unusual, their different growth patterns have been reported in literature like dissemination, benign metastasis, intravenous leiomyomatosis, retroperitoneal, and parasitic growth[2]. Most of these get adhered to surrounding tissues, receives adjuvant blood supply and loose attachments to origin, thus becoming parasitic. Parasitic leiomyomas have been found in the remnants of a previous hysterectomy or laparoscopic myomectomy especially when morcellators were used for retrieval[3,4]. This rare entity may present with unusual clinical symptoms and misdiagnosed preoperatively even with advanced imaging modalities. We report a rare case of parasitic leiomyoma.

CASE REPORT

A 40 years old woman with three living children presented to gynecologic department with history of excessive and prolonged menstrual period since 2 months. Also she had lower abdominal pain heaviness in perineum, for that she took medication from local general practitioner for symptomatic relief. There was no history of respiratory difficulty and gastrointestinal symptoms. She had three full-term normal vaginal delivery with no history of any abortion. Menarche attained at 14 years of age. Her menstrual history was 3-4 day / 30 days, regular associated with pain and excessive bleeding since 2 months. There was no past surgical history, no history of tuberculosis, or no history of hormonal therapy.

On per speculum examination uterus and vagina were healthy, vaginal examination revealed the uterus acutely retroverted. Her baseline hematological and biochemical investigations were normal except mild anemia with hemoglobin 9.8 gm/dl due to excessive blood loss during menses. There was no palpable inguinal lymph node or abdominal organomegaly. Ultrasonography revealed a mass in the pouch of douglas suggestive of posterior wall fibroid of size 4x3 cm.

Considering the above clinical and radiological findings, provisional diagnosis of posterior wall fibroid wall made and abdominal hysterectomy was planned. Intraoperatively uterus was just bulky. A separate mass of size 4x3cm found...
on posterior to uterus. Total abdominal hysterectomy was carried out with complete excision of mass. Peritoneal mass and uterus without adnexa were sent to pathology department.

**Gross findings:**

We received uterus without adnexa and separate nodular mass. Uterus measuring 9x6x3.2 cm. Mass measured 4.5x3cm, weighing 45 gm. Cut section of mass revealed a gray white, firm, whorled appearance. [Fig. 1&2]

**Figure:1 Grossly Uterus with Peritoneal nodular mass.**

**Figure:2 Cut surface of nodular mass with whorled areas.**

**Microscopy:**

Multiple section from mass revealed a benign soft tissue tumour composed of spindle cells arranged in interlacing bundles and sheets. (Fig. 3) Individual cells were elongated with cigar shaped nuclei and moderate amount of eosinophilic cytoplasm and with hyaline change (fig.4)

Nuclei were uniform, sparse mitosis and focal hyaline change noted focally. Final diagnosis was made leiomyoma with this microscopic findings. Section from endometrium and cervix were unremarkable.

**Figure: 3 Leiomyoma showing interlacing bundles of smooth muscle(Arrow) (10X).**

**Figure:4 Leiomyoma with Hyaline change(Arrow) (40X).**
DISCUSSION

Leiomyomata (Uterine fibroid) are most common benign tumours of the female genital tract, sometimes diagnosis is straightforward for clinician but when they undergo pathological changes leading to diagnostic and management difficulties [5]. When subserous leiomyoma outgrows its blood supply from the uterus it acquires an auxiliary blood supply from the structures it is adherent to. Such structures may be omentum, common iliac artery [6] and inferior mesenteric artery [7]. Its connection to uterus is severely attenuated. It is now known as parasitic leiomyoma.

Various authors [8] have explained about the association between the incidence of parasitic leiomyoma and increasing rates of laparoscopic performed procedures, which support an idea in mind that extrauterine leiomyoma can be iatrogenic oriented. In our case, no past history of any abdominal surgical procedure, so it exclude the possibility of predisposing factor in our case.

Parasitic leiomyomas, though infrequent, are most commonly located in the broad ligament, pelvic peritoneum, cul-de-sac, and omentum. Parasitic leiomyoma, resemble benign tumors, typical uterine leiomyomas at both gross and microscopic levels. Sometime it may present with bizarre findings like central necrosis which may mimic malignant at imaging and may pose a diagnostic challenge [2]. Most of time they remain under diagnosed, remain asymptomatic for years, or they may diagnosed on routine scanning or during surgery. Some cases may require histological or Immunohistochemical studies to confirm the diagnosis [7].

Ultrasonography and MRI are the best imaging method for diagnosing parasitic leiomyoma. MRI useful in knowing that mass is not continuous with the uterus [2]. Since parasitic leiomyoma are separated from the uterus, they are easily mistaken for adnexal tumours such as ovarian tumours. In our case tumour was separated from uterus and we confirmed the diagnosis on histopathology.

Even though the parasitic leiomyoma are rare, they may be included in the differential diagnosis of tumours of female genital tract. Sometimes they may outgrow in size and attains new blood supply from adjacent structure and show pathological changes, known as degeneration. The common types of degenerations are hyaline, cystic, mucoid and red [8-9].

CONCLUSION

Parasitic leiomyomas are rare in occurrences, which can prove to be a diagnostic dilemma. With the use of current advanced imaging techniques and newer surgical procedures like laparoscopy and robotic surgery chances of recurrences are avoided, and that will improve the proper management of this rare condition.

REFERENCES


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