

Primary anterior abdominal wall leiomyoma in 38 year old parous women – a rare case report



Medical Science

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ABSTRACT

Extrauterine leiomyomas are rare, and they present a greater diagnostic challenge. An anterior abdominal wall fibroid is uncommon and could be a cause of pain and discomfort. Primary abdominal wall fibroids are rare in the literature without previous surgeries for myomectomies or the presence of uterine fibroids.

We report a case of primary anterior abdominal wall leiomyoma in a 38 year old parous lady with no previous abdominal or gynecological surgeries presenting with a pelvic mass of 1 year duration. The operative findings revealed a large mass in the parietal layers of the anterior abdominal wall attached to the right rectus sheath with no intra-abdominal attachments. Histopathology revealed features suggestive of a leiomyoma. We conclude that rectus sheath leiomyomas do exist and can present in a woman with no previous surgeries and hence should be included in the differential diagnosis in mind while diagnosing an anterior abdominal wall mass.

Conclusion: Abdominal wall fibroid is a good differential diagnosis to be considered in any woman of reproductive age with a pelvic mass.

INTRODUCTION

Leiomyomas are the most common uterine neoplasms^{1,2}. They are noted clinically in 20–30% of women over 30 years of age, and are found in as many as 75% of uteri when a systematic search is conducted^{1,3,4}. Extrauterine leiomyomas are rarer, and they present a greater diagnostic challenge. The growth of leiomyomas is affected by the hormonal milieu.^{5,6} Leiomyomas contain estrogen and progesterone receptors, which can be demonstrated biochemically and immunohistochemically.⁷ Leiomyomas may increase in size during estrogen therapy, and most decrease in size when the patient is treated with a gonadotropin-releasing hormone (GnRH) agonist⁸.

Typical leiomyomas are composed of whorled, anastomosing fascicles of uniform fusiform smooth muscle cells. The spindle-shaped cells have indistinct borders and abundant fibrillar eosinophilic cytoplasm. Nuclei are elongated with blunt or tapered ends, and have finely dispersed chromatin and small nucleoli. MF usually are infrequent.⁹ Most leiomyomas are more cellular than the surrounding myometrium; those that are not identified by their nodular circumscription and by the disorderly arrangement of the smooth muscle fascicles within them, which are out of alignment with the surrounding myometrium. Degenerative changes are common in leiomyomas. Hyaline changes and fibrosis are present in more than 60%, particularly in postmenopausal women. Edema is present in about 50% of leiomyomas and, on occasion, marked hydropic change can mimic the appearance of a myxoid smooth muscle tumor or produce a pattern that can be confused with intravenous leiomyomatosis (IVL).⁹

CASE STUDY

We present a case of a 38 year old parous female who visited to gynecological clinic with a one year history of progressive abdominal swelling which later became associated with pain and discomfort. It was located on the right pelvic area, rounded, mildly tender, firm, slightly mobile and not attached to the skin or underlying tissue. She has 2 living children and both deliveries were normal. There were no findings of uterine fibroids from previous ultrasound scans. On Ultra sonography a pelvic mass is noted without any growth or fibroid in uterus with normal Fallopian tubes and ovaries.

Abdominopelvic computed tomography scan done at presentation was essentially normal except for the right pelvic mass

measuring 9x8cm of mixed echogenicity suggestive of the pelvic cyst or fibroid.

Ultrasound guided FNAC was performed, but no diagnostic material was obtained.

Her routine investigations like hemogram, routine urine microscopy and biochemistry were normal. Her chest X-ray is clear and no opacity was noted. Her general physical condition was normal. She was operated by laparotomy under general anesthesia. The incision was given into the subcutaneous tissue and rectus sheath, the mass was enucleated from its capsule, the pelvic organs were inspected and found to be normal. Findings at surgery were a pelvic mass situated between the subcutaneous tissues and the rectus sheath, its capsule also attached to the rectus abdominis muscle, other findings are normal uterus with no fibroid mass and apparently normal Fallopian tubes and ovaries. The pelvic mass was removed and send for histopathological examination.

Pathologic finding-

Gross - the mass was spherical circumscribed and firm, gray white in color. The cut surface was white to tan, with a whorled trabecular pattern (fig-1). Multiple sections were taken stained with hematoxyline and eosin and examined under microscope.

Microscopic finding - Sections show tumor composed of whorled, anastomosing fascicles of uniform fusiform smooth spindle-shaped cells (fig-2). These cells have indistinct cell borders and abundant fibrillar eosinophilic cytoplasm. Nuclei are elongated with tapered ends, and have finely dispersed chromatin and small nucleoli (fig-4). Mitotic figure not seen. At places hyaline changes are present formed by homogenous pink eosinophilic material (fig-3). Necrosis is absent.

Special staining is done with Masson's Trichrome stain which shows abundant red color muscle fascicles and black nuclei (fig-5).

On the basis of gross, histopathological and special stain a diagnosis of leiomyoma (spindle cell tumor) was made.

FIGURE WITH LEGENDS



Figure 1- Cut surface of pelvic mass is grey White in color and shows whorled trabecular pattern.

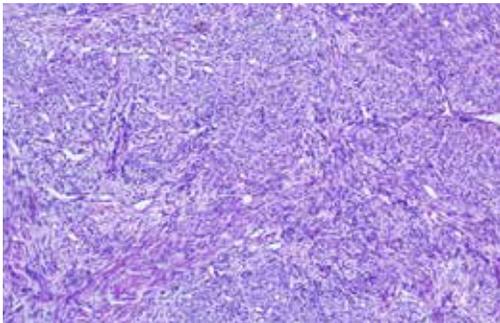


Figure 2- shows uniform spindle shape cells arranged in whorled pattern with interlacing muscle fibers (10x).

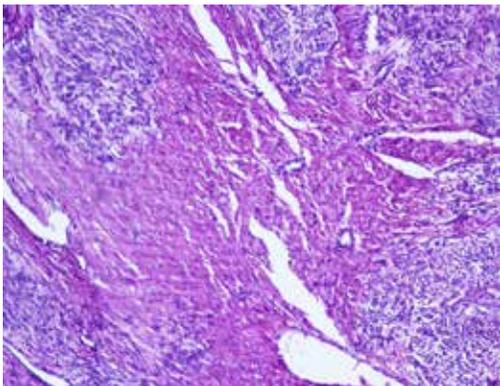


Figure 3- shows homogenous pink eosinophilic hyaline changes (10x).

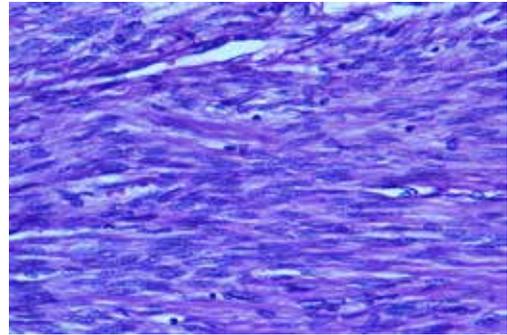


Figure- 4 the spindle-shaped tumor cells have cytologically bland, uniform nuclei with fine chromatin and small nucleoli. The cytoplasm is abundant, eosinophilic, and fibrillar.

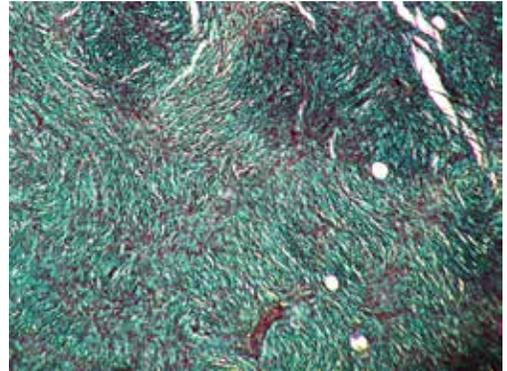


Figure 5- Masson's Trichrome stained section shows muscle fibers in red color and nuclei in black color.

DISCUSSION

Retroperitoneal leiomyomas are infrequent, and their prevalence among primary retroperitoneal tumours has been estimated as 0.5-1.2%.¹ There is a paucity of findings of isolated abdominal wall fibroids in the literature without previous surgeries for myectomies or the presence of uterine fibroids. Leiomyomas can be found anywhere when there are smooth muscles present.¹⁰

Disseminated Peritoneal Leiomyomatosis – this rare, benign, hormonally induced lesion is characterized by multiple peritoneal nodules composed of an admixture of fibroblasts and bland smooth muscle cells.¹¹ The nodules are usually small (<2 cm), and they stud the surface of the peritoneum. There may be an associated decidual reaction. Expression of ER and PR is almost always present.¹²

We report a case of extra uterine leiomyoma with unusual presentation without previous surgery for hysterectomy or fibroid or any gynecologic problem. It is a rare presentation. The diagnosis is confirmed by histopathological examination.

Conclusion:

The abdominal wall fibroid is a good differential diagnosis to be considered in any woman of reproductive age with a pelvic mass.

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