NOT ALL GASTRIC TUMORS ARE GISTS: CASE REPORT OF A GASTRIC SCHWANNOMA

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Introduction

Mesenchymal tumors of the GI tract include gastrointestinal stromal tumors (GISTs), leimyomas, lipomas, leiomyosacromas, and schwannomas. Some are benign whereas others have significant malignant potential. The most common of these tumors are GISTs but these tumors can be difficult to distinguish without histopathological or immunohistochemical analysis. Gastric schwannomas are rare and account for 0.2% of all gastrointestinal tumors and 4% of benign stomach tumors. We present a case of an incidentally found gastric tumor, with pathology returning as a gastric schwanomma.

Case Report

A 60 year old female was referred for an abnormal 4.5cm tumor found in the gastric fundus during diagnostic esophagogastroduodenoscopy for symptoms of reflux. Fine needle aspiration returned negative for carcinoma or CD117, while scant spindle cell and stromal fragments were noted. Diagnosis was uncertain but the decision was made to resect the mass based on abnormal appearance and concern for GIST. CT chest, abdomen, pelvis were obtained and were negative for metastatic disease.

Case Report (continued)

The patient had a moderate sized hiatal hernia along with uncontrolled reflux on maximum medical therapy. The mass was located about 5cm from the GE junction along the greater curvature of the stomach. The patient underwent a robot assisted laparoscopic gastric wedge resection. Using endoscopic guidance, the mass was identified (see figure 1). The short gastric vessels were taken with the vessel sealer from the level of the lower pole of the spleen. The hiatal hernia was then dissected circumferentially until 4cm of intra-abdominal esophageal length was obtained. A wedge resection was then performed with a 56 French bougie in place, similar to how a Collis gastroplasty may be accomplished. The surgery was completed with a hiatal hernia repair and modified Dor fundoplication. Esophagogastroduodenoscopy was used to confirm complete removal of tumor as well as Hill grade 1 valve. The patient was discharged post-operative day 2 in stable condition.

The pathology returned with findings of a peripheral nerve sheath tumor, positive for S100, consistent with a gastric Schwanomma and with negative margins.



Figure 1 Intraoperative endoscopic image prior to resection

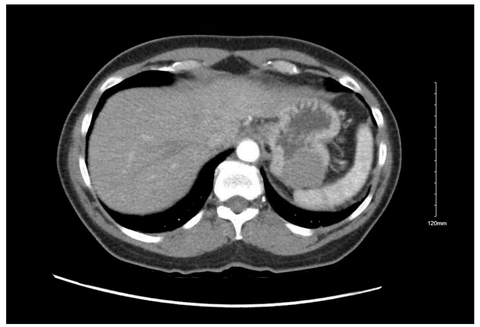




Figure 2 Preoperative Axial & Sagittal CT images

Discussion

Gastric schwannomas represent a rare subset of mesenchymal gastric tumors. In presentation, they are often similar to gastrointestinal stromal tumors (GIST) or leiomyomas of the stomach. Endoscopy & CT findings will initially be similar, demonstrating smooth, well-circumscribed tumors in varying locations of the stomach, primarily in the gastric body. As in our patient, fine needle aspiration may not demonstrate the definitive diagnosis preoperatively and will commonly show spindle cells. However, gastric Schwannomas will be CD34 negative with S100 positivity on immunochemistry being pathognomonic. Most often, these tumors are identified postoperatively with the preoperative goal being R0 resection of a potential GIST. In contrast to GISTs, gastric schwannomas have not demonstrated significant malignant potential. In a retrospective case series looking at gastric Schwannomas, malignancy was noted to be rare with 5-year disease free rates cited up to 95% and recurrence primarily attributed to incomplete resection at index operations. In a separate report of gastric Schwannomas, an incidence of 10 malignancies were noted in a series of 211 patients Despite the rarity and prevalence of benign disease, due to the high false negative rate for GIST on endoscopy or CT, previous studies recommend resection with intent of complete resection.

Discussion

Gastric schwannomas are a rare gastric pathology, arising from the nerve plexus of the gastric mucosa. Surgical resection may be both diagnostic and therapeutic. Currently there are no surveillance guidelines for this diagnosis, however gastric schwannomas are considered benign tumors with excellent prognosis.

References

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