A rare cause of upper gastrointestinal bleeding: Gastric Synovial Sarcoma

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Introduction

Synovial sarcoma is an uncommon type of malignant mesenchymal neoplasm commonly found within joints of the extremities and very rarely found in the GI tract. Genetic sequencing techniques used as an adjunct to histochemical markers have proven indispensable for diagnosis following biopsy. We present a rare subtype of soft tissue neoplasm called primary gastric synovial sarcoma as cause for gastrointestinal bleeding in a middle-aged Hispanic patient.

Case Description

A 51-year-old male with a medical history of Hypertension, and Diabetes was brought to the ER due to a syncopal episode. Patient denied abdominal pain, weight loss, hematemesis, hematochezia, hematuria, or melena. Physical exam was remarkable only for pale conjunctiva. Laboratory results remarkable for a hemoglobin of 5 g/dL warranting multiple packed red blood cell transfusions. Colonoscopy was performed with normal findings. Following upper GI endoscopy, a mid gastric body 3 cm polypoid irregular mass with shallow ulcerations was found. The patient was referred for endoscopic ultrasound revealing a 25 by 21 mm heterogenous hypoechoic mass in the greater curvature confined to mucosal layer.

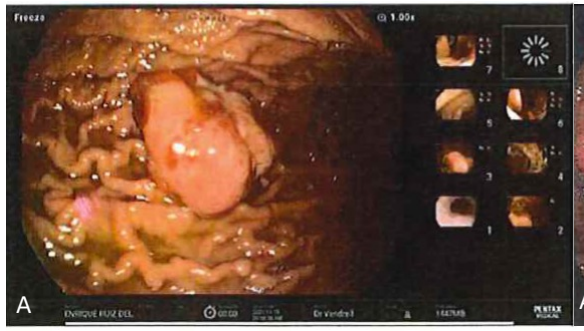
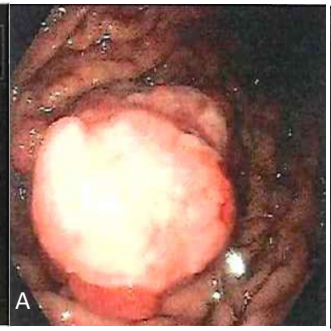


Figure A: Friable lobular mass at greater curvature of stomach.



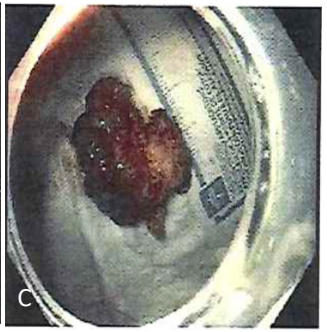
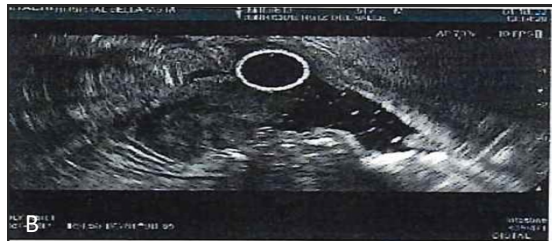


Figure C: Picture of specimen following endoscopic mucosal resection.

Tumor	Marker	Result
Lymphoma	CD20, CD23	Negative
Gastrointestinal stromal tumor	CD117, CD34, DOG-1	Negative
Angiosarcoma	CD34	Negative
Leiomyosarcoma	caldesmon, MSA, SMA, Desmin	Negative
Sarcomatoid carcinoma	AE1, AE3	Negative
Spindle cell melanoma	S100, SMB 45	Negative
Synovial Sarcoma	SS18 FISH test (18q11.2)	t(X;18)(p11.2;q11.2)

Table 1: Histochemical stains / Fluorescence in situ Hybridization performed for identification of tumor



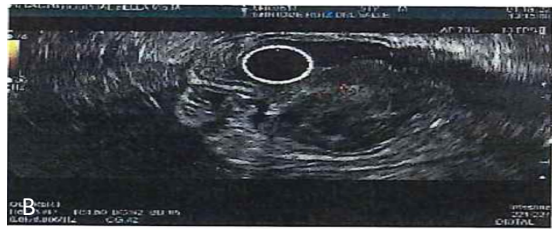


Figure B: Endoscopic ultrasound revealed 2.5 by 2.1 cm heterogeneous hyperechoic mass at greater curvature of stomach confined to mucosal layer.

Case Description (cont.)

The acquired specimen displayed characteristics of a high-grade tumor with multiple negative markers (table 1). Therefore, an SS18 FISH test (18q11.2 probe) was performed and the results show the presence of translocation t(X,18) (p11.2;q11.2), consistent with a poorly differentiated synovial sarcoma, a spindle cell monophasic subtype. Completeness of resection of the tumor could not be documented so the patient was referred to surgery for partial gastrectomy of the involved area. The remaining tumor measured 0.7 cm, invaded the submucosal layer but all margins and lymph nodes were uninvolved. A subsequent PET/CT scan did not reveal evidence or residual or metastatic disease.

Discussion

This is the first known case of a primary gastric synovial sarcoma, in a patient of Puerto Rican ethnicity, without family history of genetic disorders, radiation exposure or previous malignancy. Prognosis remains challenging due to the small number of reported cases with surgical resection as the mainstay of treatment. Therefore, it is crucial to continue to identify and diagnose this rare malignancy to better inform treatment and prognostic decisions going forward.