Hepatic lymphoma – Importance of the wide differential diagnosis

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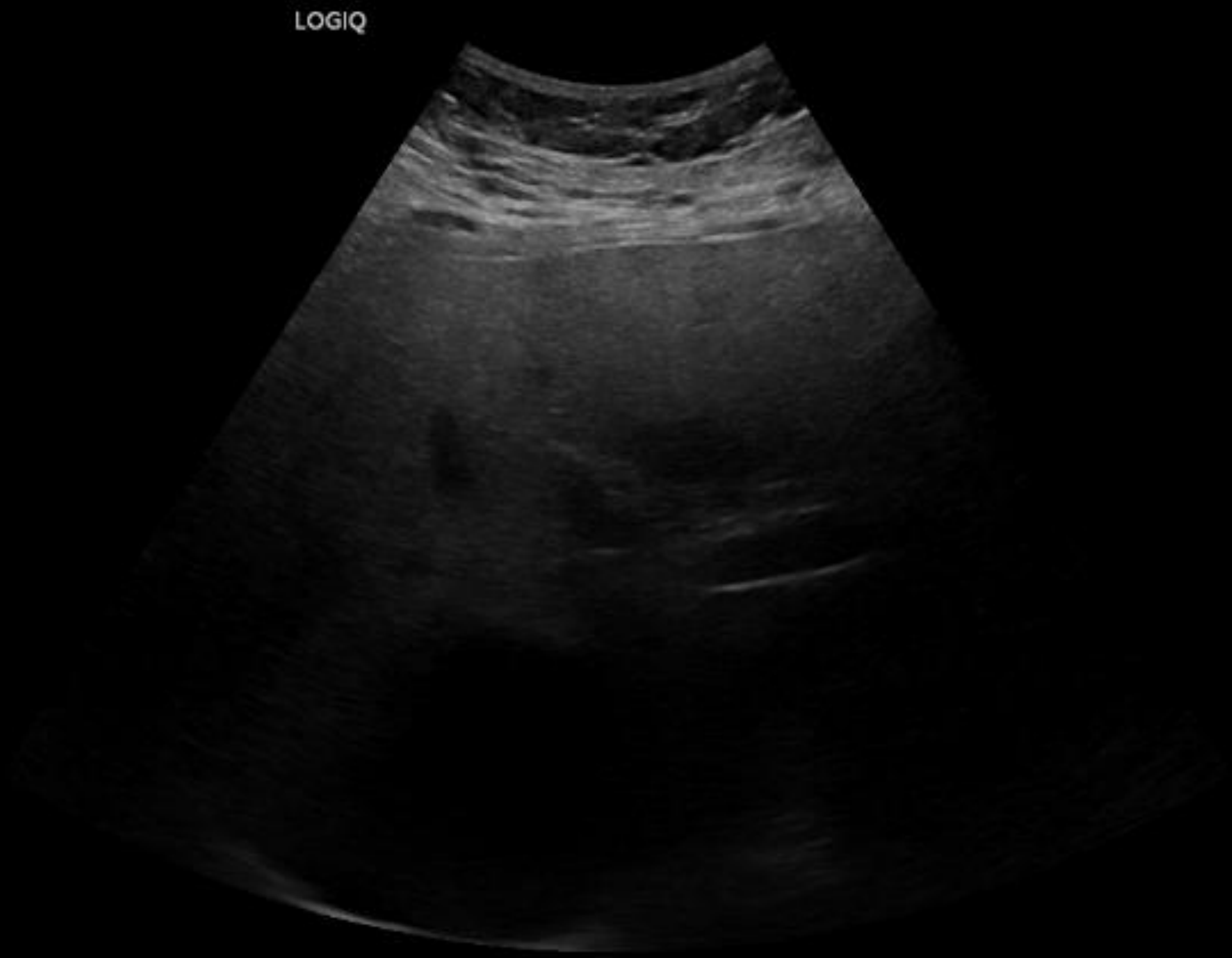
Background

- Primary hepatic lymphoma is rare, 0.016% of all non-Hodgkin's lymphoma cases (Padhan et al, 2015).
- Diffuse large B-cell lymphoma is the most common histological subtype.
- Histology is essential to guide treatment.
- Imaging can guide management and stratify patients on the right pathway.

Our case study

- 57 year old female
- Past medical history of primary biliary cirrhosis
- Round hypoechoic lesion picked up on surveillance ultrasound.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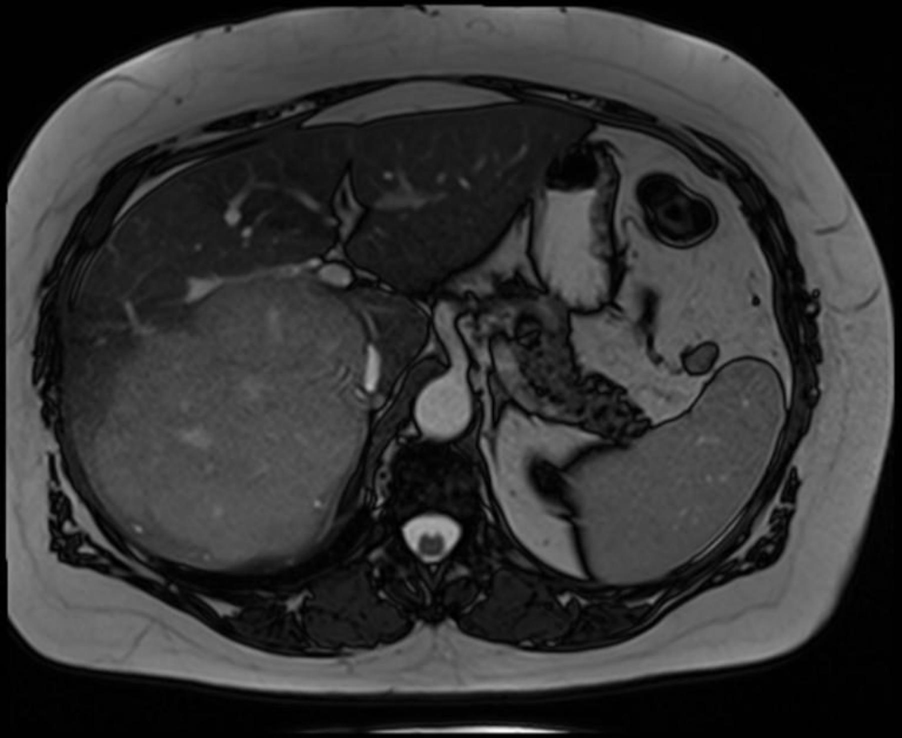
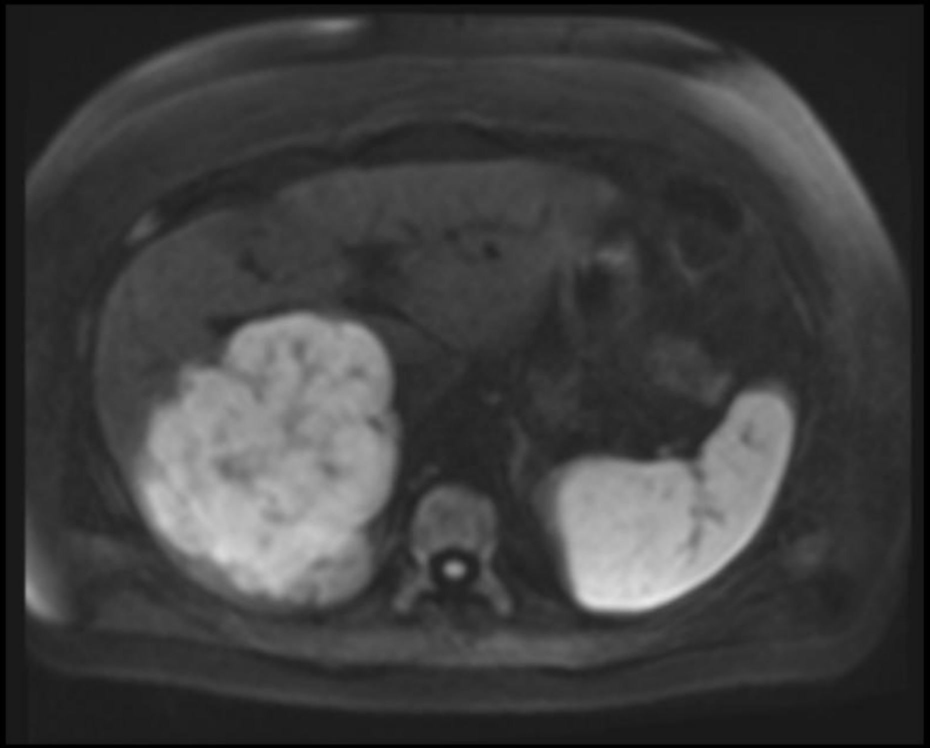
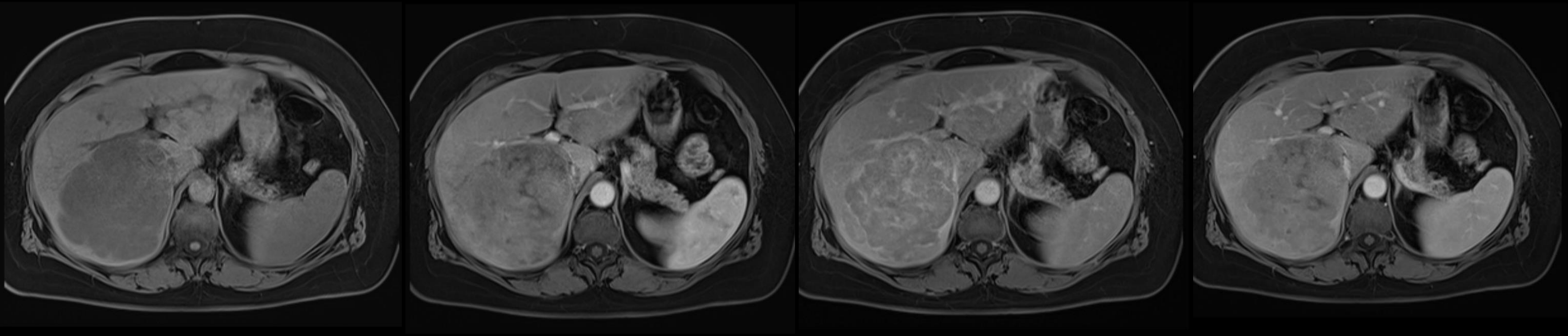
- Liver function tests at the time demonstrated a raised ALP, rest of the markers were normal.
- Subsequent MRI liver demonstrated a large mass in the right lobe of the liver posteriorly, with prominent periportal and aortocaval nodes, on a background of hepatic steatosis.



Axial T2 image: lobulated well-defined lesion in the right lobe of the liver demonstrating high signal.



Axial diffusion weighted image: Right liver lobe lesion demonstrating restricted diffusion.



Axial T1 fat sat images pre, arterial, portal venous and 10 minute delayed: Right liver lobe lesion demonstrates enhancement on arterial and portal venous phases, and washout on the delayed phase.

Appearances on MRI

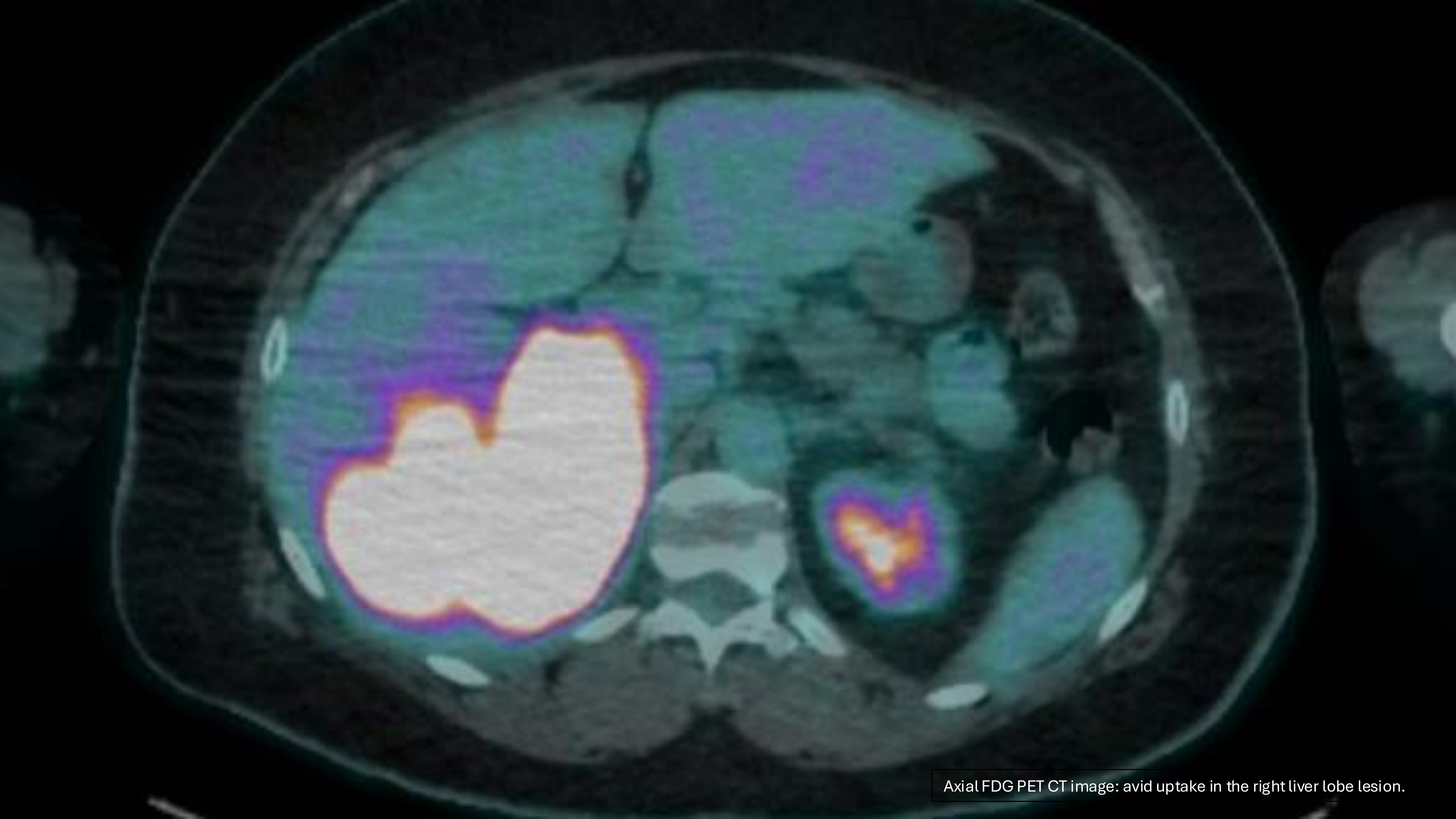
- Well-defined border of the mass.
- No capsular retraction.
- Background liver not cirrhotic on imaging.
- Diffuse enhancement on arterial and portal venous phases.
- Washout on delayed phases.
- Encasement of right portal vein.
- No vascular thrombosis.
- No intrahepatic bile duct dilatation.

Past Medical History

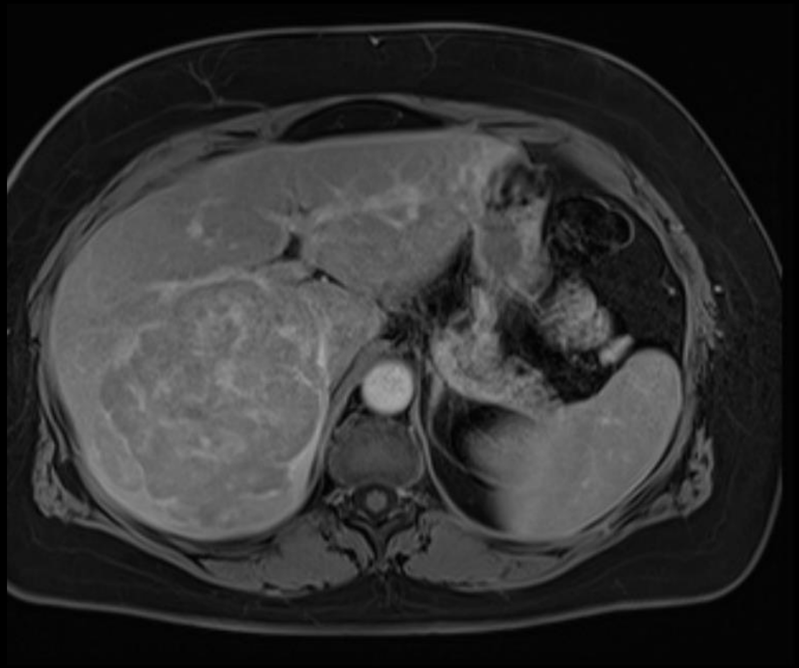
- Primary biliary cirrhosis.
- FibroScan demonstrated liver stiffness of 11kPa, consistent with severe fibrosis.

Histopathology

- High-grade diffuse large B cell lymphoma.



Axial FDG PET CT image: avid uptake in the right liver lobe lesion.



Encasement with no invasion of the right portal vein.

No intrahepatic bile duct dilatation, despite the large size of the mass.

Discussion

- Primary biliary cirrhosis is associated with incidence of hepatocellular carcinoma.
- Some literature suggest increased risk of lymphoma, given the autoimmune nature of the disease.
- Certain imaging features can indicate towards a diagnosis of lymphoma, such as the lack of biliary or vascular invasion.
- The malleable nature of lymphoma, despite large size of the lesion, is commonly mentioned in the literature.

References

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