

INCIDENTAL MALIGNANT MESOTHELIOMA OF THE SMALL BOWEL, COLON, AND MESENTERY: A CASE REPORT

Fielding Richards, DO; William Baumgartner, DO; Daniel Goldman, MD



INTRODUCTION

- ❑ Malignant mesothelioma is a rare, aggressive cancer that arises from mesothelial cells; pleural disease is most common, while peritoneal disease is less frequent.
- ❑ Primary involvement of the small bowel, colon, and mesentery is exceptionally uncommon and often diagnosed late, leading to a poor prognosis.
- ❑ Most cases are linked to occupational or environmental exposure to asbestos, causing chronic inflammation and DNA damage. Ionizing radiation and mutations in the BRCA1 Associated Protein (BAP1) are also linked to the disease.
- ❑ Management often involves a combination of chemotherapy, immunotherapy, radiation, and surgical resection depending on the stage and location of disease.

CASE DESCRIPTION

- ❑ 81-year-old male with chronic abdominal pain and poor oral intake admitted for an exploratory laparotomy for complicated diverticular disease with a giant diverticulum.
- ❑ Employment history significant for occupational exposure to asbestos.

OBJECTIVE

- ❑ Describe an incidental epithelioid mesothelioma involving the small bowel, colon, and mesentery found during surgery for diverticular disease.
- ❑ Summarize operative/pathologic findings and multidisciplinary management.

OPERATIVE MANAGEMENT

- ❑ Exploratory laparotomy revealed a 7cm firm mass in the mesentery that was densely adhered to a portion of the jejunum and sigmoid colon, prompting small bowel resection and planned sigmoid resection.
- ❑ Colorectal anastomosis (EEA) and diverting loop ileostomy, reversed at five weeks.

RESULTS

- ❑ **Diagnosis:** Epithelioid mesothelioma involving small bowel, colon, and mesentery
- ❑ **Margins:** Negative (R0 resection)
- ❑ **Lymph nodes:** 0 / 18 positive
- ❑ **Lymphovascular invasion:** Present
- ❑ **Ki-67:** Low proliferation index
- ❑ **BAP1 mutation:** Present
- ❑ **Background pathology:** Diverticular disease with mucosal ulceration and adhesions
- ❑ **Staging CT Chest:** Negative for pleural/metastatic disease.



Figure 1: Large sigmoid diverticulum (6.8 x 6.1 x 5.8 cm), acute diverticulitis

MANAGEMENT

- ❑ Reviewed in multidisciplinary setting. Tazemetostat (EZH2 inhibitor) offered as targeted therapy based on identified BAP1 molecular findings. Patient deferred initiation at most recent follow up.
- ❑ Close surveillance recommended while considering targeted therapy.

DISCUSSION

- ❑ Incidental peritoneal/bowel mesothelioma is rare; presentation may be nonspecific and discovered during surgery for unrelated pathology.
- ❑ Epithelioid subtype is generally associated with more favorable outcomes compared with sarcomatoid/biphasic subtypes.
- ❑ Maintain intraoperative vigilance; occult malignancy can coexist with benign GI pathology.
- ❑ Complete resection with negative margins may allow surveillance first strategy in select low-proliferation cases.
- ❑ Coordinate early with pathology, oncology, and radiology for staging and biomarker-guided planning.

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DISCLOSURE

The authors used OpenAI ChatGPT to assist with wording, organization, and preliminary drafting of the abstract and case report. The tool also helped surface candidate literature; all citations and statements were independently verified by the authors. No figures or analyses were generated by AI. All patient details in the submission are de-identified. The authors retain full responsibility for the content and conclusions, and no AI system is credited as an author.