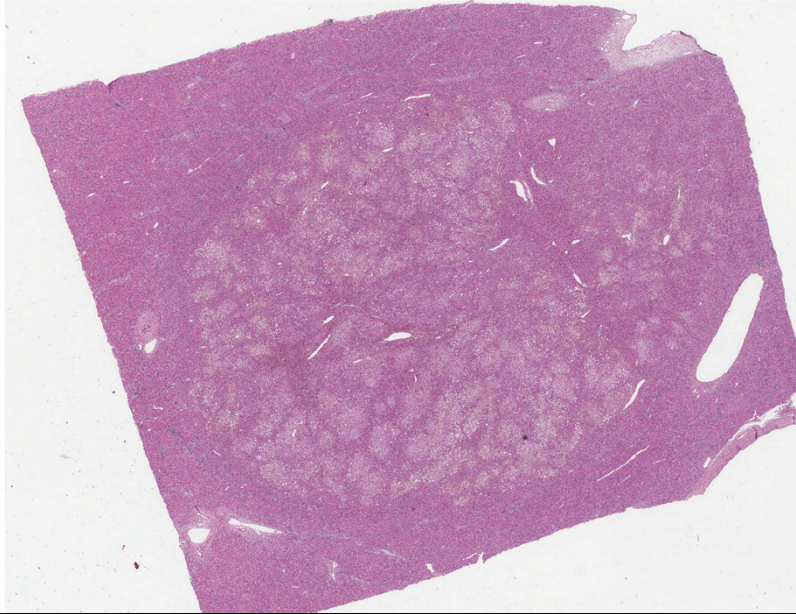


Case LS12 37 M

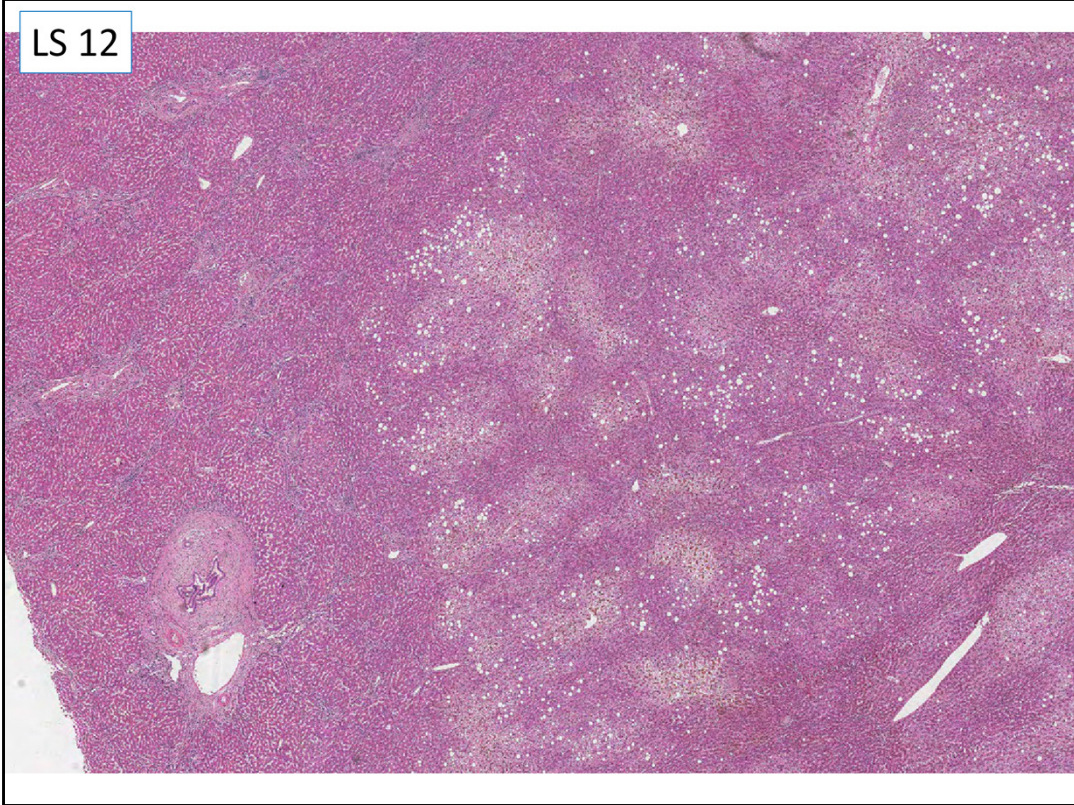
OLT for PSC

Explant liver - non nodular liver with a focal lesion in segment 7/8 which is pale in colour and measures 18 x 12 x 15 mm.

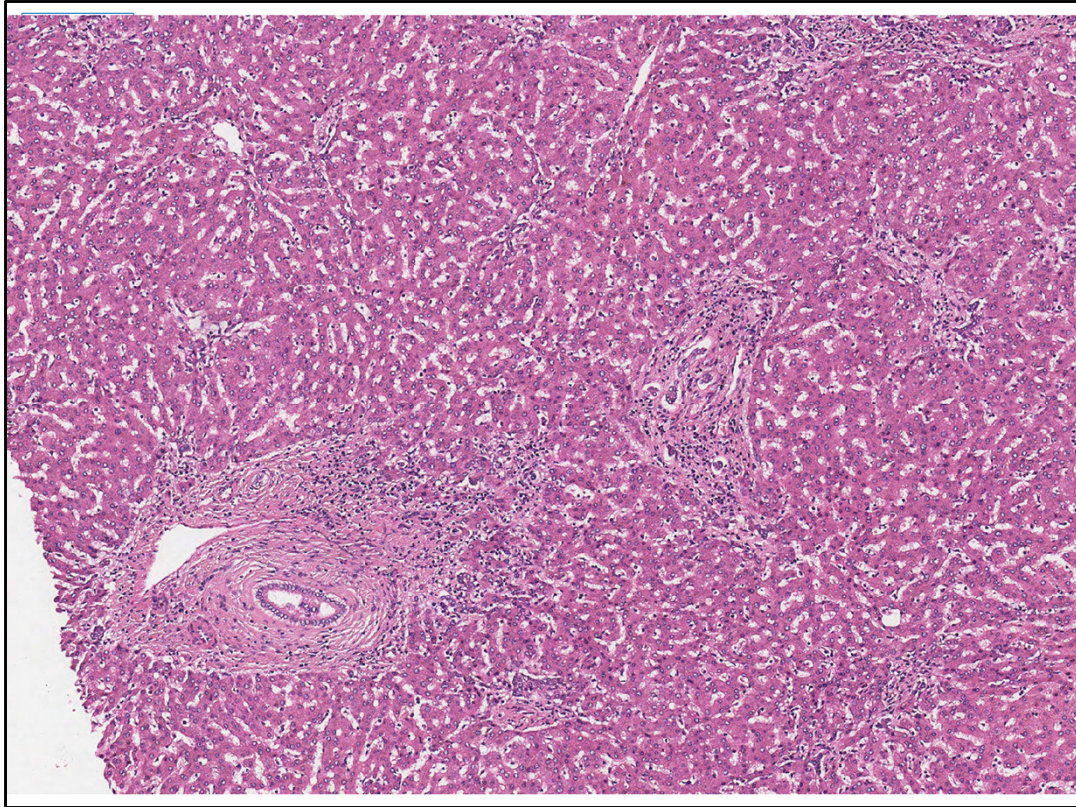


Low magnification – a non-encapsulated round pale lesion without background cirrhosis.

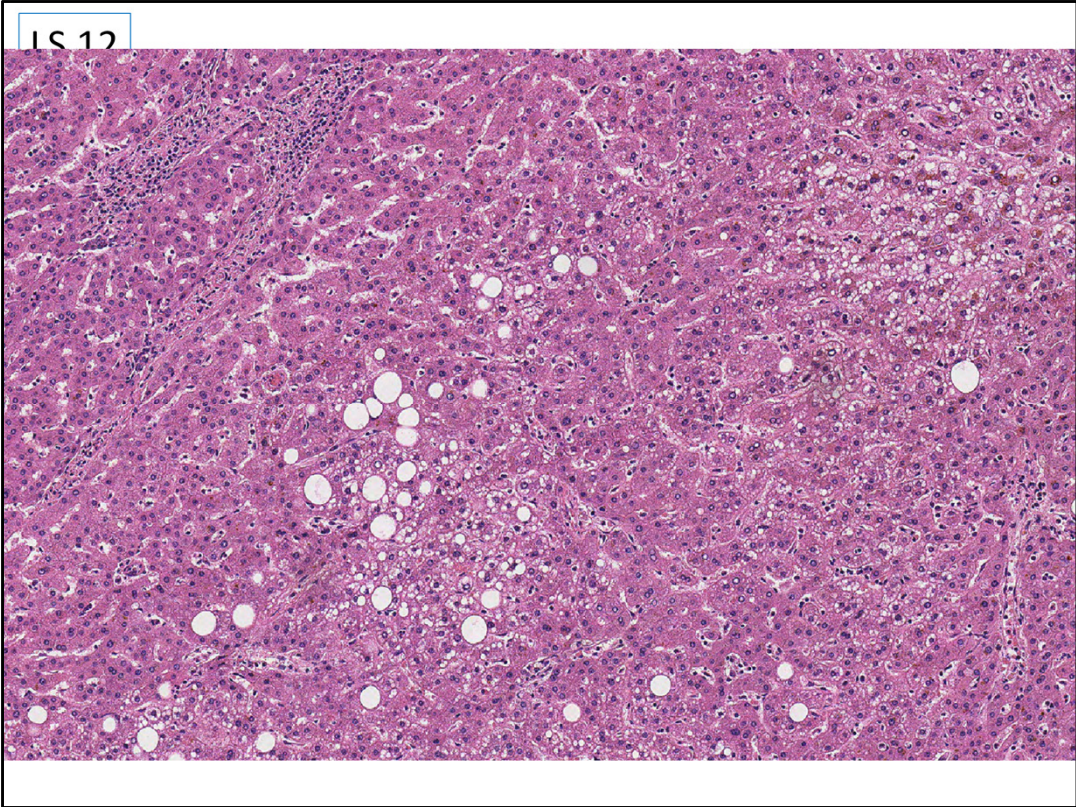
LS 12



There is a distinct edge to the lesion, but no surrounding fibrosis. The portal tract shows periductal fibrosis but no septal fibrosis.

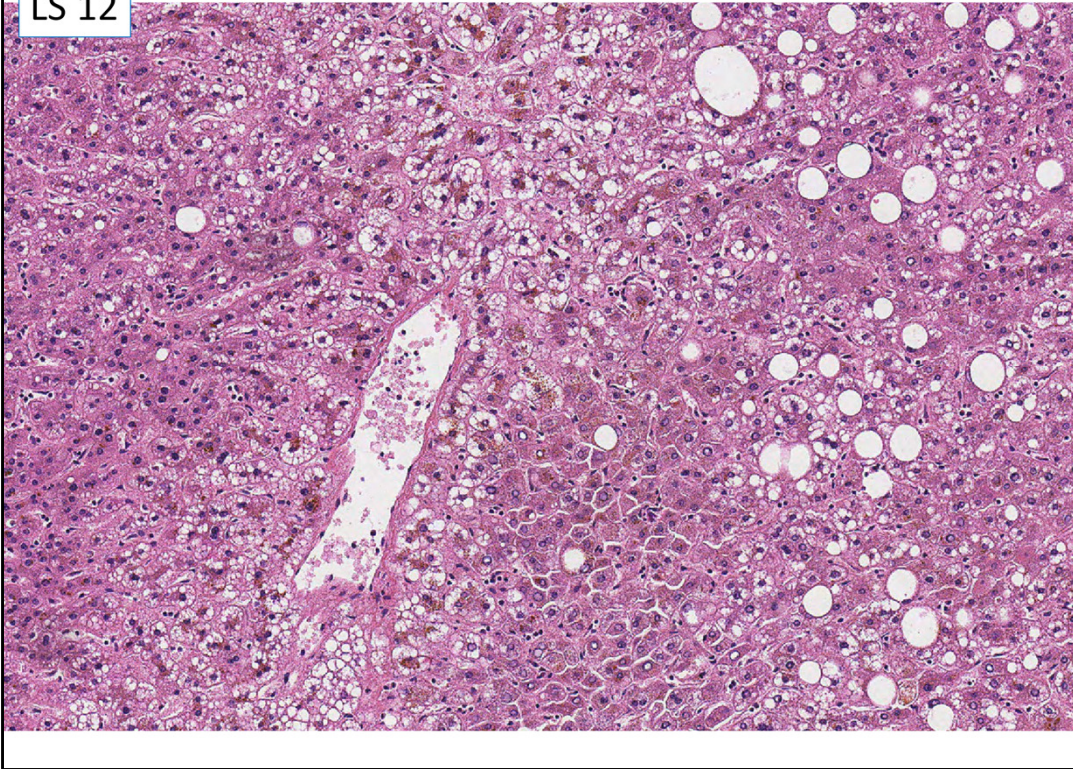


Another portal tract with onion skin periductal fibrosis. There is little ductular reaction and no bridging fibrosis – features in keeping with PSC, but not at an advanced stage.

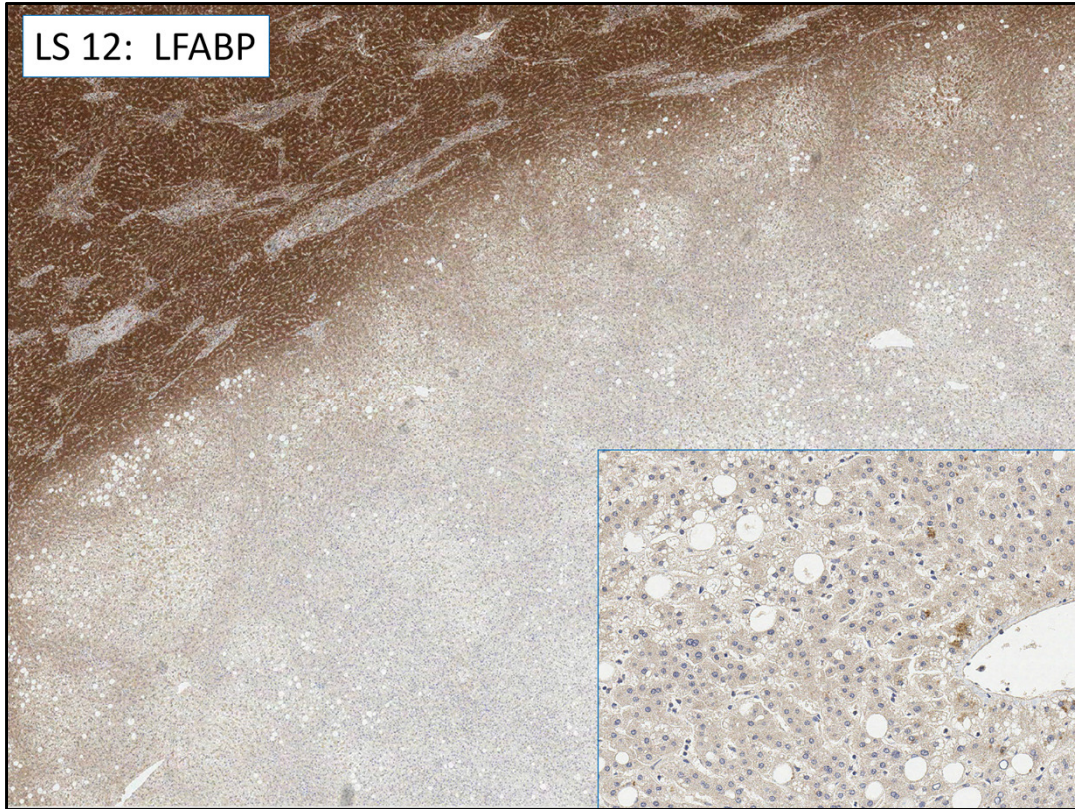


The edge fo the lesion – there is some large droplet steatosis, and also areas with paler hepatocytes due to many small fat droplets in the cytoplasm.

LS 12



In the lesion, there are unaccompanied arteries but no bile ducts or portal tracts.



Immunohistochemistry for Liver fatty acid binding protein (LFABP) – which is normally present in hepatocyte cytoplasm, but is absent in the steatotic type of hepatocellular adenoma.

Case LS12 37 M

OLT for PSC

Explant liver - non nodular liver with a focal lesion in segment 7/8 which is pale in colour and measures 18 x 12 x 15 mm.

A	Hepatocellular adenoma NOS
B	Hepatocellular adenoma, HNF1a inactivated type
C	Focal fatty change
D	Well differentiated hepatocellular carcinoma
E	Macroregenerative nodule.

Case LS12 37 M

OLT for PSC

Explant liver - non nodular liver with a focal lesion in segment 7/8 which is pale in colour and measures 18 x 12 x 15 mm.

A	Hepatocellular adenoma NOS
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Correct response: B: Hepatocellular adenoma, HNF1a inactivated type.

The hepatocyte nuclear factor 1a inactivated type of hepatocellular adenoma shows loss of positivity for liver fatty acid binding protein on immunohistochemistry, and is typically steatotic, often much more so than in this example. It is a type of adenoma often recognisable by morphology, and with the least risk on malignant change or haemorrhage. It can be multiple. It is a surprising lesion to find in the context of a male patient transplanted for PSC.

Comment on other answers:

A: Hepatocellular adenoma NOS - is the appropriate diagnosis when sub-typing of adenoma cannot be achieved by morphology or immunohistochemistry.

C: Focal fatty change – may cause focal lesions on imaging. On histology there is a localised area of steatosis, within otherwise normal liver with retained portal tracts.

D: Well differentiated hepatocellular carcinoma – suspect if there is atypia within the adenoma, and investigate further with reticulin (focal absence, although may appear lost in fatty lesions), CD34 diffuse sinusoidal positivity, diffuse staining for glutamine synthetase (also in beta catenin activated adenoma), glypican 3. The type of adenoma more often causing this difficult differential is the beta catenin activated type, and it may be difficult/impossible to make the distinction.

E: macro-regenerative nodule – this is a differential diagnosis of a focal expansile hepatocyte nodule in cirrhotic liver, so not a consideration in this case.