Uterine adenomyosis mimicking leiomyoma in a premenopausal woman with heavy menstrual bleeding: a case report

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ABSTRACT

Background: Adenomyosis is a structural cause of abnormal uterine bleeding and pelvic pain. Its clinical and imaging presentation may overlap with uterine leiomyoma, making correlation of imaging, operative findings, and histopathology important.

Case presentation: A 48-year-old premenopausal woman presented with four days of lower abdominal pain radiating to the back, urinary frequency, dysuria, severe dysmenorrhea, and menstrual bleeding lasting 10 days in a 30-day cycle. Examination found a firm uterus of approximately 12–14 weeks' gestational size and a visible cervical polyp. Transabdominal ultrasonography was interpreted as showing multiple uterine masses suspicious for leiomyomas and a left ovarian cyst. The patient underwent total abdominal hysterectomy, left salpingo-oophorectomy, and right salpingectomy. Histopathology reported diffuse adenomyosis with multiple cystic spaces, benign follicular cysts of the left ovary, chronic nonspecific cervicitis, and Nabothian cysts; no atypia or malignancy was reported. Recovery was documented as uncomplicated.

Conclusion: This case illustrates how preoperative imaging and postoperative histopathology can yield different diagnostic labels. A case report should state the imaging descriptors, fertility and treatment preferences, operative extent, pathology, and follow-up outcome precisely; symptom status at follow-up was not supplied here.

Keywords: adenomyosis; abnormal uterine bleeding; leiomyoma; hysterectomy; case report

Background

Adenomyosis is a structural cause of abnormal uterine bleeding in the FIGO PALM–COEIN classification and may be associated with dysmenorrhoea and pelvic pain [1,2,4]. Symptoms alone do not establish the diagnosis, and adenomyosis may coexist with or be confused with leiomyoma. Standardized sonographic terminology helps clinicians describe direct and indirect myometrial features, but those signs must be reported from the patient's actual study rather than inferred retrospectively [3].

This report describes a premenopausal patient whose initial transabdominal ultrasound was interpreted as multiple uterine fibroids, while postoperative histopathology reported diffuse adenomyosis. The teaching focus is diagnostic reconciliation and transparent reporting.

Case presentation

Patient information and clinical findings

A 48-year-old premenopausal woman presented with a four-day history of lower abdominal pain radiating to the back, increased urinary frequency, and burning micturition. She reported severe dysmenorrhoea and menstrual bleeding lasting approximately 10 days in each 30-day cycle. The source draft states that she had completed her family planning; parity, prior treatment trials, medication history, and relevant gynaecological history were not provided.

On examination, a firm, palpable uterus was described as approximately equivalent in size to a 12–14-week pregnancy. Speculum examination showed a healthy, hypertrophic cervix with a visible cervical polyp. The abdomen was soft, with mild lower pelvic tenderness and no guarding or rigidity. Gastrointestinal and other systemic examinations were reported as unremarkable.

Investigations and results

Initial transabdominal ultrasonography was reported as showing multiple uterine masses suspected to be leiomyomas and a cystic lesion of the left ovary. The full imaging report, uterine dimensions, endometrial appearance, Doppler findings, and standardized adenomyosis descriptors were not included in the supplied draft. No patient-specific ultrasound image was available for this revision.

The preoperative complete blood count showed haemoglobin 10.6 g/dL, mean corpuscular volume 70.2 fL, mean corpuscular haemoglobin 20.8 pg, and platelet count 583 × 10⁹/L. These findings were described in the source as microcytic, hypochromic anaemia and thrombocytosis. Iron studies and an evaluation of the platelet count were not supplied; therefore, iron deficiency and a reactive cause of thrombocytosis cannot be confirmed from the provided information. Urinalysis showed 2–4 pus cells per high-power field, with negative nitrite and leukocyte esterase. A urine culture result was not provided. HBsAg and anti-HCV serology were non-reactive, and blood glucose was 89 mg/dL. Table 1 summarizes the documented findings.

Table 1. Clinical presentation and preoperative investigations

Domain	Documented finding
Symptoms	Four days of lower abdominal pain radiating to the back; urinary frequency and dysuria; severe dysmenorrhoea; bleeding for about 10 days per 30-day cycle.
Examination	Firm palpable uterus, approximately 12–14 weeks' gestational size; visible cervical polyp; mild pelvic tenderness; no guarding or rigidity.
Ultrasonography	Transabdominal study interpreted as multiple uterine masses suspicious for fibroids and a left ovarian cystic lesion.
CBC	Hb 10.6 g/dL; MCV 70.2 fL; MCH 20.8 pg; platelets 583 × 10⁹/L.
Urinalysis	2–4 pus cells/HPF; nitrite and leukocyte esterase negative.
Other tests	HBsAg and anti-HCV non-reactive; blood glucose 89 mg/dL.

Diagnostic assessment and differential diagnosis

The initial working diagnosis was symptomatic multifocal uterine leiomyoma with a concurrent ovarian cyst. The case summary also refers to bilateral follicular ovarian cysts, whereas the operative and histopathology descriptions specify two cysts on the left ovary. This laterality discrepancy requires reconciliation against the original imaging and pathology reports. The final narrative below follows the operative and histopathology descriptions.

The patient underwent total abdominal hysterectomy (TAH), left salpingo-oophorectomy (LSO), and right salpingectomy. Intraoperative findings were an enlarged, globular uterus and two cysts on the left ovary. Estimated blood loss was approximately 250 mL. Histopathology was reported as diffuse myometrial adenomyosis, with thickness up to 2.5 cm and multiple cystic spaces; benign follicular cysts of the left ovary; and chronic nonspecific cervicitis with Nabothian cysts. No cellular atypia or malignancy was reported.

Table 2. Diagnostic and operative findings

Stage	Finding
Initial clinical impression	Symptomatic multifocal leiomyoma with an ovarian cyst.
Ultrasound	Multiple uterine masses interpreted as fibroids; left ovarian cystic lesion.
Operation	Enlarged globular uterus; two left ovarian cysts; TAH + LSO + right salpingectomy.
Histopathology	Diffuse adenomyosis with multiple cystic spaces; benign follicular cysts of the left ovary; chronic nonspecific cervicitis and Nabothian cysts; no atypia or malignancy.

Therapeutic intervention

The patient underwent TAH with LSO and right salpingectomy. The source draft states that she had completed family planning and had severe symptoms. It does not document a trial of medical therapy, its duration, response, contraindications, or a shared decision-making discussion. Accordingly, the case should not describe the symptoms as medically refractory unless the clinical record confirms this.

The postoperative medicines were recorded by brand name as Ponstan Forte three times daily for five days, Polymalt once daily for one month, Caldree once daily for one month, and Caricef 400 mg once daily for seven days. The generic ingredients, full doses where absent, and discharge instructions should be checked against the prescription or medication chart before submission.

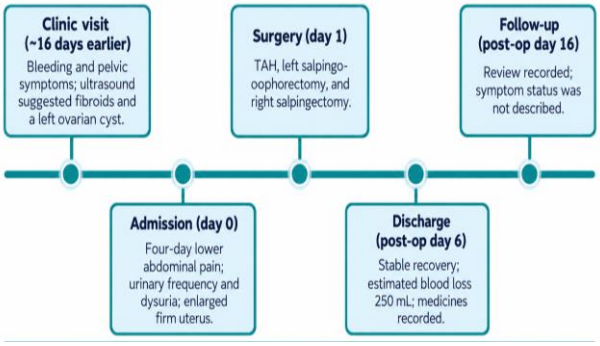


Figure 1. Case timeline. Event intervals are shown relative to admission and surgery.

Follow-up and outcomes

Postoperative vital signs were reported as stable, recovery as uncomplicated, and the incision as healing cleanly. Suture removal was scheduled for postoperative day 10. The patient was discharged on postoperative day 6 and attended follow-up approximately postoperative day 16.

Table 3. Documented treatment and follow-up

Time point	Documented care or outcome
Operation	TAH, LSO, and right salpingectomy; estimated blood loss approximately 250 mL.
Postoperative medicines	Ponstan Forte TDS × 5 days; Polymalt OD × 1 month; Caldree OD × 1 month; Caricef 400 mg OD × 7 days.
Postoperative day 6	Discharged; vital signs stable; recovery described as uneventful; incision healing cleanly.
Postoperative day 10	Suture removal was scheduled.
Postoperative day 16	Follow-up visit was recorded.

TDS means three times daily; OD means once daily.

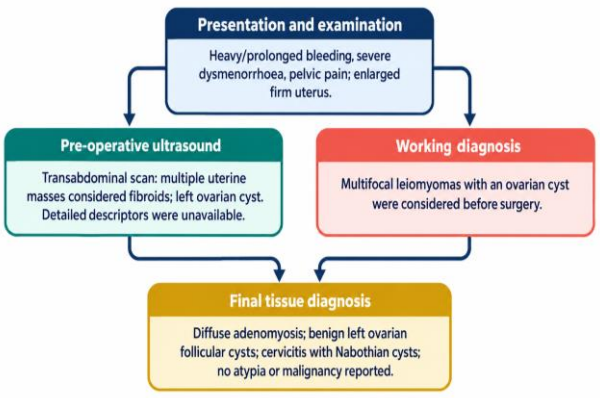


Figure 2. Diagnostic pathway from initial ultrasound impression to postoperative histopathology. This schematic summarizes the supplied record.

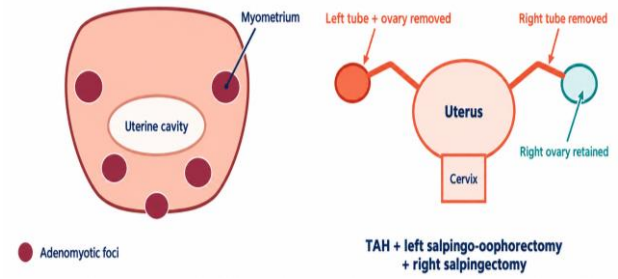


Figure 3. Conceptual schematic diagram of adenomyosis location and the recorded surgical extent.

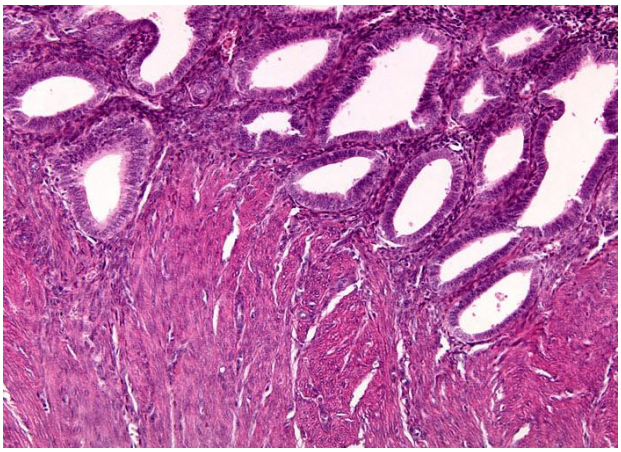


Figure 4. Histological appearance of adenomyosis.

Discussion

The principal feature is the difference between the preoperative imaging impression and the final histopathological diagnosis. The transabdominal ultrasound was summarized as showing multiple masses suspicious for leiomyomas, while the postoperative report documented diffuse adenomyosis.

Imaging and diagnostic reconciliation

The 2022 MUSA consensus distinguishes direct sonographic features of adenomyosis, such as myometrial cysts and hyperechogenic islands, from indirect features, including a globular uterus, asymmetrical myometrial thickening, fan-shaped shadowing, and an irregular or interrupted junctional zone [3]. These are standardized descriptors for imaging reports, not findings that can be attributed to this patient without the original study. A teaching case should quote the actual modality and report, note whether transvaginal imaging or MRI was performed, and avoid replacing absent radiology details with textbook features.

Adenomyosis is categorized as AUB-A in the FIGO PALM–COEIN framework [2]. In this case, the diagnosis was ultimately reported on histopathology after hysterectomy. The manuscript should keep the

clinical impression, imaging report, operative description, and histopathological result distinct, then explain how the later evidence changed the diagnostic conclusion.

Management and patient-centred decision-making

Management of heavy menstrual bleeding associated with suspected or diagnosed adenomyosis depends on symptoms, anatomical findings, treatment preferences, and reproductive goals. NICE recommends considering a levonorgestrel-releasing intrauterine system as an initial option in appropriate patients and discussing alternatives according to clinical context and patient preference [4]. The source record states that this patient had completed her family and underwent hysterectomy, but it does not document previous medical options or the decision-making discussion.

Associated findings and reporting limits

The CBC documents microcytosis and a raised platelet count. Although chronic menstrual blood loss may be clinically relevant, the source does not include ferritin or iron studies, so iron-deficiency anaemia should not be presented as laboratory-confirmed. Likewise, the urinalysis showed a small number of pus cells with negative nitrite and leukocyte esterase, but the patient reported dysuria and frequency, and no urine culture was provided; the available data do not support a definitive statement for or against urinary infection.

Conclusion

This case demonstrates why a case report should distinguish the preoperative impression from operative and histopathological findings. It also shows the value of reporting fertility goals, the rationale for surgery, key laboratory results, and follow-up outcomes, reported as diffuse adenomyosis with benign left ovarian follicular cysts and no atypia or malignancy.

Declarations

Ethics Approval: Ethical approval for this case report was obtained from the Institutional Review and Ethics Board (IREB), Islamabad Medical and Dental College (IMDC), under approval number **301/IMDC/IREB-2026**.

Consent, and Confidentiality: Informed consent was obtained from the patient for publication of the case report and any accompanying clinical information or images, as applicable. Patient confidentiality and privacy were maintained throughout the preparation of this report.

Conflict of Interest: The authors declare no conflict of interest.

Funding Source: No external funding was received for this case report.

Acknowledgement: The authors would like to acknowledge the Department of Gynae and Obs, Islamabad Medical and Dental College (IMDC), for its support and cooperation in the preparation of this case report.

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