

# A Case Report of Leiomyoma Presenting with Heavy Menstrual Bleeding

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## ABSTRACT

This case report presents a 43-year-old woman with symptomatic uterine fibroids, accompanied by menometrorrhagia, disordered proliferative endometrium, and a hypertrophic cervix with cervical ectropion. Uterine fibroids are common benign tumors affecting women of reproductive age, with higher prevalence in Black women due to genetic and hormonal factors.

The patient's multiple gynecologic issues required a comprehensive diagnostic approach and individualized management plan. Treatment options depend on symptom severity and reproductive goals, ranging from hormonal therapies to surgical interventions like myomectomy or hysterectomy.

This case highlights the complexity of fibroid presentations and the importance of early diagnosis, especially in high-risk populations. The key takeaway is the value of timely, personalized care in improving patient outcomes and quality of life in women affected by uterine fibroids.

**Key Words:** Giant fibroid tumors, myomectomy, hysterectomy, menometrorrhagia

## Background

Uterine fibroids (leiomyomas) are noncancerous growths in the muscle layer of the uterus. They are the most common benign tumors of the female reproductive tract, arising from the smooth muscle cells of the myometrium. Fibroids can vary in size and number and predominantly affect women of reproductive age. Fibroids are most common in women in their 40s and 50s, and approximately 20% to 80% of women will develop uterine fibroids by the time they reach 50. It is not known what causes fibroids, but studies suggest genetics and prolonged exposure to estrogen may increase the risk of developing them. Most people with fibroids have no symptoms, while others may have painful or heavy periods, as portrayed in our case.

This case report highlights the intricate and compelling case of a 43-year-old woman brought into ANTH with uterine fibroids accompanied by a variety of other symptoms, including menometrorrhagia, disordered proliferative endometrium, and hypertrophic cervix with

cervical ectropion. The simultaneous occurrence of these conditions requires a comprehensive evaluation and presents a diagnostic and management challenge.

## Clinical Finding and Diagnostic Assessment

**Relevant Physical Examination and Other Clinical Findings:** The patient, Noureen, a 43-year-old female, presented with irregular menstrual cycles and complaints of soft heavy bleeding and passage of clots. No dysmenorrhea was reported. On pelvic examination, the uterus was found to be 10–12 weeks in size, anteverted, mobile, with bilateral fornices clear and non-tender. The cervix appeared healthy but hypertrophic with cervical ectropion; it bled on touch and had mild white, non-offensive discharge. Abdomen was soft and non-tender with positive bowel sounds both at admission and at discharge.

## Diagnosis Methods & Challenges

The diagnostic workup included a transabdominal ultrasound (USG) which showed heterogeneous myometrial echotexture and multiple seeding uterine

fibroids. A histopathology report from a prior D&C (dated 19-2-20) revealed a disorderly proliferative endometrium. Laboratory tests showed Hb 10.6, TLC 11,720, and platelet count 500,000. Urine analysis showed leukocyte esterase ++. No major diagnostic challenges were mentioned.

### Diagnostic Reasoning Including Differential Diagnosis

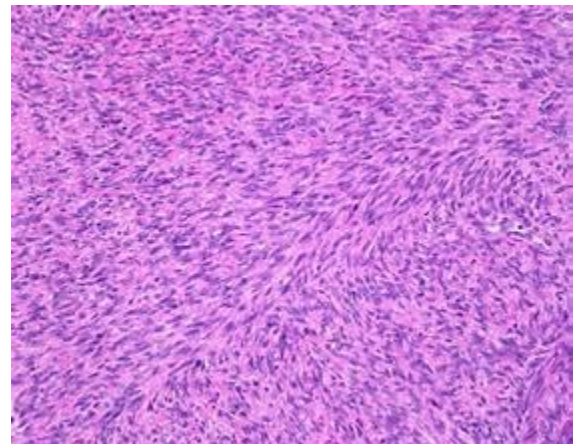
The diagnosis was established as fibroid uterus with symptoms refractory to medication treatment. Total abdominal hysterectomy (TAH) with bilateral salpingectomy (BSO) was planned. Intraoperative findings confirmed multiple subserosal fibroids (e.g., 2×3 cm fibroid in anterior wall of lower uterine segment, others in posterior wall and fundus). No alternative diagnosis was pursued further, as findings clearly supported the diagnosis of multiple uterine fibroids.



**Figure 1:** *Ultrasound scan showing multiple uterine fibroids*

### Prognostic Characteristics

The procedure was performed successfully under general anesthesia. Estimated blood loss was 300 ml. Postoperative vitals were stable, abdomen remained soft and non-tender, and the patient had positive bowel sounds. The prognosis post- surgery is favorable, with follow-up scheduled on the 10th postoperative day for stitch removal and histopathology review.



**Figure 2:** *Histological section showing increase proliferation of endometrial cells*

### Discussion

Fibroid uterus is a common condition affecting women of reproductive age, with risk increasing significantly after 30 years. It is estimated that 70–80% of women in this age group may develop fibroids, though many remain asymptomatic. These benign tumors vary in size and number and are classified based on location as intramural, subserosal, submucosal, or pedunculated.

Black women are disproportionately affected, with up to 90% developing fibroids—much higher than in white or Asian women. This increased risk is associated with genetic predisposition, early menarche, obesity, nulliparity, and lifestyle factors. Hormonal imbalances, particularly involving estrogen and progesterone, also contribute significantly to fibroid development.

Common symptoms include heavy or prolonged menstrual bleeding, pelvic pain, lower backache, urinary frequency, constipation, infertility, and complications during pregnancy. However, many fibroids are incidental findings during routine examinations.

Management strategies depend on the severity of symptoms and the patient's reproductive plans. Non-surgical options include hormonal medications (e.g., GnRH agonists, oral contraceptives), tranexamic acid, selective progesterone receptor modulators (SPRMs), uterine artery embolization (UAE), and MRI-guided focused ultrasound (MRgFUS).

Surgical treatments include myomectomy for women desiring fertility preservation, and hysterectomy in cases of severe or recurrent fibroids. For asymptomatic or mildly symptomatic cases, regular monitoring may be sufficient.

Understanding the risk factors and timely management of fibroids is essential to improve quality of life and reproductive outcomes in affected women.

## Therapeutic Interventions

**Here are some common therapeutic interventions:**

### Medical Management

**Hormonal Therapies:** Gonadotropin-releasing hormone (GnRH) agonists or antagonists can shrink fibroids and alleviate symptoms.

**Nonsteroidal Anti-Inflammatory Drugs (NSAIDs):** NSAIDs can help manage pain and heavy bleeding.

**Tranexamic Acid:** This medication can help reduce heavy menstrual bleeding.

### Minimally Invasive Procedures

**Uterine Artery Embolization (UAE):** This procedure blocks blood flow to the fibroids, shrinking them over time.

**Magnetic Resonance-Guided Focused Ultrasound (MRgFUS):** This non-invasive procedure uses high-frequency ultrasound waves to heat and shrink fibroids.

**Radiofrequency Ablation:** This minimally invasive procedure uses heat to destroy fibroid tissue.

### Surgical Interventions

**Myomectomy:** Surgical removal of fibroids, which can be performed laparoscopically or through open surgery.

**Hysterectomy:** Surgical removal of the uterus, which is a more definitive treatment for fibroids but eliminates the possibility of future pregnancy.

### Lifestyle Modifications

**Dietary Changes:** Some women find that dietary changes, such as increasing fiber intake and reducing red meat consumption, can help alleviate symptoms.

**Exercise:** Regular exercise can help reduce symptoms and improve overall health.

### Alternative Therapies

**Acupuncture:** Some women find that acupuncture helps alleviate symptoms like pain and heavy bleeding.

**Herbal Supplements:** Certain herbal supplements, such as chasteberry or vitex, may help alleviate symptoms, but their effectiveness is not universally proven.

The choice of therapeutic intervention depends on individual factors, and a healthcare provider can help determine the best course of treatment based on a woman's specific needs and goals.

Hormonal medications used to manage uterine fibroids aim to shrink the fibroids, reduce symptoms like heavy bleeding, and sometimes prepare for surgery. They don't eliminate fibroids permanently but can be very effective in symptom control.

### Common types include:

Gonadotropin-releasing hormone (GnRH) agonists

**Examples:** Leuprolide (Lupron), Nafarelin (Synarel), Goserelin (Zoladex)

**Action:** Induce a temporary menopause by decreasing estrogen and progesterone levels, which can shrink fibroids.

**Use:** Short-term (usually 3–6 months) due to side effects like bone loss.

### GnRH antagonists

**Examples:** Elagolix (Oriahnn - combined with estrogen/progestin)

**Action:** Suppress ovarian hormone production more quickly than agonists and are often taken with hormone add-back therapy.

**Use:** Approved for heavy menstrual bleeding due to fibroids.

### Selective progesterone receptor modulators (SPRMs)

**Examples:** Ulipristal acetate (Esmya – approved in some regions, not all)

**Action:** Blocks the effect of progesterone on fibroids, leading to shrinkage and reduced bleeding.

**Note:** Limited use due to concerns about liver toxicity.

### **Hormonal contraceptives**

**Examples:** Combined oral contraceptives, progestin-only pills, hormonal IUDs (e.g., Mirena)

**Action:** Regulate periods and reduce heavy bleeding, but do not shrink fibroids significantly.

### **Aromatase inhibitors**

**Examples:** Letrozole, Anastrozole

**Action:** Lower estrogen levels, which may reduce fibroid size.

**Use:** Off-label and less commonly used.

### **Conclusion**

Uterine fibroids are a common issue for many women, especially in their 40s, and while some may not have symptoms, others—like in this case—can experience significant discomfort and complications. This case shows how important it is to take a comprehensive approach when multiple gynecological issues occur together. With the right diagnosis and a treatment plan tailored to the patient's needs, including surgery, when necessary, most women can see a big improvement in their quality of life.

### **Timeline**

Patient Name: Noureen

Problem diagnosis: 2019

Diagnostic report of ANTH: 19-02-2023 (2 years ago)

Admitted for Surgery: 29-04-2025

Date of Surgery: 30-04-2025

Patient was given Tab. Ponstan Forte TDS for 5 days, Tab. Polymalt OD for 1 month, Tab. Caldree OD for 1 month and Tab. Caricef 400mg OD for 7 days post-surgery.

Stitches removal 10 days post-surgery.

Discharge date: 02-05-2025

Follow up: 10-05-2025

Further treatment is scheduled after 10 days of surgery.

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