Gastric Leiomyosarcoma: A Rare Case of Upper GI Bleeding

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Introduction

- Leiomyosarcoma (LMS) is a tumor arising from parts of the body that contain smooth muscle cells such as the uterus, stomach, and walls of blood vessels[1].
- Primary gastric leiomyosarcomas are extremely rare, accounting for 0.1-3% of gastrointestinal malignancies[2].
- They can be differentiated from Gastrointestinal Stromal Tumors(GIST) based on immunohistochemical staining that is positive for desmin and SMA and negative for staining of KIT (CD117), CD34, and DOG-1[2].
- LMS is usually asymptomatic but can present with anorexia, weight loss, nausea, vomiting or bleeding.[1].
- Here we present a rare case of an aggressive LMS manifesting as hematemesis and melena.

Case Description

- A 76-year-old male with a medical history of Hypertension, Bladder Cancer and Prostate Cancer presented with a chief complaint of hematemesis and melena for three days.
- An upper endoscopy (EGD) that was done five months prior was notable for an esophageal ulcer and gastritis.
- Labs on this admission were notable for a hemoglobin of 10.3.
- An EGD was performed which showed a large polypoid mass at the gastroesophageal (GE) junction with no active bleeding.
- Biopsies were notable for smooth muscle cells that tested positive for SMA and Caldesmon but negative for desmin, CD34, CD117 and DOG-1 which is most consistent with leiomyosarcoma.
- Ultimately, the patient underwent surgical resection of a 8.5x7.2x3.3 cm tumor with negative surgical margins and no evidence of lymphovascular invasion.
- The patient did well post-operatively and has been following with Oncology for further management.

Figures

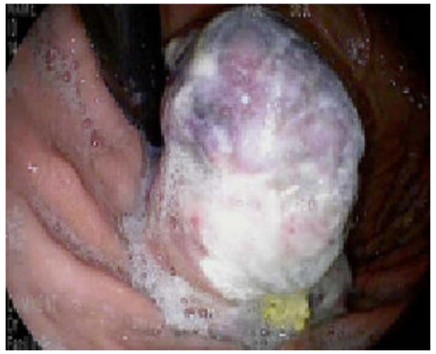

Figure 1. EGD showing a large, polypoid and partially circumferential mass at the GE Junction

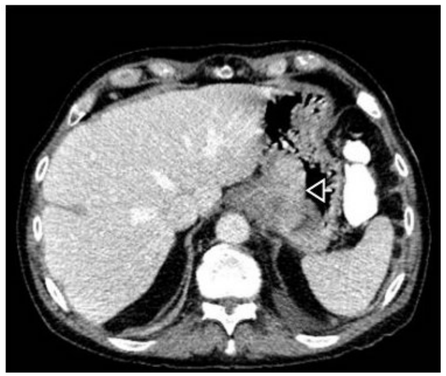

Figure 2. CT scan showing mass lesion in the gastric cardia

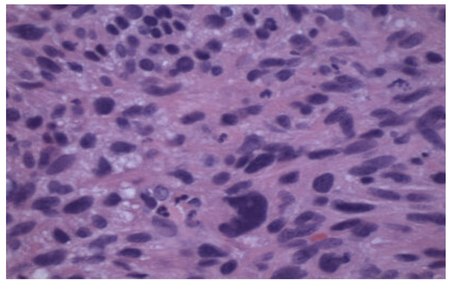

Figure 3. Immunohistochemical staining showing positivity for SMA and Caldesmon in a background of spindle cells with marked atypia and necrosis

Discussion

- Prior to 1998, gastrointestinal stromal tumors (GIST) were misdiagnosed as LMS due to a lack of molecular markers. Since then there have been only ten reported cases of gastric leiomyosarcoma in the post-GIST era.
- On Computed Tomography (CT) imaging, LMS tends to show up as irregular central zones of low attenuation suggestive of extensive necrosis or hemorrhage.
- Endoscopically, LMS usually appears as a large mass in the funds or body with increased vascularity.
- Surgical resection is the treatment of choice given most lesions are large at the time of diagnosis due to the aggressive nature of the tumor. For metastatic disease, however, there has been no clear benefit of adjuvant chemotherapy as there is a high risk of recurrence[3].
- Routine follow up for completely resected tumors consists of abdominal and pelvic imaging which should occur every three to six months for two to three years, and then annually[4].
- In conclusion, we highlight a rare case of an aggressive type of Leiomyosarcoma at the GE junction presenting as an upper GI bleed.

References

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