Duodenal Gangliocytic Paraganglioma in Patient With Rectal Adenocarcinoma

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INTRODUCTION: Gangliocytic paragangliomas are a rare subclass of neuroendocrine tumors that usually appear in the periampullary region of duodenum. They are generally benign, although may have potential for metastases depending on size and extension. They most commonly present with bleeding or abdominal pain, but cases with obstructive jaundice and pancreatitis have also been reported. They are often misdiagnosed as GISTs or other neoplasms, but with histologic examination, an accurate diagnosis can be reached. However, intraoperative diagnosis with FNA and frozen section analysis are often inaccurate and could affect surgical decision.

CASE DESCRIPTION/METHODS: 62-year-old male with past medical history of diverticulitis, internal hemorrhoids, and iron deficiency anemia presented with syncope and gastrointestinal bleeding. During evaluation with colonoscopy, a mass was found in the rectum, which was later confirmed to be an adenocarcinoma. An FDG-avid duodenal segment was incidentally found while undergoing workup with PET-scan. He had neoadjuvant chemoradiation, with resection of rectal cancer and temporal ileostomy. Biopsy of duodenum with endoscopic ultrasound revealed normal duodenal mucosa on 2 separate occasions. Ultimately, the duodenal tumor was excised via exploratory laparotomy. Intraoperative frozen biopsy of mass revealed a GIST and a Whipple procedure was performed due to proximity to ampulla. Final pathology report revealed a gangliocytic paraganglioma, after staining positive with synaptophysin (as well as S-100 and neuron specific enolase) and negative for antibody to CD117, which is a sensitive marker for GISTs.

DISCUSSION: Duodenal gangliocytic paragangliomas remain to be rare entities. There is yet no clear consensus in regards to appropriate workup, treatment or follow-up, especially in patients with metastases or concurrent adenocarcinoma. It is uncertain if coexistence with a rectal adenocarcinoma (as seen in this case) was coincidental or due to similar pathogenesis. Diagnosis with FNA and frozen section biopsies can be useful, but are often inaccurate. The success largely relies on the operator and clinical suspicion, but it is especially hard when there are no symptoms or relevant history. The recommended management is margin-free resection endoscopically, with local surgical excision or Whipple procedure. Studies have shown that some molecular markers can predict malignant potential. Yet, whether they are useful for management or surveillance has not been determined.
The Mouth Is More Than Just an Entry Path to the Esophagus: A Rare Site of Breast Cancer Metastasis

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INTRODUCTION: The following case highlights a rare site for breast cancer metastasis, as well as demonstrates the importance of careful attention to all structures including the oral cavity, during endoscopy.

CASE DESCRIPTION/METHODS: A 53-year-old woman with a history of recurrent breast cancer presented with weakness. She reported that 2 weeks before presentation she developed a dental abscess requiring drainage. She had a history of taking tamoxifen for breast cancer and had a modified radical mastectomy 10 years before presentation. She was found to have multiple bone metastases as well as a 15 mm soft, friable polypoid mass on the hard palate on examination. A biopsy was performed, which demonstrated the possibility of metastatic breast cancer. Contrast enema showed no evidence of extravasation. Colonoscopy was performed for a feeding tube crossing the transverse colon. He was found to not be a surgical candidate due to his comorbidities, and a contrast enema showed no extravasation of contrast. Repeat endoscopy was therefore performed to attempt correction. Our novel approach began with colonoscopy. Once the foreign body was visualized, the tube was cut from the outside and pulled by forceps into the lumen of the transverse colon. Hemostatic clips were applied to the colonic mucosa to close the first perforation. The team then transitioned to gastroscopy. The PEG tube hub was visualized in the stomach and removed. Additional clips were used to close this gastric perforation. The team then turned attention to the second colonic perforation. Once located, clips were used to close this final perforation. Subsequent plain films did not show free air, and abdominal exam remained generally benign. Upper GI series was without evidence of extraluminal contrast material. CT showed no abscess or fluid collection. He was soon able to be fed through a nasoduodenal tube. Later, he was weaned from the ventilator and able to resume a solid diet without complication.

DISCUSSION: This case was unique in its endoscopic approach to repairing a malpositioned PEG tube in a patient that could not be taken to surgery. Without this novel endoscopic approach, this patient would have likely experienced significantly increased morbidity. Although these methods have not been extensively documented in the literature, this approach may be warranted in some patients who could not proceed to traditional surgery. We hope to start discussion about future research into the area of endoscopic repair of a malpositioned PEG tube.

Gastric Outlet Obstruction as a Complication of Replaced Gastrostomy Tube

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INTRODUCTION: Percutaneous endoscopic gastrostomy (PEG) is a common procedure for the provision of long-term enteral nutrition (1). Indications for PEG tube replacement include tube malfunction, dislodgement, or scheduled exchange (2). Complications of replacement include bleeding, infection, and tube misplacement (3). Gastric outlet obstruction (GDO) is a rare complication seen when the tube is inserted distal to the pylorus or the balloon is overfilled (4).

CASE DESCRIPTION/METHODS: An 86-year-old woman with a history of previous stroke necessitating prolonged enteral feeding through PEG presented to the hospital due to a clogged PEG tube. The tube was replaced at bedside via the percutaneous route and gastric fluid was aspirated. The tube was noted to be 2 cm deeper than prior to the procedure. A water-soluble contrast study through the PEG tube was obtained to confirm proper position (Figure 1) which showed contrast within the small bowel. The radiologist concluded the gastrostomy tube was in satisfactory position and tube feedings were resumed. Overnight, the patient experienced several episodes dark emesis. An endoscopy the next morning revealed the gastrostomy tube balloon was inflated in the duodenal bulb.

FIGURE 2. Endoscopic view of oral lesion.

FIGURE 1. Contrast enema showing lack of extravasation from the distal transverse colon as it projects over the gastrostomy tube.