

Double Trouble: A Case of Primary Gastric Balloon Cell Melanoma

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Introduction

- Primary gastric melanoma is a rare malignancy described in isolated case reports.
- Balloon cell differentiation is a unique histopathological subtype, representing less than 1% of malignant melanoma.
- We report a case of primary gastric balloon cell melanoma presenting as gastrointestinal (GI) bleed.

Case Description

- A 73-year-old man presented with two days of hematochezia and melena. His physical examination was unremarkable with no suspicious skin lesions.
- He previously presented with similar symptoms and was found to have gastritis on esophagogastroduodenoscopy (EGD).
- A CT scan of the chest and abdomen, during this admission, revealed distal gastric body wall thickening, a 0.7 cm adjacent soft tissue nodularity, right lung nodule and enlarged hilar lymph node.
- Repeat EGD revealed multiple submucosal ulcerated, necrotic masses in the stomach (Figure 1a-b) suggesting an aggressive process.
- Gastric biopsy revealed balloon-like submucosal epithelioid neoplasm with necrosis and intracytoplasmic pigment concerning for melanoma (Figure 1c-d).

Images

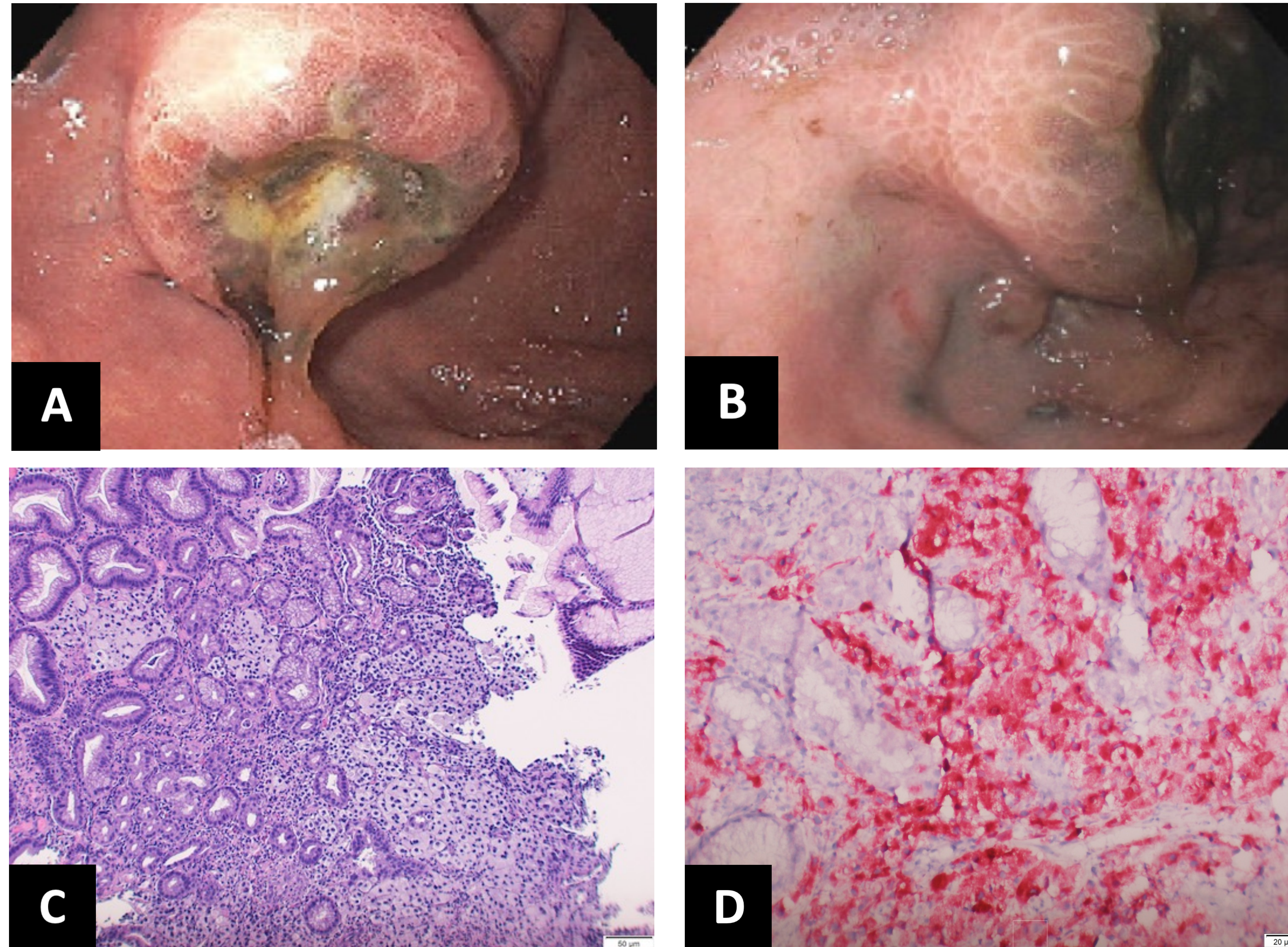


Figure 1: A-B: EGD showing multiple submucosal ulcerated and necrotic masses in the stomach. C: H&E image showing lamina propria replaced by infiltrating enlarged, voluminous balloon-like cells with oval nuclei, prominent cherry nucleoli, and intracytoplasmic pigment. D: Melan-A stain highlighting the red chromogen in the cytoplasm of balloon cells.

Case Description (contd.)

- Immunohistochemical testing was positive for Melan-A, SOX10, and S100 consistent with melanoma with balloon cell differentiation.
- The patient was referred to oncology and underwent a PET scan which confirmed intense uptake in the stomach, hypermetabolic pulmonary nodules, and no skin lesions.
- A CT-guided biopsy of the pulmonary nodules was negative for malignancy, further confirming primary gastric melanoma.

Discussion

- Melanoma is an aggressive malignancy that has a predilection for metastasis to the GI tract.
- However, primary gastric melanoma is a rare entity and balloon cell is one of the rarest histopathological subtypes.
- Due to paucity of cases, treatment guidelines are limited.
- While immune checkpoint inhibitors (ICI) have revolutionized gastric cancer treatment, the use of ICI is understudied in primary gastric melanoma.
- Further studies investigating the molecular basis of melanoma are needed for development of targeted treatments.
- Our case emphasizes that symptoms of GI bleeding should be evaluated diligently, as early recognition of malignancy can lead to a prompt diagnosis and initiation of life-saving treatment.