Synchronous Gastroesophageal Junction and Gastric Adenocarcinoma in an Otherwise Healthy Man

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INTRODUCTION

- Incidence of multiple primary carcinomas (MPCs) is increasing but remains rare diagnosis.
- Development of MPCs is theorized to be related to unhealthy lifestyles and genetic susceptibility.
- We present a previously healthy man without family history of GI malignancy diagnosed with synchronous gastroesophageal junction (GEJ) and gastric adenocarcinoma.

CLINICAL PRESENTATION

- 41-year-old man presented with recent onset solid food dysphagia associated with worsening abdominal pain, weight loss, and dyspnea for 5 months. He denied alcohol or tobacco use, or family history of malignancy.
- CT chest and abdomen revealed bilateral pleural effusion with left lung collapse, numerous pulmonary nodules and enlarged mediastinal and abdominal lymph nodes. There was circumferential esophageal thickening at the GEJ and concern for interstitial edematous pancreatitis (Figure A). MRI abdomen revealed mesenteric nodularity concerning for peritoneal carcinomatosis and diffuse gastric wall and GEJ thickening concerning for malignancy (Figure B).
- EGD revealed extensive nodularity of esophageal and gastric mucosa with large ulcerated GEJ mass (Figure C, D). Gastric and esophageal biopsies revealed invasive adenocarcinoma with a differential expression of p53 staining, extensive mucinous features but without signet ring cells. Pleural and peritoneal fluid cytology were consistent with metastatic adenocarcinoma of primary GI origin.
- Hospital course was complicated by recurrent pleural effusions, pulmonary embolism and upper gastrointestinal bleeding. Patient was followed by oncology for chemoradiation therapy for advanced unresectable gastric and GEJ adenocarcinoma with distant metastasis.

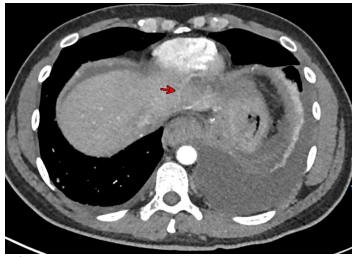

Figure A

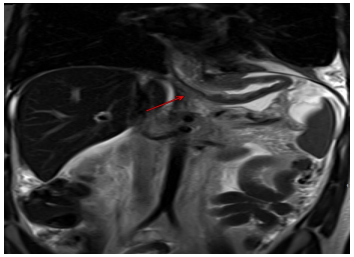

Figure B

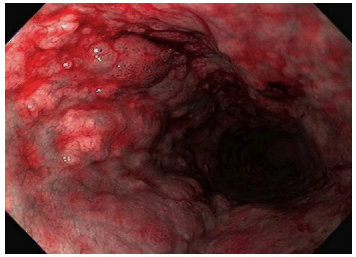

Figure C

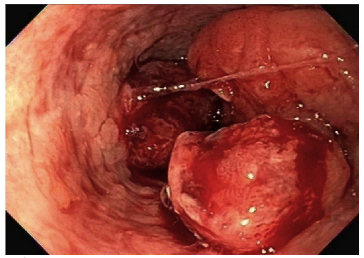

Figure D

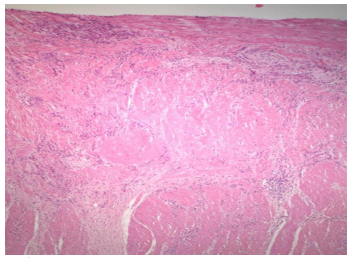

Figure E

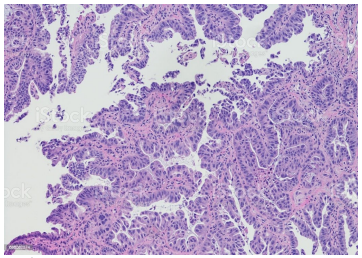

Figure F

DISCUSSION

- MPCs are increasing in frequency, likely due to improved screening modalities and an aging population.
- Risks for MPCs have been felt to be modulated by multiple factors, including genetic susceptibility (e.g., familial gene mutations) and environmental factors.
- Important to distinguish between MPCs and metastases as management is often affected.
- Risk of developing second primary malignancy varies from different cancer types. Colon cancer has been found to have ~17-20% incidence of multiple primaries, whereas primary HCC has ~1% incidence of MPCs.
- Synchronous GEJ and gastric adenocarcinoma are rare and often confused with recurrence or metastasis of malignant tumors. Primary esophageal cancer has ~6-15% estimated incidence of MPCs.
- Inactivation of the TP53 gene plays a crucial role in the formation of solid GI tumors and thus felt to have role in incidence.
- Systematic review has shown overall favorable mortality outcomes in patients undergoing gastrectomy + / - esophagectomy in patients with synchronous esophageal and gastric adenocarcinoma.
- Data is lacking on chemoradiation and immunotherapy management. However, HER-2 positivity on biopsy stains can direct treatment per KEYNOTE-811 trial. There are ongoing clinical trials at institutions, which should be considered in stage IV disease

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