

## Amelanotic metastatic melanoma of the stomach presenting with iron deficiency anemia

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### To the Editor,

Melanoma is an extremely aggressive cancer affecting people in young age. About 18% of patients with cutaneous melanoma will show clinical metastases. The gastrointestinal tract has a frequency of involvement by metastatic melanoma of about 26-48%. (1) Clinical diagnosis of enteric metastasis is made in less than 5% of patients affected by melanoma. Instead, at autopsy of 216 subjects with disseminated melanoma, Patel et al described a share of spread to intestinal site of about 60%. (2)

Enteric localizations are frequently silent, while onset of symptoms is due to the mass effect of metastases or complications (fatigue, perforated bowel, hematemesis and melena). Metastasis identification may be concurrent with the primary disease, or may occur several years later or even in the absence of a known primary site.

Here, we report the case of a 70-year-old man who came to our attention because of iron deficiency anemia. Two years earlier a skin melanoma of the right upper arm had been excised and, after one year, patient underwent an ipsilateral axillary lymph node dissection for a metastasizing epitheloid cell melanoma. An upper endoscopic examination was performed showing the presence, at the anterior wall of the stomach, of a 2 cm well-demarcated, polypoid lesion with a central depression, easily bleeding at the touch of the endoscope (Fig. 1). Biopsy samples they showed a poorly differentiated gastric malignancy (Fig. 2, A), characterized by medium size cells with basophilic nuclei, amphiphilic or weakly eosinophilic cytoplasm, arranged in large nests with low amount of weakly fibrous extracellular matrix (Fig. 2, B). The immunohistochemistry revealed negativity for epithelial (cytokeratins) and lymphoid (CD3 and CD20) markers, cytoplasmic positivity for markers of melanocytic tumors (HMB45, protein S100) (Fig. 2, C-D), making the finding consistent with a gastric melanoma. The patient started treatment with Ipilimumab.

Metastases from malignant melanoma to the gastrointestinal tract are not uncommon. In patients with intestinal metastases, the most frequently involved site is small bowel (61.1%), followed at comparable level by

stomach, large bowel and then rectum (about 11%), and lastly oesophagus (5.6%) (1).

Gastrointestinal metastases may appear as polypoid, cavitating or exo-enteric masses. Metastases are usually pigmented, but rarely they may be amelanotic, as in our case. (3)

In literature few cases of gastric metastases are described (4) and even less of amelanotic type. Suganuma et al described a submucosal tumor-like elevated lesion with a depression at the posterior wall of the middle gastric body. It was diagnosed as a stomach metastasis by primary small intestinal malignant melanoma. (5) Instead, Shaaban et al noticed stomach metastasis appearing as amelanotic "volcano-like" ulcers (amelanotic masses with ulcerations at the tip), in the antrum. (6)

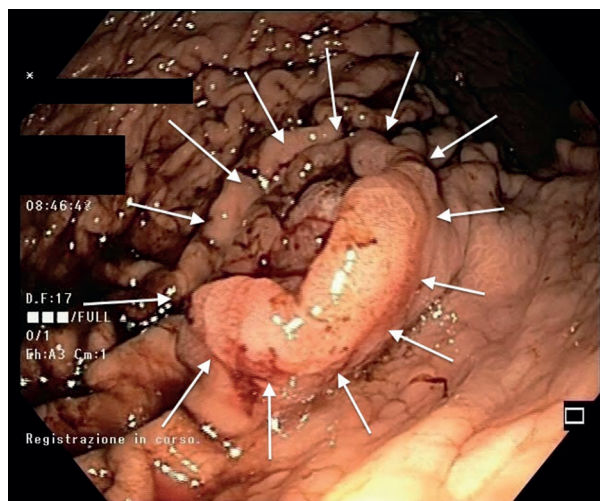


Fig. 1. — Endoscopic picture of the stomach showing the presence at the anterior wall of a polypoid lesion, centrally excavated, easily bleeding at the touch of the endoscope.

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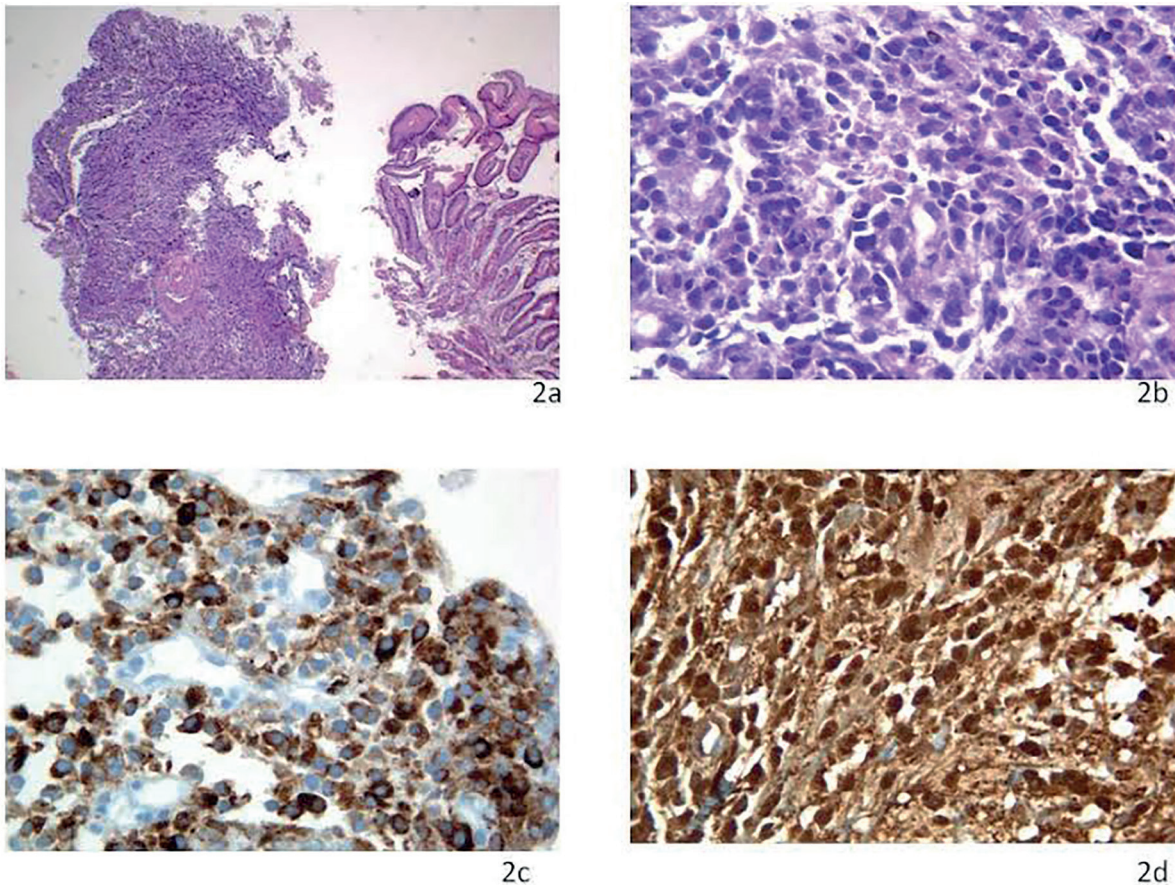


Fig. 2. — (A-D): A. Photomicrograph showing on the right side fundic gastric mucosa with minimal inflammatory changes and, on the left, infiltration by malignant tumor. H&E (40x). B. Photomicrograph showing neoplastic cells with a densely basophilic nucleus and a faintly eosinophilic cytoplasm, with indistinct membrane borders. Some cells show a huge eosinophilic nucleolus. Cells are haphazardly arranged and have scant extracellular matrix. H&E (400x, High power field). C Immunohistochemistry (DAB, 400x, HPF) showing tumor cells with clear and strong cytoplasm immunoreactivity for HMB45, marker of melanocytic tumor. D. Immunohistochemistry (DAB 400x, HPF) showing tumor cells with strong and clear immunoreactivity for S100, marker of melanocytic tumor.

Our patient had a stomach metastasis without upper intestinal symptoms but only iron deficiency anemia. From literature data, it is clear that symptoms are nonspecific; upper gastrointestinal tract bleeding and maelena are signs of tumor spreading to stomach. (5) In an another smaller cohort, anemia resulted to be the most common presenting symptom of gastrointestinalintestinal metastases (about 82% of 22 patients). (7)

This report indicates that, even though stomach is regarded to as a rare site for metastasis, the likelihood of gastric metastatic melanoma should be kept in mind in patients with previous diagnosis of skin melanoma presenting with an unexplained iron deficiency anemia.

**Key words:** melanoma, metastatic melanoma, gastrointestinal tract, iron deficiency.

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