Incidentally Diagnosed Triple Cancers within 2 years: A Novel Case of Rare Metachronous Cancers, Renal Cell Carcinoma, Cholangiocarcinoma, and Squamous Cell Carcinoma of the Gastroesophageal Junction

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Introduction

- The gastrointestinal (GI) tract is involved in many familial cancer syndromes usually involving the colon or stomach
- We present a patient with three rare cancers that were detected within a span of 2 years in a single individual: clear cell renal cell carcinoma (ccRCC), cholangiocarcinoma (CCA), and esophageal squamous cell carcinoma (SCC); a combination not previously described in the literature

Case Presentation

A 50-year-old male with a history of ccRCC, GERD, and CCA was admitted for evaluation of chronic abdominal pain during chemotherapy for CCA

- He noted a 15-year history of episodic abdominal pain and vomiting with no dysphagia or weight loss
- Regarding his cancer history, ccRCC was incidentally diagnosed 18 months prior on a CT scan for diverticulitis. He underwent a left partial nephrectomy. Surveillance CT imaging 6 months after surgery revealed new incidental liver lesions. Biopsies confirmed metastatic CCA and he started chemotherapy.
- Upper endoscopy 16 months prior was normal
- Family history was significant for multiple cancers at a young age on his maternal side of unknown type
- Physical exam showed diffuse abdominal tenderness, worse in the epigastrium without guarding
- Labs showed mild anemia, normal BMP/LFTs, and negative *H.Pylori* stool antigen
- Upper endoscopy found nodularity adjacent to the esophagogastric junction (EGJ) with abnormal pit pattern under narrow band imaging (***Figure 1***)
- Biopsies confirmed invasive SCC. Staging endoscopic ultrasound showed T3N3 SCC of the EGJ
- Genetic testing was positive for BAP1 tumor predisposition syndrome (BAP1-TPDS)
- The patient was referred to Radiation Oncology and started concurrent chemotherapy and radiation therapy

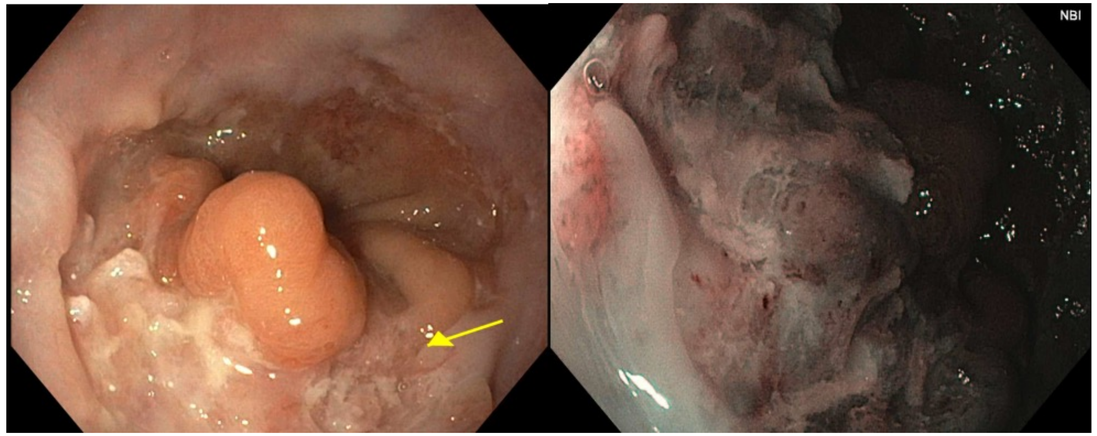

Figure 1: *Left panel showing abnormal nodular mucosa adjacent to the gastro-esophageal junction under high-definition white light imaging. Right panel showing the same area under narrow band imaging.*

Discussion

- BAP1-TPDS is an uncommon autosomal dominant syndrome caused by germline mutation in a tumor suppressor gene
- Patients typically present with melanocytic tumors or malignant mesotheliomas but are at risk for RCC, hepatocellular carcinoma, meningioma and CCA
- Literature has not revealed esophageal SCC to be associated
- In addition to the incidental nature and timing of diagnosis of all three of these cancers within a short period of 2 years, the GI tract involvement is unusual
- This case suggests atypical EGJ-SCC may be considered as part of the BAP1-TPDS tumor spectrum and warrant additional screening for at-risk individuals

References

1. Pilarski R, Carlo MI, Cebulla C, et al. BAP1 Tumor Predisposition Syndrome. 2016 Oct 13 [Updated 2022 Mar 24]. In: Adam MP, Mirzaa GM, Pagon RA, et al., editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2022. Available from: https://www.ncbi.nlm.nih.gov/books/NBK3906111/