

Introduction

Subepithelial tumors (SETs) are frequently encountered in the GI tract, the majority of which are asymptomatic and discovered incidentally. Characterized by location, size, and echogenicity, the gold standard of SET diagnosis is histology and immunohistochemistry with fine needle or core biopsy.¹ There is much difficulty in diagnosing SETs due to inconclusive biopsies and misdiagnosed imaging modalities. EGD and EUS are useful operator-dependent adjuncts to aid in diagnosis. EGD is suboptimal for differentiating intraluminal from extraluminal compression whilst EUS is most accurate for differentiating SET location.^{1,2,3} Our case highlights the concurrent necessity yet limitation of multimodal imaging techniques for the diagnostic evaluation of gastric SETs as well as presents a first-reported diagnostic finding of an enlarging gastric mass as an organizing hematoma.

Case Presentation

A 64-year-old female presented to the ED with chief complaints of nausea, non-bloody emesis, and worsening epigastric abdominal pain for 24 hours. There were no aggravating or alleviating factors. The pain was characterized as sharp, 10/10 severity and constant with about 6-7 bouts of emesis after her last meal the day prior. She had a non-bloody bowel movement the day prior and was passing flatus. She had an exploratory laparotomy with splenectomy for multiple gunshot wounds to the abdomen 30 years ago and a hysterectomy with bilateral salpingo-oophorectomy for fibroid tumors at age 32. Initial work up was significant for acute on chronic kidney injury and CT abdomen/pelvis without IV contrast showed a large 12 cm mesenteric neoplasm arising from the transverse mesocolon without evidence of obstruction. Differentials diagnoses for an exophytic mass at the time included GISTs, non-GIST sarcomas, lipoma, leiomyoma, nerve sheath tumors (gastric schwannoma), glomus tumor, desmoid, hemangioma, and inflammatory myofibroblastic tumor.

Diagnostic Studies

- CT Chest:** Incidental gastric mass identified
- CT A/P:** Exophytic mass on greater curvature
- MRI Abd:** 13x10cm hypo-vascular mass off greater curvature, separate from pancreas/colon
- EGD:** 4cm hiatal hernia, 2 erosions in antrum, mass effect on D2
- EUS:** Large 8x5cm hypoechoic mass extending from 4th layer of greater curvature of stomach extending outwards

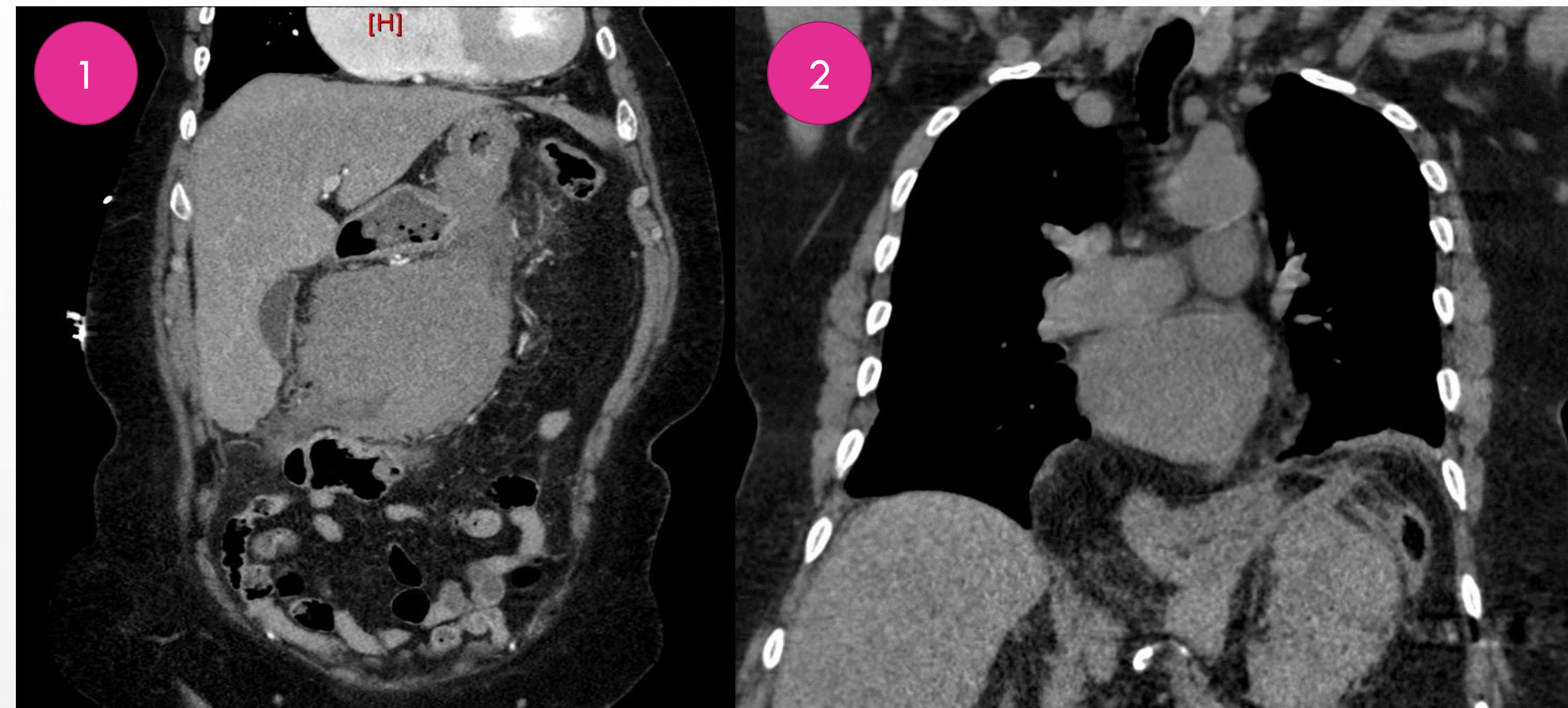


Figure 1 (top left): CT abdomen/pelvis with IV contrast - Large exophytic mass arising from the greater curvature of the stomach. Gastrointestinal stromal tumor favored.

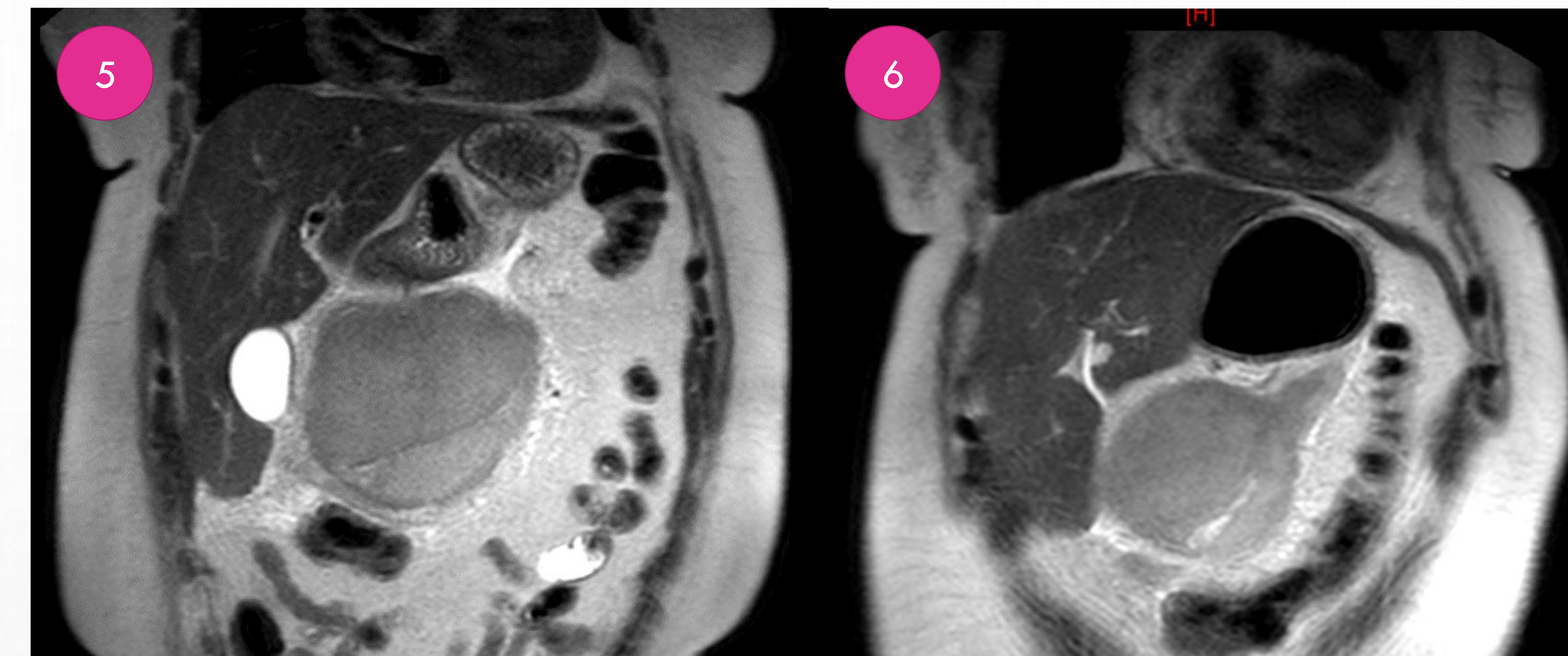
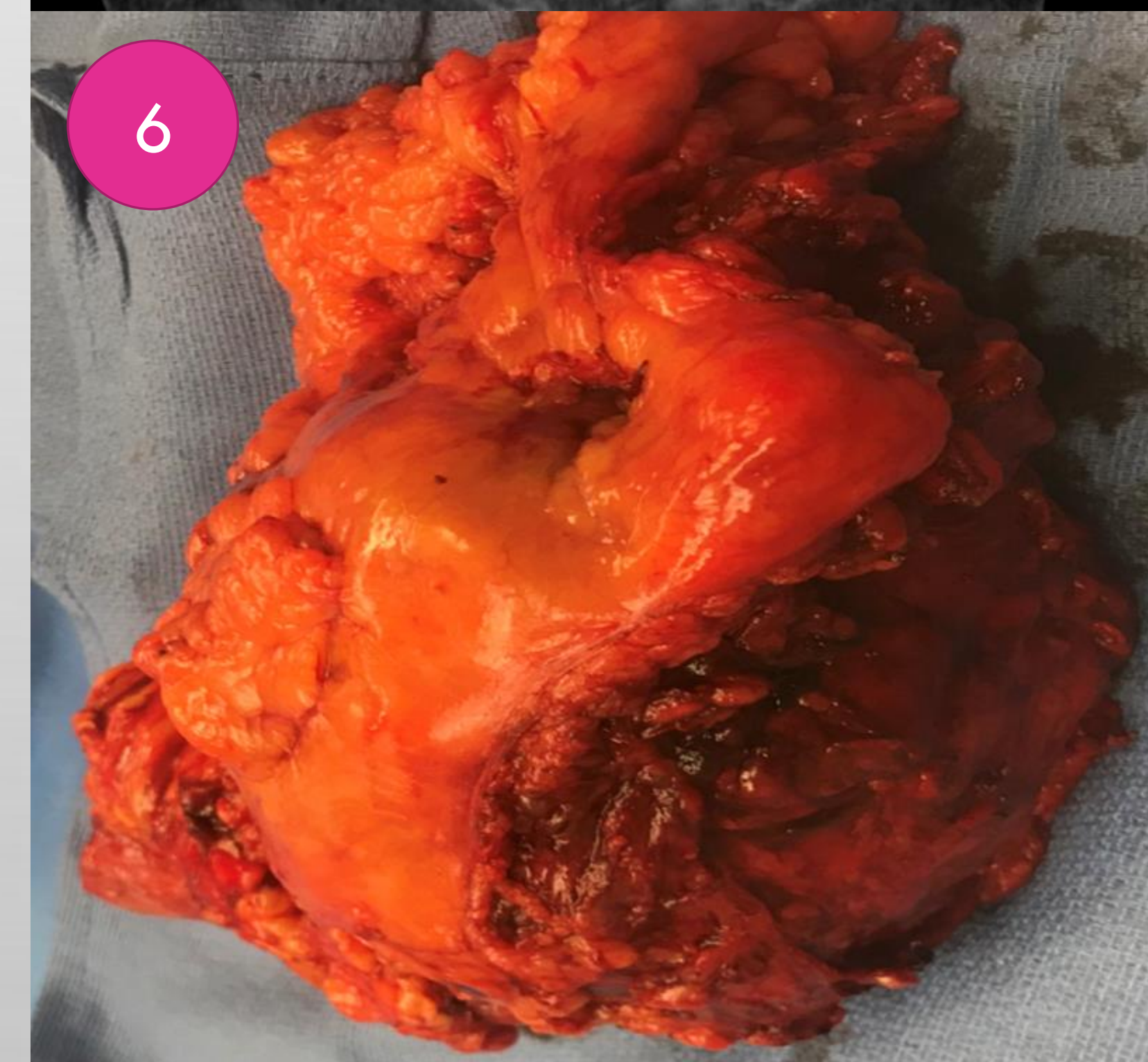
Figure 2 (top right): CT chest without contrast – performed four years prior for another separate indication with incidental finding of abdominal mass captured in upper abdominal cuts of imaging.

Figure 5 (right top): CT abdomen/pelvis without contrast - Mild interval increased size of a hyperdense perigastric mass, recently biopsied. Previously favored to represent an exophytic gastric neoplasm given presence on prior CT chest exam from 2015.

Figure 6 (right bottom): En-bloc resection of mass adherent to stomach and transverse colon mesentery.

Management and Outcomes

- Fine needle aspiration performed:
 - No core tissue, only thick clot
- Second fine needle aspiration performed:
 - From D3, similar material identified
- No definitive diagnosis, patient improved after bowel rest and hydration. Discharged with GI f/u
- Path: rare atypical cells and organizing blood fragments
- Seen in GI clinic w/ severe pain/nausea. Sent to ED
- Repeat CT, interval size increase of perigastric mass
- Mass excised with 1cm margins in case of GIST
- Removed en-bloc w/ open extended R hemicolectomy and partial gastrectomy w/out oncologic lymphadenectomy
- Final pathology showed organizing hematoma with fibrosis with no evidence of neoplasm
- Iron stain +, SMA +, desmin +, calponin +. DOG1, ALK1, beta-catenin negative
- Progressed well, seen in clinic with no complications



Figures 3 (top left) and 4 (top right): MRI abdomen with & without contrast- 13 x 10 cm circumscribed, hypovascular mass located inferior to the stomach with adjacent fat stranding, possibly arising from the greater curvature of the stomach. Distinct from the pancreas and colon. Likely differential and considerations include gastrointestinal stromal tumor, among other etiologies such as leiomyoma.

	CD117	CD34	DOG1	Desmin	ALK	Beta	SMA	Beta Catenin
GIST	+	+	+	-				
Leiomyoma	-		-	+++			+++	
Fibromatosis	-				-			+
Inflammatory Myofibroblastic Tumor	-				+		+	-

Discussion

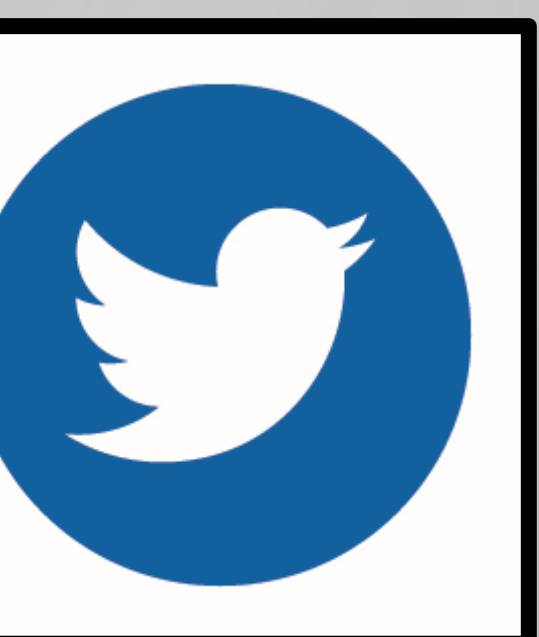
- This is the first case report regarding an enlarging gastric mass as an organizing hematoma
- Theorized that the remote surgical history requiring an ex-lap and splenectomy may have played a role in initial development of hematoma that never fully resorbed. She was not on any anticoagulation, therefore, slow growth rather than an acute herald bleeding into lesser space could be explained by patient's other medical co-morbidities precluding adequate healing of the hematoma.
- Important to use multiple diagnostic tools to help guide operative intervention for nondiagnostic subepithelial gastric mass pathologies with surgery being the best definitive treatment option in symptomatic patients

References

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