Metastatic Esophageal Adenocarcinoma to PEG Tube Site: A Case Report

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INTRODUCTION

Patients with esophageal cancer often need a Percutaneous Endoscopic Gastrostomy (PEG) tube to provide nutrition.

However, metastasis of the original tumor to the gastrostomy site may occur as a rare, but noteworthy complication.

PATIENT PRESENTAITON / INITIAL COURSE

The patient is a 64-year-old Caucasian male with past medical history significant for chronic tobacco abuse, chronic GERD, COPD, and recurrent aspiration pneumonia who was diagnosed with esophageal adenocarcinoma in September 2018.

Subsequently, he was referred to Gastroenterology for PEG tube procedure, which was placed via the pull-string technique with no events or complications.

Thereafter, patient underwent treatment via radiation and chemotherapy for Stage II T2N2M0 esophageal adenocarcinoma with evidence of remission on EGD.

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CLINICAL COURSE

In 2020, after two years of doing well clinically, the patient noted a “knobby texture” at his PEG tube site along with melena and frequent infection and clogging of the PEG tube.

In consultation with surgery, a Jejunostomy tube (J-tube) was placed to maintain the patient’s nutritional status and the tract from the old PEG tube was resected; Nodular granulation tissue at the site of the stomach attachment at the anterior abdominal wall was biopsied.

- Pathology report was consistent with previously diagnosed esophageal adenocarcinoma in 2018

Due to continuous leakage from the J-tube site along with evidence of duodenal stenosis, patient underwent a small-bowel jejunum resection with Roux-en-Y reconstruction in December 2020.

- His post-procedural course was complicated by delayed wound healing and failure to continue chemotherapy

Three months later, his EGD revealed a malignant-appearing mass on the greater curvature of the stomach, consistent with invasive moderately differentiated adenocarcinoma (Figure 1)

Ultimately, due to persistent wound healing issues and recurrent illness, patient elected to forgo further treatment in favor of comfort care and passed away peacefully two weeks later.

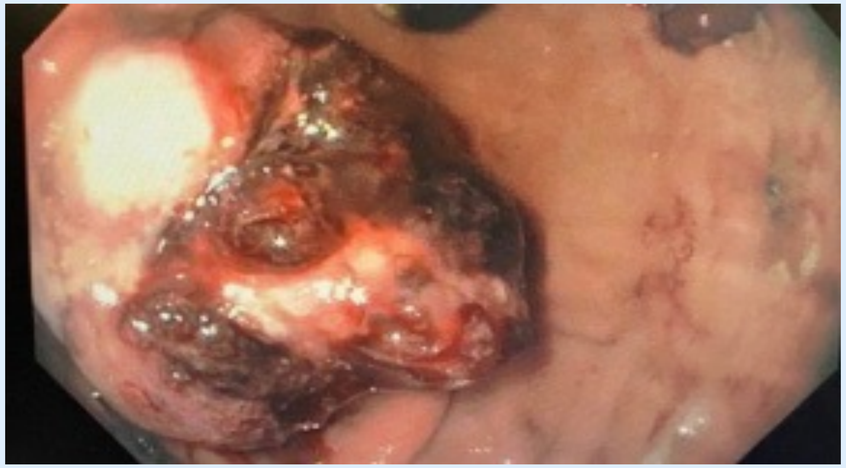

Figure 1. Endoscopic image revealing a malignant-appearing mass on the greater curvature of the stomach at the initial PEG tube site.

DISCUSSION

This is a case of a patient presenting with an initial diagnosis of esophageal adenocarcinoma that later metastasizes to his PEG tube site – a rare complication of PEG tube placement.

Background

- Esophageal cancer accounts for 2.6% of all cancer deaths and has a 5-year survival rate of <20% in the United States
- Up to 80% of patients have malnourishment at the time of diagnosis

PEG Tube Techniques

- Peroral pull technique (Ponsky)
  - **Most common**
- Peroral push technique (Sacks-Vine)
- Direct percutaneous procedure (Russell)

Factors that increase risk for stomal metastasis:

- Mean patient age greater than 59
- Male sex
- Pharyngoesophageal location of primary cancer (squamous cell histology in 98%; adenocarcinoma in 2%)
- Poorly or moderately differentiated histology
- Large primary cancer size at diagnosis
- Endoscopic PEG placement (pull-string PEG 98%; push-guidewire 2%; direct-introducer 0%)
- Time greater than 3 months following PEG placement

CONCLUSIONS

Malignant seeding from a primary cancer is a feared complication of PEG tube placement.

Thus, patient complaints must be paid careful attention to along with evaluation of the PEG site at regular intervals.

Alternative PEG techniques should be considered in patients with upper GI cancers as well as in patients with multiple risk factors for stomal metastasis.