

Anterior Abdominal Wall Leiomyoma

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ABSTRACT

Extrauterine leiomyomas are uncommon, generally benign and occasionally cause diagnostic dilemmas as they can mimic malignancy. Anterior abdominal wall leiomyoma is a rare finding and there are very few reported cases of primary abdominal wall leiomyoma without previous uterine surgeries or concomitant presence of uterine fibroids. We present a case report of a 24-year-old female, parity 2 live birth 2, both normal vaginal deliveries. She presented to the Gynecology OPD with history of lump in left lower abdomen for the last 1½ months. Patient underwent exploratory laparotomy. Intraoperatively, a huge anterior abdominal wall fibroid was seen on incising anterior rectus sheath. The mass was removed and dead space was closed primarily. Abdominal wall fibroid is a good differential diagnosis to be considered in any woman of reproductive age with an anterior abdominal wall mass even without any history of previous uterine surgery.

Keywords: Leiomyoma, anterior abdominal wall, surgery, fibroid

Leiomyoma is the commonest benign tumor of the reproductive tract and is found in 20% of women of reproductive age.¹ The commonest site is the uterus, but they are also found in the broad ligament, ovaries, vagina and rarely in the anterior abdominal wall.¹⁻⁵ Abdominal wall fibroids are an uncommon finding and are thought to follow seeding following surgical resection of uterine fibroids.^{4,6,7} With the advent of laparoscopic myomectomies, more cases of abdominal wall fibroids are now being reported. Anterior abdominal wall leiomyomas are a rare finding and there are very few reported cases of primary abdominal wall leiomyoma without previous uterine surgeries or concomitant presence of uterine fibroids.⁸

The common primary diseases of the rectus muscle sheath are desmoid tumor and hematoma. Secondary disorders of the rectus muscle sheath are abscesses from diverticulitis, perforated sigmoid carcinoma, gallbladder empyema and disseminated actinomycosis.⁹ Leiomyoma of rectus muscle sheath is extremely rare. We present an interesting case of primary solitary leiomyoma of the

anterior abdominal wall in a 24-year-old patient with no previous history of any uterine surgery.

CASE REPORT

We present a case report of a 24-year-old female, parity 2 live birth 2. She presented to the Gynecology OPD with history of lump in left lower abdomen, which she noticed for the last 1½ months after her last child birth. It was not associated with pain and any menstrual disturbances. Her both live births were by normal vaginal delivery and there was no history of any previous surgeries. Her general physical and systemic examinations were within normal limits.

On local per abdomen examination, a lump of 20 × 20 cm occupying upper left half of abdomen was found. It was firm, nontender, oval, smooth, with well-defined margins and slightly restricted mobility. Her hematological and routine investigations were within normal limits. Ultrasound examination showed that the uterus was bulky with large fibroid of 10 × 9 cm arising from fundus of uterus and bilateral ovaries were normal. A working provisional diagnosis of broad ligament fibroid or ovarian mass was made. The patient was taken for exploratory laparotomy with all risks explained. The patient was opened by a left paramedian incision, which was extended above umbilicus. On incising the anterior rectus sheath, the tumor was found adhered below it and in fact the incision of rectus sheath could be seen incising the tumor capsule. It was meticulously enucleated along its entire surface. A fibroma of around 18 × 18 cm size, firm well-circumscribed was seen (Fig. 1). The tumor

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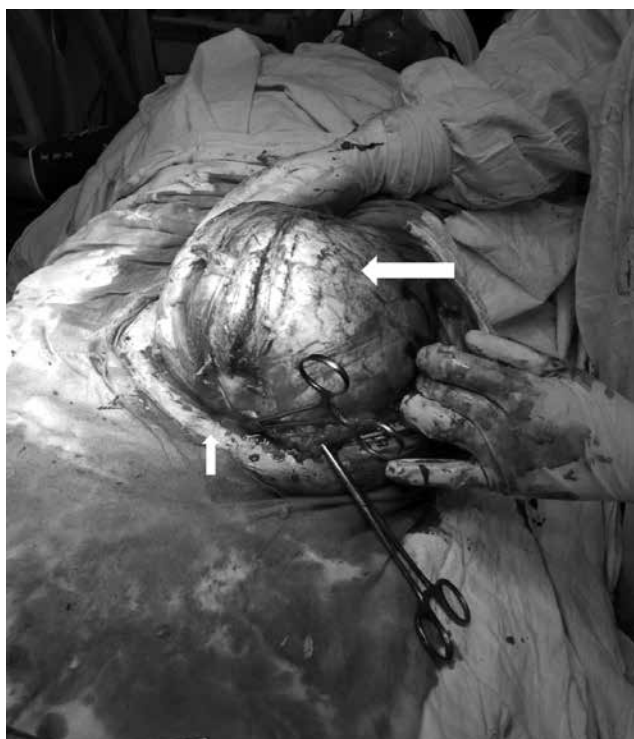


Figure 1. Intraoperative picture showing leiomyoma with large arrow and anterior abdominal wall with small arrow.

had extended into left lateral wall, flattening the rectus abdominis muscle beneath and into subcutaneous plane. A huge dead space was left after excising the tumor and hemostasis was achieved. Surprisingly, the amount of bleeding was very less as compared to fibroid. The mass was excised completely and the defect was closed primarily. The peritoneal cavity was carefully inspected. There was no intra-abdominal collection and no other mass. Uterus and bilateral ovaries were normal. The mass was not connected to any intraperitoneal contents. Layered closure of dead space was done with an intra-abdominal drain *in situ*. Abdominal wall was closed in layers. The mass weighed 3 kg, the cut section resembled whorled appearance, typical of fibroid with hemorrhage in between (Fig. 2).

A diagnosis of primary abdominal wall leiomyoma below anterior rectus sheath was made. Sample was sent for histopathological examination. Her postoperative period was uneventful. She was doing well on 3-month follow-up. Histopathology report of the section examined showed a well-encapsulated tissue i.e., leiomyoma with secondary changes.

DISCUSSION

The common primary diseases of the rectus muscle sheath are desmoids tumor and hematoma. Secondary



Figure 2. Gross sample showing leiomyoma of anterior abdominal wall.

disorders of the rectus muscle sheath are abscesses from diverticulitis, perforated sigmoid carcinoma and disseminated actinomycosis. Leiomyoma of rectus muscle sheath is extremely rare. There can be primary or parasitic leiomyoma. Parasitic leiomyomas have been reported in the retro- or pre-peritoneum. The uterine leiomyoma becomes adherent to these structures, develops its own blood supply from the surrounding structures and gradually loses its attachment with the uterus, thus developing as a parasite at the new location.¹⁰ However, the exact origin of primary leiomyoma is not clear. Leiomyomas originate from smooth muscle cells of the uterus and from intestine or vessel wall rarely. It has been postulated that transformation of these cells in anterior abdominal layer to leiomyoma occurs probably due to somatic mutations and interplay of hormonal and growth factors.¹⁰ The diagnosis of primary leiomyoma of the anterior abdominal wall can be made only when there is no antecedent history of abdominal surgery, open or laparoscopic, ever.¹⁰ Primary anterior wall leiomyoma has been reported without any concomitant tumors elsewhere in the abdomen or any antecedent history of abdominal or pelvic surgery.¹¹

On histopathology, somatic leiomyomas present as localized masses, and tend to be much larger than those of skin. Since they present few symptoms, they are discovered relatively late. On gross examination, they are well defined with a fibrous pseudo-capsule. Histologically, they lack atypia, necrosis and are mitotically inactive (<1 mitosis/50 high power field).¹² The tumor must be carefully removed en bloc while

minimizing spillage of tumor cells to prevent recurrence. Synthetic mesh can be used to cover large defects following tumor extrication.¹¹

This case is remarkable as there is no history of any previous surgery, no menstrual irregularities and the patient is of young age group, i.e., <30 years with no history of hormonal intake or contraceptive use.

CONCLUSION

Anterior abdominal wall fibroid is a good differential diagnosis to be considered in any woman of reproductive age group with anterior abdominal mass with no history of previous surgery. It can occur without any concomitant tumor elsewhere in the abdomen.

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