AMSER Case of the Month January 2025

29-year-old woman presents with epigastric pain, nausea and vomiting.

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Patient Presentation

- HPI: 29YF presented with two days of epigastric pain, nausea and multiple episodes of non bilious emesis with no blood. Similar complaints 6 months back revealed unremarkable CT abdomen and Pelvis.
- PSHx: liposuction 10 years back and intragastric balloon 1 year back .
- PMHx: anemia. No past medical history of acid reflux.
- Vitals: BP 102/67 ; Pulse 68 ; Temp 36.7 ℃ ; Resp 18
- Physical Examination: Abdominal tenderness in the epigastric areas.

Pertinent Labs

- CBC: WBC 10.51(H), Hb 10.5(L), Hct 33(L), MCH 31.8(L), Plt 377(H)
- CMP: Within Normal Limits

What Imaging Should We Order?

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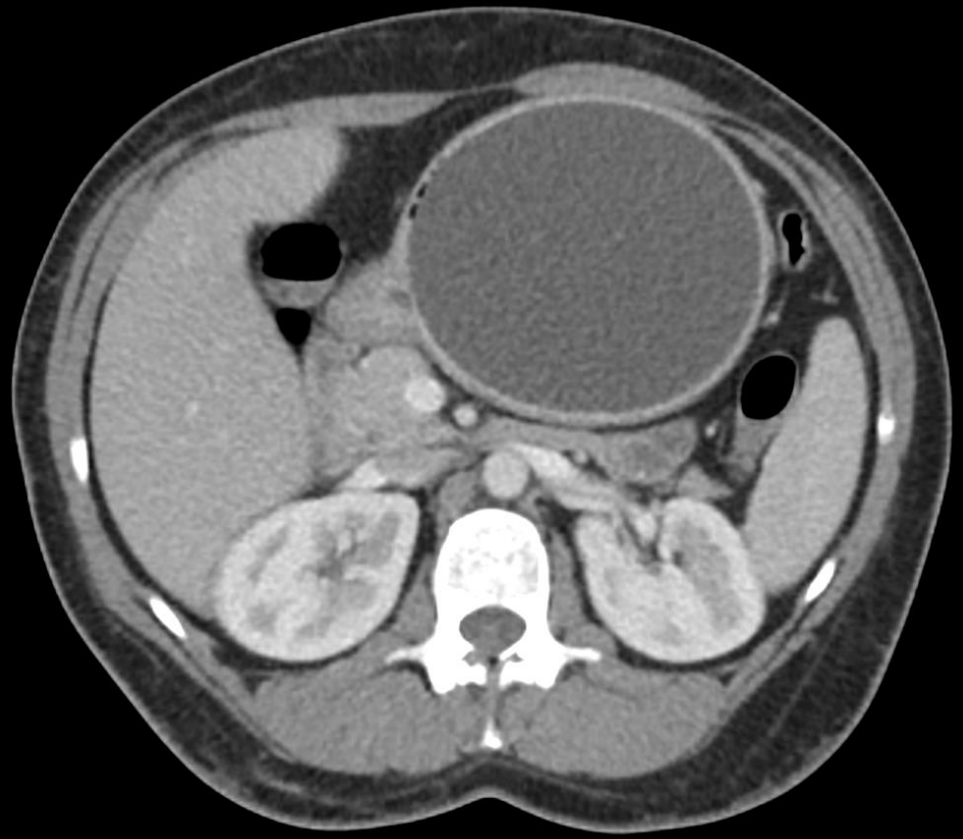
Variant 1: **Epigastric pain with clinical suspicion for acid reflux or esophagitis or gastritis or peptic ulcer or duodenal ulcer. Initial imaging.**

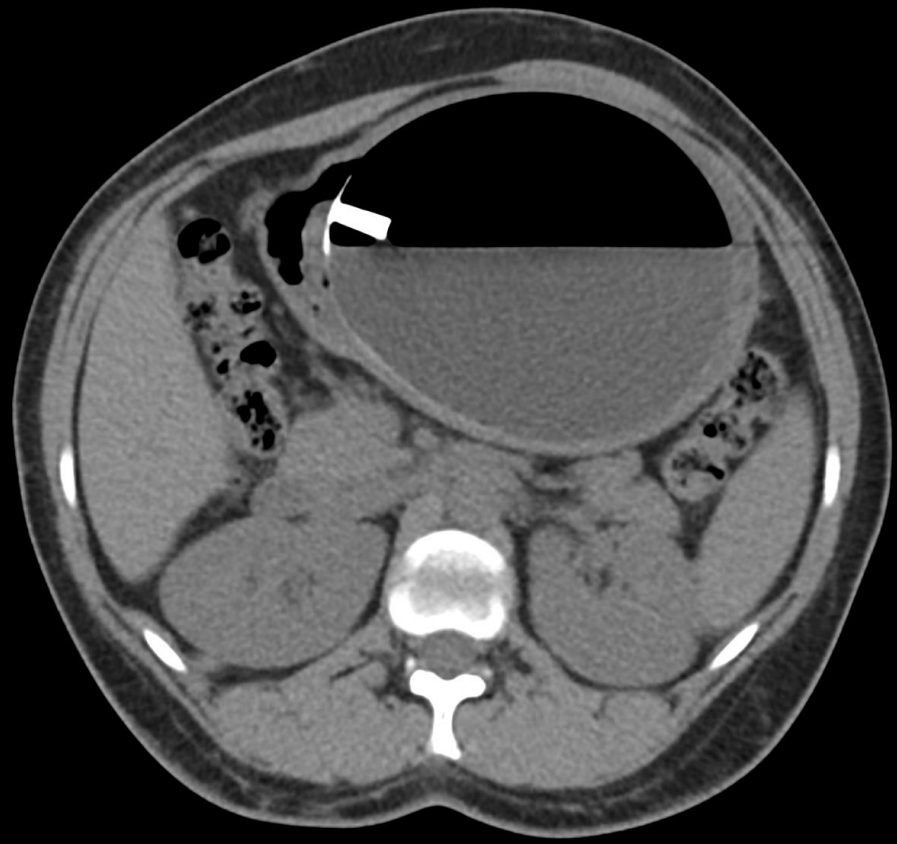
Procedure	Appropriateness Category	Relative Radiation Level
Fluoroscopy biphasic esophagram	Usually Appropriate	☢☢☢
Fluoroscopy upper GI series	Usually Appropriate	☢☢☢
Fluoroscopy single contrast esophagram	May Be Appropriate	☢☢☢
CT abdomen and pelvis with IV contrast	May Be Appropriate	☢☢☢
CT abdomen and pelvis without IV contrast	May Be Appropriate	☢☢☢
CT abdomen with IV contrast	May Be Appropriate (Disagreement)	☢☢☢
MRI abdomen without and with IV contrast	Usually Not Appropriate	O
MRI abdomen without and with IV contrast with MRCP	Usually Not Appropriate	O
MRI abdomen without IV contrast	Usually Not Appropriate	O
MRI abdomen without IV contrast with MRCP	Usually Not Appropriate	O
CT abdomen without IV contrast	Usually Not Appropriate	☢☢☢
CT abdomen and pelvis without and with IV contrast	Usually Not Appropriate	☢☢☢☢
CT abdomen with IV contrast multiphase	Usually Not Appropriate	☢☢☢☢
CT abdomen without and with IV contrast	Usually Not Appropriate	☢☢☢☢
FDG-PET/CT skull base to mid-thigh	Usually Not Appropriate	☢☢☢☢

This imaging modality was ordered by the ER physician

Axial CT A/P w/wo IV contrast : (unlabeled)



6 months ago



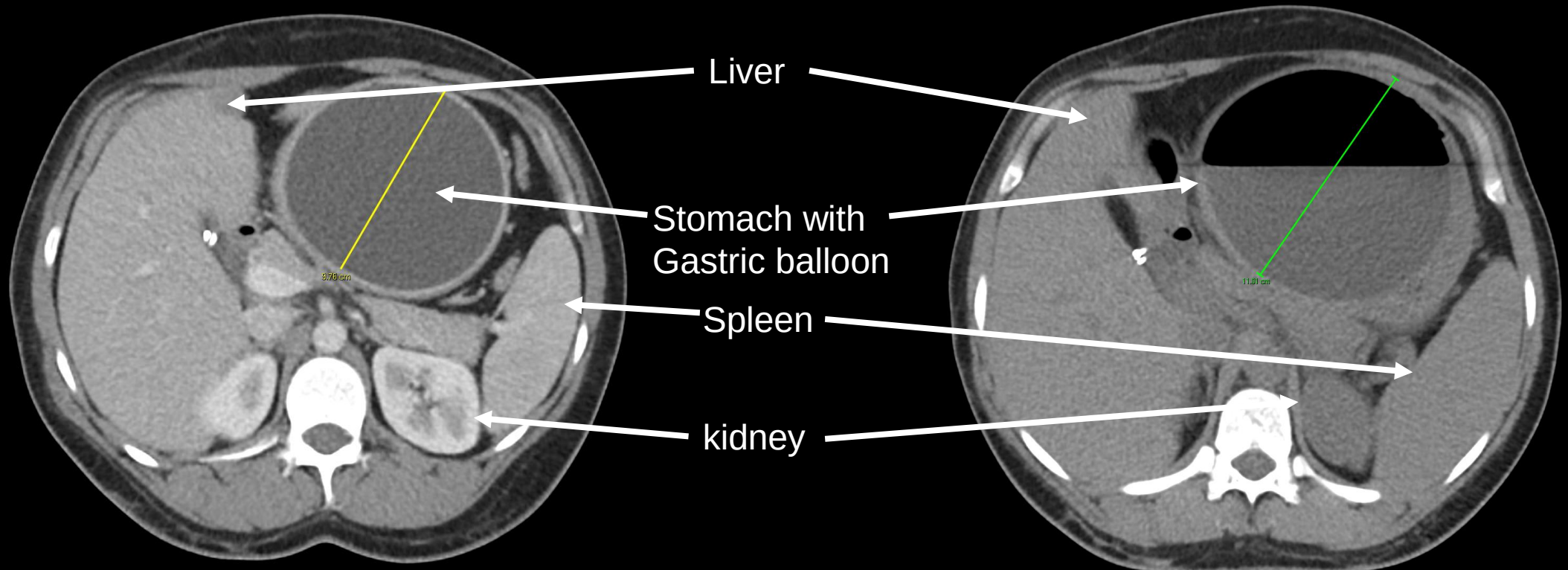
Today

Sagittal CT A/P w/wo IV contrast : (unlabeled)

6 months ago

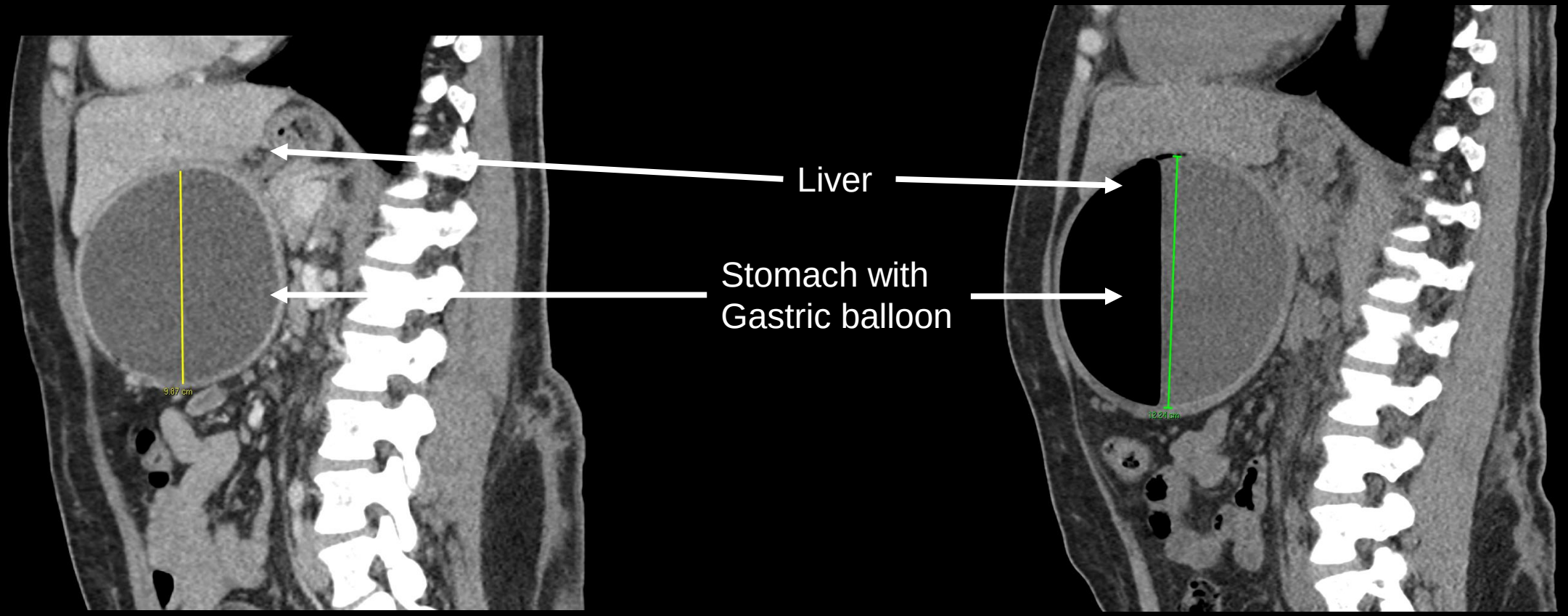
Today

Axial CT A/P w/wo IV contrast : (labeled)



- Increase in size of intragastric balloon due to hyperinflation by air

Sagittal CT A/P w/wo IV contrast : (labeled)



6 months ago

Today

- Increase in size of intragastric balloon due to hyperinflation by air pressing on the anterior abdominal wall

Final Dx:

Spontaneous hyperinflation of gastric balloon

Case Discussion

- Incidence: Spontaneous hyperinflation is a rare complication of intragastric balloon (IGB) observed in 2.3% of patients six months after placement.
- Etiology: It is multifactorial and can be caused by
  - intra-gastric saline contamination by gas forming bacteria.
  - Compromise of the structural integrity of the balloon.
- Clinical Features:
  - Epigastric pain
  - Nausea
  - Vomiting
  - GERD

Case Discussion

- Complications of intragastric balloon :
  - Overinflation
  - Acute pancreatitis
  - Gastric outlet obstruction
- Radiographic features: CT scan of the abdomen shows
  - Distended stomach with hyperinflated fluid and gas filled IGB
- Management :
  - Endoscopic Intra Gastric balloon removal.
  - For adjustable IGB, deflation and fluid exchange can be considered.

References:

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