

# The Importance of Early Detection of Leiomyomatosis Peritonealis Disseminata in the Outpatient Setting: A Case Report

Dheeraj Atmakuri, OMS-IV, Karina Darby, OMS-IV, Dr. Carol Dehasse MD  
Burrell College of Osteopathic Medicine

## Introduction and Background

The pathophysiology of LPD remains unclear - possible causes include:

- Excess sex-hormone exposure
- Transformation of sub-peritoneal mesenchymal stem cells
- Metaplasia, genetic factors, or iatrogenic spread of leiomyoma via uterine morcellation
- Iatrogenic spread is the more widely accepted cause.
- Hormonal exposure and genetic susceptibility may trigger fibroid tissue proliferation.

Most LPD patients are asymptomatic.

- High recurrence rate, but malignant transformation is rare.

Peripheral conversion of androgens to estrogens in adipose tissue might play a role in pathogenesis.

- Anastrozole found effective in LPD treatment.

## Clinical Presentation

A 51-year-old female presented with sudden onset flank pain radiating into upper back bilaterally.

- Imaging revealed acute cholecystitis and intra-peritoneal pelvic mass lesions.
- Surgical findings during diagnostic laparoscopy and cholecystectomy suggested LPD.



## Discussion

**Aim:** Raise awareness of LPD, especially in women with laparoscopic power morcellation history considering hormone replacement therapy.

**Evaluation:**

Family history.

Surgical history.

Genetic studies.

Clinical imaging.

LPD tumors have growth potential, causing pain and bleeding due to mass effect.

Distortion of normal anatomy may occur.

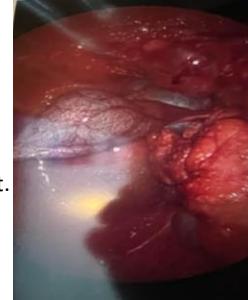
Surgical excision is the definitive treatment.

Supernumerary tumors can complicate surgery, leading to multiple procedures.

CT/MRI imaging aids in preoperative assessment and planning.

Improved diagnostic accuracy and understanding of pathophysiology may lead to earlier detection and treatment.

Reduction in recurrence and tumor growth is the ultimate goal.



## Conclusion

LPD is a rare condition with uncertain etiology.

Awareness is crucial, especially in women with a history of laparoscopic power morcellation.

Early detection and improved treatment strategies can reduce recurrence and complications.

## References

1. Ye Z, Chen L. Leiomyomatosis peritonealis disseminata with low-grade malignant change: A case report. *Medicine*. 2022;101(36):e30528. doi:10.1097/MD.00000000000030528
2. Yang L, Liu N, Liu Y. Leiomyomatosis peritonealis disseminata: Three case reports. *Medicine*. 2020;99(41):e22633. doi:10.1097/MD.00000000000022633
3. Takeda T, Masuhara K, Kamiura S. Successful Management of a Leiomyomatosis Peritonealis Disseminata With an Aromatase Inhibitor. *Obstetrics & Gynecology*. 2008;112(2 Part 2):491. doi:10.1097/AOG.0b013e318180219b
4. Syed M, Parida B, Mankeshwar T, Patil A. Imaging Findings in a Rare Case of Leiomyomatosis Peritonealis Disseminata with Malignant Transformation. *pjr*. 2017;82:426-430. doi:10.12659/PJR.902242
5. Qadir SY, Khan AA. Leiomyomatosis peritonealis disseminata: An exceptional case. *J Pak Med Assoc*. 2020;70(10):1851-1853. doi:10.5455/JPMA.23488
6. Morgan ED, Kahiye M, Kule I, Yahaya JJ, Othieno E. Disseminated peritoneal leiomyomatosis as an incidental finding: A case report. *Clin Case Rep*. 2022;10(3):e05541. doi:10.1002/ccr.35541
7. Li J, Dai S. Leiomyomatosis Peritonealis Disseminata: A Clinical Analysis of 13 Cases and Literature Review. *Int J Surg Pathol*. 2020;28(2):163-168. doi:10.1177/1066896919880962
8. Huang SF, Wen CY, Liao CJ, Lin JC, Tsai CC. Leiomyomatosis peritonealis disseminata mimicking peritoneal carcinomatosis 13 years after laparoscopic uterine myomectomy: A case report. *International Journal of Surgery Case Reports*. 2021;81:105745. doi:10.1016/j.ijscr.2021.105745
9. Hsieh YC, Kuo PY, Chiang YC. Leiomyomatosis peritonealis disseminata in laparoscopic port site and abdomino-pelvic cavity: A case report. *Radiology Case Reports*. 2022;17(2):293-297. doi:10.1016/j.radi.2021.10.045
10. Boavida Ferreira J, Cabrera R, Santos F, et al. Benign Metastasizing Leiomyomatosis to the Skin and Lungs, Intravenous Leiomyomatosis, and Leiomyomatosis Peritonealis Disseminata: A Series of Five Cases. *Oncologist*. 2022;27(1):e89-e98. doi:10.1093/oncolo/oyab019
11. American College of Obstetricians and Gynecologists' Committee on Gynecologic Practice. Uterine Morcellation for Presumed Leiomyomas. 2021;137(3). <https://www.acog.org/en/clinical/clinical-guidance/committee-opinion/articles/2021/03/uterine-morcellation-for-presumed-leiomyomas>
12. Al-Talib A, Tulandi T. Pathophysiology and possible iatrogenic cause of leiomyomatosis peritonealis disseminata. *Gynecol Obstet Invest*. 2010;69(4):239-244. doi:10.1159/000274487