

# PRIMARY MESENTERIC LIPOSARCOMA: A CASE OF A LARGE INTRA-ABDOMINAL ENCASING THE SIGMOID COLON

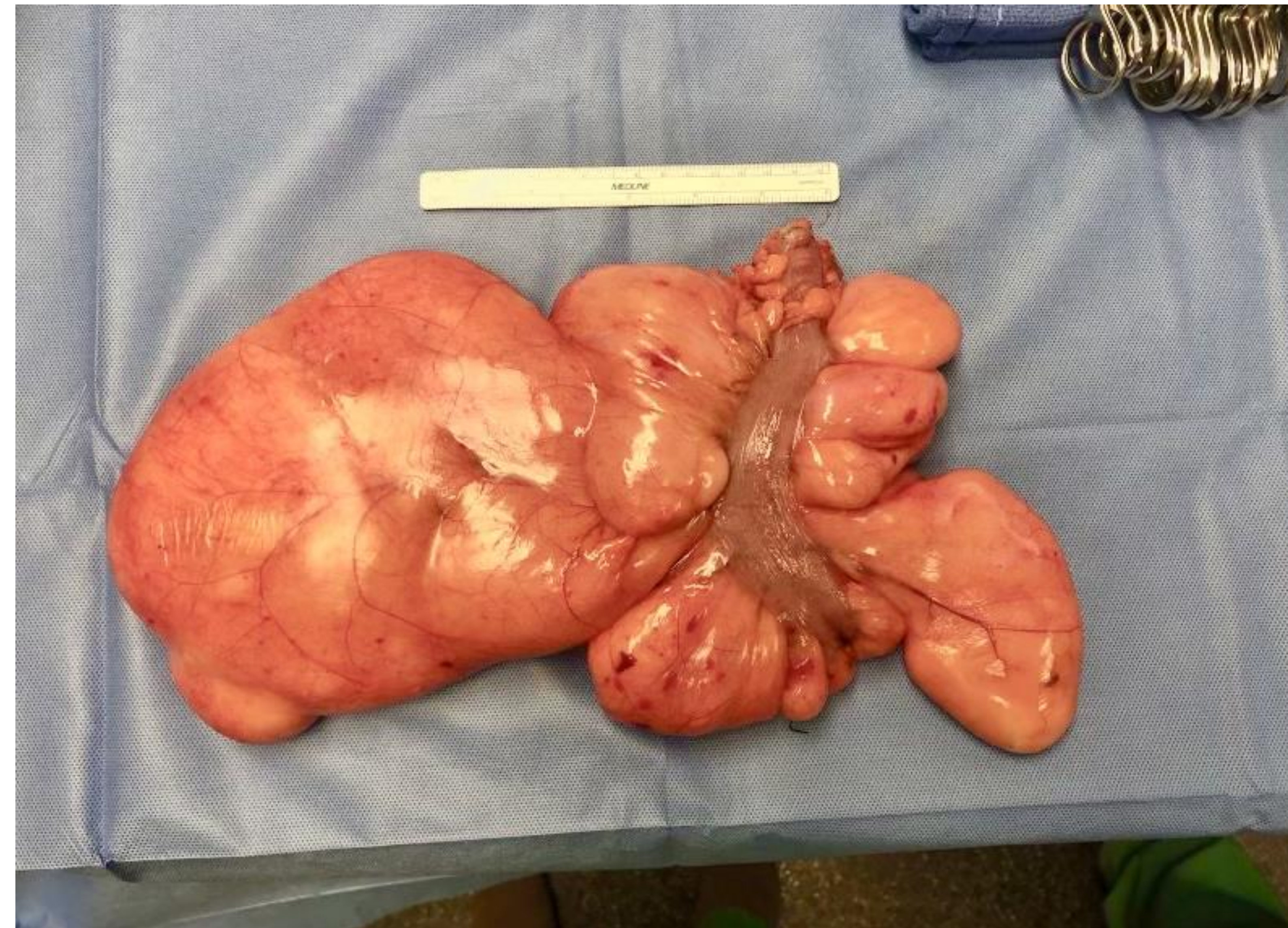
Maria Vazquez de Santos MD, Cory Nonnemacher MD, William Thompson MD, Rachel Fricker MS3  
Mercer University School of Medicine/Atrium Navicent Health

## Background:

- Liposarcomas are malignant tumors of adipocytes that commonly present as large deep-seated masses in the connective tissue space of the extremities or retroperitoneum.<sup>2</sup>
- A primary mesenteric intraperitoneal liposarcoma is a very rare subtype and is often located at the root of the mesentery rather than near the bowel.<sup>3</sup>
- Mesenteric liposarcomas are usually non-metastasizing and locally aggressive.<sup>3</sup>
- Present as painless, slow-growing tumors that can attain large sizes leading to non-specific symptoms like anorexia, early satiety, abdominal distention, and occasionally subacute intestinal obstruction or volvulus.<sup>3</sup>

## Case:

- A 67-year-old white male with a well-differentiated MDM2 positive liposarcoma of the sigmoid colon mesentery.
- The patient clinically presented with vague symptoms of abdominal pain.
- CT imaging revealed a large homogenous mass extending throughout the abdomen and surrounding the sigmoid colon.
- We elected to perform a laparotomy and a 20.1 × 15.2 × 4.8 cm tumor arising from the mesentery was identified with encasement of a 19.5 cm segment of the sigmoid colon.
- We resected the tumor and sigmoid colon en-bloc and performed an end-to-end anastomosis.
- The patient recovered well with no complications.
- Complete resection is curative for most liposarcomas, although the role of adjuvant therapy and surveillance protocols need to be further elucidated for primary mesenteric liposarcomas.<sup>3</sup>



## Final Diagnosis

**A. ABDOMINAL CAVITY, ABDOMINAL MASS WITH SIGMOID COLON, RESECTION:**  
- WELL-DIFFERENTIATED LIPOSARCOMA.  
- SEE COMMENT.

**Armita Bahrami, MD, Bone & Soft Tissue Pathology**  
**Emory University Hospital**

**See attached document for complete report including FISH results.**

Electronically signed by Amy Elizabeth Wright, MD for Oscar Eugene Battles, MD  
on 8/24/2022 at 1529

## Comment

### Emory University Comments:

We have reviewed sections of this 20 cm mesenteric mass in this 65-year-old man and would classify the tumor as a well-differentiated liposarcoma, lipoma-like subtype. Sections show an adipocytic neoplasm with irregular fibrous bands and readily identifiable enlarged stromal cells with hyperchromatic nuclei and abnormal blood vessels containing hyperchromatic cells within their walls. Diagnostic areas of dedifferentiation are not seen in this material. Slide A20 shows a focus with increased cellularity within fibrous septa, which is microscopic and does not reach the threshold for the diagnosis of dedifferentiation. FISH study for MDM2 performed in our laboratory was positive for gene amplification, confirming the diagnosis. As is often the case, margins are involved microscopically (A2 block); clinical follow up is warranted for evidence of recurrence.

## Conclusions:

- Mesenteric liposarcomas can be diagnosed preoperatively by using CT with contrast and MRI.<sup>3</sup>
- Treatment includes surgical resection.<sup>1</sup>
- Local recurrence after complete resection of primary retroperitoneal liposarcoma is common, with about 50% of well-differentiated and about 80% of dedifferentiated tumors recurring within 5 years.<sup>1</sup>
- Post-operative surveillance protocols are challenging to determine given the variety of recurrence rates among the different types of liposarcomas.
- Protocols need to be implemented to better monitor long-term outcomes and guide medical management.

## References:

1. Park JO, Qin LX, Prete FP, Antonescu C, Brennan MF, Singer S. Predicting Outcome by Growth Rate of Locally Recurrent Retroperitoneal Liposarcoma: The One Centimeter per Month Rule. *Ann Surg.* 2009;250(6):977-82. doi: 10.1097/sla.0b013e3181b2468b
2. Park N, Kuk JC, Shin EJ, Lim DR. Surgery of intraabdominal giant dedifferentiated liposarcoma of ascending colon mesentery: A rare case report. *International Journal of Surgery Case Reports.* 2022;98:107482. <https://doi.org/10.1016/j.ijscr.2022.107482>
3. Sachidananda S, Krishnan A, Ramesh R, Kuppurao S. Primary Multiple Mesenteric Liposarcoma of the Transverse Mesocolon. *Ann Coloproctol.* 2013;29(3):123-5. doi: 10.3393/ac.2013.29.3.123
4. Zaidi MY, Cardona K. Post-operative surveillance in soft tissue sarcoma: using tumor-specific recurrence patterns to direct approach. *Chin Clin Oncol.* 2018;7(4):45. doi: 10.21037/cco.2018.08.03