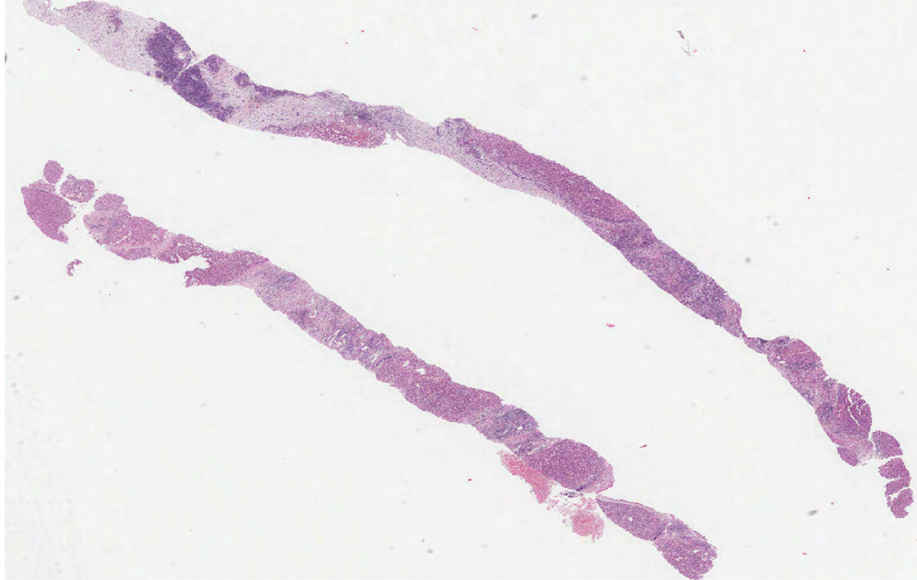


**Case LS5 63M**

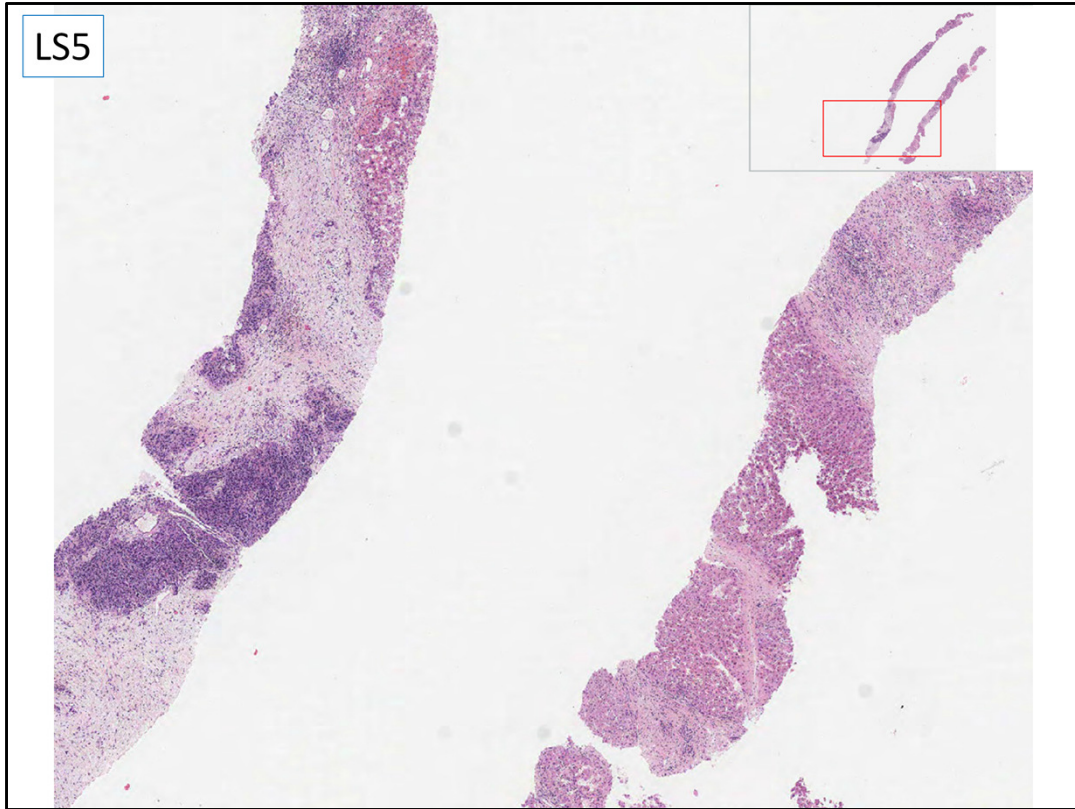
MRI shows focal lesion.in segment 4 which has grown.

? HCC or cholangiocarcinoma. AFP not raised

Targeted liver biopsy. Also HepPar1, AE1/AE3, CK19, CD34

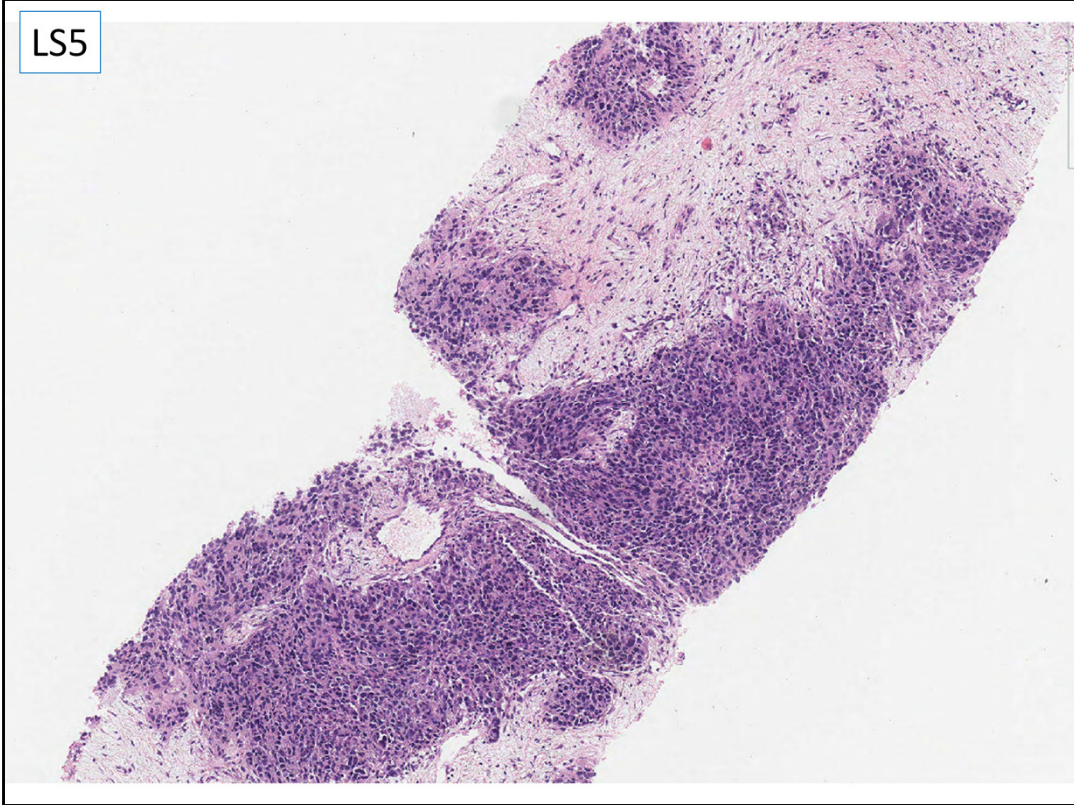


The biopsies show an area of tumour at one end of one core. Elsewhere there is background cirrhosis.



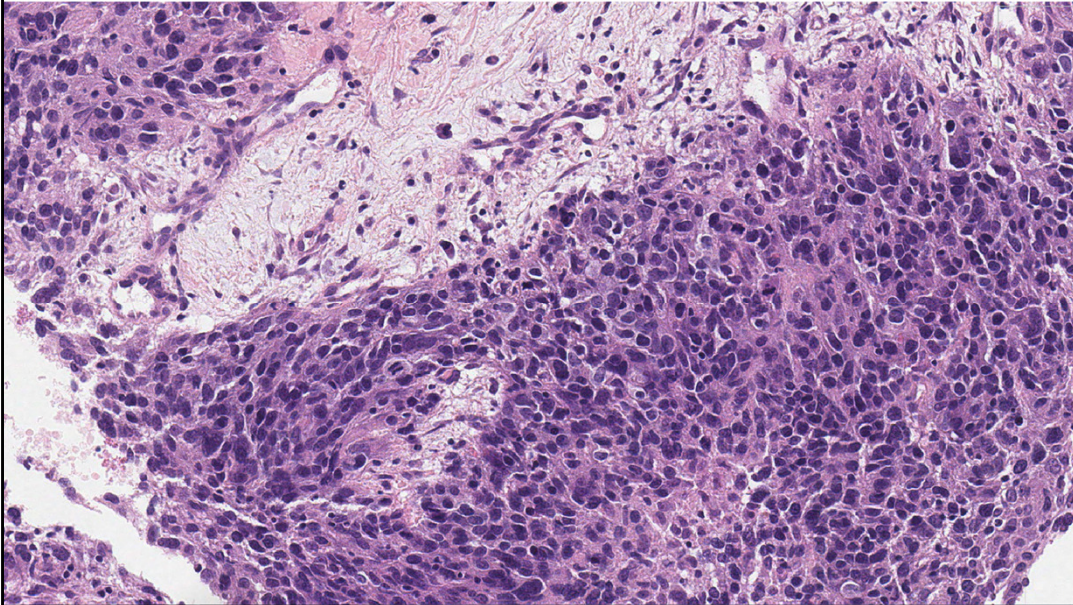
Poorly differentiated malignancy, cirrhosis elsewhere.

LS5



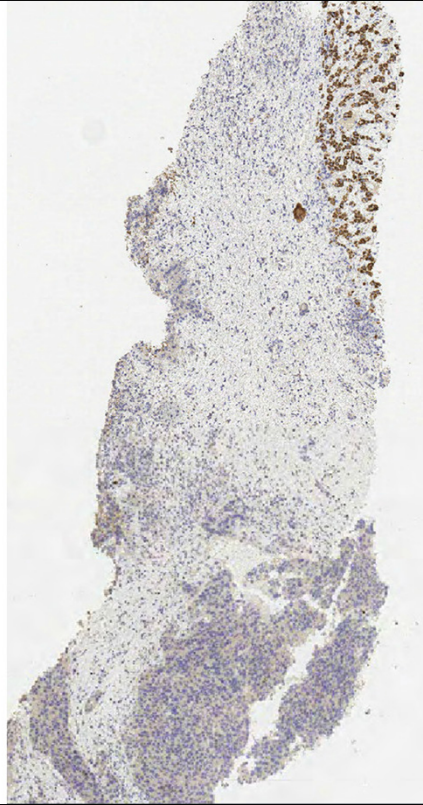
Sheets of malignant cells with stroma – features suggestive of carcinoma rather than lymphoma, sarcoma, melanoma. In view of background cirrhosis, this is more likely to be primary liver cancer - hepatocellular or cholangiocarcinoma, than metastatic malignancy.

LS5



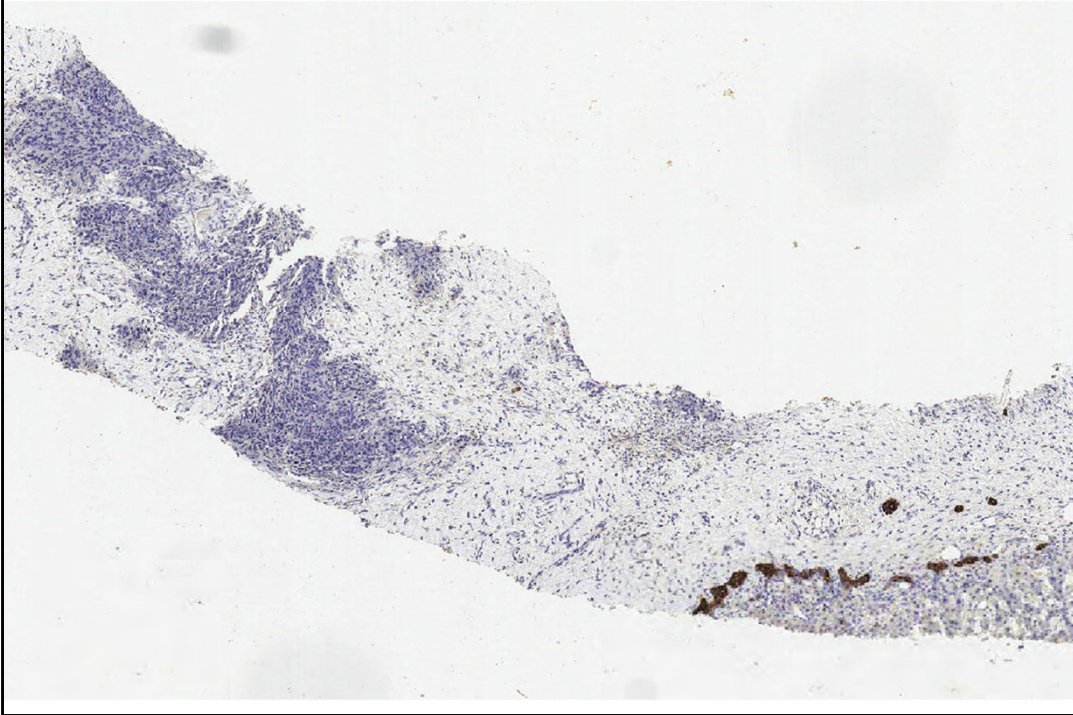
Morphology favours poorly differentiated carcinoma, with sheet-like growth pattern without any adenocarcinomatous differentiation. The cells are not particularly hepatoid.

LS5 hepar1



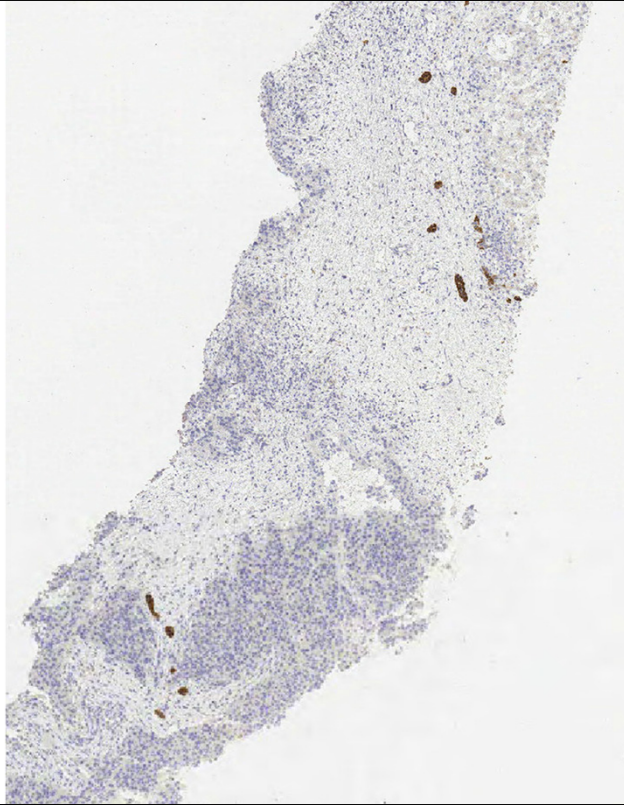
Negative for HepPar1 – internal control of positivity in hepatocytes.

LS5 AE1 AE3

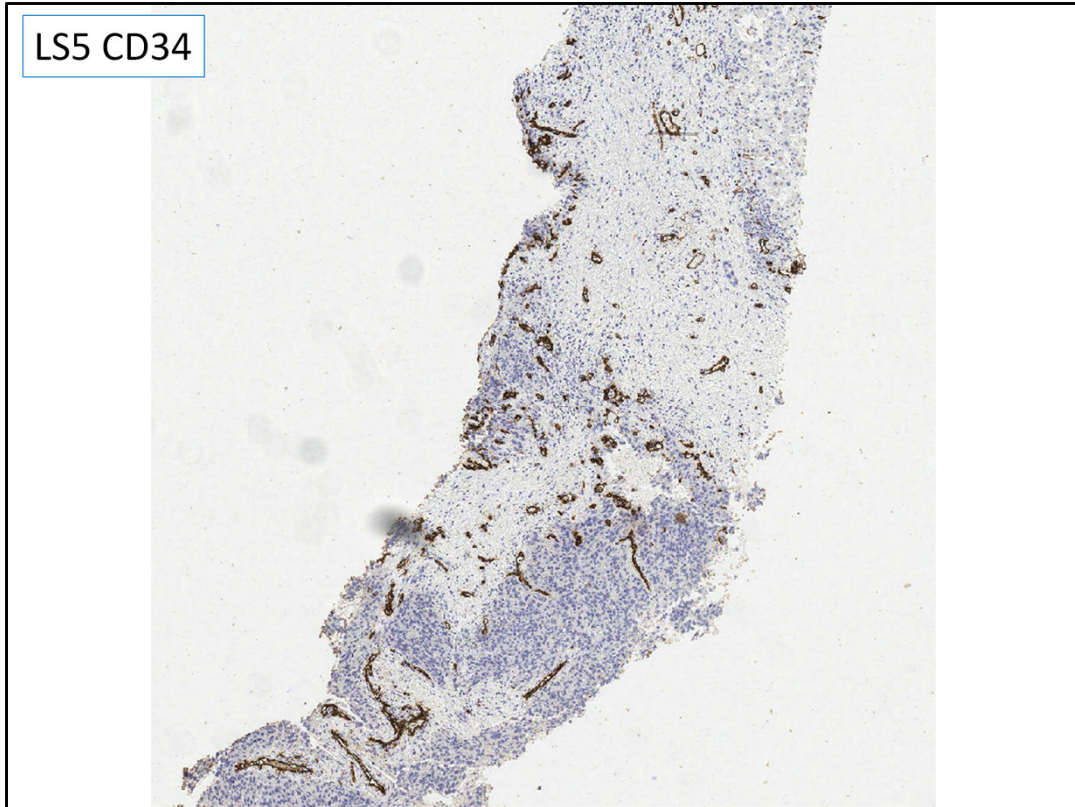


Negative for AE1/3 – so no proof that this is carcinoma. Internal positive control in bile ducts.

LS5 CK19



Negative for CK19 – unlikely to be cholangiocarcinoma.



The tumour does not have a diffuse sinusoidal network positive for CD34.

### Case LS5 63M

MRI shows focal lesion.in segment 4 which has grown.

? HCC or cholangiocarcinoma. AFP not raised

Targeted liver biopsy. Also HepPar1, AE1/AE3, CK19, CD34

A	Hepatocellular carcinoma and cirrhosis
B	Malignant tumour (needs more work) and cirrhosis
C	Cholangiocarcinoma and cirrhosis
D	Hepatocellular carcinoma no background liver disease
E	Favour metastasis to a cirrhotic liver ( e.g. melanoma, sarcoma)

### Case LS5 63M

MRI shows focal lesion.in segment 4 which has grown.  
? HCC or cholangiocarcinoma. AFP not raised

Targeted liver biopsy. Also HepPar1, AE1/AE3, CK19, CD34

A	Hepatocellular carcinoma and cirrhosis
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#### Correct answer: B

The nature of the malignancy is unascertained from the available immunohistochemistry. In the context of background cirrhosis, the probability is that this is primary liver malignancy. There is not gland/duct formation, and little desmoplasia so the histology would be more like poorly differentiated hepatocellular carcinoma than cholangiocarcinoma.

Follow up clinical information at meeting: also negative for CK5/6, CK14, p53, AFP, glypican, CK7, TTF1, S100, synaptophysin, CD31 no canalicular positivity for CD10 or pCEA. Conclusion: not possible to establish a primary site. Clinically no extra-hepatic malignancy, most likely HCC. Had TACE but progressed, developed further liver lesions and one bone lesion. Hospice care 6 months later.

#### Comments on other options

A although HCC is the most likely diagnosis, it was not established by the initial four immunos provided.

C The absence of glandular differentiation and negative K19 means there is no specific support for cholangiocarcinoma.

D The background cirrhosis is clearly evident in the plentiful background liver tissue in the biopsy.

E It is unusual to see metastatic malignancy in a cirrhotic liver. This may be partly due

to haemodynamic alterations in cirrhosis, together with the increased risk of primary liver malignancy in patients with cirrhosis. It is possible in this case, especially since the epithelial nature of the malignancy is not established by the immunos. A history of previous malignancy, with comparison of the histology, would be necessary to be sure of this diagnosis.