Review Article

SCISET
www.sciset.com

Clinical Trials and Case Reports

2023
Vol. 1 No. 1: 102

Metastatic Malignant Melanoma of the Gastrointestinal Tract: A Review

Grzegorz S Nowakowski*, Amindra S Arora

Division of Nephrology and Hypertension, Mayo Clinic College of Medicine, Rochester, MN 55905, USA

Corresponding author:
Grzegorz S Nowakowski, Division of Nephrology and Hypertension, Mayo Clinic College of Medicine, Rochester, MN 55905, USA. E-mail: grzegorz_nowakowski @mayo.edu

Citation: Nowakowski GS, Arora AS. (2023) Metastatic Malignant Melanoma of the Gastrointestinal Tract: A Review. Clin Trial Case Rep. Vol 1(1):102.

Received: May 11, 2023; **Accepted:** May 26, 2023; **Published:** June 04, 2023

Abstract

Malignant melanoma ranks among the most prevalent malignancies linked to gastrointestinal (GI) involvement, typically presenting clinically in advanced stages. Surgical intervention is often recommended as a palliative measure for GI metastases.

This case involves a 67-year-old male diagnosed with malignant melanoma seven months prior, who presented with burning epigastric pain and bloating. Esophagogastroduodenoscopy revealed multiple flat lesions, with biopsy results consistent with malignant melanoma.

Given malignant melanoma's propensity for early metastasis and its associated high mortality rate, comprehensive evaluation and management are crucial. As gastrointestinal involvement becomes increasingly recognized in metastatic workups, esophagogastroduodenoscopy emerges as a vital diagnostic tool, influencing treatment decisions and patient outcomes. While gastric metastases remain rare, the inclusion of upper endoscopy is imperative, particularly in symptomatic individuals, to effectively rule out metastatic disease.

Keywords: Malignant Melanoma; Gastrointestinal Tract: Metastasis.

Introduction

Malignant melanoma, the most severe form of skin cancer, originates from melanocytes, pigment-producing cells. With a five-year survival rate ranging from 3 to 19%, survival varies based on metastasis location and extent. While melanomas predominantly occur on the skin, they can also develop in the mouth, intestines, eyes, and rarely, internally, such as in the nose or throat [1].

Gastrointestinal (GI) involvement is common in malignant melanoma, accounting for 43.5% of cases, primarily affecting the liver, peritoneum, pancreas, small bowel, spleen, colon, stomach, oral cavity, and esophagus. Despite its lower incidence compared to skin, lung, and brain metastases, GI involvement typically presents at an advanced stage.

Esophagogastroduodenoscopy is crucial in symptomatic patients to rule out GI melanoma, given its rarity and potential severity. Surgical intervention significantly enhances survival rates, especially with complete resection, which prolongs median survival to 48.9 months compared to 5.4 months with incomplete resection. Surgery also provides palliative relief, alleviating symptoms in 77% to 100% of patients, depending on the site and indication for resection.

Here, we present the case of a 67-year-old male experiencing epigastric burning and bloating, with a history of malignant melanoma, lymph node involvement, and pulmonary metastasis diagnosed seven months earlier. Despite radiotherapy and ongoing symptoms, esophagogastroduodenoscopy revealed multiple flat lesions in the gastric body, antrum, and duodenum, consistent with malignant melanoma on biopsy. Management included proton pump inhibitors, calcium carbonate, simethicone for gastrointestinal symptoms, and initiation of immunotherapy with pembrolizumab, which the patient tolerated well [2].

However, the patient also developed Hospital-Acquired Pneumonia (HAP) with pulmonary effusion, necessitating chest tube thoracotomy and antibiotic therapy. Following treatment, the patient showed improvement and was discharged.

Discussion

Malignant melanoma affecting the gastrointestinal (GI) tract can manifest either as primary or metastatic lesions. Primary GI melanoma originates in various mucosal sites, such as the oral cavity, esophagus, small bowel, colon, rectum, and anus, without prior cutaneous melanoma [3,4]. Distinguishing between primary GI mucosal melanoma and metastatic melanoma to the GI tract from an unknown or regressed cutaneous primary can be challenging. Superficial spreading melanoma, the most common subtype of melanoma, is also the most common subtype to metastasize to the GI tract, although all histological subtypes of cutaneous melanoma may metastasize to the GI tract.

Regarding the anatomic location of gastric metastases, most occur in the body and fundus of the stomach, particularly along the greater curvature, with lesions in the lesser curvature being rare. In our patient, lesions were observed in the gastric body and antrum, as well as in the duodenal bulb and second portion. CT scans revealed metastases in the lungs, mediastinal lymph nodes, and right hepatic lobe.

Malignant melanoma of the stomach is often asymptomatic, contributing to its challenging detection. Symptoms may include nausea, vomiting, gastrointestinal bleeding, weight loss, and acute perforation. In our patient, symptoms included nausea, vomiting, and bloating, which were managed medically. Esophagogastroduodenoscopy revealed erosive gastritis without ulcers [5].

Endoscopic classification of gastric metastases includes three main morphological types: melanotic nodules with ulcerated tips, elevated submucosal tumor masses with ulcerated apices, and mass lesions with varying degrees of necrosis and melanosis. In our patient, the first morphological type was observed.

The prognosis for patients with metastatic malignant melanoma is generally poor, with studies indicating a mean survival of only 6 to 8 months for those with systemic metastases [6,7]. Treatment

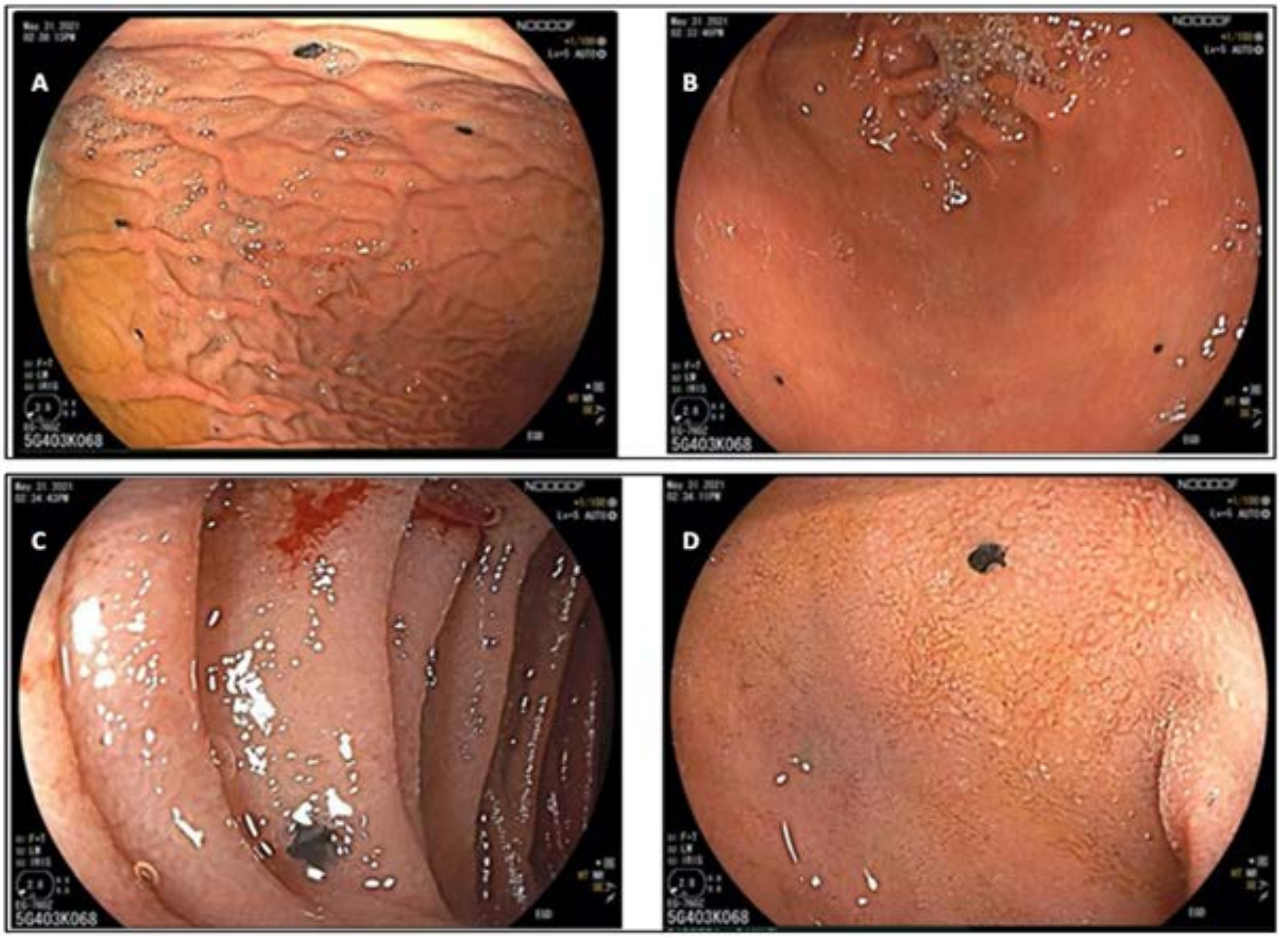

Figure 1: (A) Antrum (B) Gastric body (C) 2nd part of the Duodenum (D) Duodenal bulb.

options for metastatic melanoma involving the GI tract may include surgical resection, chemotherapy, immunotherapy, and observational trials. The immunocompromised state associated with melanoma can lead to serious complications in patients with GI tract involvement.

Conclusion

Malignant melanoma exhibits an early propensity for metastasis and carries a high mortality rate due to associated complications. Therefore, a thorough assessment of metastasis is crucial for treatment decisions and patient outcomes. While metastases to the stomach are rare, it is imperative to conduct a comprehensive evaluation, including upper endoscopy, to rule out metastatic disease, particularly in symptomatic patients.

References

1. Liang K V, Sanderson S O, Nowakowski G S, Arora A S. (2006) Metastatic malignant melanoma of the gastrointestinal tract. Mayo Clin Proc. 81(4), 511-6.
2. Simons M, Ferreira J, Meunier R, Moss S. (2016) Primary versus Metastatic Gastrointestinal Melanoma: A Rare Case and Review of Current Literature. Case Rep Gastrointest Med. 2306180.
3. El-Sourani N, Troja A, Raab H R, Antolovic D. (2014) Gastric Metastasis of Malignant Melanoma: Report of a Case and Review of Available Literature. Viszeralmedizin. 30(4), 273-5.
4. Wong K, Serafi S W, Bhatia A S, Ibarra I, Allen E A.Melanoma with gastric metastases. , J Community Hosp Intern MedPerspect 6(4), 31972.
5. Augustyn A, de Leon ED, Yopp A C. (2015) Primary gastric melanoma: case report of a rare malignancy. RareTumors. 7(1), 5683.
6. Genova P, Sorce M, Cabibi D, Genova G, Gebbia V et al. (2017) Gastric and Rectal Metastases from Malignant Melanoma Presenting with Hypochromic Anemia and Treated with Immunotherapy. Case Rep Oncol Med. 2079068.
7. Alghisi F, Crispino P, Cocco A, Richetta A G, Nardi F et al. (2008) Morphologically and immunohistochemically undifferentiated gastric neoplasia in a patient with multiple metastatic malignant melanomas: a case report. J Med Case Rep. 2, 134.