



## Case report

## Unaware of a large leiomyoma: A case report with respect to unusual symptoms of large leiomyomas



Barış Mülayim\*

Obstetrics and Gynecology Unit, Antalya Teaching and Research Hospital, Varlık Mh., Kazım Karabekir Caddesi, 07100 Antalya, Turkey

## HIGHLIGHTS

- Uterine leiomyoma is the most common benign gynecologic tumor.
- Unaware of a large uterine leiomyoma.
- Unusual symptoms of leiomyoma.

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## ABSTRACT

**Introduction:** Uterine leiomyoma, which arises from uterine smooth muscle, is the most common benign gynecologic tumor of the female pelvis. Clinically, these leiomyomas are diagnosed in approximately 25% of women, the prevalence increases during reproductive age, decreases after menopause, and they are rare in adolescents. In addition to uterine leiomyoma, there are also extrauterine leiomyomas.

**Presentation of case:** A 48-year-old multiparous woman visited our outpatient clinic for routine control. She had no symptoms or complaints. Her last health service visit was over 5 years ago, in which she was told that she had a small uterine leiomyoma, which did not require further management. Abdominal examination revealed a large mass extended above the umbilicus, and there was no abdominal tenderness. Abdominal ultrasonography showed a large solid mass occupying the abdomen. Routine laboratory test results were normal, except the hemoglobin level, which was 7.88 g/dl. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. The final diagnosis was a 17-cm, 3985-g intramural, myomatous, cellular leiomyoma that occurred without secondary changes, necrosis, cellular atypia, or mitosis.

**Discussion:** The most common presenting symptoms of large uterine leiomyomas are abnormal bleeding, dysmenorrhea, pelvic pain, and tumor bulk-related signs. Moreover, there are unusual symptoms or clinical manifestations such as acute edema, thrombosis, ulcer, plethora, calcified pelvic masses, hematometra, severe pulmonary hypertension, and respiratory failure; hence, they can be even life threatening.

**Conclusion:** Patients might have no symptoms or might be unaware of the presence of a large uterine leiomyoma, as in our case; however, large leiomyomas have various unusual symptoms in addition to the common ones. These symptoms should not be disregarded or underestimated.

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## 1. Introduction

Uterine leiomyoma, which arises from uterine smooth muscle, is the most common benign gynecologic tumor of the female pelvis. Clinically, these leiomyomas are diagnosed in approximately 25% of women, the prevalence increases during reproductive age,

decreases after menopause, and they are rare in adolescents. In addition to uterine leiomyoma, there are also extrauterine leiomyomas.

Leiomyomas can grow to enormous sizes, and giant leiomyomas are the ones that weigh >11.4 kg. According to their location, uterine leiomyomas are classified as subserosal, intramural, and submucosal leiomyomas. Subserosal uterine leiomyomas are relatively asymptomatic; therefore, they sometimes become very large even before the patient becomes aware of them. On the contrary,

\* Corresponding author.

E-mail address: [brsmlym@yahoo.com](mailto:brsmlym@yahoo.com).

intramural and submucosal uterine leiomyomas are usually symptomatic, even in small sizes.

The most common presenting symptoms of leiomyomas are abnormal bleeding, dysmenorrhea, pelvic pain, and tumor bulk-related signs. Moreover, leiomyomas may lead to various unusual symptoms or clinical manifestations such as acute edema, thrombosis, ulcer, plethora, urinary tract problems, calcified pelvic masses, hemoperitoneum, hematometra, severe pulmonary hypertension, and respiratory failure. These symptoms are not expected, but should not be disregarded or underestimated.

In this study, we present a woman who had no symptoms and was unaware of the presence of an almost 4000-g intramural leiomyoma without secondary changes. Therefore, it was decided to search the literature to identify the unusual symptoms or clinical manifestations of large leiomyomas.

## 2. Presentation of case

A 48-year-old multiparous Turkish woman, gravida 5, para 3, aborta 2, visited our Obstetrics and Gynecology (Ob&Gyn) outpatient clinic for routine control. She had no symptoms or complaints. Her vital signs were all within normal limits, and her menstrual cycle was regular. She had no family history of leiomyoma, and she had never used oral contraceptive pills. Her last health service visit was over 5 years ago, where she was told that she had a small uterine leiomyoma, which did not require further management.

Abdominal examination revealed a large mass extended above the umbilicus, and there was no abdominal tenderness (Fig. 1). The external genital was normal, and she had a cervical polyp of approximately 1.0 × 1.5 cm in size. Polypectomy was done at the examination, and fornices of the vagina appeared normal. It was not possible to discriminate the origin of the tumor on pelvic examination. Abdominal ultrasonography showed a large solid mass occupying the abdomen.

Routine laboratory test results were normal, except the hemoglobin level, which was 7.88 g/dl. Considering her past history, clinical examination, and sonographic findings, a possible giant leiomyoma was diagnosed and the patient underwent laparotomy.

A vertical, midline incision was made from the umbilicus to the pubic symphysis. At laparotomy, an enlarged intramural leiomyoma arising from uterus that filled the entire lower abdomen was detected (Fig. 2). A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed (Fig. 3). Although there



Fig. 1. Abdominal examination revealed a big mass extended above umbilicus. The patient's abdomen before surgery.

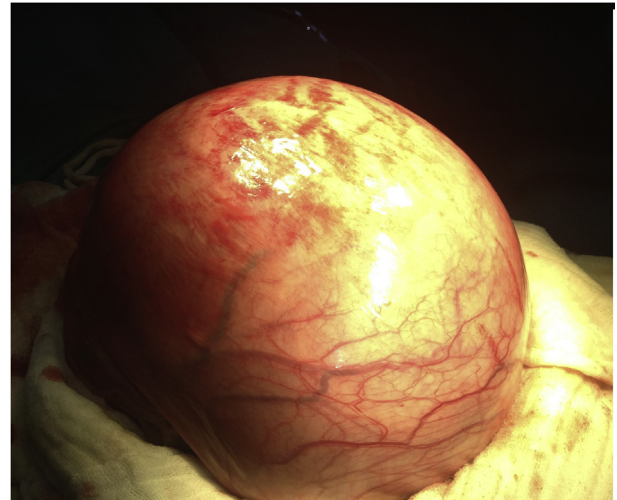


Fig. 2. Intraoperative picture of uterus with large leiomyoma.



Fig. 3. Removed uterus with large leiomyoma.

was no major blood loss during the course of surgery, two units of packed red blood cells were transfused postoperatively, as the patient had low levels of hemoglobin before surgery. Her postoperative course was uneventful, and she was discharged on the third postoperative day.

Gross pathological examination showed 19-cm cervix-fundus and 14-cm anteroposterior dimension of uterus that weighed 3985 g. For microscopic examination, the specimens were stained with hematoxylin and eosin, periodic acid-Schiff, and Masson trichrome histochemical dye. Histological signs of malignancy were not found.

The final diagnosis was a 17-cm, 3985-g intramural, myomatous, cellular leiomyoma that occurred without secondary changes, necrosis, cellular atypia, or mitosis.

## 3. Discussion

In addition to usual symptoms, such as abnormal bleeding, dysmenorrhea, pelvic pain, and tumor bulk-related signs, different or uncommon symptoms and clinical manifestations associated with leiomyomas were reported in the literature.

Acute edema is an unusual symptom of leiomyoma: A 49-year-old multiparous woman with a past medical history for large uterine leiomyoma with acute edema of left lower extremity was reported. Doppler studies revealed compression of the left iliofemoral vein with associated thrombosis [1]. Therefore, acute edema

and vein thrombosis associated with compression by uterine leiomyoma should be considered.

Ulcer is another unusual symptom of leiomyoma: A 44-year-old woman with a huge uterine leiomyoma and a large therapy-resistant ulcer present for 3 months on her right leg was reported. Without any other treatment, the ulcer regressed spontaneously 3 months after a hysterectomy for uterine leiomyoma [2].

Voiding problems, urinary tract infections, and hydronephrosis can also be detected because of the obstruction of urinary system by uterine leiomyoma. Novi JM et al. reported a 46-year-old multiparous woman who presented with acute urinary retention because of the obstruction of bladder outlet by uterine leiomyoma [3].

Plethora can be a sign of leiomyoma: Ozsaran AA et al. reported a patient who presented with plethora and abdominal mass, and discussed the myomatous erythrocytosis syndrome in the patient with giant subserosal uterine leiomyoma [4].

A 28-year-old woman who presented with abdominal pain and decreasing hematocrit from spontaneous rupture of a uterine leiomyoma vein was reported [5]. Therefore, it is evident that rupture of uterine leiomyoma can also lead to hemoperitoneum.

Hematometra can be the clinical manifestation of uterine leiomyoma [6], and torsion of leiomyoma can mimic generalized peritonitis [7].

Calcified pelvic masses could be leiomyoma: Taguchi T et al. reported a 67-year-old woman admitted for treatment of Basedow's disease and secondary diabetes mellitus, whose abdominal roentgenogram showed a giant pelvic calcification with a diameter of 6 cm. Leiomyoma of uterus was diagnosed at gynecologic evaluation [8].

Are cachexia and a giant abdominal mass cases for malignancy? Amber I et al. reported a 47-year-old woman who presented with cachexia and a giant abdominal mass, which was first diagnosed over 3 years ago, and investigations indicated a possible diagnosis of leiomyosarcoma. However, she was diagnosed pathologically with an atypical presentation of uterine leiomyoma [9].

Uterine leiomyoma can mimic ovarian carcinoma, as patients present with an abdominal mass and ascites; besides, pleural effusion and leiomyoma can lead to pseudo-Meigs' syndrome [10].

Uterine leiomyomas can be even life threatening, as they could lead to severe pulmonary hypertension and respiratory failure necessitating an emergency surgery [11].

Uterine leiomyomas are common benign tumors of the uterus in adult females, but are rare in adolescents. Abnormal bleeding as menorrhagia or menometrorrhagia, pain as dysmenorrhea, and abdominal enlargement are the major symptoms in adolescents with giant uterine leiomyomas. A 14-year-old female presented with increasing intermittent back pain and abdominal distention because of large uterine leiomyoma was reported [12].

Extrauterine leiomyoma is a very rare case: Retzius space leiomyoma is a valid example. Pepe F et al. reported a 49-year-old woman who suffered from bladder-voiding symptoms such as dysuria, feeling of incomplete emptying, and pelvic pain for 2 years. A voluminous soft mass arising from the Retzius space was obtained intraoperatively [13]. Another example of extrauterine leiomyoma is protrusion of urethral leiomyoma, which obscures vaginal introitus to cause dyspareunia [14].

Benign metastasizing leiomyoma (BML) is a rare condition affecting females with a history of uterine leiomyoma. Most often uterine leiomyomas metastasize to lungs so pleuritic chest pain, hemoptysis are the main symptoms of BML besides they can be asymptomatic, as well. A 38-year-old woman who presented with hysterectomy because of uterine multiple fibroids was reported. She developed left-sided pleural effusion postoperatively. Histopathology revealed a neoplasm composed of interlacing fascicles of

spindle cells with uniform nuclei [15].

#### 4. Conclusion

It is found that patients with large leiomyomas have various unusual symptoms or clinical manifestations in addition to the common ones, and also that one could have no symptoms or might be unaware of the presence of a large uterine leiomyoma, as in our case. These symptoms should not be disregarded or underestimated.

#### Ethical approval

Written informed consent was obtained from the patient for publication of this case report and accompanying images.

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