A Rare Diagnosis: Primary Gastric Choriocarcinoma

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Introduction

Primary gastric choriocarcinoma (PGC) is a rare, highly aggressive cancer with early metastatic potential. It arises from trophoblastic or totipotent germ cells and can occur unrelated to gestation. PGC can present in the gastrointestinal tract as a pure PGC or as a PGC with mixed adenocarcinoma features.

We describe a case of a young woman who presented with upper gastrointestinal bleeding and iron deficiency anemia who was diagnosed with metastatic PGC after endoscopic biopsy.

Case

A 33-year-old female with no medical history presented with melena in the setting of low-grade fevers, decreased appetite, and lethargy.

She was found to have hepatomegaly and a positive urine pregnancy test. Her labs showed a microcytic iron deficiency anemia, electrolyte abnormalities, an elevated lactate dehydrogenase, and a rapidly increasing beta human chorionic gonadotropin (hCG).

See Figure 1 for her abdominal computed tomography (CT) findings.

She had a liver biopsy that showed a high-grade epithelial neoplasm expressing HCG, CK7, PLAP, CDX2, and P63 antigens, favoring a high-grade germ cell tumor with choriocarcinoma differentiation.

Figures

Figure 1: CT of the abdomen revealed multiple space occupying liver lesions as seen in coronal (left) and axial (right) views concerning for metastatic disease.

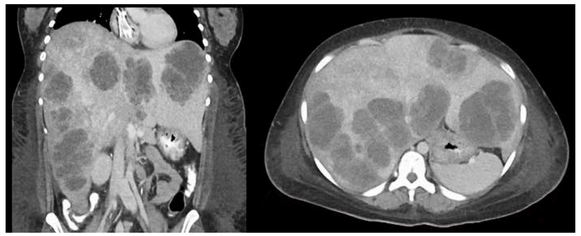


Figure 2: Upper endoscopy identified a large fungating, non-obstructing mass associated with contact bleeding, extending from the gastroesophageal junction to the gastric cardia.

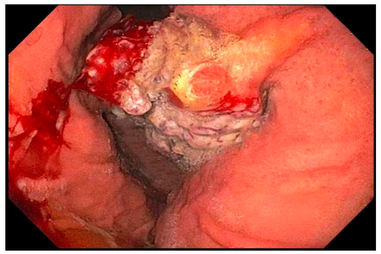
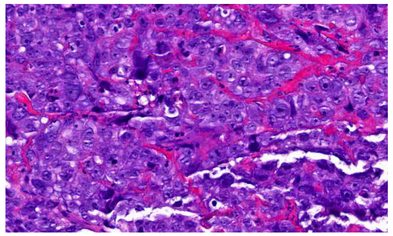
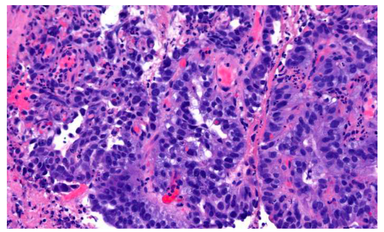


Figure 3: Biopsy of the mass revealed gastric type mucosa with poorly differentiated adenocarcinoma (right) and areas of malignant cytotrophoblasts and focal syncytiotrophoblast cells consistent with choriocarcinoma (left).





Case Continued

In the setting of melena, there was suspicion for gastrointestinal involvement of the malignancy. She underwent an upper endoscopy and was found to have a large fungating, hyper-vascular mass (Figure 2).

The mass was biopsied, and pathology demonstrated gastric adenocarcinoma cells with associated chorio-carcinomatous differentiation. She was diagnosed with PGC after an unrevealing work up to rule out other potential primary malignancy sites.

Discussion

Metastatic choriocarcinoma to the stomach is common, but PGC is rare. Most patients with PGC have a rapidly progressive course due to early hematologic dissemination and often die within the first year of diagnosis.

Early recognition of this diagnosis can allow for prompt treatment and improved patient outcomes. Supportive findings of this diagnosis include:

- ✓ Clinical presentation (abdominal pain, weight loss, gastrointestinal bleeding)
- ✓ Elevated beta hCG
- ✓ Evidence of metastatic disease
- ✓ Immunohistopathology demonstrating cytotrophoblastic and syncytiotrophoblastic cells that stain positive for hCG