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Case Report

Huge Uterine Leiomyoma, An Unusual Differential of Ovarian Tumors. A Case Report and Discussion

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Abstract

***Background**: Large uterine leiomyomas may mimic ovarian tumors, particularly in young nulliparous women, leading to diagnostic uncertainty.*

***Case:** We report a 27-year-old nulliparous woman who presented with a massive abdominopelvic mass initially interpreted as a complex ovarian tumor on MRI. Preoperative imaging suggested bilateral ovarian dermoid cysts, but exploratory supra-umbilical laparotomy revealed a giant intramural uterine fibroid.*

***Conclusion:** This case highlights the diagnostic challenges of large pelvic masses and emphasizes the importance of considering leiomyoma in differential diagnoses, even when imaging favors ovarian pathology.*

Introduction

Uterine leiomyomas are the most common benign tumors of the female genital tract. While typically detected incidentally or through symptoms such as abnormal uterine bleeding or pelvic pressure, large leiomyomas may distort pelvic anatomy to the extent that they mimic adnexal masses. Misdiagnosis is especially common in young, nulliparous women where ovarian pathology may be suspected first. We present a case of a huge intramural uterine leiomyoma initially misdiagnosed as an ovarian teratoma based on MRI findings.

Case Report

A 27-year-old nulliparous woman presented herself with progressive abdominal enlargement over one year, associated with pelvic pressure, constipation, and early satiety. Physical examination revealed a firm mass extending above the umbilicus. Tumor markers including CA-125, AFP, and β-hCG were within normal limits which were in favour of a benign gynaecological condition.

MRI of the pelvis with contrast reported bilateral ovarian dermoid cysts, with the largest measuring approximately 67 × 64 mm, containing fat and calcification components consistent with mature cystic

teratoma. The uterus was described as unremarkable.

During exploratory supra-umbilical laparotomy, a giant intramural uterine leiomyoma occupying nearly the entire abdominal cavity was identified. The ovaries and tubes were normal and separate from the mass. Myomectomy was performed successfully, preserving the uterus and adnexa.

Histopathology confirmed a benign uterine leiomyoma with no evidence of sarcomatous change. Postoperative recovery was uneventful and follow-up demonstrated full symptomatic relief.

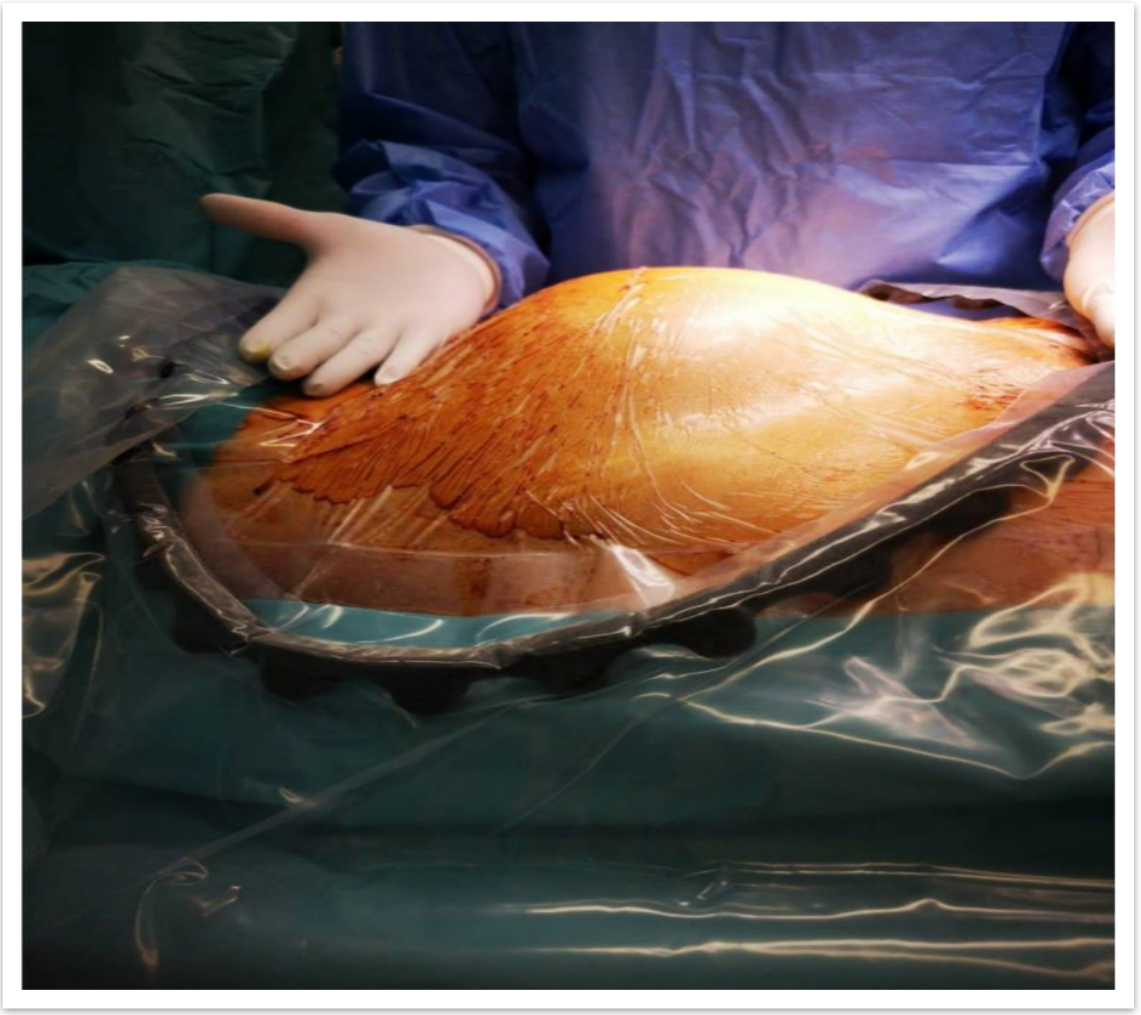

Figure 1. Preoperative Abdomino-pelvic examination and inspection

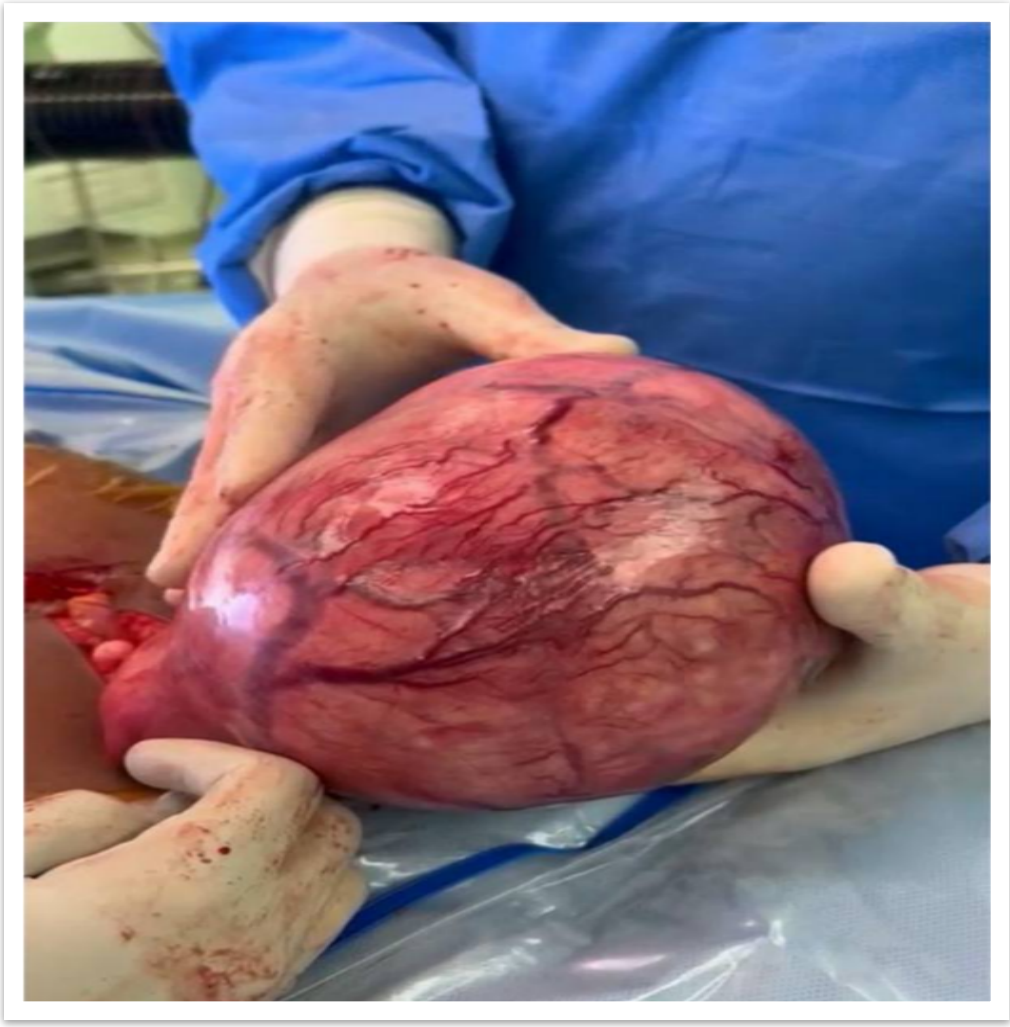

Figure 2. Delivery of the giant uterine fibroid during laparotomy.

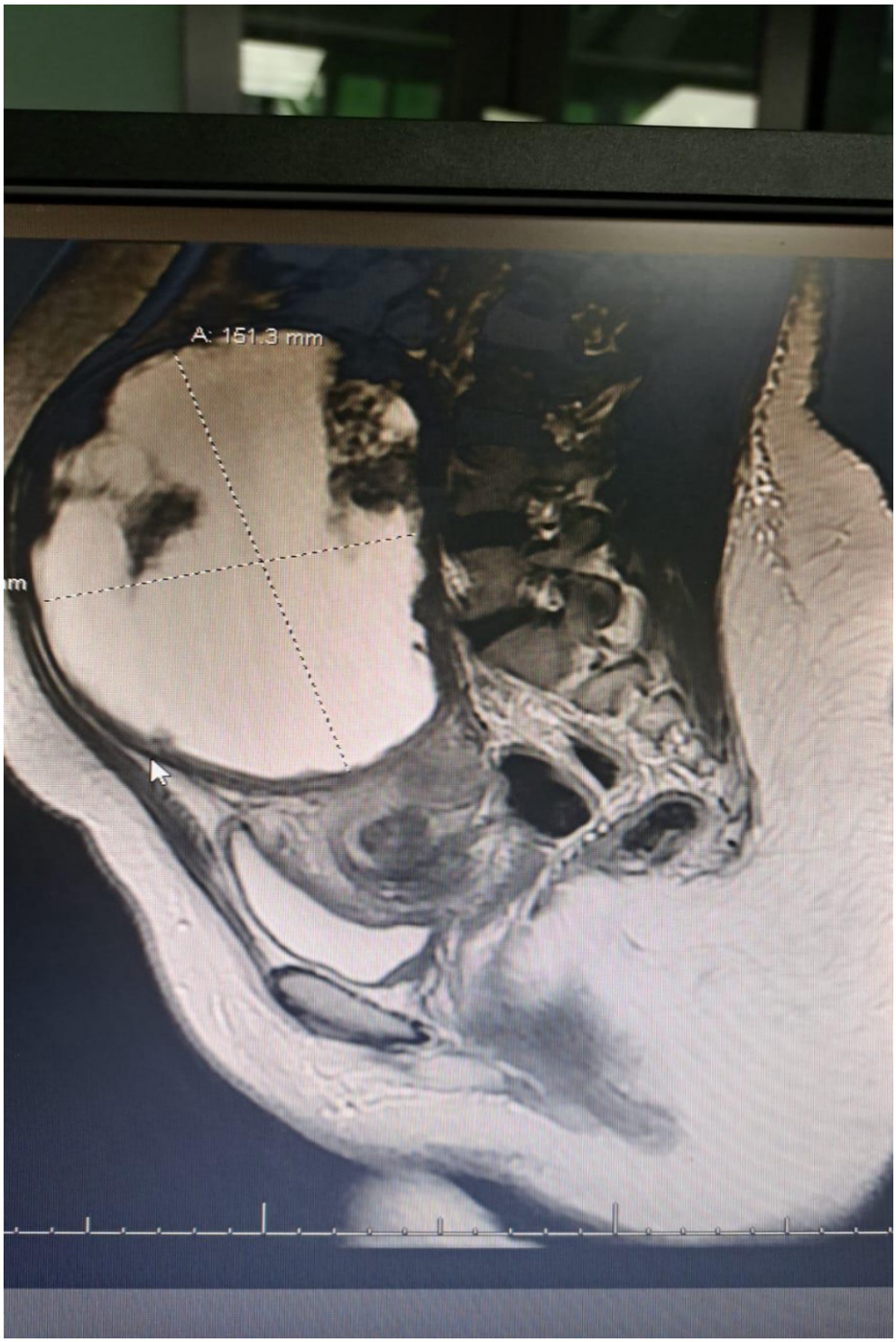

Figure 3. MRI sagittal section showing a large heterogeneous pelvic–abdominal mass initially interpreted as an ovarian lesion

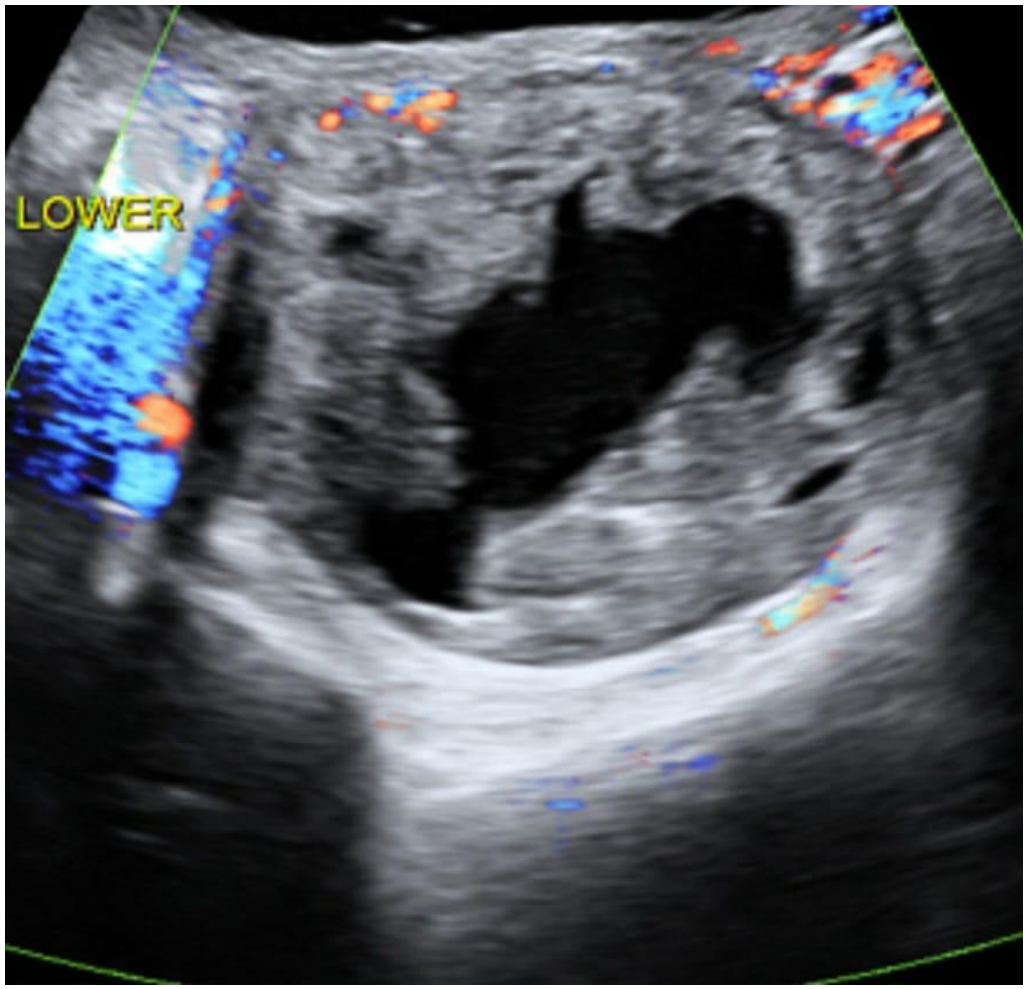

Figure 4. Ultrasound with Doppler showing complex cystic architecture previously attributed to ovarian pathology.

Discussion

Large leiomyomas can present diagnostic challenges when imaging findings overlap with adnexal masses. MRI is generally the preferred modality for characterisation of uterine tumors; however, extremely large leiomyomas may distort anatomy, leading to misinterpretation. In this case, the mass effect displaced the uterus posteriorly while mimicking bilateral ovarian dermoid cysts due to heterogeneous signal intensity.

Misdiagnosis may alter preoperative planning and counseling, especially for women desiring fertility preservation. This case underscores the importance of maintaining a broad differential diagnosis and correlating imaging findings with clinical examination.

Supra-umbilical laparotomy was required due to the size and cephalad extension of the mass. Myomectomy remains the preferred option for young women, and in this patient, normal ovaries were confirmed intraoperatively, allowing preservation of reproductive potential.

Conclusion

This case demonstrates that even with modern imaging, large uterine leiomyomas may be misdiagnosed as ovarian tumors. Thorough clinical evaluation, careful interpretation of imaging, and surgical exploration remain essential when the diagnosis is uncertain. Fertility-preserving surgery should be prioritized in young patients whenever feasible.

References

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