Desmoplastic Melanoma of Unknown Primary Presenting as Simultaneous Gastric and Lung Masses

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Background

• The stomach is regarded as a rare site for metastasis. When a gastric mass is observed macroscopically, the presumed diagnosis is usually a primary gastric carcinoma. However, the stomach may be involved in metastatic malignant melanoma.

• We report a rare case of desmoplastic melanoma presenting as simultaneous gastric and lung masses, with unknown primary.

Case Report

A 43 y/o F smoker presented with progressively worsening epigastric pain, nausea, and intermittent vomiting. She also reported right sided pleuritic type chest pain when supine. Physical exam revealed mild epigastric tenderness, but was otherwise benign. CXR at that time revealed a large right lower lobe opacity. Labs including CBC and CMP were unremarkable. Computed tomography (CT) of the chest revealed a large right lower lobe pulmonary mass measuring 7.8 x 3.8 x 6.7 cm concerning for malignancy. Positron emission tomography (PET) scan confirmed the right lower lobe mass to be hyper metabolic, and showed additional focal activity in the stomach. A CT-guided needle biopsy of the lung mass was then performed and revealed fibrous tissue with chronic inflammation. Following this, bronchoscopy with endobronchial ultrasound guided lymph node biopsy, bronchial brushings and lavage of the right lower lobe were performed but were non diagnostic.

Case Report (continued)

EUS and a repeat EGD were then performed. Both EUS guided FNA and endoscopic biopsy of the gastric fundus mass revealed atypical spindle cells, with immunostaining strongly positive for S-100 consistent with desmoplastic melanoma (DMM). Following this, a right sided diagnostic thoracoscopy with pleural biopsy were done and revealed similar pathology consistent with DMM. Patient was then referred to medical oncology and is being treated with immunotherapy.

Discussion

DMM is a rare variant of malignant melanoma. Its relatively innocuous clinical appearance and the absence of pigmentation usually lead to a clinical misdiagnosis. This type of tumor is characterized by local invasion but rarely metastasizes to distant organs.

This diagnosis can be particularly problematic in small biopsy specimens, a difficulty exacerbated by an immunoprofile which is typically negative for a number of conventional melanocytic markers. Our patient had no evidence of primary cutaneous disease and required multiple tissue biopsies to confirm the diagnosis.

Conclusion

• Although melanoma with metastasis to the stomach is a rare entity, it should be considered in the differential when evaluating gastric mass lesions, including non-pigmented mass lesions.

• It is likely to be encountered more commonly nowadays due to the significant increase in the melanoma incidence.

• A history of melanoma, an atypical metastatic pattern, and normal gastrointestinal tumor marker levels may further assist in diagnosis.

References
