

AMSER Case of the Month: November 2019

67 y/o F with two months of RUQ pain and associated weight loss

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Patient Presentation

- HPI: 67 y/o F with two months of RUQ pain radiating to the right flank. Pain is intermittent and can last up to five hours. Associated with nausea. Patient also reports unintentional 7lb weight loss.
- PMH: N/A
- PSH: Hysterectomy, Appendectomy
- Social: Former smoker
- PE: Non-focal abdominal exam without organomegaly

Pertinent Labs

- AST: 23
- ALT: 92
- Alk Phos: 169
- Total Bili: 0.5
- CBC: WNL

What Imaging Should We Order?

Select the applicable ACR Appropriateness Criteria

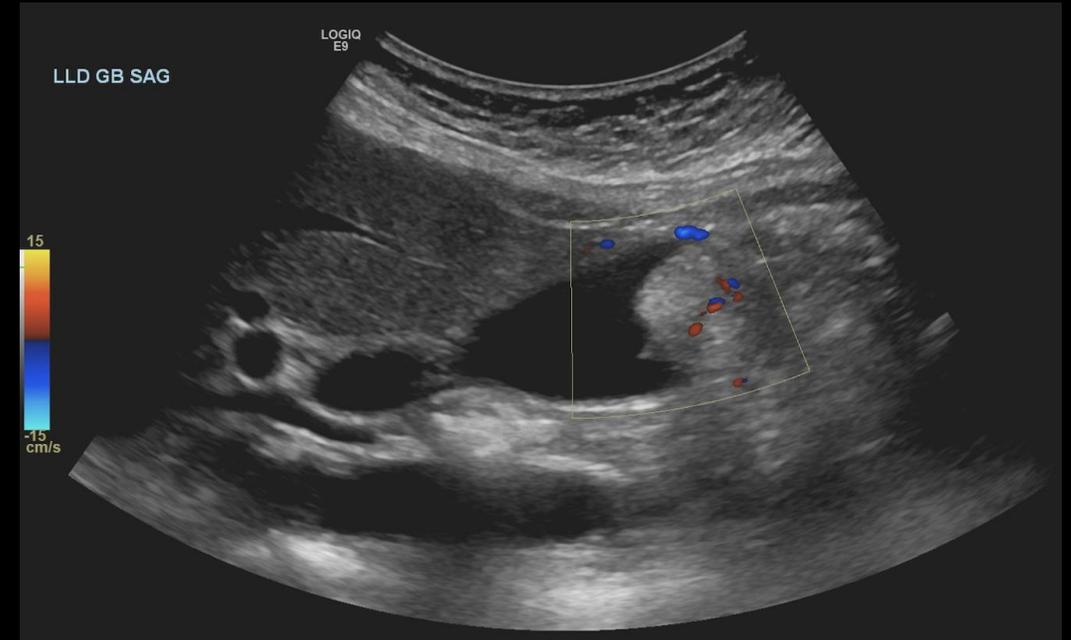
Variant 1: Right upper quadrant pain. Suspected biliary disease. Initial imaging.

Procedure	Appropriateness Category	Relative Radiation Level
US abdomen	Usually Appropriate	0
CT abdomen with IV contrast	May Be Appropriate	☢☢☢
MRI abdomen without and with IV contrast with MRCP	May Be Appropriate	0
MRI abdomen without IV contrast with MRCP	May Be Appropriate	0
Tc-99m cholescintigraphy	May Be Appropriate	☢☢
CT abdomen without IV contrast	May Be Appropriate	☢☢☢
CT abdomen without and with IV contrast	Usually Not Appropriate	☢☢☢☢

This imaging modality was ordered by OSH

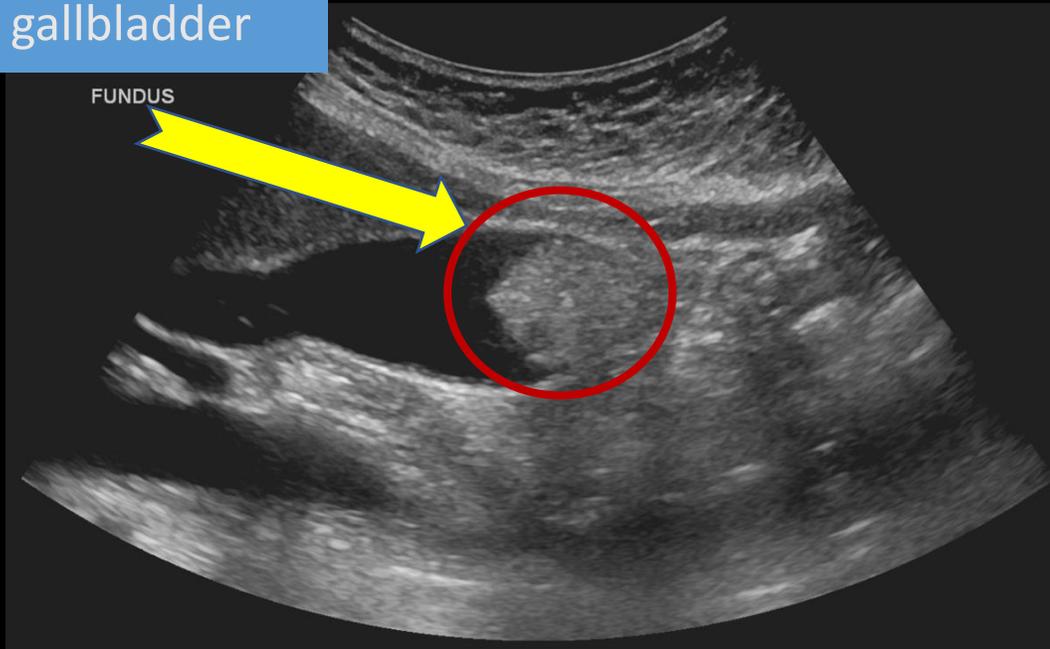


Findings (unlabeled)

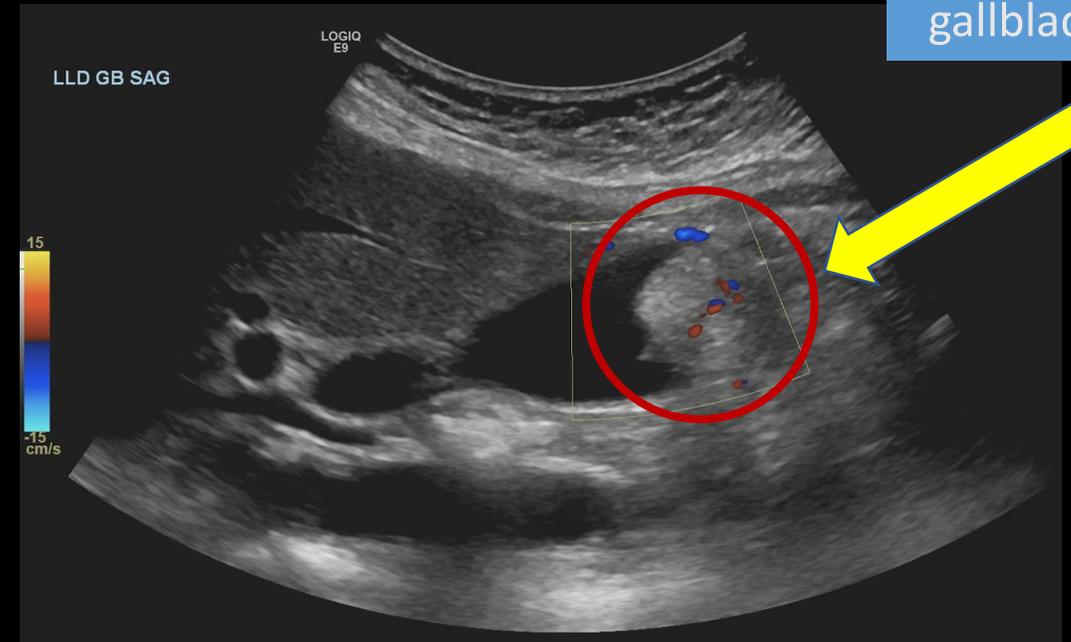


Findings: (labeled)

Mass in
gallbladder



Mass in
gallbladder



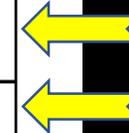
Select the applicable ACR Appropriateness Criteria

Variant 2:

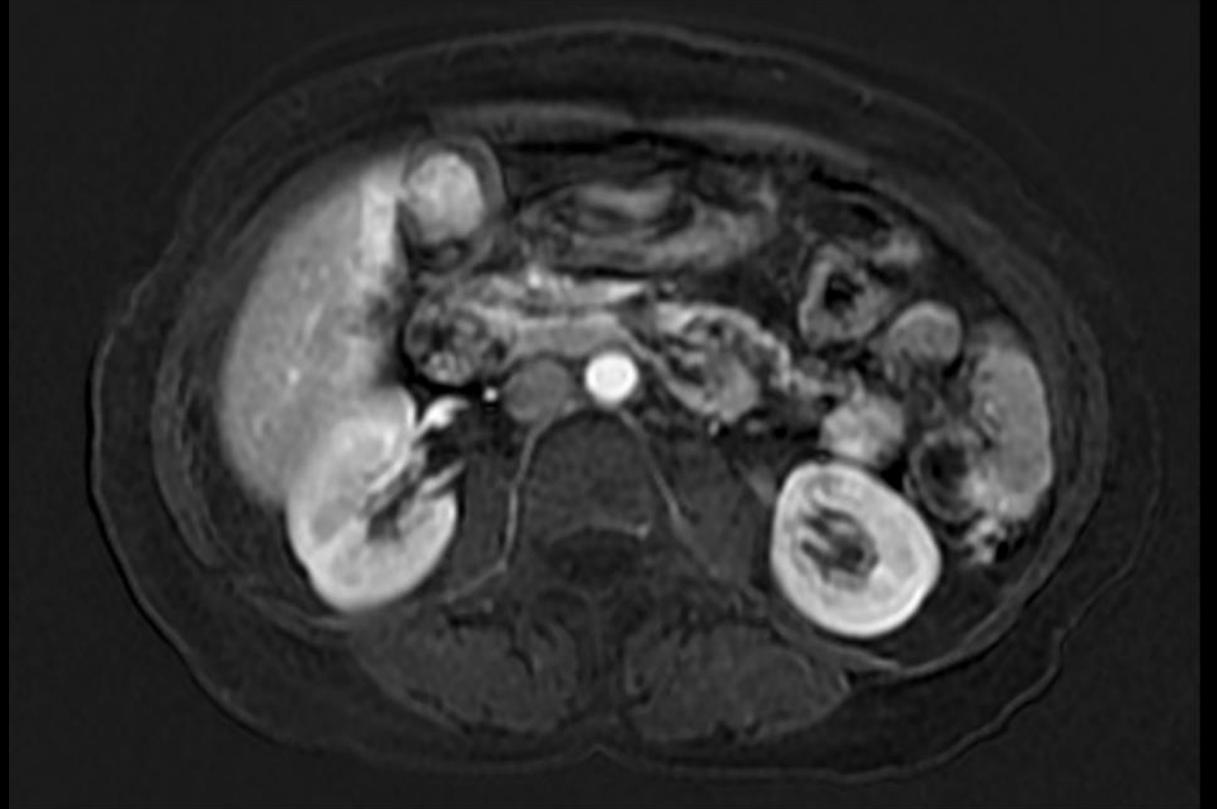
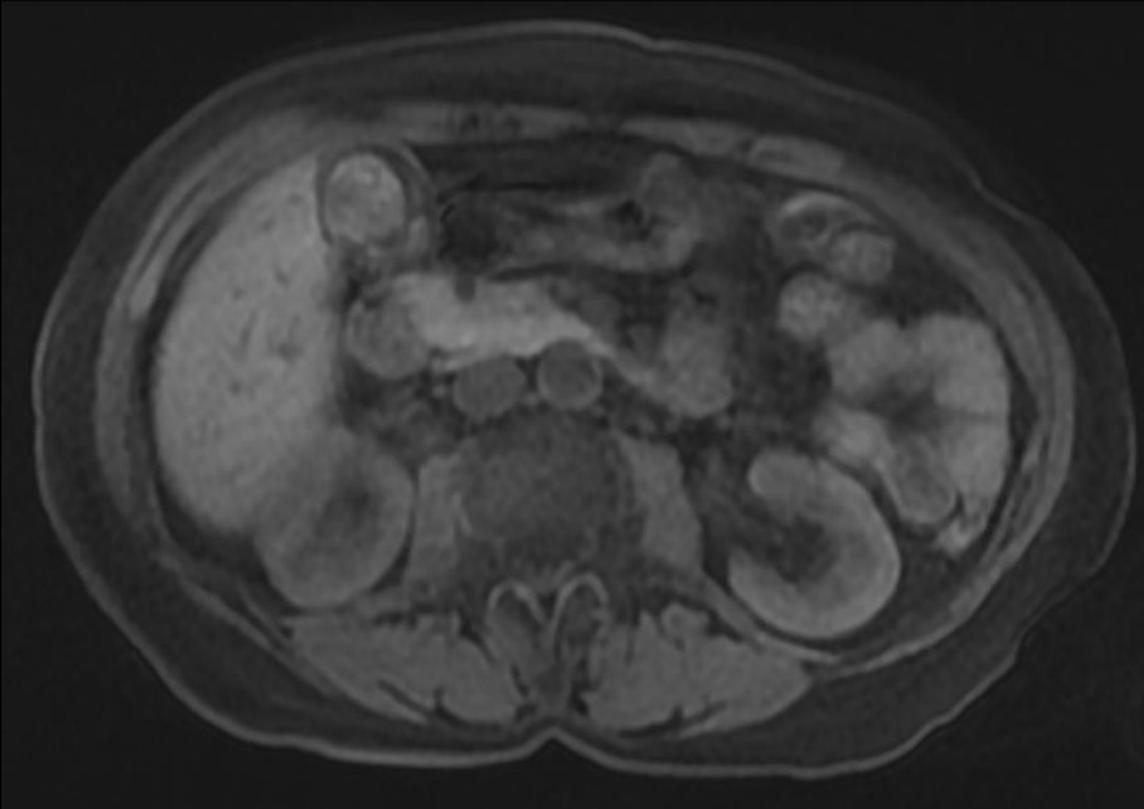
Right upper quadrant pain. No fever or high white blood cell (WBC) count. Suspected biliary disease. Negative or equivocal ultrasound.

Procedure	Appropriateness Category	Relative Radiation Level
MRI abdomen without and with IV contrast with MRCP	Usually Appropriate	0
CT abdomen with IV contrast	Usually Appropriate	☼☼☼
MRI abdomen without IV contrast with MRCP	Usually Appropriate	0
Tc-99m cholescintigraphy	May Be Appropriate	☼☼
CT abdomen without IV contrast	May Be Appropriate	☼☼☼
CT abdomen without and with IV contrast	Usually Not Appropriate	☼☼☼☼

These imaging modalities were ordered by the physician

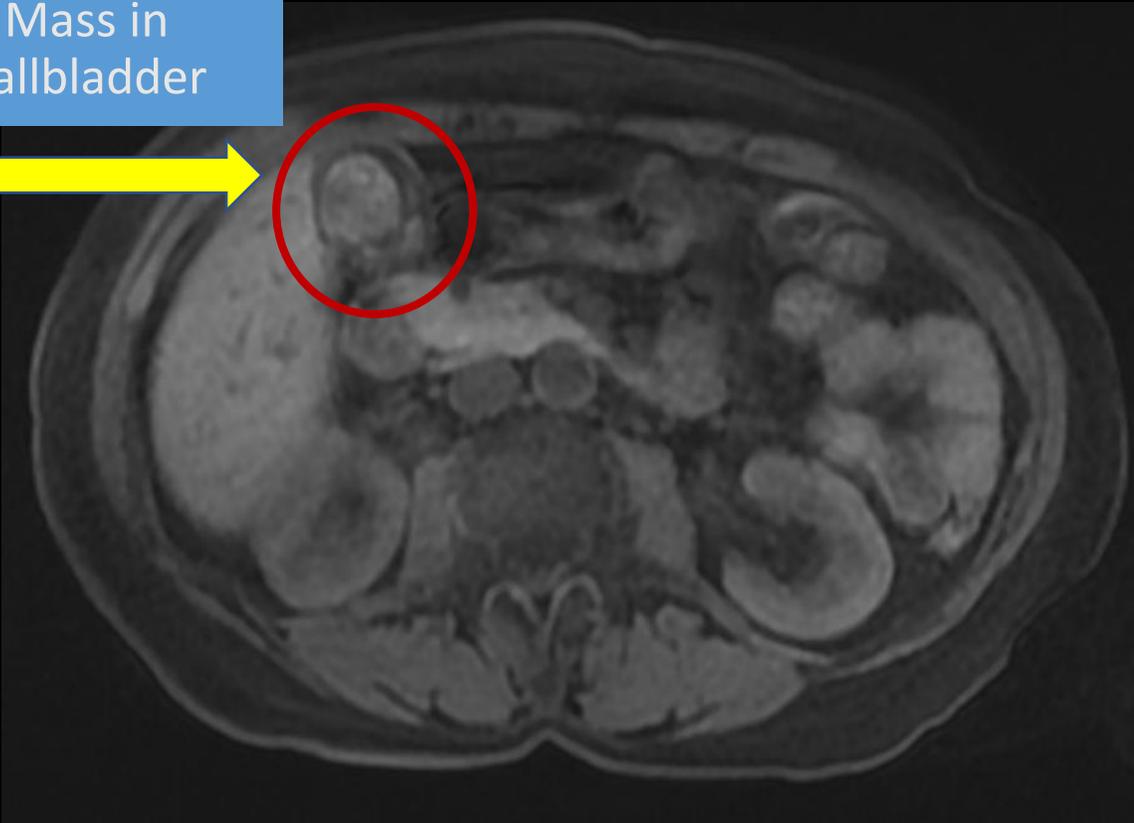


Findings (unlabeled)

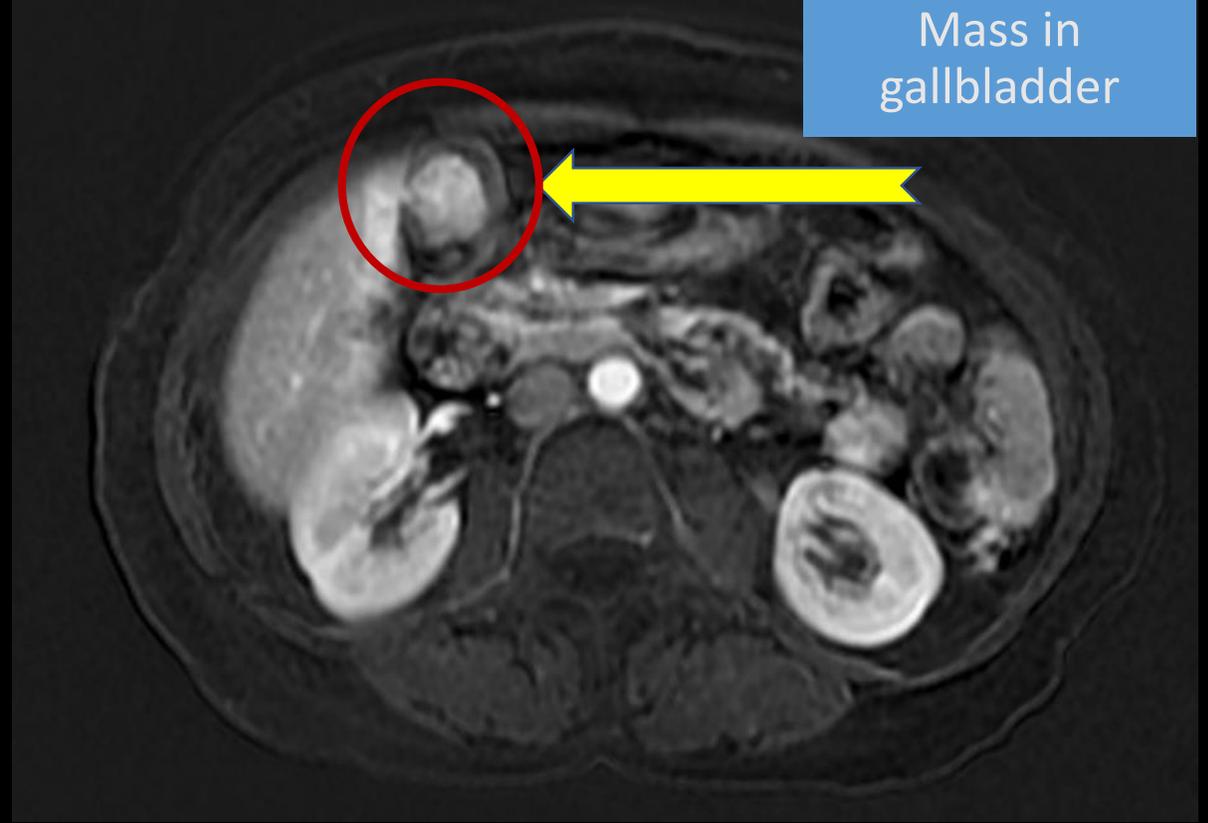


Findings (labeled)

Mass in
gallbladder



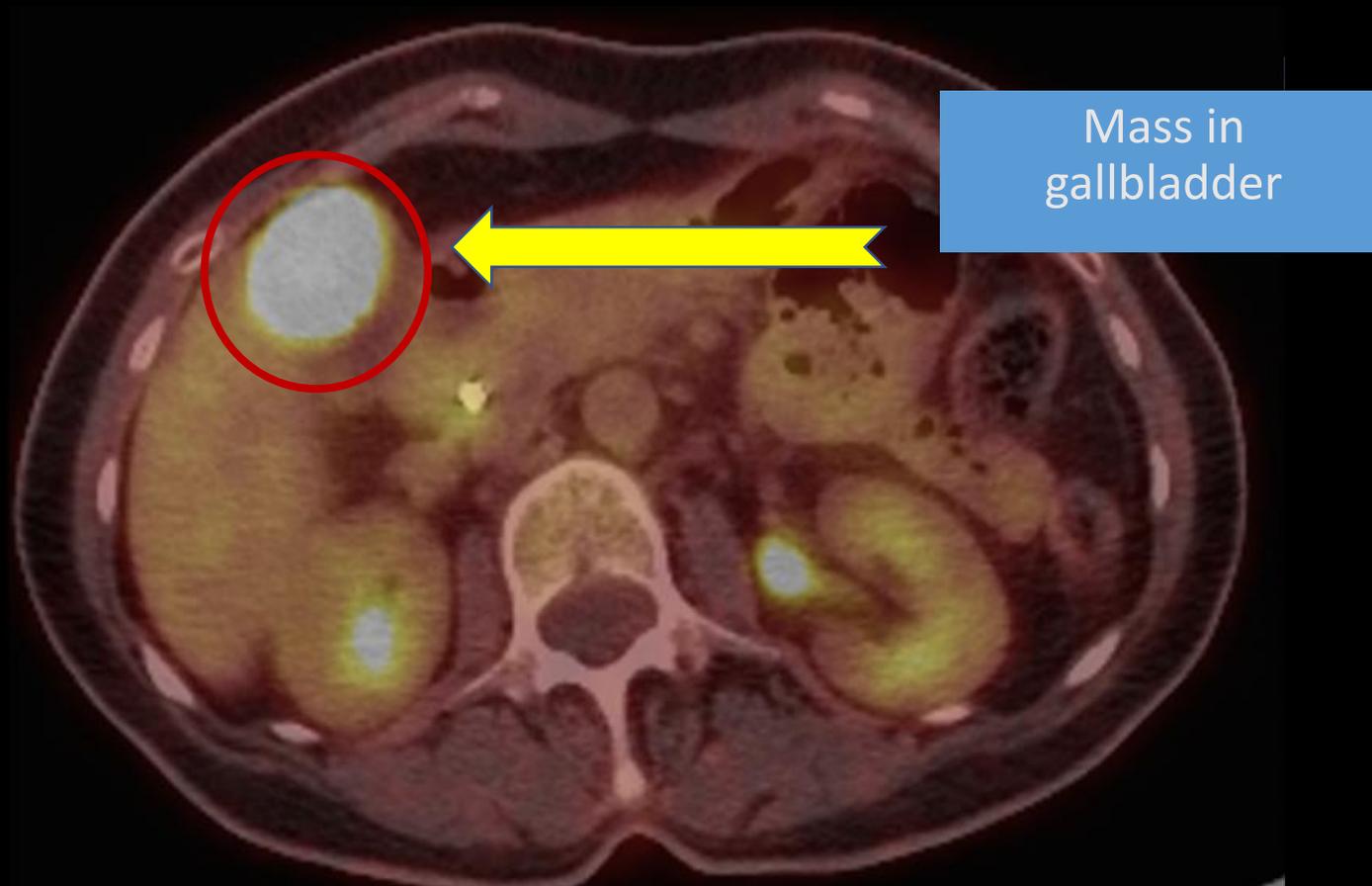
Mass in
gallbladder



Findings (unlabeled)



Findings (labeled)



Final Dx:

Adenocarcinoma of the gallbladder

Case Discussion

- Adenocarcinoma of gallbladder
 - Rare but fatal malignancy of gallbladder.
 - Annual incidence: 5000 cases in United States.
 - Risk Factors:
 - History of cholelithiasis
 - Porcelain gallbladder
 - Chronic infection (Salmonella, H. Pylori)
 - Obesity
 - Primary sclerosing cholangitis
 - Gallbladder Polyps

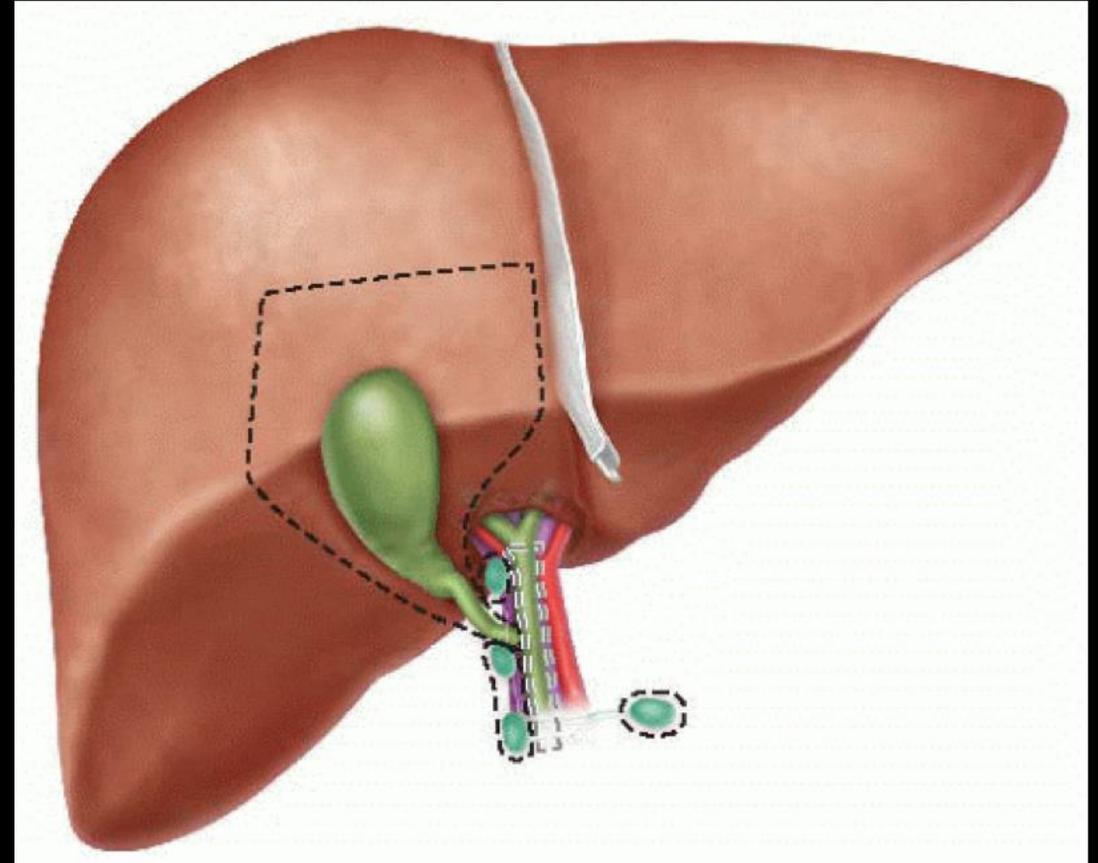
Case Discussion

- Treatment

- Laparoscopic cholecystectomy is most common way to treat
- Most patients require an extended cholecystectomy with additional removal of:
 - Adjacent liver tissue
 - Lymph nodes in the surrounding region

- Prognosis

- Overall 5 year survival: <5%
- Early stage 5 year survival: 75%



Case Discussion

- Our patient underwent an extended cholecystectomy including portal lymph node dissection and segmental resection of liver.
 - Surgeon was able to remove the tumor in the fundus of the gallbladder in its entirety.
- Pathology showed the tumor had not extended beyond lamina propria and no tumor cells were found in lymph nodes or in liver.

References:

- American College of Radiology. ACR appropriateness Criteria®. Available at <https://acsearch.acr.org/list>. Accessed on August 12th, 2019
- Goetze TO. Gallbladder carcinoma: Prognostic factors and therapeutic options. *World J Gastroenterol*. 2015;21(43):12211–12217
- Richard J. Bold. Radical Cholecystectomy. Available at <https://basicmedicalkey.com/radical-cholecystectomy/>. Accessed on August 14th, 2019.