An Elusive Diagnosis: Primary Gastric Melanoma with Metastatic Disease presenting as Occult Gastrointestinal Bleed

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Introduction

- Mucosal melanomas are rare, accounting for 0.3% of all cancer diagnoses and ~1% of all melanomas.
- While cutaneous melanomas frequently metastasize to the gastrointestinal (GI) tract, primary GI melanomas, especially gastric, are extremely rare.
- Mucosal or extracutaneous melanomas (ECM) are rare accounting for 1% of all melanomas.
- Mucosal melanomas are more aggressive and have worse prognosis compared to cutaneous melanomas.
- We report a case of primary gastric melanoma (PGM) presenting as occult blood loss anemia.

Case Description

- **HPI:** A 58-year-old male with past medical history of diabetes presented with generalized weakness, anorexia, weight loss, and intermittent melena for one year.

- **Physical Exam:** On exam, he was tachycardic, borderline hypotensive, and pale without epigastric tenderness.

- **Pertinent Data:**
  - **Labs:** Severe anemia (Hgb 3.8 mg/dl, MCV 72 fl) for which he received 2 units of red cells.
  - **EGD (Fig: 1):** 8 mm non-bleeding, gastric ulcer with a raised border and a clean base on the wall of the gastric body.
  - **Pathology:** Metastatic melanoma displaying strong positivity for S-100, Melan A and HMB 45 stains.
  - **CT of the abdomen and pelvis (Fig: 2):** Multifocal metastatic disease with subcutaneous, intramuscular and perinephric implants including dominant lesion in the right upper abdominal wall with periportal and gastrohepatic ligament adenopathy. Suspicion of small bowel carcinomatosis.

Patient underwent an excisional biopsy for the abdominal wall mass and surgical pathology confirmed melanoma. Detailed inspection failed to find any potential lesions on the skin or genitals. Patient is planned to be started on immunotherapy for advanced disease.

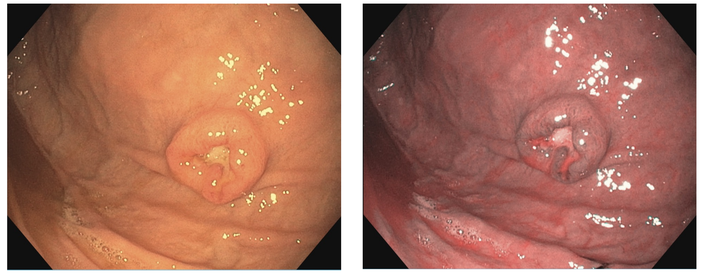

Figure 1: Endoscopic images of an 8 mm non-bleeding, cratered ulcer with a clean base on the anterior wall of gastric body (Forrest Class III)

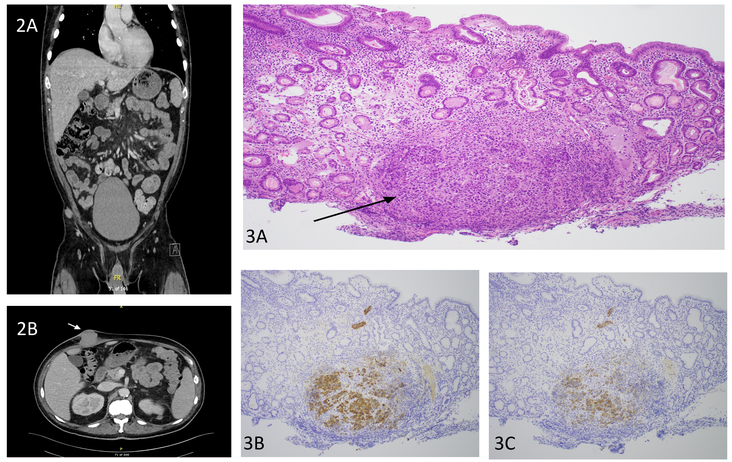

Figure 2: A) Coronal CT image showing multifocal metastatic disease of unknown origin, small bowel carcinomatosis. B) Axial CT image showing dominant lesion (arrow) in the right upper abdominal wall.

Figure 3: Endoscopic biopsy of the stomach showing A)Nodular melanoma B) Positive Melan A in melanoma and negative in stomach epithelium C) Positive HMB 45 in melanoma and negative in stomach epithelium

Discussion

- Most melanomas found in the gastrointestinal tract are metastatic. Mucosal melanoma presenting as gastric ulcer represents less than 1% of all mucosal melanomas. As a result, metastasis from other sites must be ruled out before making a diagnosis of primary gastric melanoma.
- Pathologic diagnosis of melanoma requires the identification of melanin in cytoplasm and immunohistochemistry with specific markers such as S-100, Melan A and HMB-45. Although the pathologic diagnosis of primary gastric melanoma is similar to cutaneous melanoma, preoperative diagnosis is difficult.
- The prognosis of mucosal melanoma is poor, with a five-year survival rate of 25% versus 80% for cutaneous melanoma.
- There is no standard protocol for treatment. Surgery is the only curative treatment for resectable disease, but negative margins are difficult to achieve due to lentiginous growth pattern, multifocality of the disease and anatomic constraints.
- Adjuvant chemotherapy, radiation and immunotherapy have an established role in cutaneous melanoma but there is only limited data on adjuvant systemic therapy with mucosal melanoma.

Further research is imperative to establish proper management guidelines for this rare disease entity.

References

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