

Combination Therapies

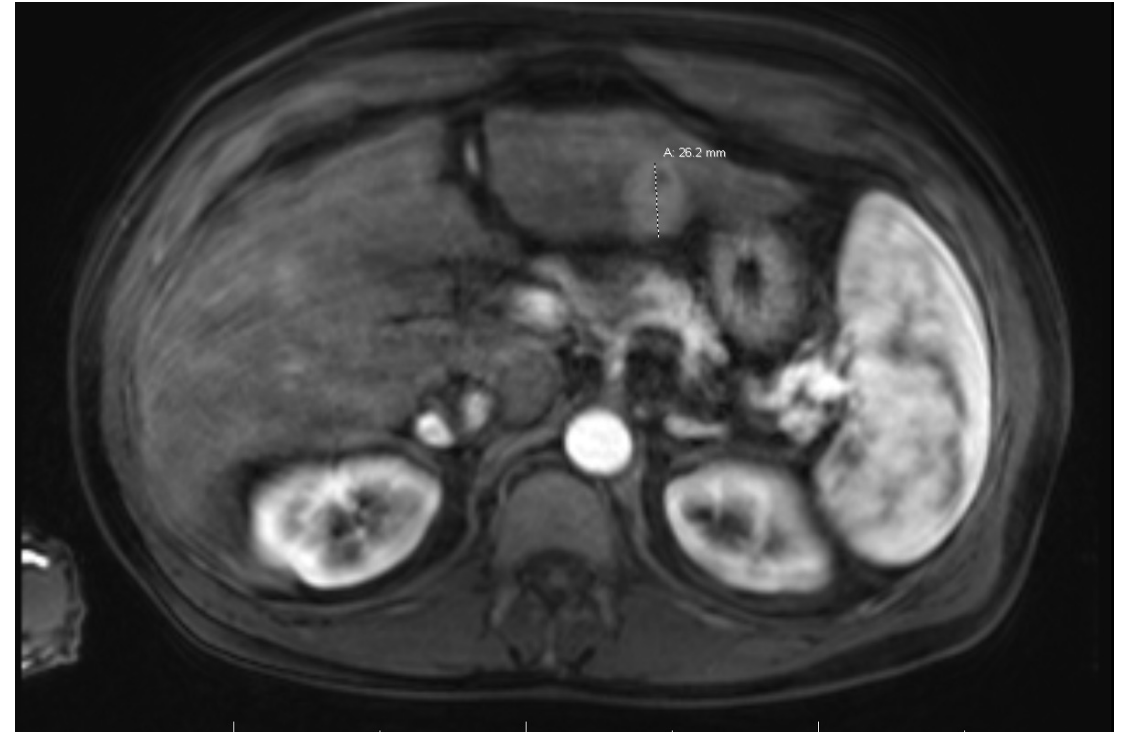
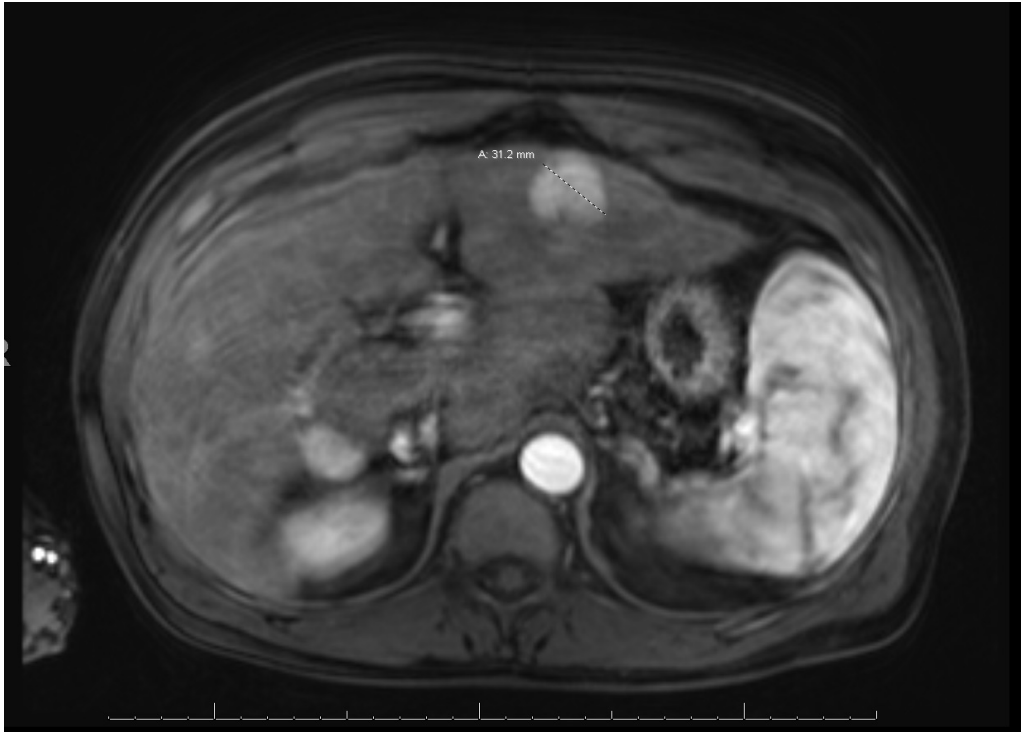
HPI

- Patient is a 64 year old male admitted to the hospital with hematemesis
- Past medical history: alcohol abuse, cocaine abuse, alcoholic cirrhosis of the liver, hepatitis C, esophageal varices
- EGD: mid esophagus there appeared to be 3 chains of small esophageal varices. The varices had no stigmata of bleeding. They completely flattened with insufflation. In the distal esophagus there was evidence of linear erythema consistent with esophagitis. This may have represented a Mallory-Weiss tear which could be healing.

MRI 2/3/2021

- 1. Multifocal HCC involving the right and left hepatic lobe:
 - Hepatic lesion in the left lobe segment 3 measuring 3.1 cm with hypervascular enhancement, washout and delayed capsular enhancement in keeping with HCC. LI-RADS 5
 - 2 hepatic lesions with hypervascular enhancement adjacent to each other measuring 3.2 cm in 3.1 cm with arterial enhancement, washout and delayed capsular enhancement in keeping with HCC. LI-RADS 5
 - Hypervascular lesion measuring 1 cm in the right hepatic lobe, segment 5 with arterial enhancement, washout and delayed capsular enhancement. LI-RADS 5
 - Hypervascular lesion in the periphery of the right hepatic lobe segment 6 measuring 1.8 cm with arterial enhancement, washout and delayed capsular enhancement. LI-RADS 5
 - Hypervascular lesion in hepatic segment 3 measuring 2.6 cm with arterial enhancement, washout and delayed capsular enhancement. LI-RADS 5
 - Hypervascular lesion measuring 1.7 cm in hepatic segment 5 with arterial enhancement, washout and delayed capsular enhancement. LI-RADS 5
 - There are other lesions in the in the liver with hypervascular enhancement without and no additional major features, LI-RADS 3

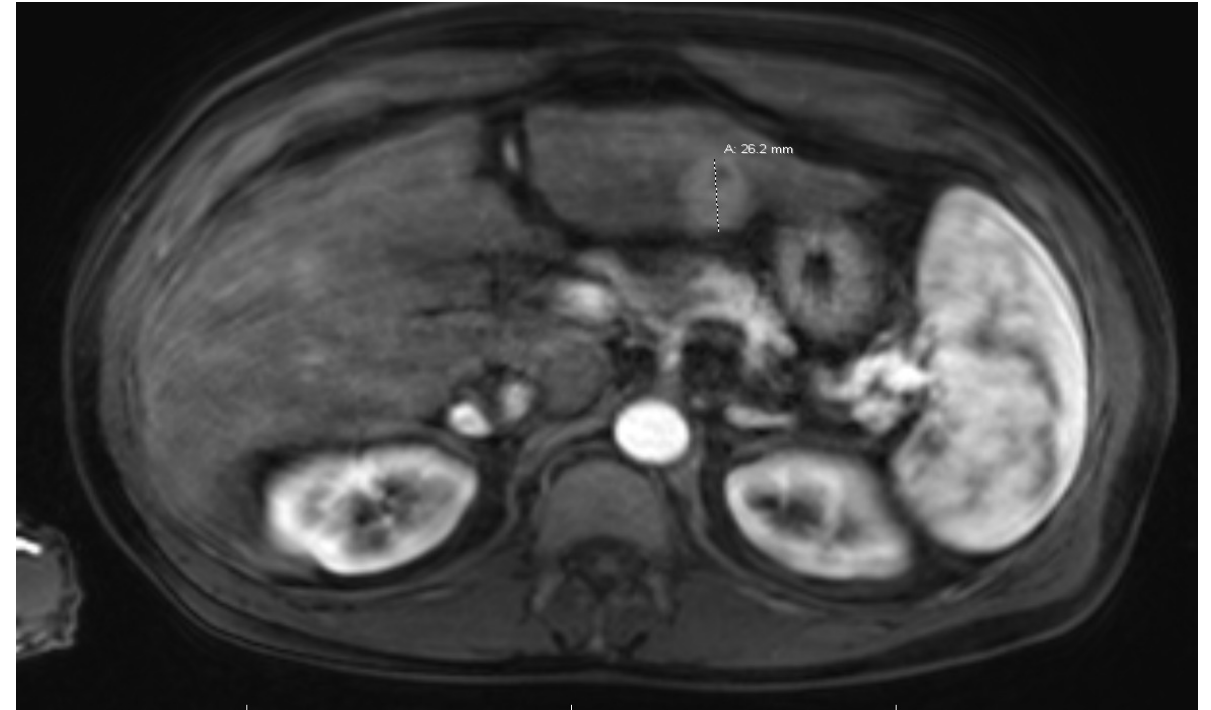
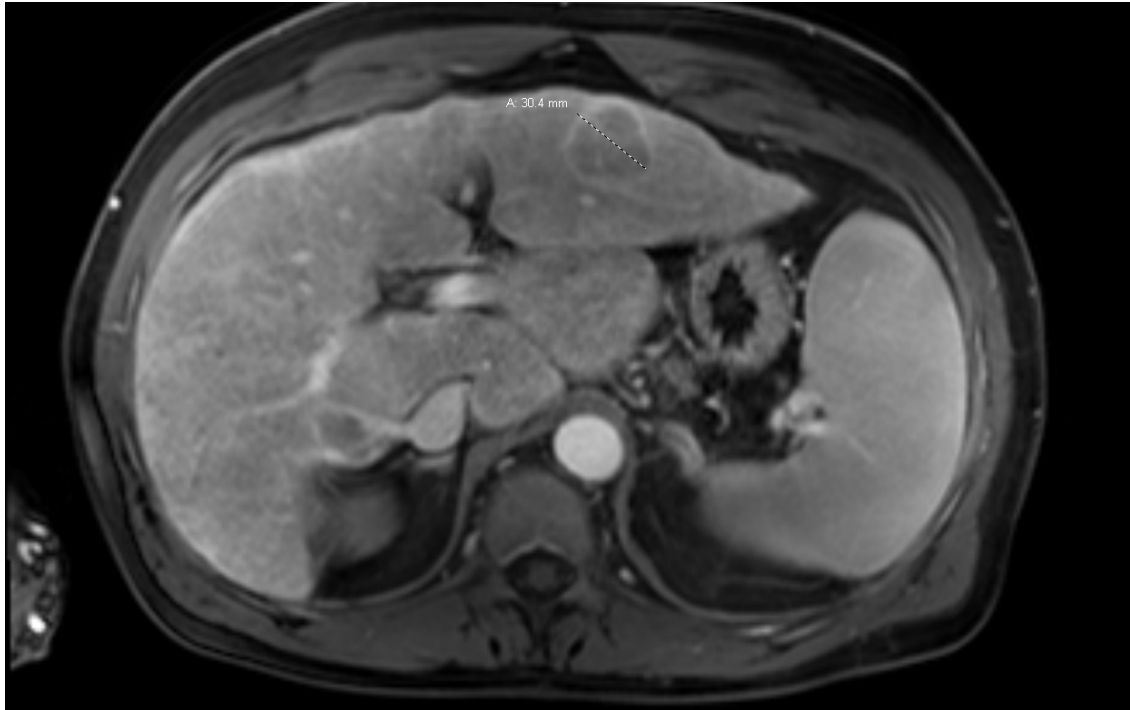
Pre treatment MRI



IVR

- The Barcelona Clinic Liver Cancer staging classification, he is at Intermediate stage B disease. His ECOG performance status is Grade 0 and Child Pugh score is A6.
- not a candidate for curative treatment such as a liver transplant or resection given hepatic bilobar multifocal disease. He is beyond Milan criteria for liver transplant.
- Y 90 radioembolization Right hepatic
- Successful left hepatic artery chemoembolization.

Post treatment MRI



Next step:

- To start on systemic therapy: Avastin + Atezolizumab

- LABS:

WBC 2.74, hgb 7.6, plt 173

INR 1.4

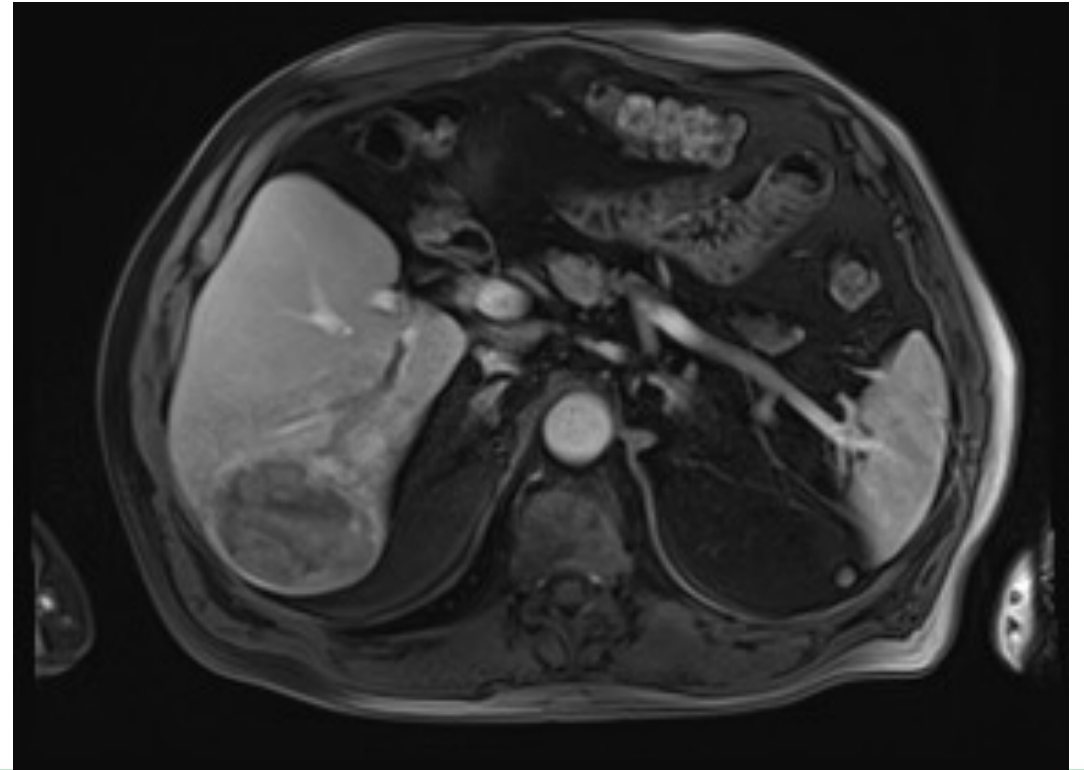
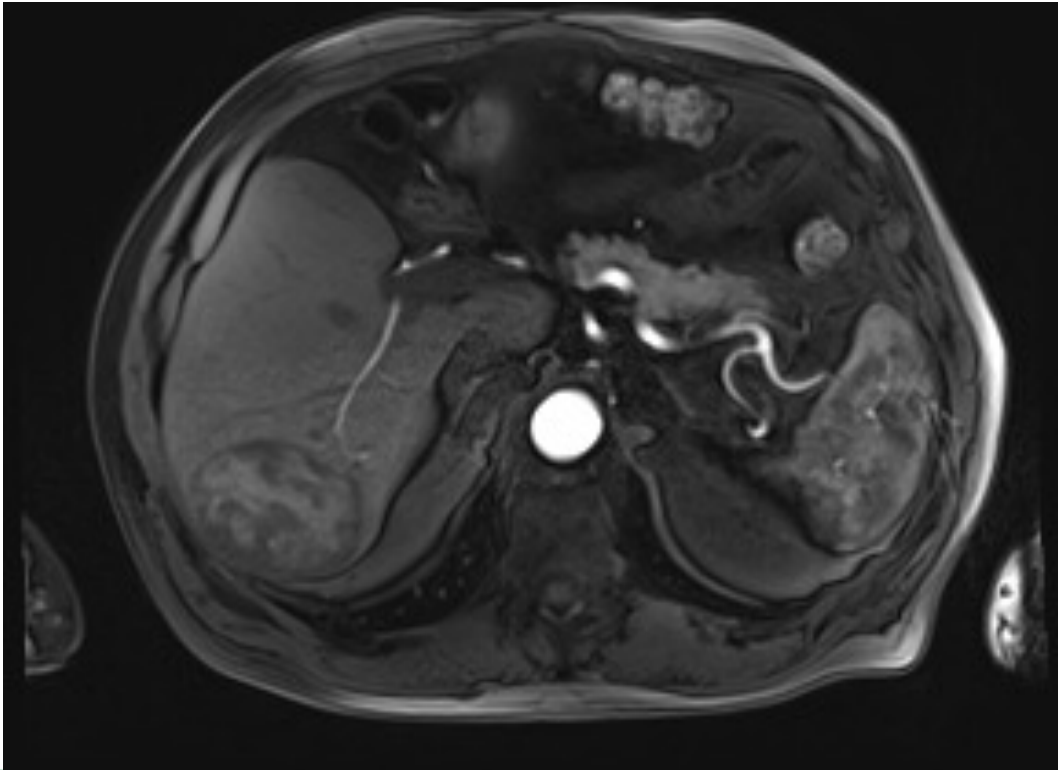
Tbili 1.3, ALT: 48, AST 84

Albumin 3.7

Case 2

78 yo male, NASH cirrhosis, s/p resection of left lobe tumor with recurrence in the right lobe 14 months later

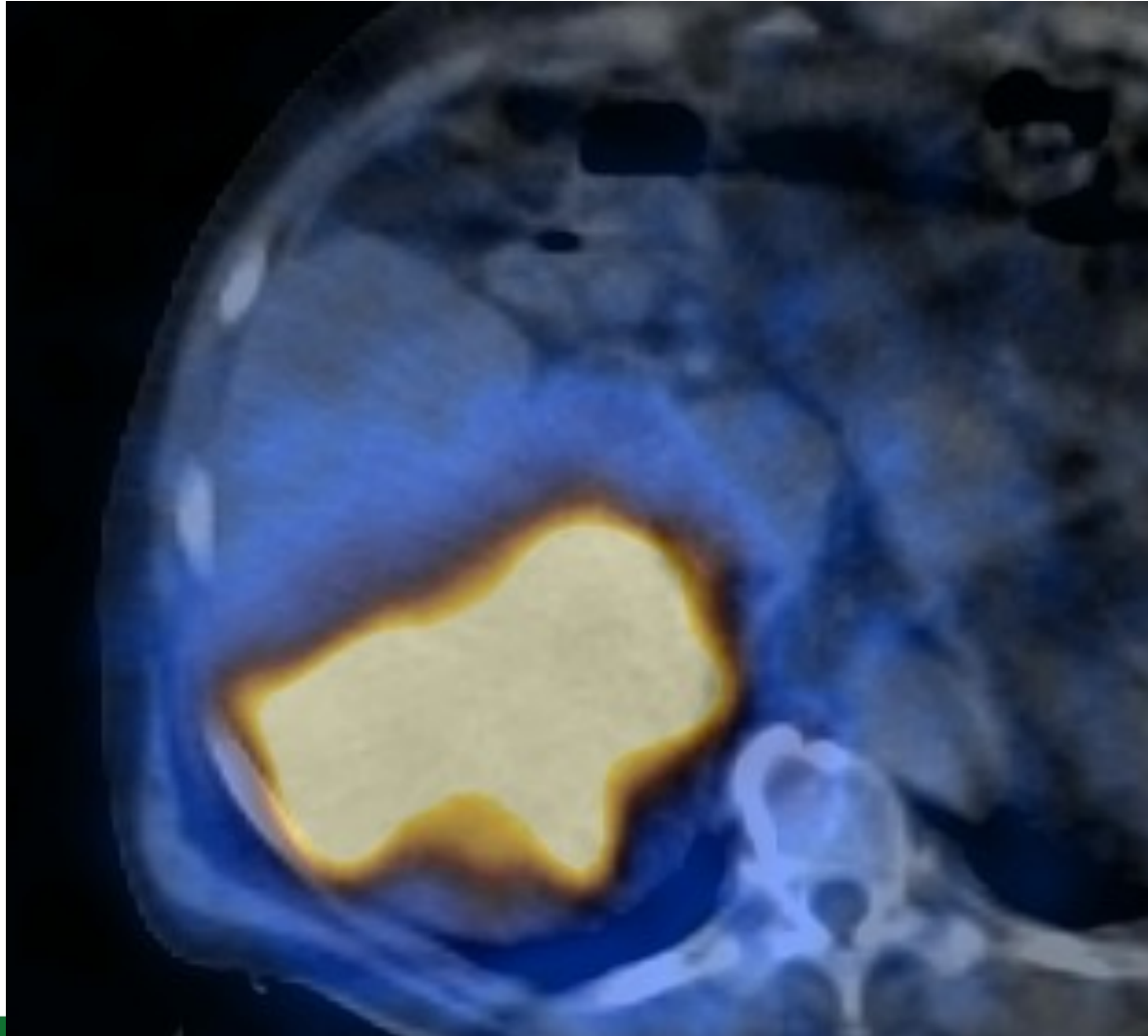
- ECOG 0, CPT A, T Bili 0.4, Albumin 3.5, AFP 800



Mapping angiography and CBCT



Post SPECT/CT Y90

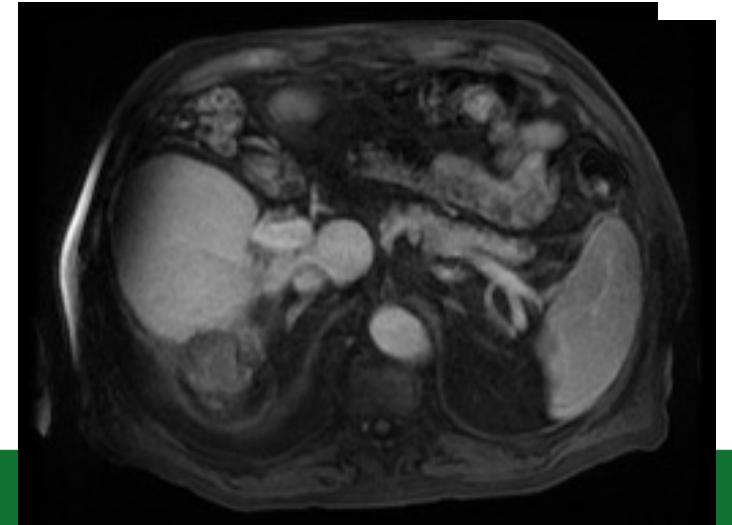
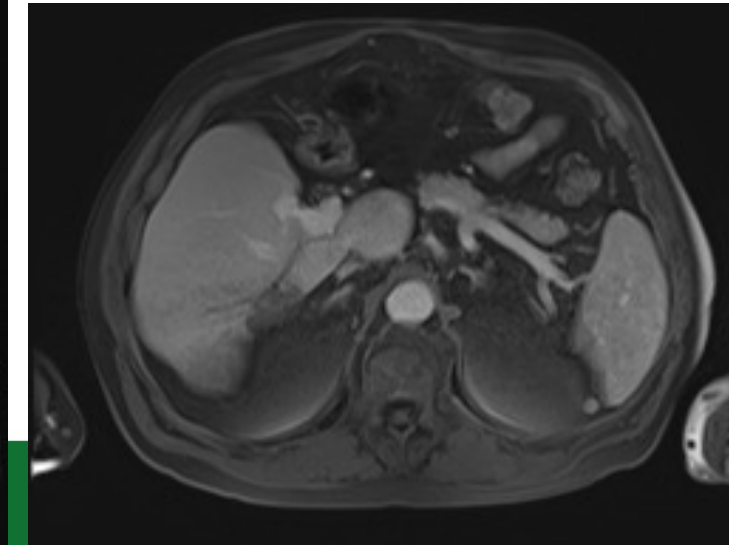
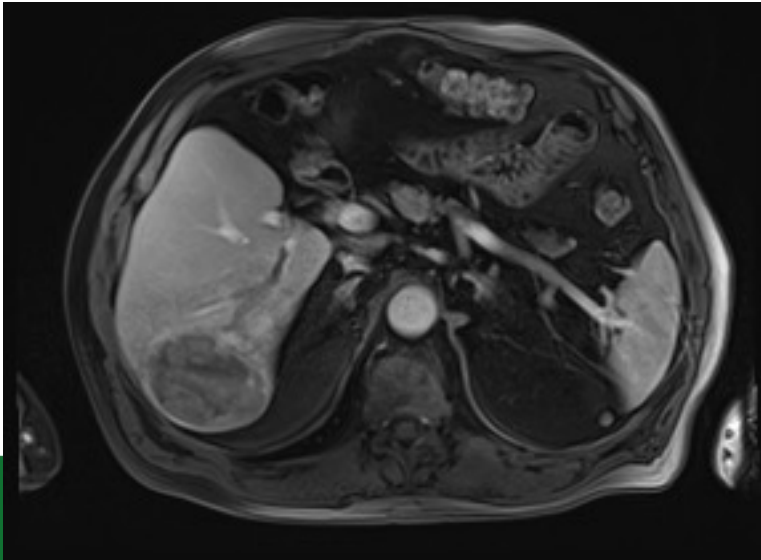
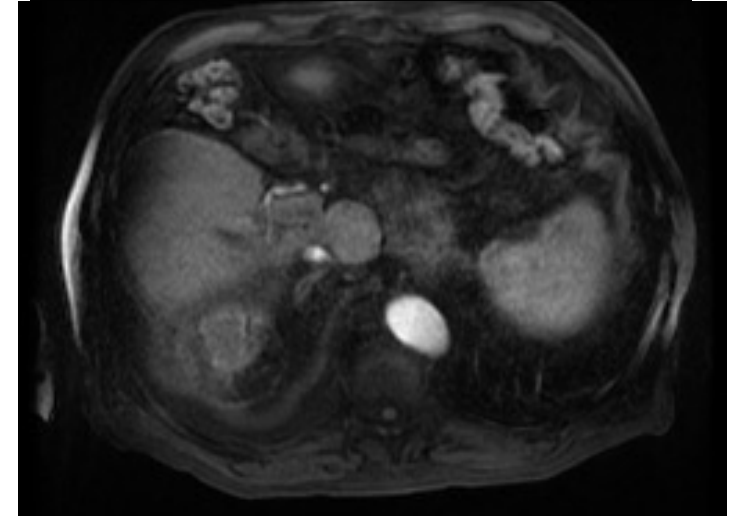
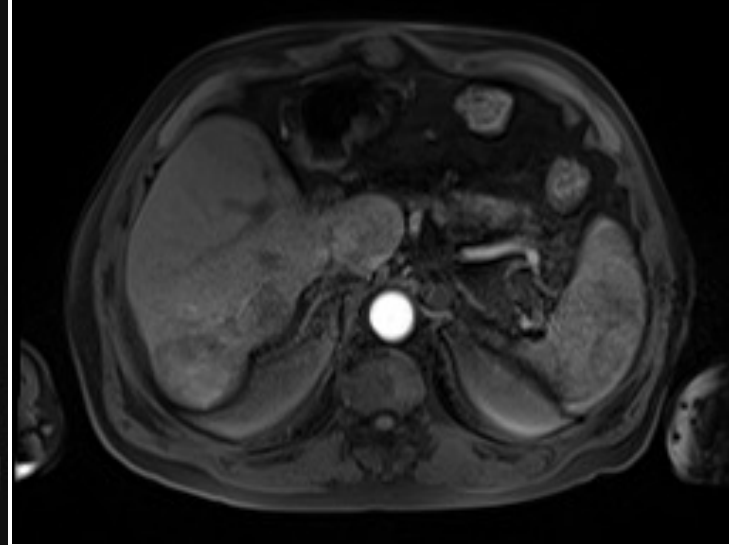
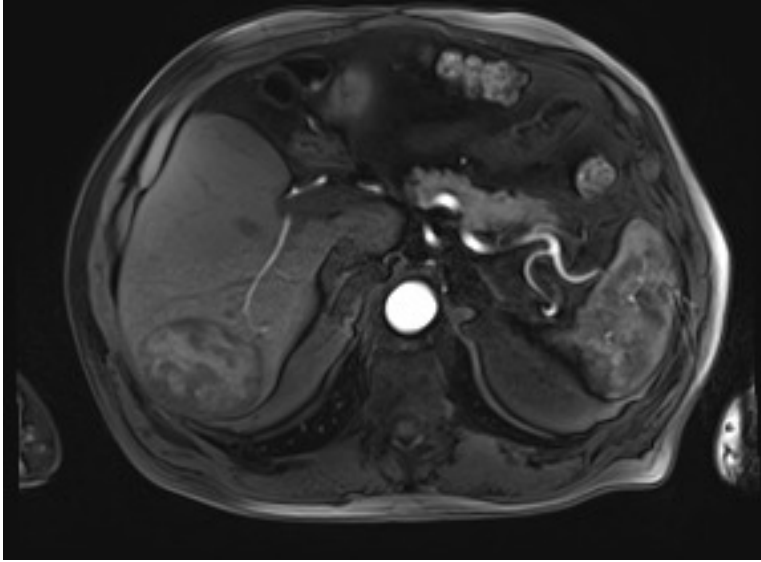


POST RADIATION SEGMENTECTOMY

Pre

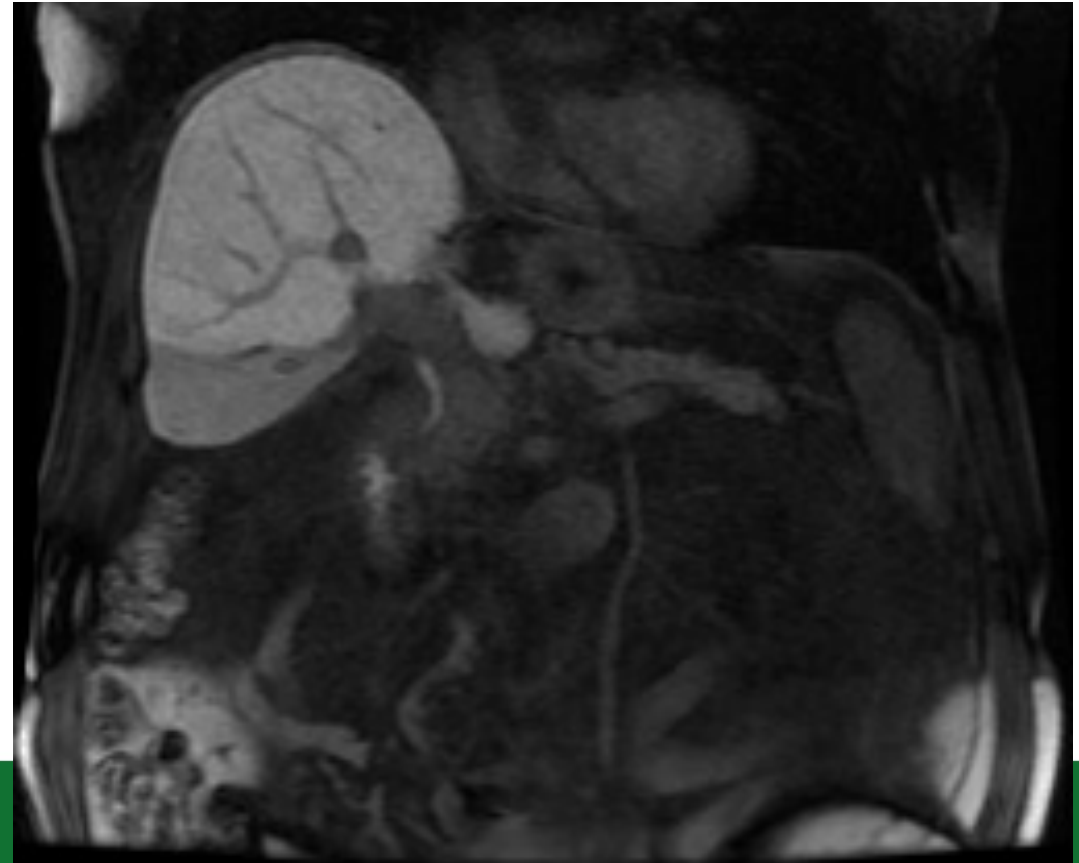
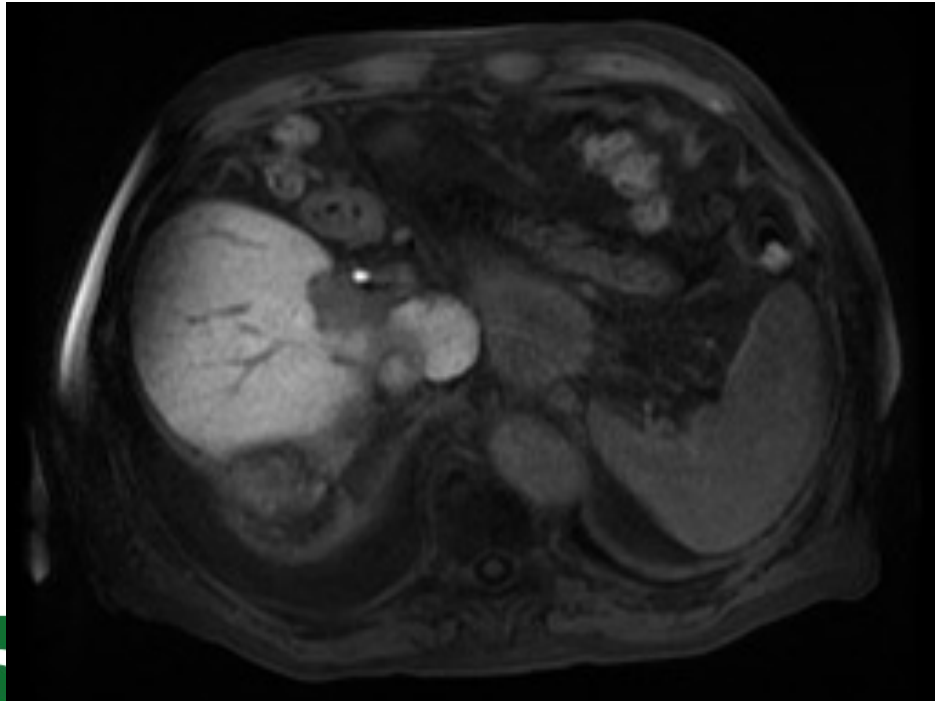
6 weeks

3 years



3 years post follow up

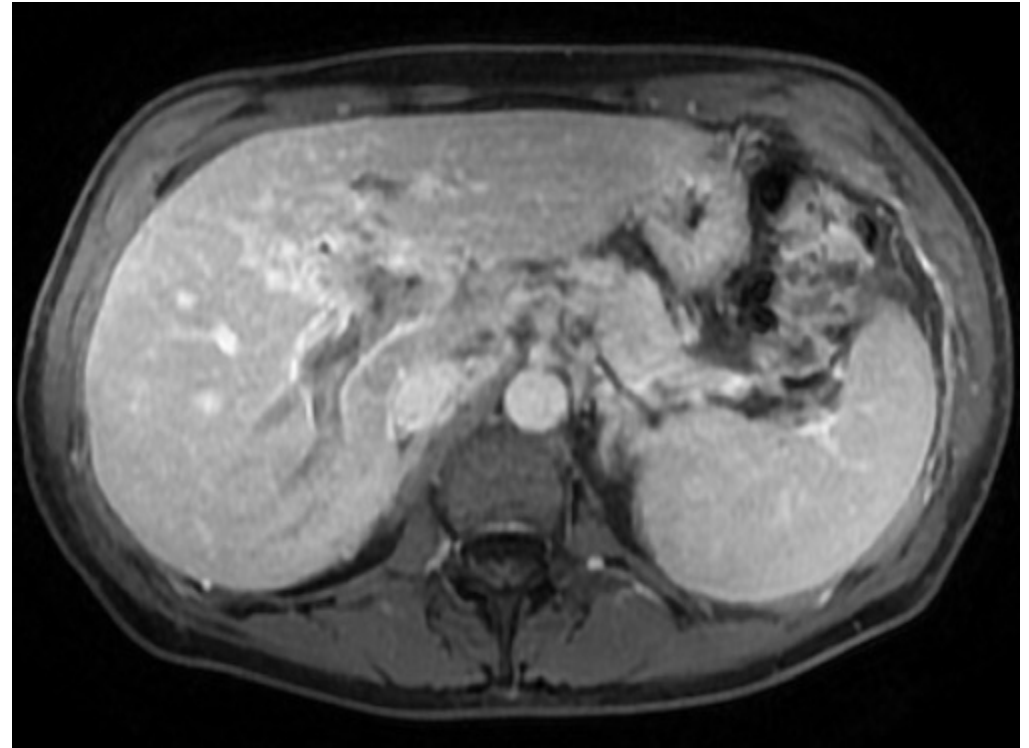
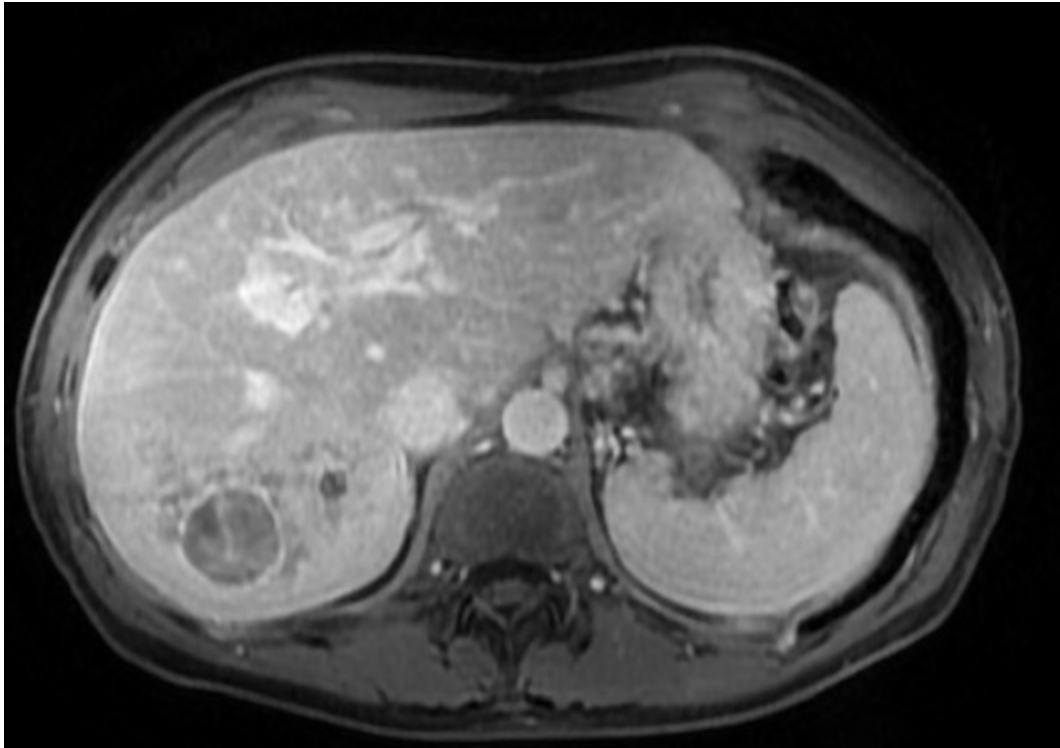
- AFP is normal
- CPT A
- ECOG 0



Sequential IO then IO for Advanced HCC

- 58 y.o. with HCV, COPD presented with abd pain (March 2018)
 - CT, MRI revealed infiltrative right lobe HCC with extensive PVT
 - C-P A, ECOG 1, AFP 1550

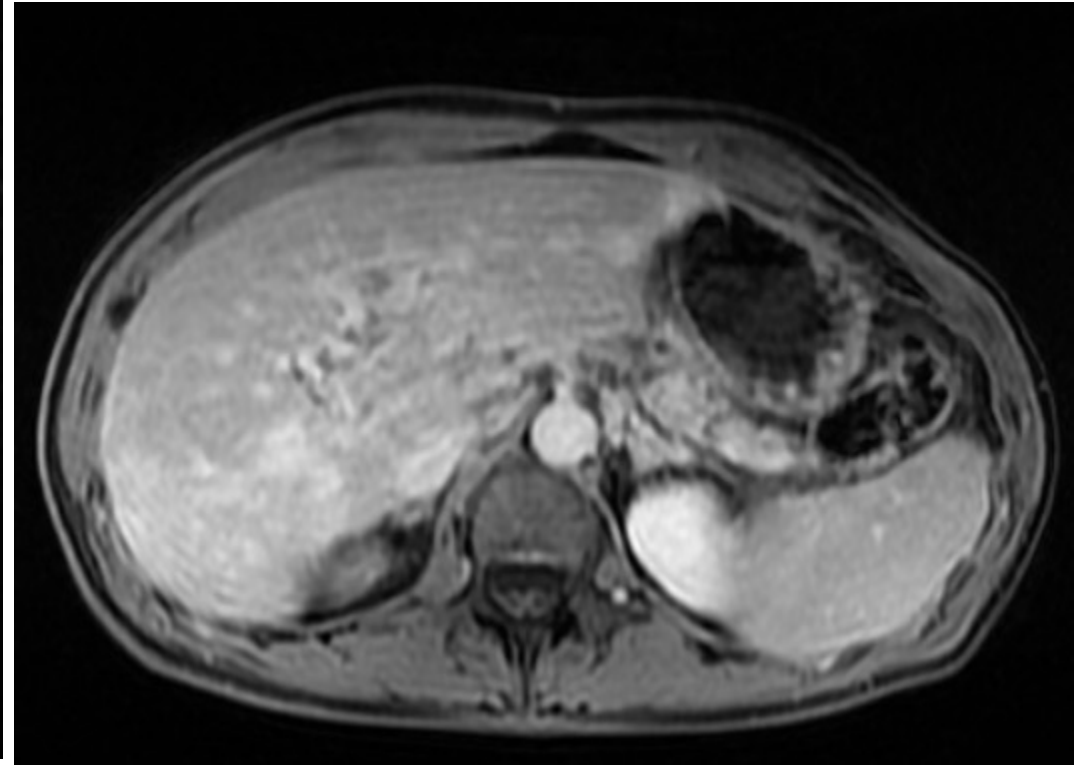
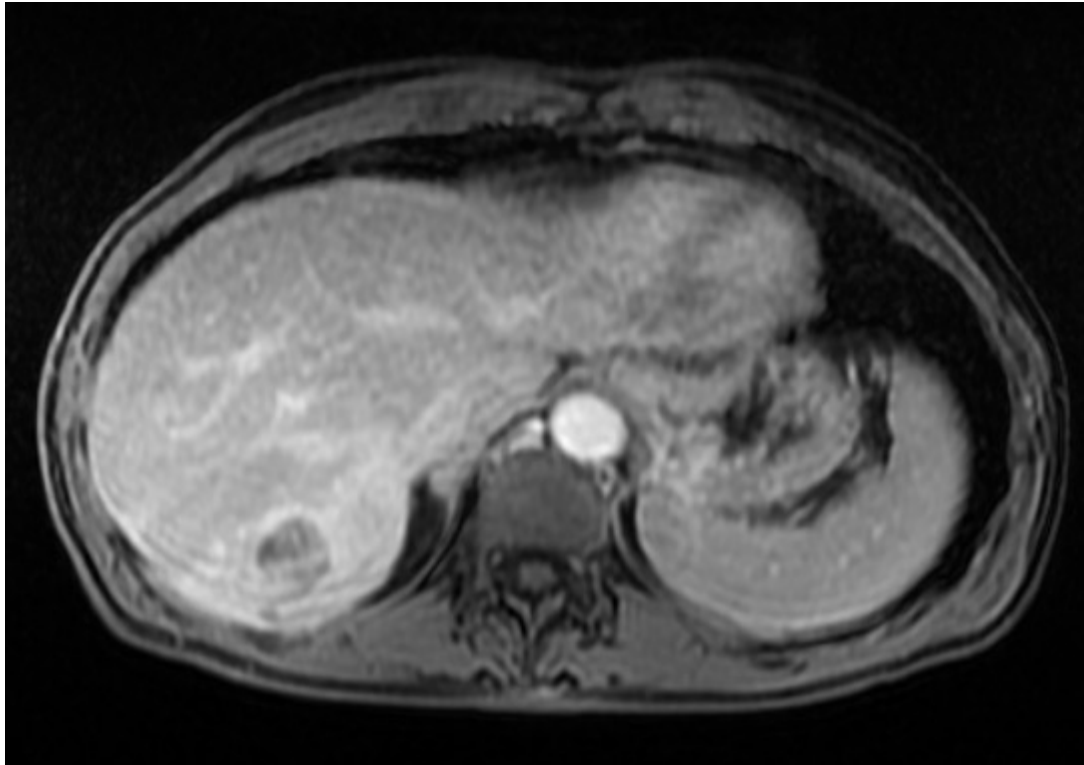
March 2018



ADVANCED HCC

- Started sorafenib April 2018
 - Toxicities required dose reductions
 - Progression noted July
 - Switched to Nivolumab

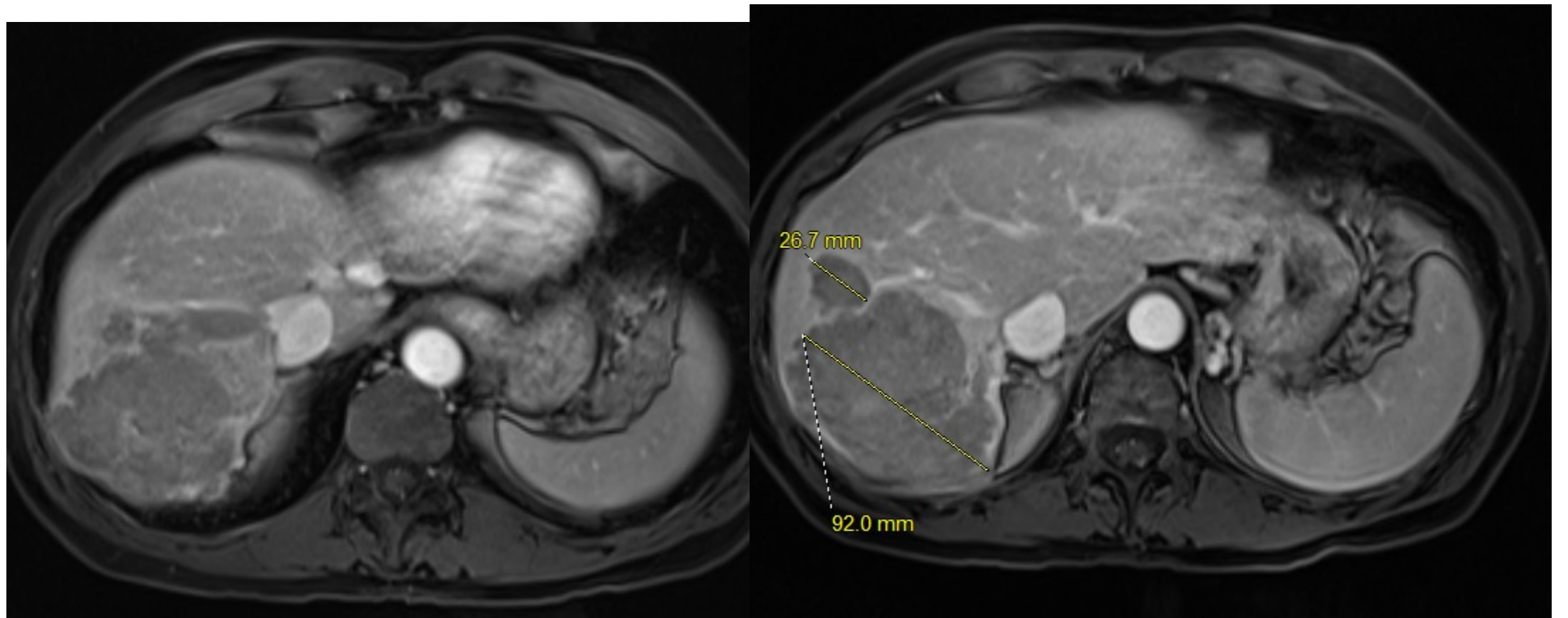
OCT 2018



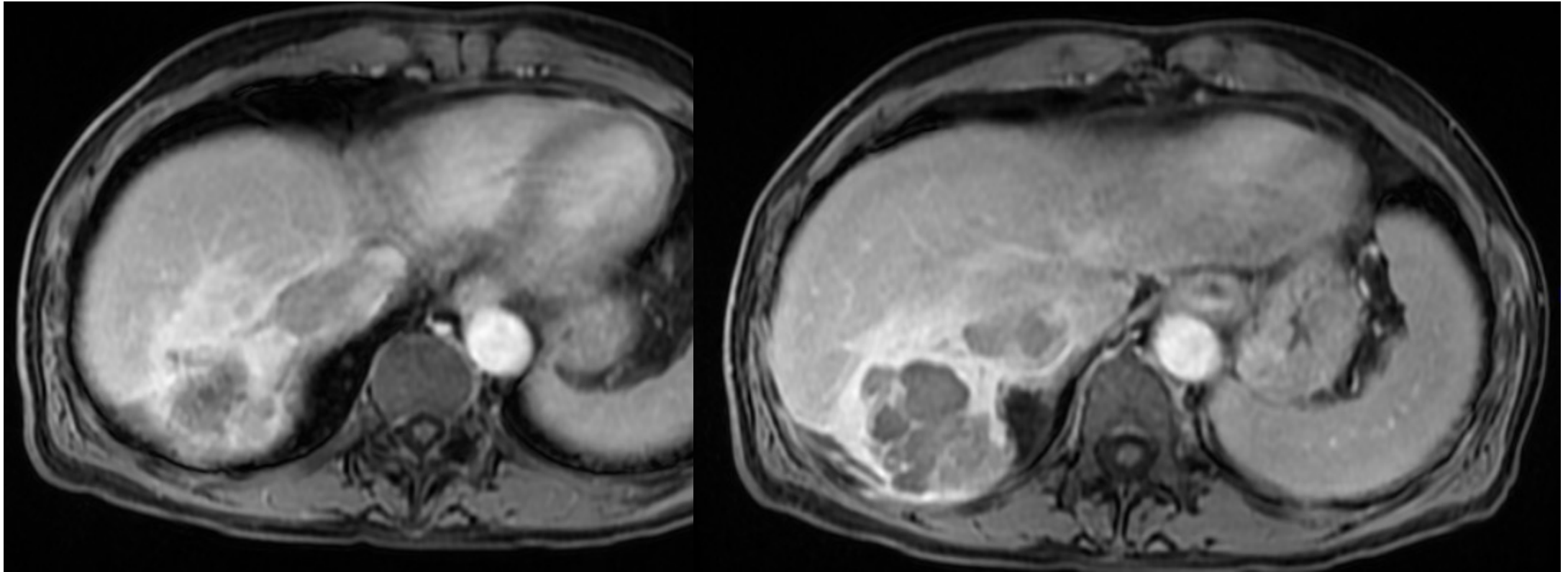
AFP 1900 -> 9

Fall 2018

- Feeling much better, gained 20 lbs
- Developed autoimmune hepatitis
 - AST, ALT > 500
 - Nivolumab held, steroids
- Disease progression, restarted nivo Jan 2019
- Stable disease until July 2020



3 Mo post Y90 segments 6/7

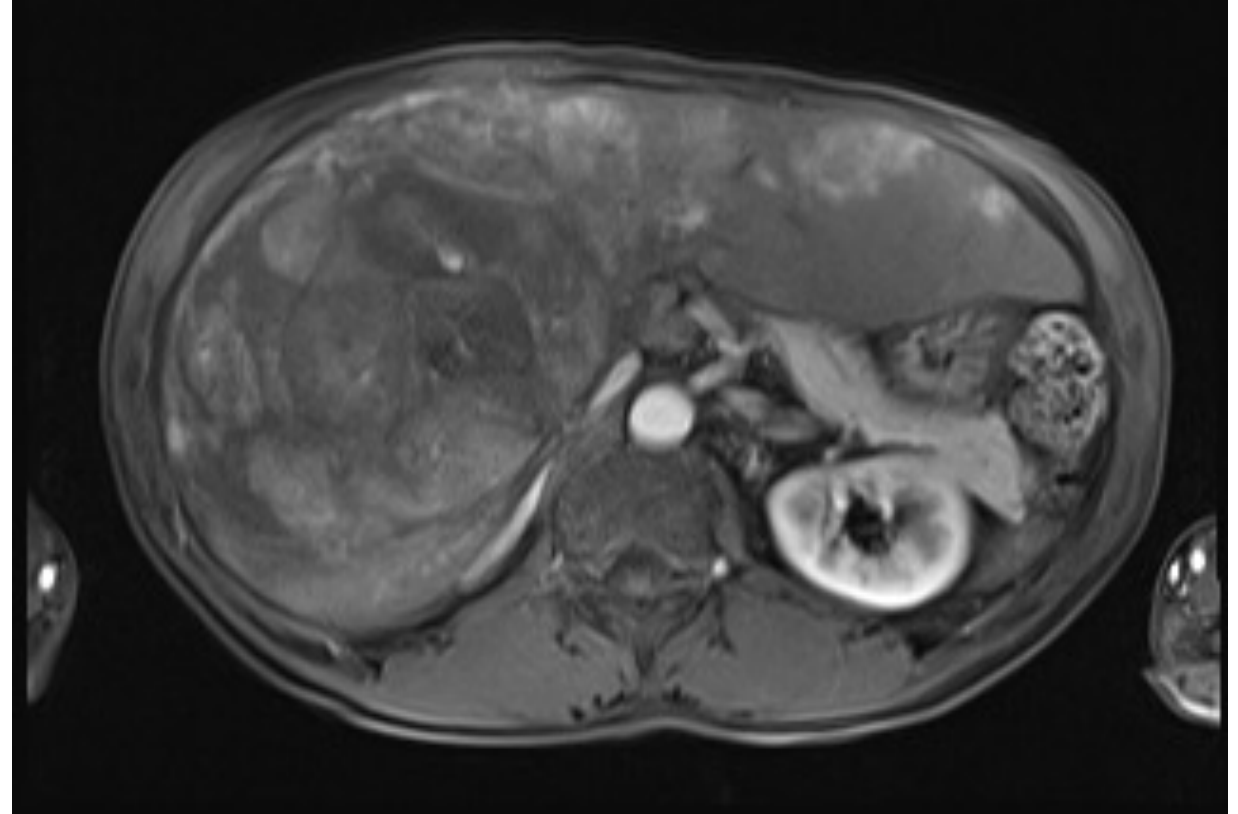


LSF 14.7 %

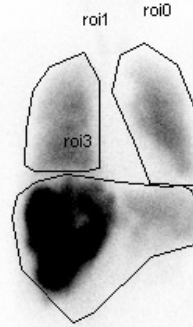
Case 4

78 yo male with Hep B

- ECOG 0
- Labs
 - T Bili 0.6
 - Albumin 3.9
 - INR 0.7
 - AFP 3,000
- Right portal vein not visualized
- No extrahepatic disease
- Plan is to Y90 right lobe and start a checkpoint inhibitor (Nivolumab)

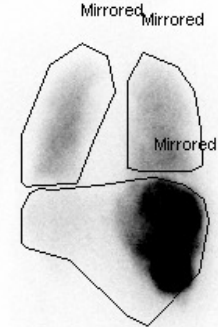


Mapping Study



ANT
RT LUNG=174914
LT LUNG=146187
LIVER=1027000

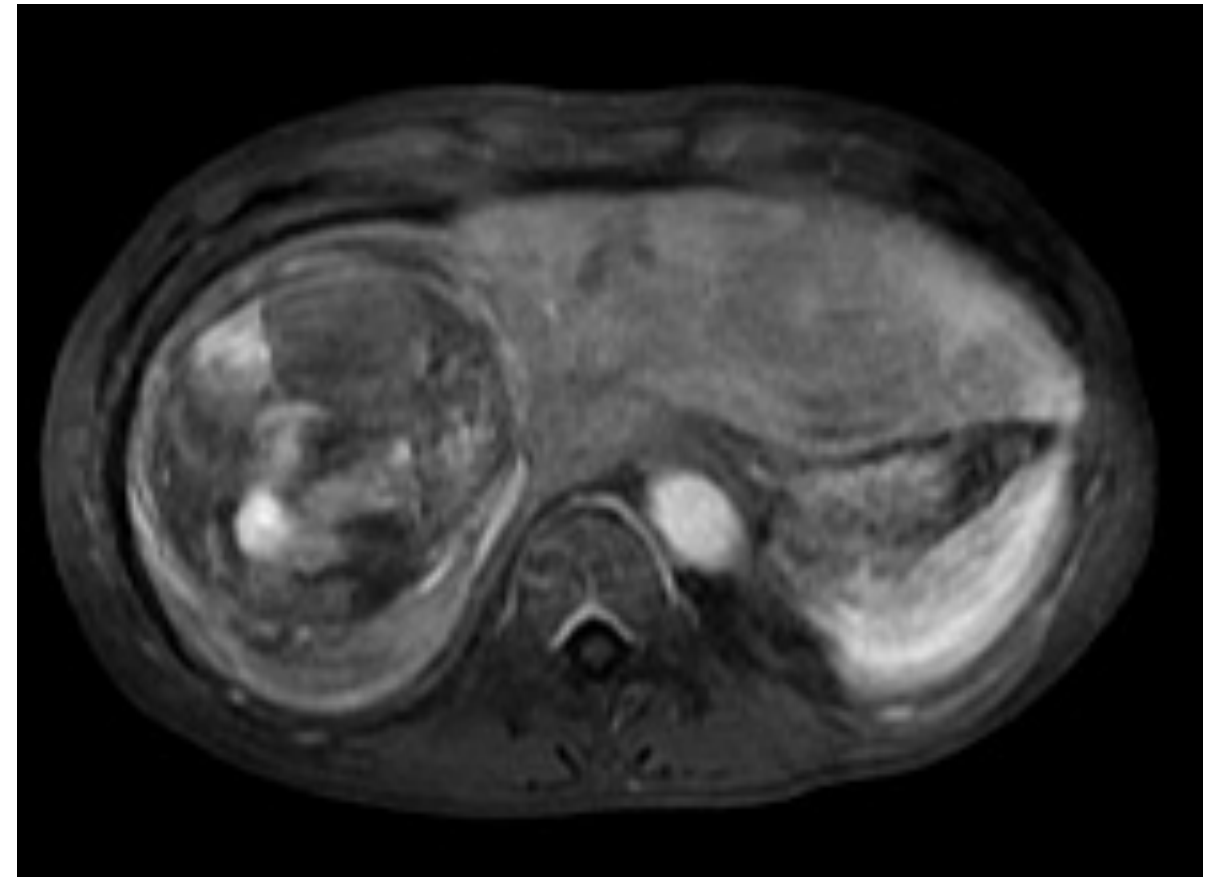
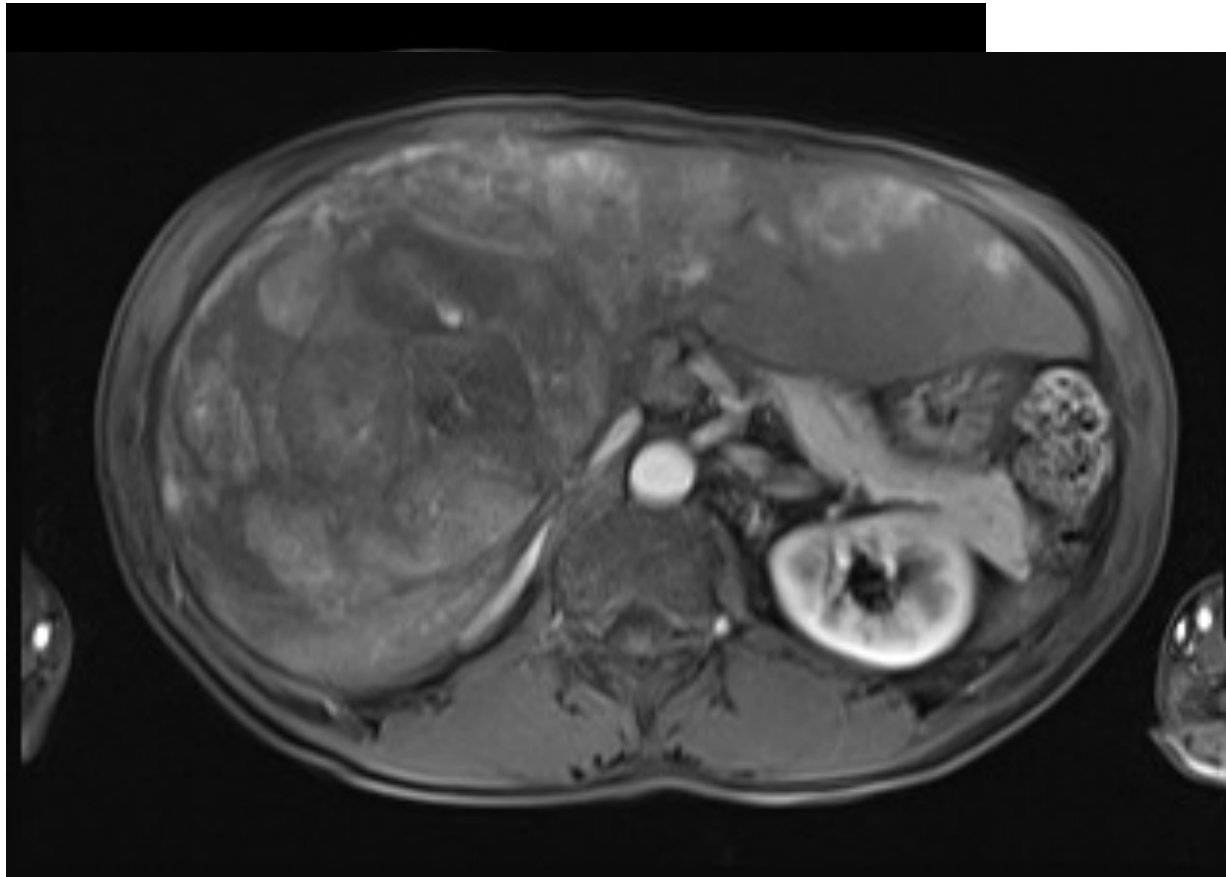
PERCENT
LUNGS=23.9
LIVER=76.1



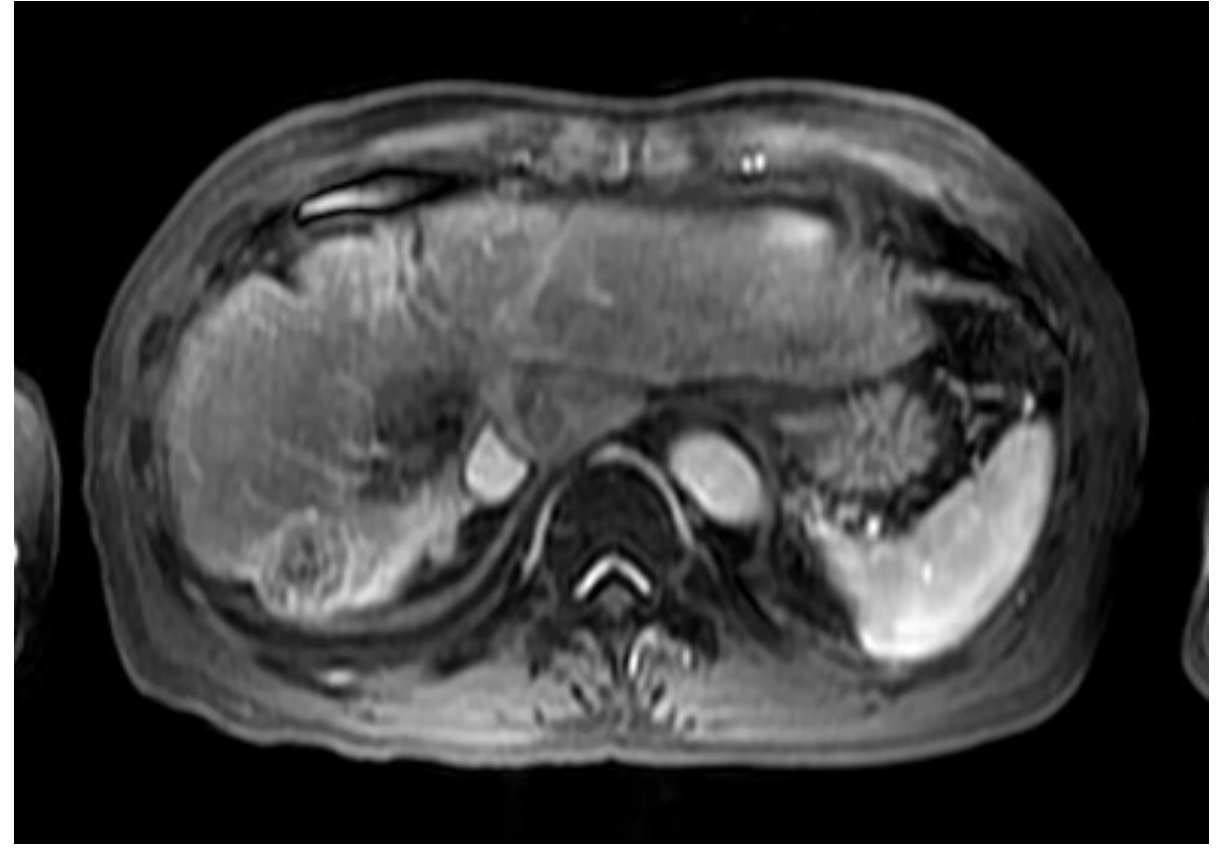
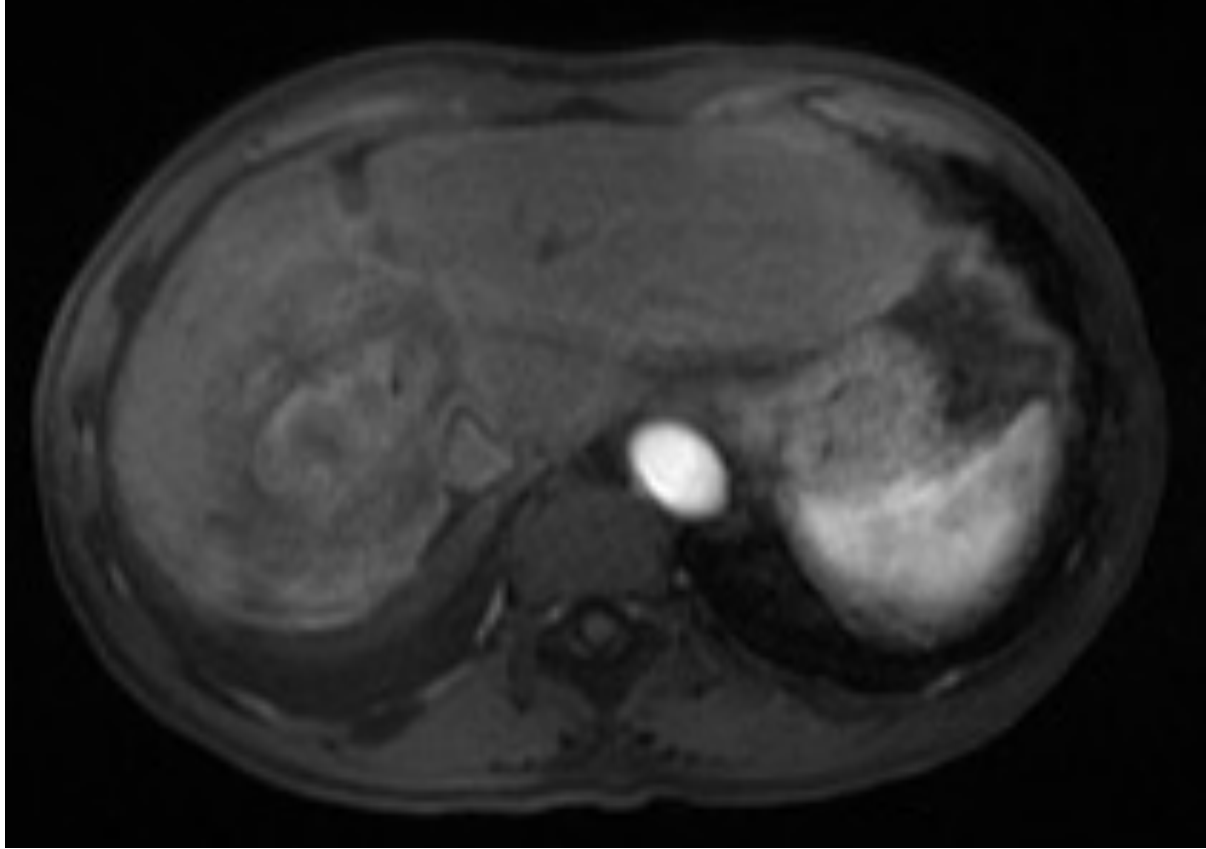
POST
RT LUNG=146730
LT LUNG=116638
LIVER=836673

Post Y90 and 3 month follow up

AFP normalized and LFTs are wnl. ECOG 0



1 year and 3 year follow up



Case 5

IVC invasion with probable high lung shunt



69 yo female without underlying liver disease

- T Bili 0.5
- Albumin 4.2
- AFP 1200
- IVC Invasion

Lung Shunt: 35%

Mapping

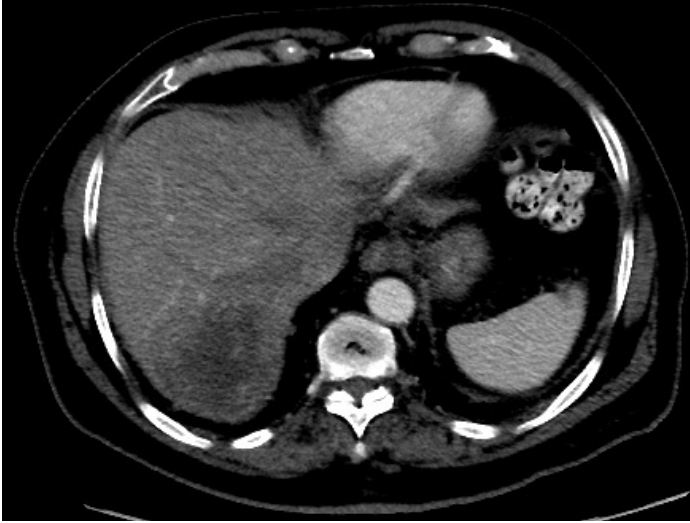


Lung Shunt: 35%

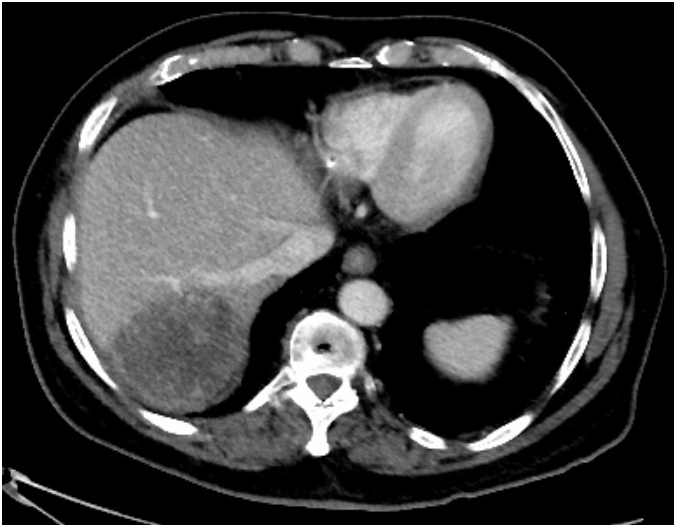
POST SBRT



Case 6



15 month post FOLFOX + bev



18 month post FOLFOX + bev

- Patient developed progression of disease with enlarging liver lesion from 7 cm to 8 cm
- Placed back on FOLFOX and Bevacizumab
 - Developed severe mucositis side effect and chemo discontinued and referred for Y90 radioembolization
- ECOG 1
- CEA 4.5
- T Bili 1.0