

# Unusual presentation of uterine leiomyoma as a rectus sheath mass

Vinutha K Veerabhadrapa<sup>1\*</sup>, Nandish S Manoli<sup>2</sup>, Nandini N Manoli<sup>3</sup>

{<sup>1</sup>Junior Resident, <sup>2</sup>Professor and Unit Head, Department of Obstetrics and Gynecology} {<sup>2</sup>Professor, Department of Pathology}  
All affiliated to JSS Medical College, JSS Academy of Higher Education and Research (Deemed to be University) Mysuru INDIA.

Email: [drvinuthakv92@gmail.com](mailto:drvinuthakv92@gmail.com)

## Abstract

Abdominal wall leiomyomas are a rare finding and are thought to follow seeding following surgical resection of uterine fibroids. There is paucity of findings of isolated abdominal wall fibroids in the literature without previous surgeries for myomectomies or presence of uterine fibroids. We present a case of a 40-year-old parous lady with a history of previous abdominal hysterectomy for dysfunctional uterine bleeding. She presented with mass per abdomen since 6 months. The operative findings revealed a large mass in the parietal layers of the anterior abdominal wall attached to the rectus sheath with no intra-abdominal attachments. Histopathology revealed features suggestive of a leiomyoma. We conclude that rectus sheath leiomyomas are still a possibility and hence should be borne in mind while diagnosing an anterior abdominal wall mass.

**Key Word:** Leiomyoma; Anterior abdominal wall; Rectus sheath

## \*Address for Correspondence:

Dr. Vinutha K Veerabhadrapa, Junior Resident, Department of Obstetrics and Gynecology, All affiliated to JSS Medical College, JSS Academy of Higher Education and Research (Deemed to be University) Mysuru INDIA.

Email: [drvinuthakv92@gmail.com](mailto:drvinuthakv92@gmail.com)

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## INTRODUCTION

Uterine leiomyomas (i.e. fibroids, myomas, leiomyomata) are the most common benign tumour noted in women of reproductive age group and usually arise from the smooth muscle compartment (myometrium) of the uterus. They are clinically apparent in approximately 20-30% of all women older than 35 years of age<sup>1</sup>. Other than uterus they can arise from broad ligament, ovaries, vagina and rarely anterior abdominal wall<sup>2</sup>. Extrauterine leiomyomas are not common and they may present unusually. Distinguishing these tumours from malignant tumours is a great diagnostic challenge.

## Case History

40 year old female P3L3 came with complaints of mass per abdomen since 6 months. The mass was insidious in onset and gradually increased in size. There were no complaints of any pain, vomiting, bleeding per vagina, changes in bowel or bladder, loss of weight or loss of appetite. She had 3 living children through normal vaginal delivery. Patient had undergone abdominal hysterectomy at the age of 35 years for dysfunctional uterine bleeding not responsive to medical management. Histopathology of the removed uterus at that time suggested no evidence of uterine leiomyoma. Hysterectomy was carried out in a peripheral hospital. She had no history of any myomectomy or any other laparoscopic procedure. She had no history of being treated with GnRH analogues or hormone replacement therapy. She had no other significant past medical or surgical history.

## Physical Examination

On examination a well defined mass of 10×6 cm was noted just above the umbilicus which was firm in consistency with restricted mobility. The skin over the swelling was normal and no engorged veins or sinuses were noted. The hernial orifices were intact. There was no evidence of ascites. Leg raising test confirmed it to be an extraperitoneal tumour.

### Investigations

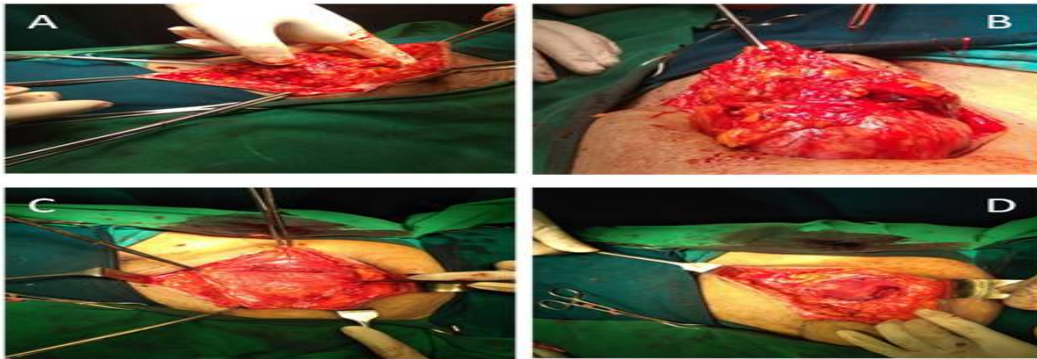
Basic blood investigations were found to be normal. **FNAC** showed Spindle cell lesion probably benign in origin. **USG** of the abdomen and pelvis revealed right pelvic region lobulated mass like hypoechoic lesion measuring 9×6 cm with doubtful abdominal wall muscle plain extension showing low resistance internal vascularity and probably omental mass /? Neoplastic. It also showed a large lobulated heterogenous mass lesion measuring about 7.5×5.5 cm in the anterior abdominal wall on right side appearing as a fibromatous mass lesion. **CT SCAN** of the abdomen showed evidence of oval lobulated minimally enhanced solid lesion with no areas of necrosis and calcification measuring 81×77 mm noted on the anterior

abdominal wall on the right side with features suggestive of neoplastic origin.

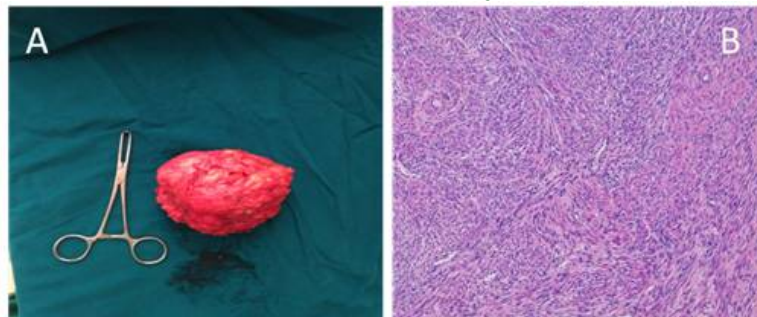
### Operative Findings

Surgery opinion was taken and a provisional diagnosis of desmoid tumour was made. The patient was planned for wide excision of tumour. The abdominal defect was noted, closed by mesh repair and the postoperative period was uneventful.

For our surprise macroscopy revealed grey brown globular tissue mass measuring 10×9×6 cm. The cut section revealed grey white whorled appearance and microscopy showed uniform, elongated, spindle shaped smooth cells forming bundles in different directions (whorled) suggestive of leiomyoma arising from the rectus sheath.



**Figure 1:** 1A and 1B showing extra-peritoneal tumor being extracted. Figure 1C depicts defect in the anterior abdominal wall and 1D shows closure of defect with overlay mesh



**Figure 2:** 2A showing macroscopic image of rectal sheath mass. 2B H and E stained section showing uniform, spindle shaped smooth muscle cells forming bundles

### DISCUSSION

Leiomyomas are commonly seen in the uterus but they are also found in the broad ligament, ovaries and vagina and rarely on the anterior abdominal wall. Abdominal wall fibroids are commoner after laparoscopic surgeries as compared to open surgeries.<sup>3 4 5</sup> Incarceration of a sessile uterine fibroid in an umbilical hernia during pregnancy has been described.<sup>6</sup> The commonest primary diseases of the rectus muscle sheath, which are encountered in the clinical setting are desmoid tumor and rectus sheath hematoma. Secondary disorders of the rectus muscle sheath are abscesses from diverticulitis, perforated sigmoid carcinoma, gallbladder empyema, and disseminated

actinomycosis.<sup>7</sup> Leiomyoma of rectus muscle sheath is extremely rare. There are not many reports of deep soft tissue leiomyomas. Although the existence of leiomyomas of soft tissue has been questioned in the past, it is now found that they do exist but are rare, and must be diagnosed using stringent histologic criteria. These are of 2 types: First type occurring in patients of either sex in deep somatic tissue with predilection to the extremities, and the second type occurring primarily in women in the pelvic retro-peritoneum during the peri-menopausal period.<sup>8</sup> To conclude although the rectus sheath leiomyoma are rare it should be borne in mind while evaluating abdominal wall tumours.

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