

## *A Case of Metastatic Melanoma Presenting as a Small Bowel Obstruction*

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### ABSTRACT

Small bowel obstructions are most commonly caused by adhesion. Less common causes arise from malignant pathology. Here, we present a relatively rare case of a small bowel obstruction due to malignant melanoma. Melanoma involving the gastrointestinal tract is relatively rare, with most cases occurring as metastatic spread from a cutaneous primary. The treatment typically requires a surgical resection or palliative bypass. When a patient presents with a small bowel obstruction without prior abdominal surgeries or hernias, a malignant obstruction must be on the differential.

### KEYWORDS

Metastatic melanoma, malignant bowel obstruction

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### INTRODUCTION

Melanoma is a relatively common neoplasm that typically presents as a suspicious cutaneous lesion. As such, most cases of metastatic melanoma have a known primary lesion. Historically, metastatic malignant melanoma was nearly universally deadly, and more recent 5-year survival rates are still only between 5 and 19%.<sup>1</sup> Melanoma involving the gastrointestinal tract has been reported from both primary mucosal lesions and metastatic spread from a distant lesion. Reported cases of malignant melanoma spreading to the small intestines are becoming more common, with an incidence rate of approximately 35 to 50%.<sup>2</sup> Other common sites for cutaneous melanoma spread are the liver, lung, and bone.

Symptoms of metastatic melanoma to the gastrointestinal tract are similar to any primary or metastatic malignancy of the gastrointestinal tract; it presents as obstruction, bleeding, or perforation. It is important for surgeons to recognize metastatic small bowel melanoma as a possible cause of bowel obstruction, especially in patients with even a remote history of melanoma.

### CASE REPORT

Our patient is an 81-year-old male with no prior medical or surgical history. He presented through the emergency department with colicky abdominal pain, constipation, poor oral intake, and a 15-pound weight loss. He did not have any symptoms of melena or hematochezia. He rarely followed up with his primary care doctor and had never undergone a colonoscopy prior to this admission. His family history was significant, with a father and uncle both having been diagnosed with colon cancer in their mid to late eighties.

He was hemodynamically stable on presentation, with a distended but soft abdomen. Laboratory values were unremarkable. CT scan of his abdomen and pelvis demonstrated a large 15x10 cm mass in his pelvis, with questionable liver metastasis (Figure 1). He was noted to have significant small bowel dilatation with a transition point in his pelvis consistent with small bowel obstruction.

The initial concern was for possible colon cancer. GI was consulted, and the patient underwent a colonoscopy. The scope was completed up to the



splenic flexure but was not completed to the cecum due to poor prep. No mucosal abnormalities were appreciated.

A CT scan of his thorax was ordered to complete the oncological workup with findings of a small non-specific lung nodule. This nodule was reported as a

likely benign finding, but a metastatic lesion could not be fully excluded. His CEA came back within normal limits; CA 19-9 was elevated at 45 (0-35 normal).

As the patient was obstructed from this pelvic mass, the decision was made on hospital day 2 to operate with an exploratory laparotomy and possible palliative bypass vs. en bloc resection. Of note, possible metastatic disease was suspected. On physical examination, the patient had a small melanotic-appearing skin lesion just inferior to his right clavicle, approximately 2x2 cm. No other skin lesions, ophthalmological pathology, lymphadenopathy, rectal lesions, or oral mucosal lesions were noted on physical examination.

The patient underwent wedge biopsy of the right sub-clavicular skin lesion in the operating room. Urology placed bilateral ureteral stents in the operating room. The patient then underwent an exploratory laparotomy. After entering the abdomen, the mass was easily identified, as shown in figure 2. This mass appeared to originate from a loop of the small bowel, invading the mesentery and the sigmoid colon. An en bloc resection of the mass was performed, including the involved small bowel, mesentery, and sigmoid colon. The liver had palpable irregularities, which were also biopsied. The small bowel was primarily anastomosed, and an end colostomy was matured.

Pathology reports from the skin wedge resection demonstrated melanoma in-situ that was negative for any intradermal/invasive component. The liver biopsy was consistent with metastatic melanoma. The report from the en

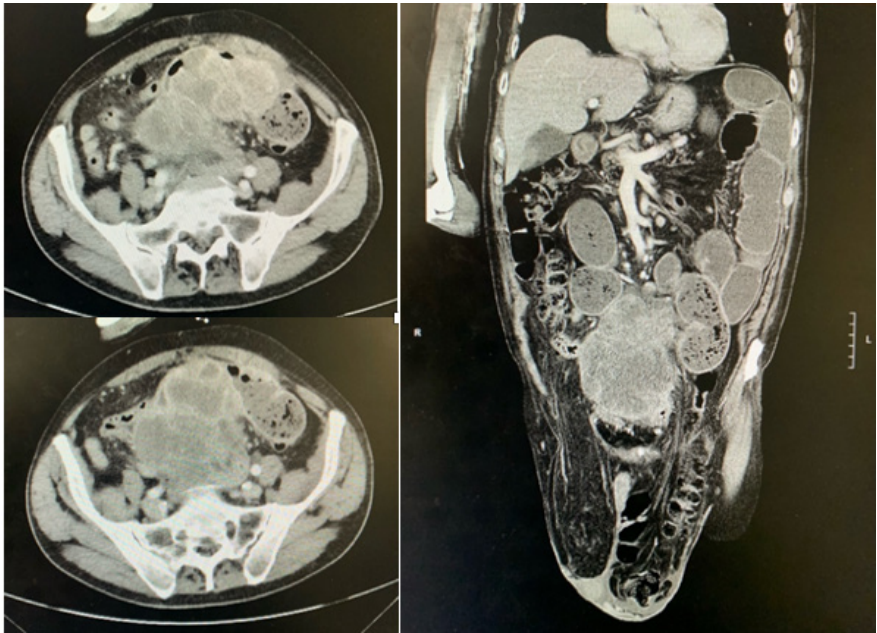


FIGURE 1. CT scan of abdomen and pelvis on initial presentation demonstrating obstructive mass.

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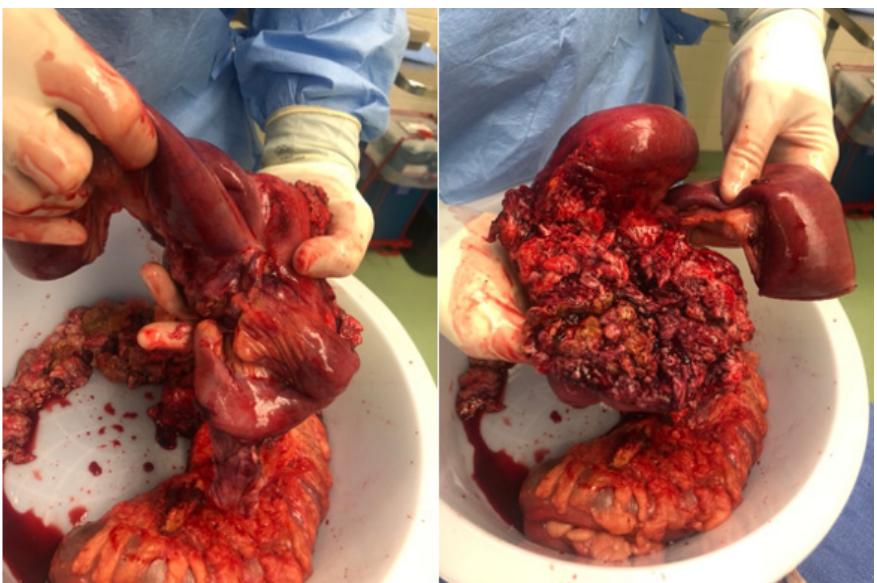


FIGURE 2. Specimen from resection which included small bowel, mesentery, and sigmoid colon.

bloc resection demonstrated a mass involving the small bowel and mesentery that was 13.5x10.5x7.9 cm. The mass stained positive for S100, HMB45, MelanA, CD56, and CD 117 and was consistent with metastatic melanoma. The mass had transmural involvement of the small bowel and serosal involvement of the sigmoid colon. Thirteen lymph nodes were identified in the specimen and were all negative for disease. The total length of the small bowel resected was approximately 70 cm.

The patient did well postoperatively. He was a motivated patient with colostomy function on postoperative day 2. His diet was advanced slowly to a regular diet. He was discharged home on postoperative day 6 and was followed up once in clinic approximately 10 days after discharge. He failed to return to subsequent follow-up appointments.

## DISCUSSION

Melanoma found in the gastrointestinal tract is relatively rare and is either of a primary mucosal lesion or of metastatic origins. Of metastatic sources, cutaneous melanoma most often metastasizes to the gastrointestinal tract, with the small bowel being a common site, owing to a rich blood supply. It has been postulated that about 60% of patients who die from metastatic melanoma are found to have gastrointestinal metastases on autopsy.<sup>2</sup> Persistent non-specific complaints, such as vague abdominal pain, weight loss, anorexia, or fatigue, should lead to suspicion of melanoma metastases to the gastrointestinal tract in patients who have even a remote history of melanoma.

Distinguishing between a primary gastrointestinal mucosal melanoma and a metastatic lesion from an unknown or regressed primary lesion can be difficult. If a melanotic lesion is found during an endoscopic procedure or diagnosed postoperatively by pathology, it is important to perform a thorough physical exam to rule out a primary source. After ruling out a cutaneous lesion as the primary source, an ocular exam should be performed as oculocutaneous lesions are the second most common site of primary melanoma. After lesions in the eye are ruled out, vaginal and rectal exams

should be performed. In addition, all major lymph node groups should be examined. In our patient, the cutaneous lesion was the most likely source of metastatic spread. Although our biopsy of the cutaneous lesion returned as melanoma in-situ, it is possible that either the lesion regressed, or we missed the deepest part of the lesion on our wedge biopsy. While re-excision of the lesion was discussed, the result would not change the management of our patient.

Melanoma involving the GI tract is often diagnosed late and typically presents as bowel obstruction, bleeding, or perforation. Surgical removal with tumor-free margins is the principal treatment option for melanoma involving the small bowel. A wide intestinal resection, including the resection of the mesentery with lymph nodes, is the treatment of choice.<sup>3</sup> Surgical resection is effective in palliating symptoms and may even prolong survival.<sup>4</sup> Historically, adjuvant chemotherapy has had a limited role in such cases, as response rates were insignificant.<sup>5</sup> Similarly, other treatment modalities, such as immunotherapy and targeted therapies, also had a limited role due to their low response rates.<sup>6</sup> More recent advancements in chemotherapy and immune therapy have shown promise in improved survival rates, but more studies are needed on managing these expanding treatment options.<sup>7</sup>

## CONCLUSION

Malignant bowel obstruction must be part of the differential diagnosis in a patient that presents with small bowel obstructions without prior abdominal surgeries or obvious hernias. Melanoma is recognized as the most common extra-intestinal malignancy to metastasize to the gastrointestinal tract. Surgery still plays an important role in both palliation and prolonging survival.

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