# Metastasis of Malignant Melanoma to a Colonic Polyp: A Case Report

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## Introduction:

- Only 1-3% of melanomas metastasize to the gastrointestinal tract[4]
- The symptoms related to GI metastasis are non-specific, including abdominal pain, nausea and vomiting, and many cases go undiagnosed[1,2]
- Malignant melanoma should be considered in patients with generalized GI symptoms and history of melanoma as most cases present with a primary cutaneous lesion[3]

## Patient Presentation:

- A 79-year-old male presented for a follow-up for cecum polyp removal from a routine colonoscopy in which malignant melanoma was discovered and confirmed by IHC staining (Figures 1, 2).
- Five years prior to the diagnosis of his cecal polyp, he had been seen by dermatology for a five-month history of an irregular-appearing mole on his upper right back that would bleed when scratched and was different than his other moles

### Pathology

- Wide local excision of the mole on his upper back and a right axillary sentinel lymph node biopsy showed 2/2 lymph nodes positive for melanoma, one of which had extracapsular extension and right axillary lymphadenectomy showed 0/47 positive lymph nodes
- Shave biopsy positive for Stage IIIB T3a N2 M0 invasive nonnucleated superficial spreading melanoma with a Breslow depth of 2.7mm, Clark Level IV, with 3 mitoses/mm$^2$
- Pathology by molecular analysis was positive for a BRAF K601E mutation

### Treatment & Outcome

- Following excision, his post operative course was essentially benign
- Brain MRI at the time of excision was negative for metastasis and PET did not show evidence of distance metastasis
- 5 years later, after being diagnosed with metastatic melanoma to the cecal polyp, he elected to begin therapy with nivolumab, a monoclonal antibody that treats inoperable or metastatic melanoma
- After initiation of nivolumab systemic therapy , the patient sustained multiple adverse effects, including a suspected drug-induced liver injury as evidenced by transaminitis, a port-site infection and a rash
- The patient died approximately 1.5 months after initiation of nivolumab. It was understood that the patient's cause of death was due to complications arising from his immunocompromised state

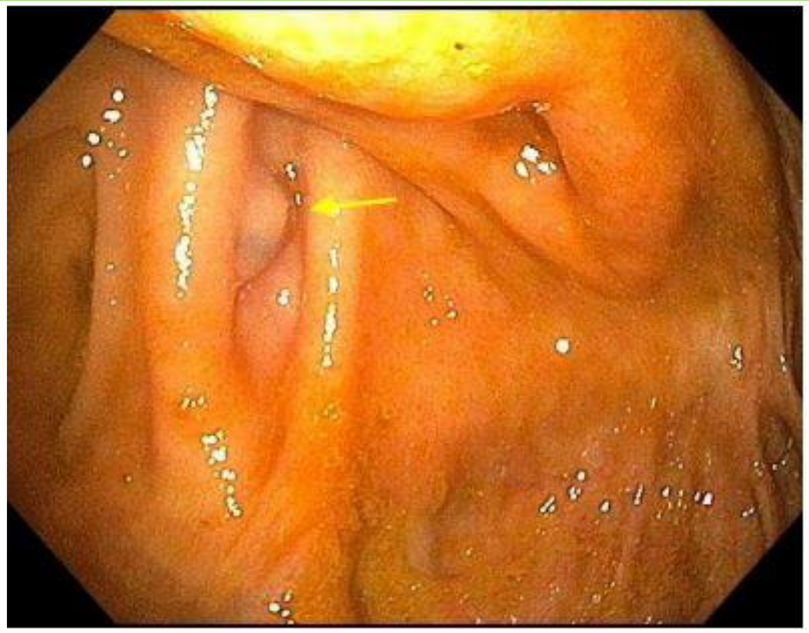

**Figure 1: Cecal polyp discovered on routine colonoscopy (yellow arrow)**

| Antibody/Reagent | Block | Slide | Result (staining pattern) in tumor cells |
|---|---|---|---|
| CAM 5.2 | A1 | Individual | Negative |
| CD56 | A1 | Individual | Negative |
| Synaptophysin | A1 | Individual | Predominantly negative |
| Chromogranin A | A1 | Individual | Negative |
| SOX10 | A1 | Individual | Positive |
| Melan-A | A1 | Individual | Positive |
| HMB45 | A1 | Individual | Positive |
| Tyrosinase | A1 | Individual | Positive |

**Figure 2: Immunohistochemical stains to confirm diagnosis of malignant melanoma**

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## Discussion:

- The rich vascularity of the small intestine allow the jejunum and ileum to be the most common sites of metastasis, followed by the stomach, rectum, and colon[5,6,7]
- Many of these polyps can be amelanotic, ulcerated melanotic nodules, in the submucosa with ulcerated centers, mass lesions with a wide range of ulceration and/or melanosis, or appear benign to the examiner[3,8]
- Only 4.4% of metastatic melanomas to the gastrointestinal tract are diagnosed before death[1]
- Patients with a history of melanoma are recommended to have screening for potential gastrointestinal spread, typically with dual modality PET-CT and colonoscopy for local visualization and tissue biopsy[9,10]
- Metastatic melanoma of the gastrointestinal tract tends to have a poor prognosis, of less than 10 months, especially in patients with concurrent bowel perforation, obstruction, or peritonitis secondary to metastatic disease[6,11]
- Primary and metastatic melanomas of the gastrointestinal tract tend to have a worse median survival of 4-6 months[12]

## Conclusion:

- Metastatic melanoma to the GI tract is a rare, and potentially fatal, tumor that often goes undiagnosed due to its inconspicuous presentation
- When patients with melanoma are undergoing routine colonoscopy, clinicians must be especially aware of the tendency, albeit rare, for melanoma to metastasize to the gastrointestinal tract
- Physicians should pay close attention to suspicious lesions, pigmented areas, and abnormal areas of mucosa
- Despite the vague nature of the GI symptoms involved, or lack thereof, metastatic melanoma of the gastrointestinal tract should be considered in any patient with a history of melanoma
- As evidenced in this case (Figure 2) appropriate IHC staining is critical in diagnosing to expeditiously treat these patients and improve outcomes [13]