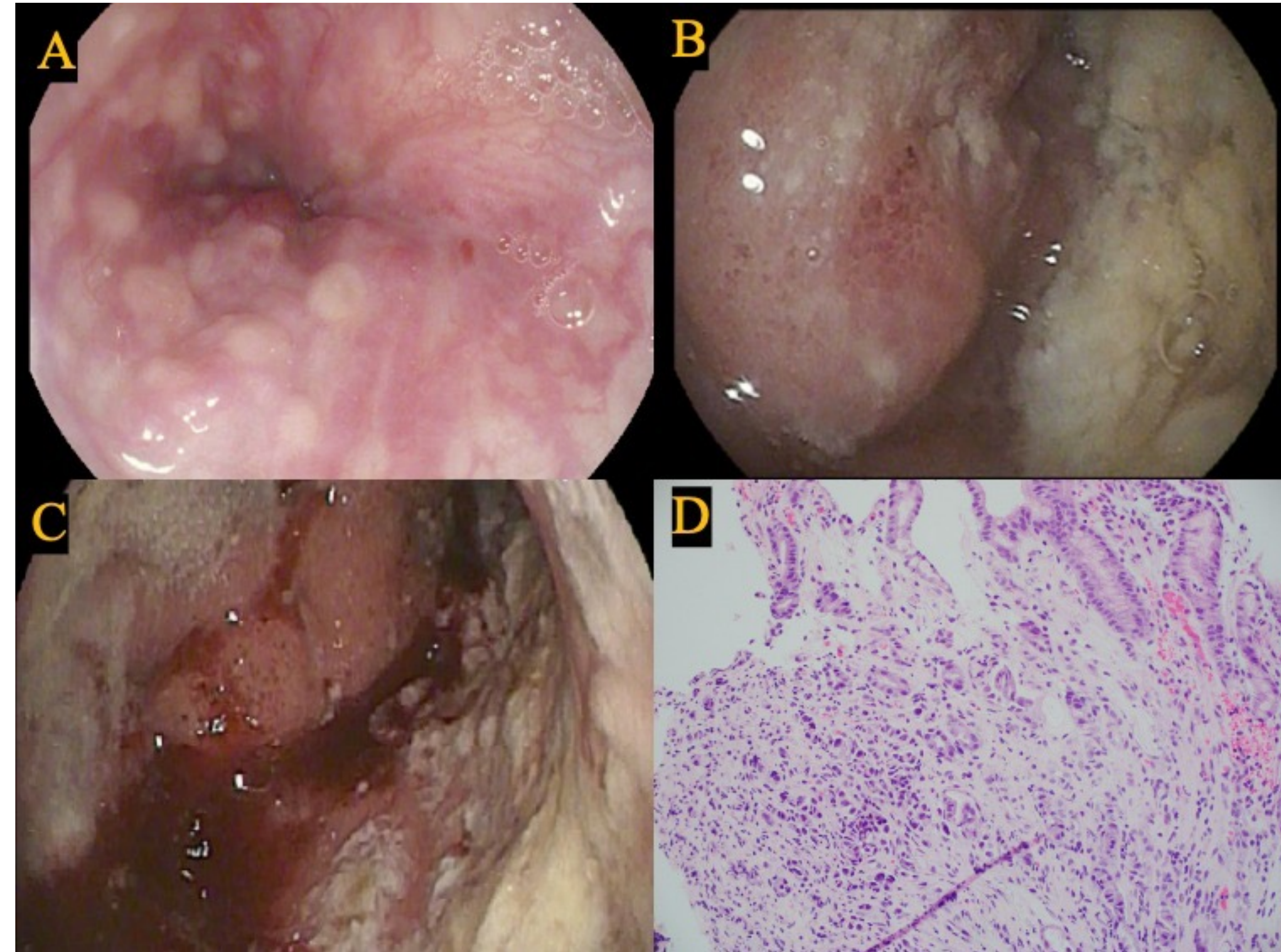


Introduction

- Gastrointestinal (GI) sites of metastatic breast cancer (BC) are rare, compared to more frequent sites of bone, lung and brain.
- Incidence of stomach metastasis from primary tumors is < 1-2%, and according to literature as low as 0.3% from primary BC.
- The hormone receptor profile of metastatic sites is discordant in up to 15% of cases with triple negative metastatic sites from primary hormone receptor positive tumors.
- We present a case of metastatic BC to the stomach with tumor discordance.

Case Description/Methods

- A 49-year-old African American female was admitted after undergoing an esophagogastroduodenoscopy (EGD) for complaints of progressive dysphagia, 50 lb. weight loss, and reflux for 6-months.
- 10-years ago, patient was diagnosed with Stage II estrogen receptor (ER) and progesterone receptor (PR) positive, human epidermal growth factor receptor 2 (Her-2/neu) negative, invasive ductal carcinoma with lobular features. She underwent right breast lumpectomy and was treated with tamoxifen successfully.
- 4-years ago, inflammatory breast changes and flank pain revealed cancer recurrence with osseous metastasis. She was treated with several hormonal chemotherapies and radiation
- Her disease was stable on a positron emission tomography (PET) scan 6-months ago.
- Bone marrow biopsy 1-month ago revealed ER/PR+ disease with PIK3CA gene mutation, with a treatment regimen of alpelisib and fulvestrant.
- EGD revealed nodular, erythematous, friable mucosa at the distal esophagus, causing inability to transverse EGD scope further (A).
- EGD scope was changed to ultraslim endoscope and advanced to show gastric mucosa that was nodular, friable, with ulcerations that bled upon contact with endoscope (B).
- Immunohistochemistry stain (IHC) of gastric biopsies revealed ER/PR/Her-2/neu negative (triple negative), cytokeratin 7 (CK7) and GATA binding protein 3 (GATA3) positive, metastatic breast carcinoma (C,D).
- Surgery was consulted for jejunostomy tube placement to provide nutrition and confirmed severe malignancy encasing the entire stomach.



Figure

- (A) EGD view of distal esophagus.
(B) Ultrathin endoscope view of abnormal stomach mucosa.
(C) Ultrathin endoscope view of abnormal stomach mucosa.
(D) Rare, poorly differentiated malignant cells - consistent with breast primary - that on IHC stain are positive for CK7 and GATA3. Tumor cells are negative for ER, PR, CDX2, CK20.

Discussion

- Triple negative BC can rarely metastasize to the stomach, often mimicking primary gastric malignancy on initial presentation.
- Clinicians should have a higher index of suspicion for metastases in the setting of previous diagnosis of BC, to not delay potential therapies.
- Timely EGD biopsies, with useful BC specific markers on IHC staining (CK7 and GATA3), assisted in a rare diagnosis of a metastatic discordant triple negative BC in the stomach.