United Kingdom Liver Pathology Group

Liver histopathology EQA Scheme

Circulation LT

Spring 2019

Liver EQA circulation LT Spring 2019

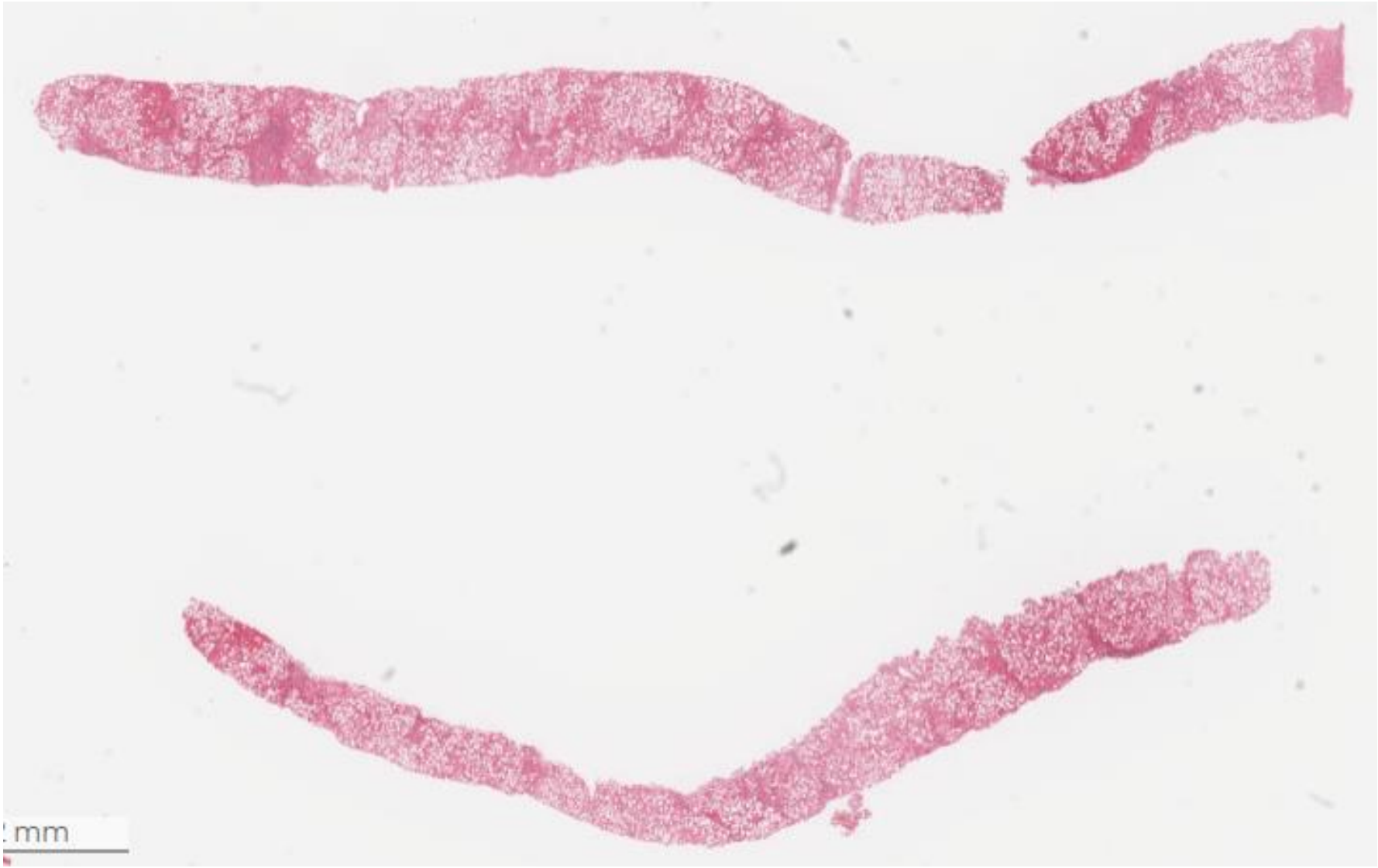
- Collation of 93 responses received and suggestions for scoring from the sub-committee – number required to reach >80% consensus diagnosis is 74.

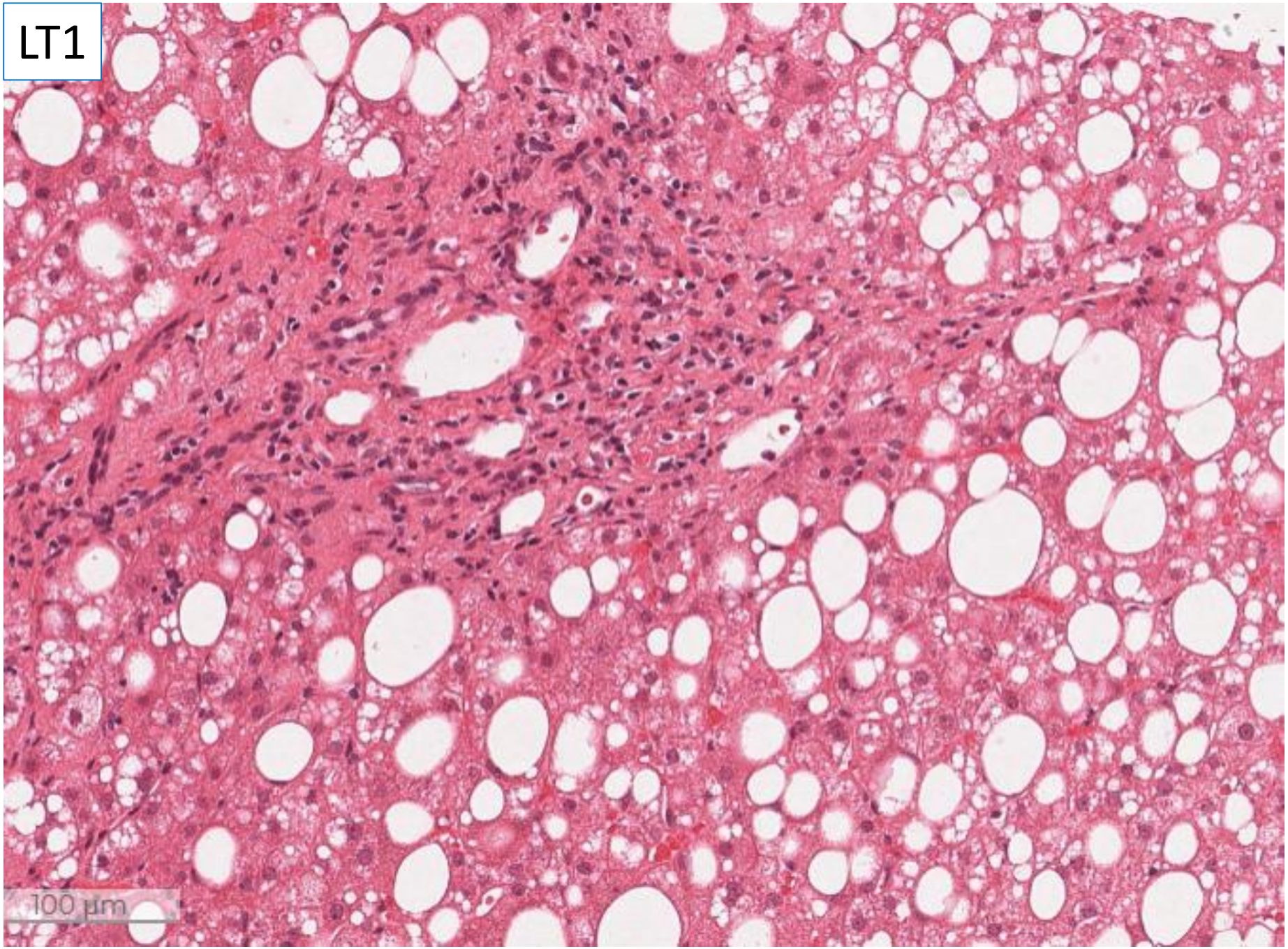
- Red bars - responses proposed to lose marks

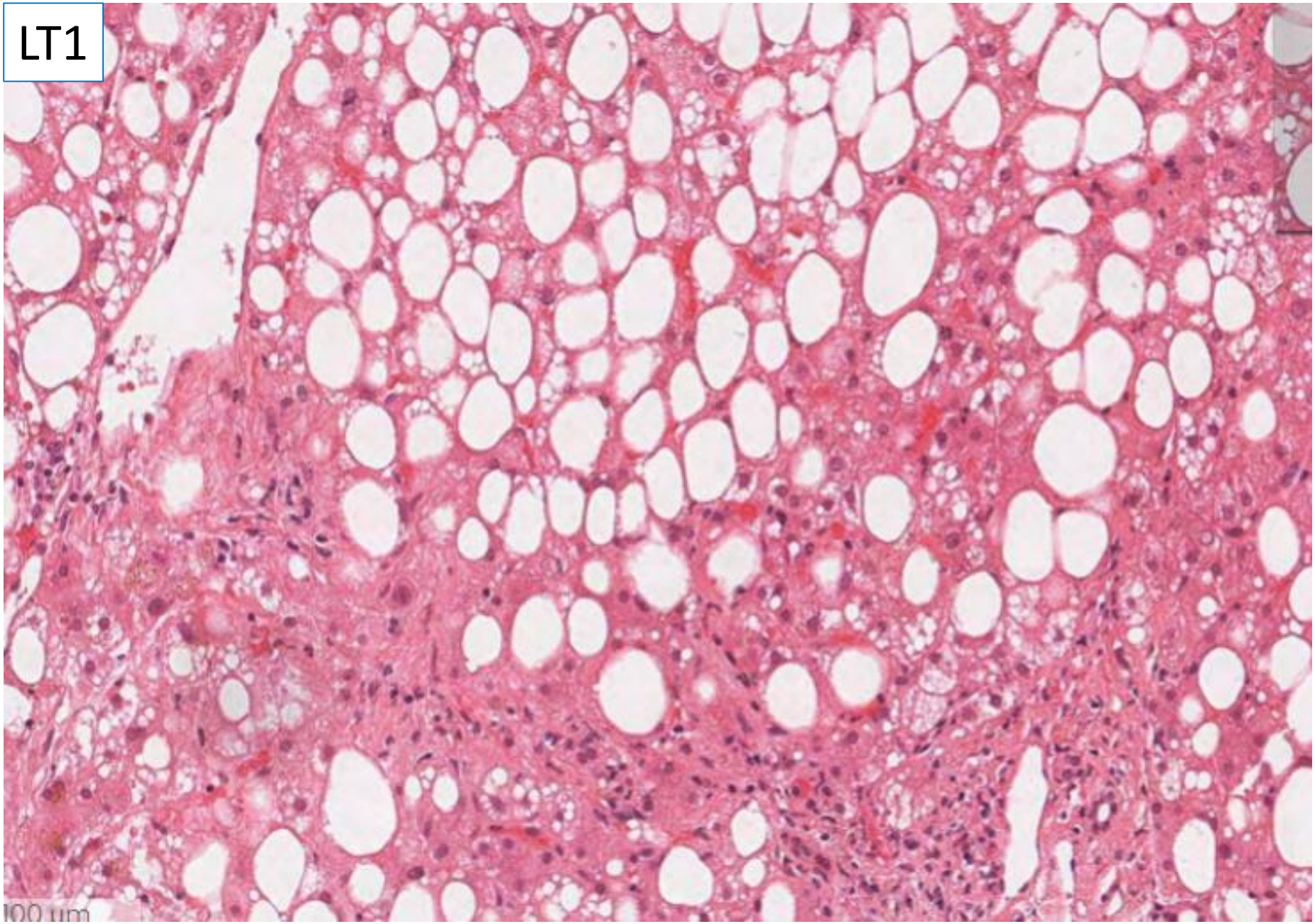
- Green bars - responses uncertain about marking - to ask the audience at the meeting on 7th.

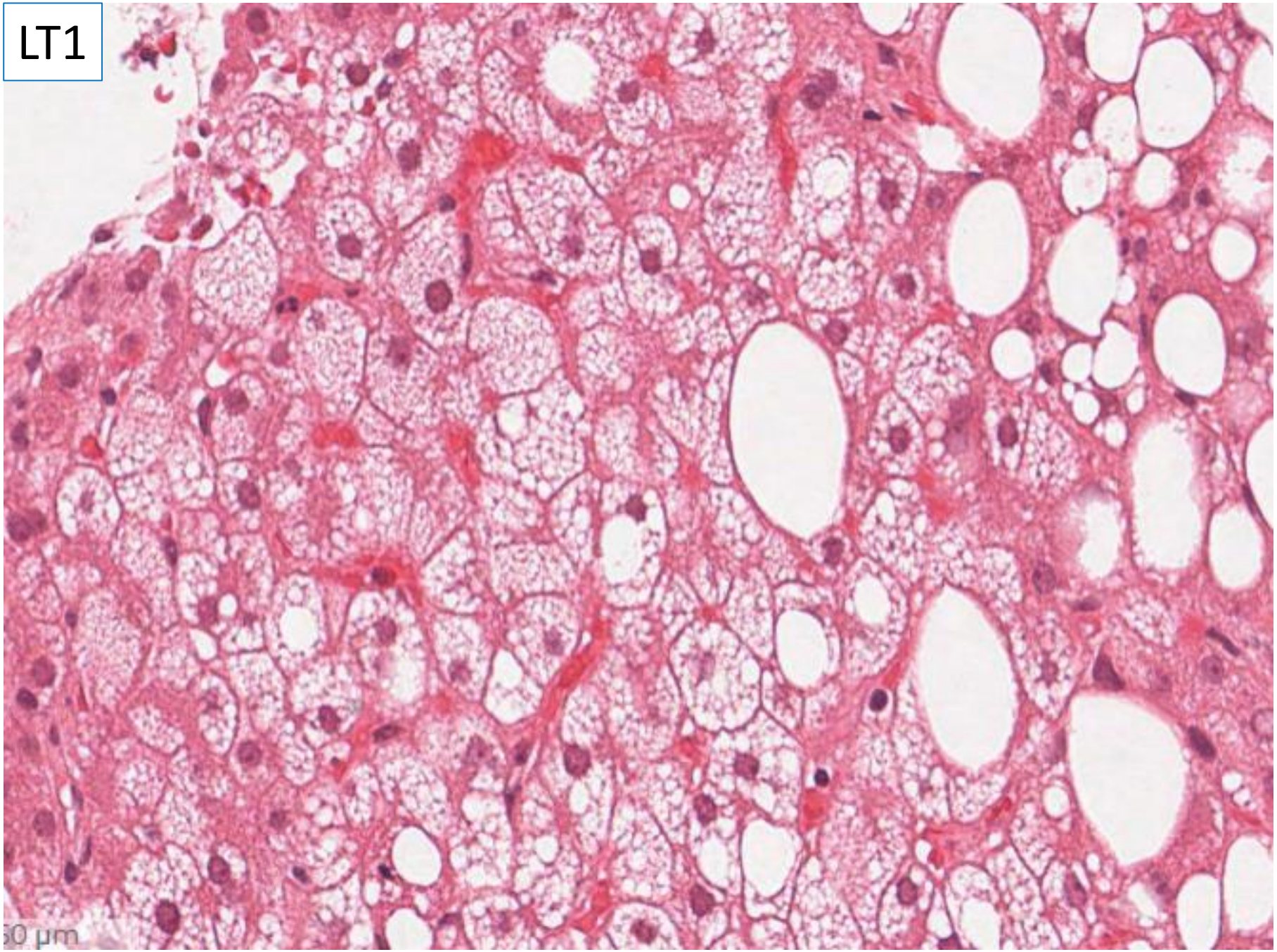
Case LT1 65F

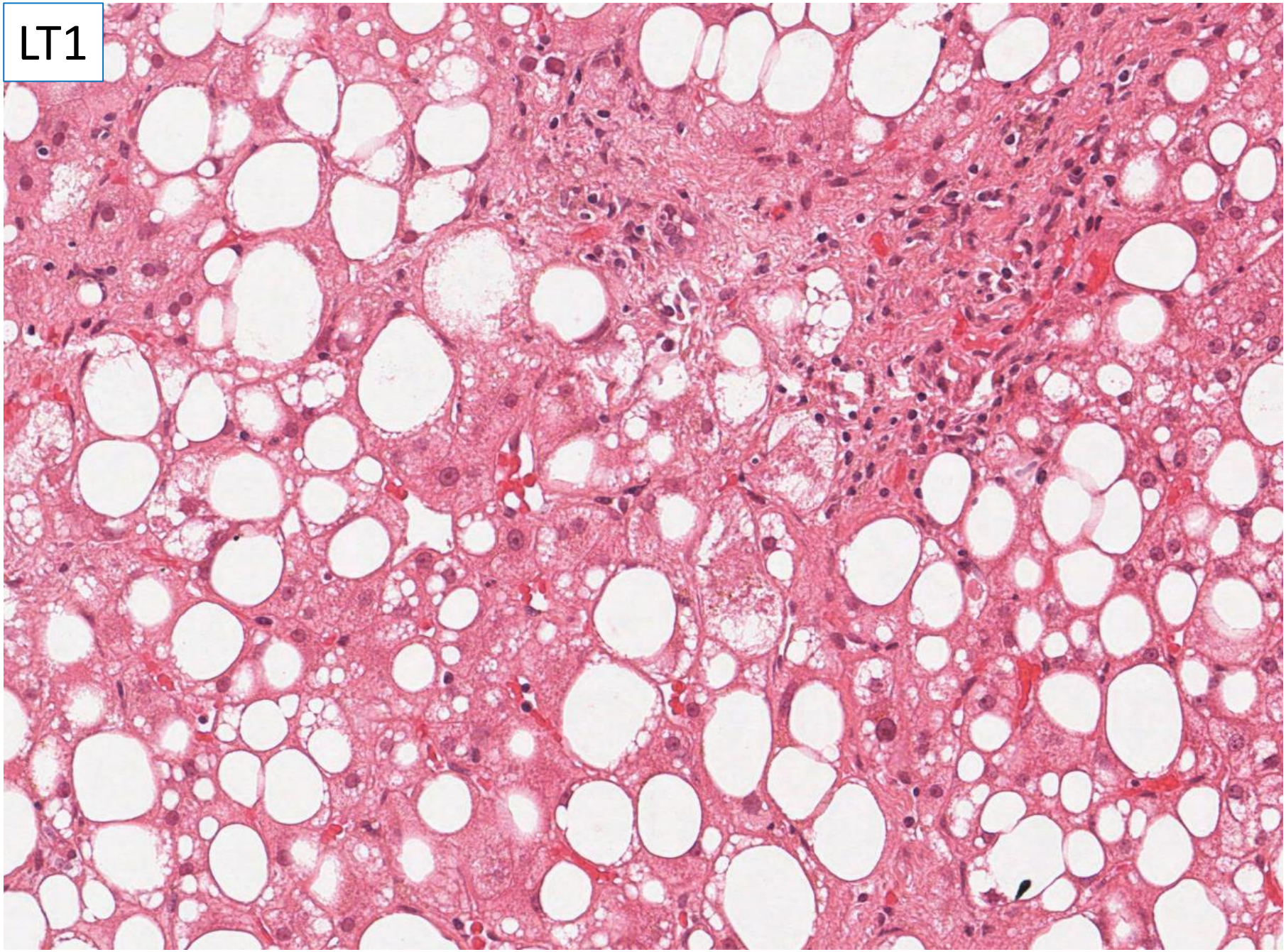
NAFLD. Normal immunoglobulins and weakly positive SMA. Recent rise in LFT's. Alcohol 15 units per week. Also reticulin and Sirius Red.

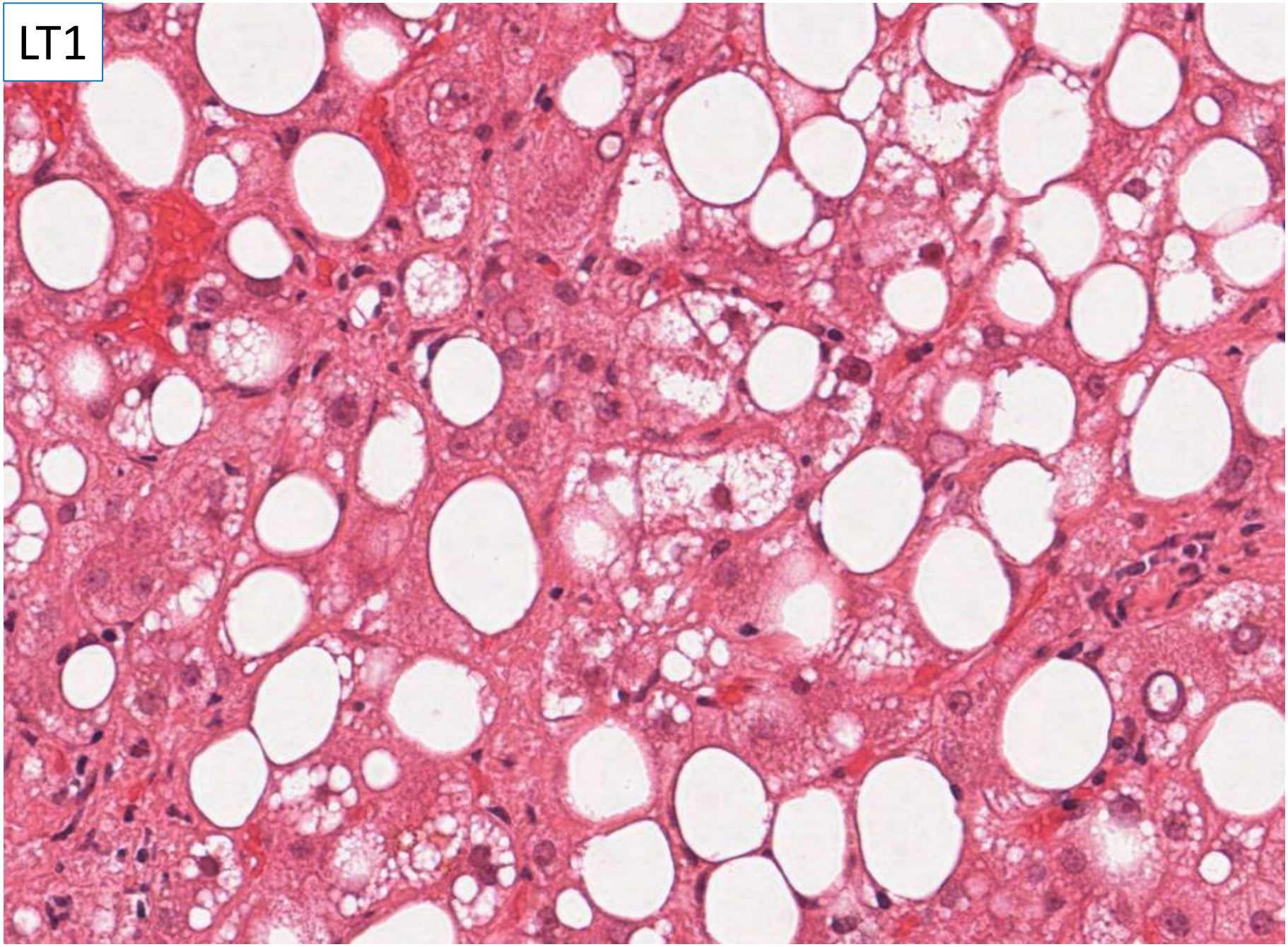



LT1
100 µm

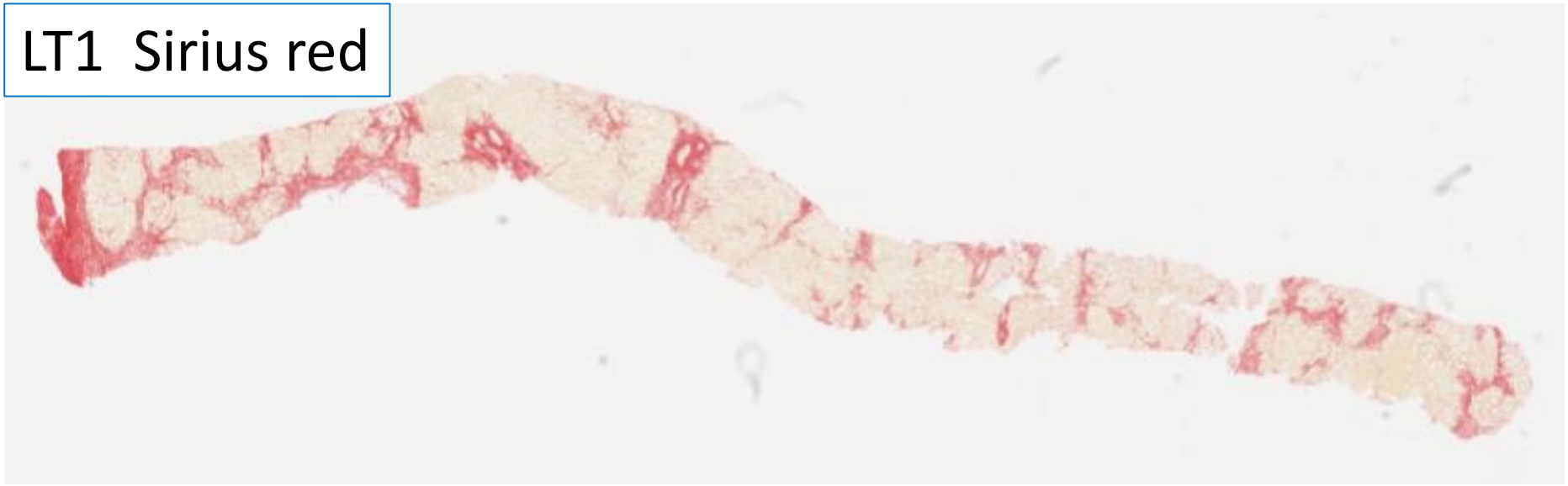

LT1
100 µm

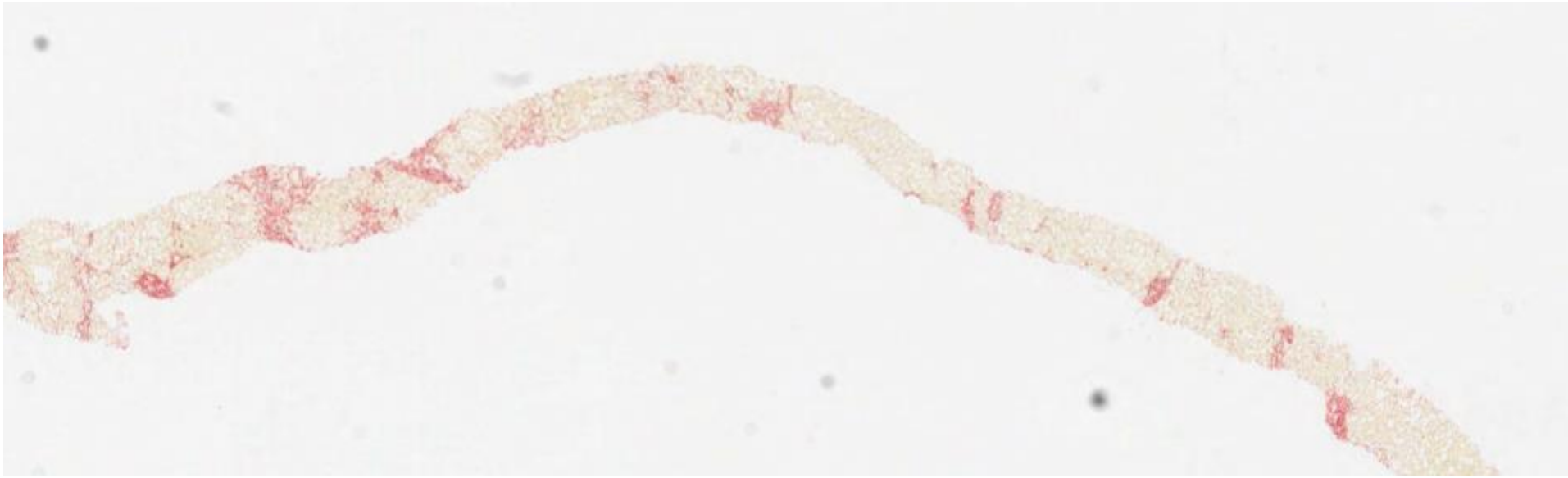

LT1
60 µm

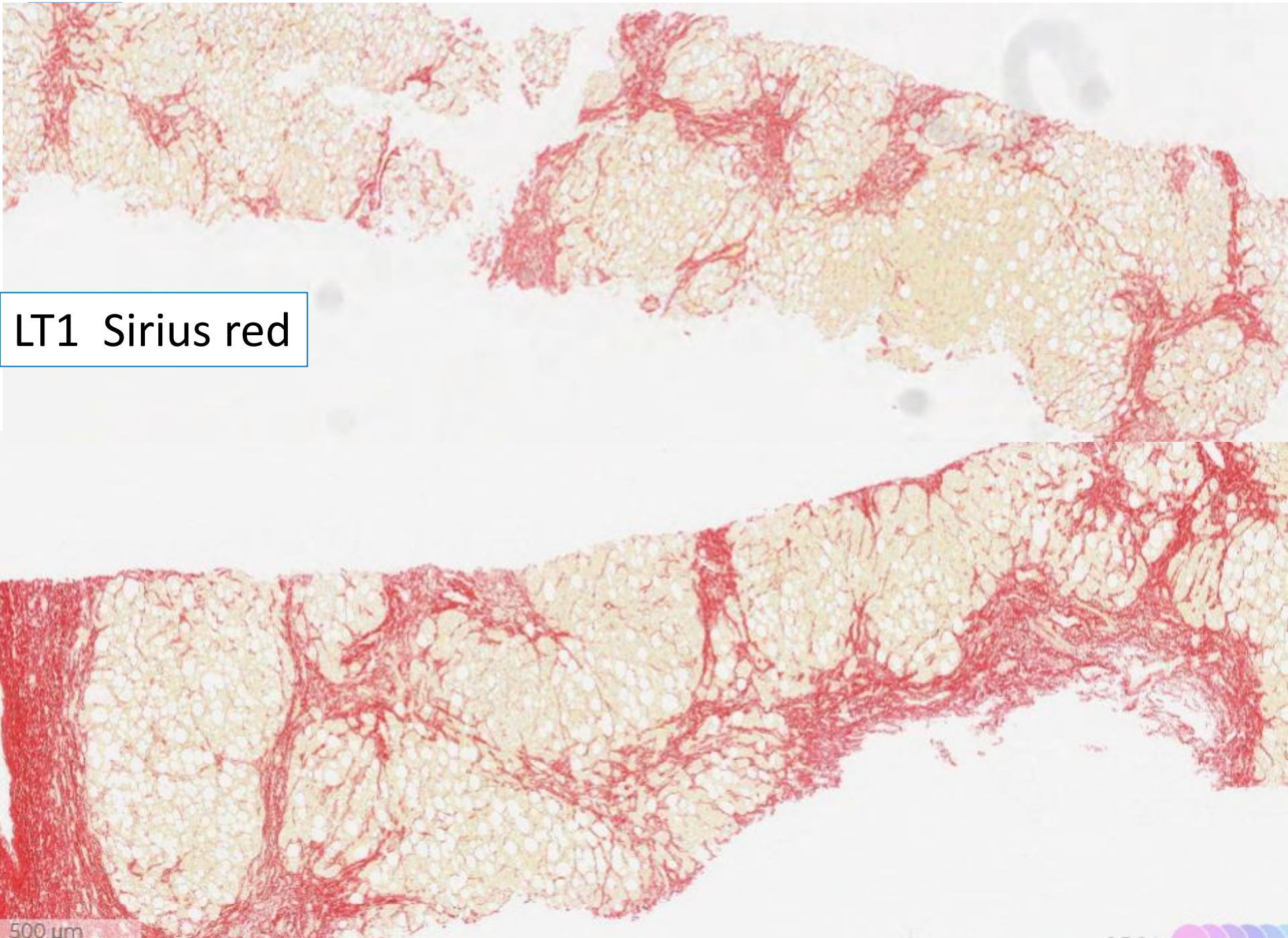

LT1


LT1

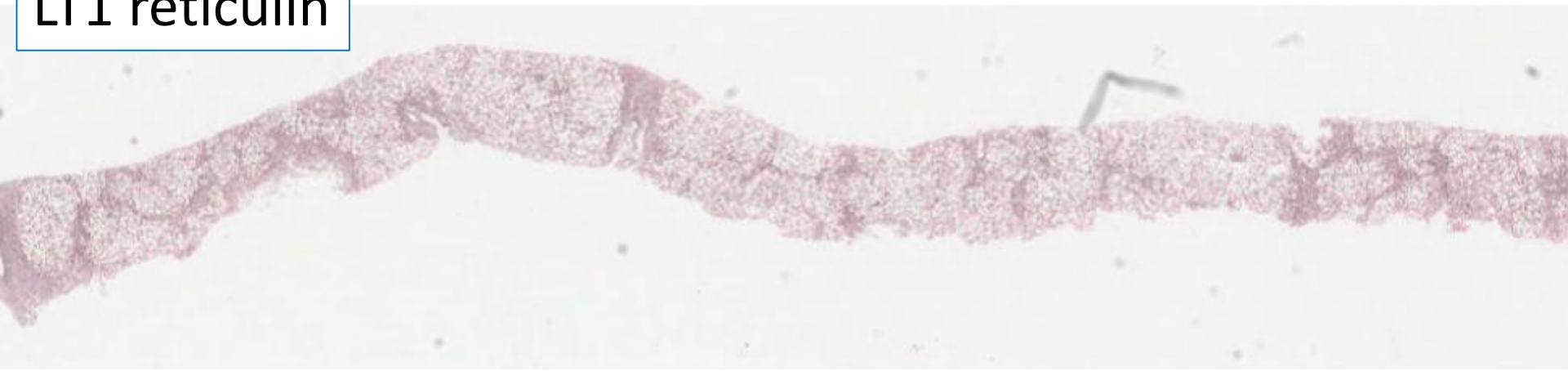
LT1 Sirius red

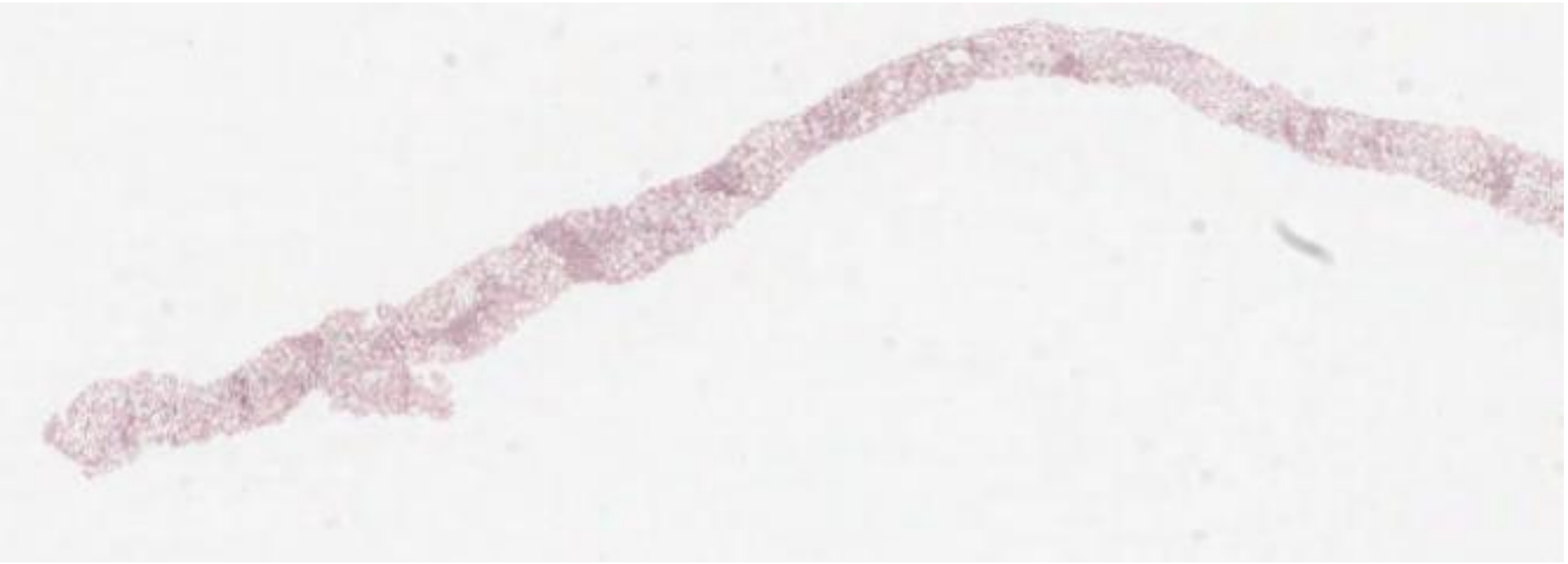





LT1 Sirius red
500 um

LT1 reticulin





Case LT1 65F

NAFLD. Normal immunoglobulins and weakly positive SMA. Recent rise in LFT's. Alcohol 15 units per week. Also reticulin and Sirius Red.

LT1	
A	Steatosis either alcohol or non alcohol related
B	Steatosis alcohol related
C	Autoimmune hepatitis with background steatosis
D	Steatohepatitis either alcohol or non alcohol related
E	Steatohepatitis alcohol related

Case LT1 65F

NAFLD. Normal immunoglobulins and weakly positive SMA. Recent rise in LFT's. Alcohol 15 units per week. Also reticulin and Sirius Red.

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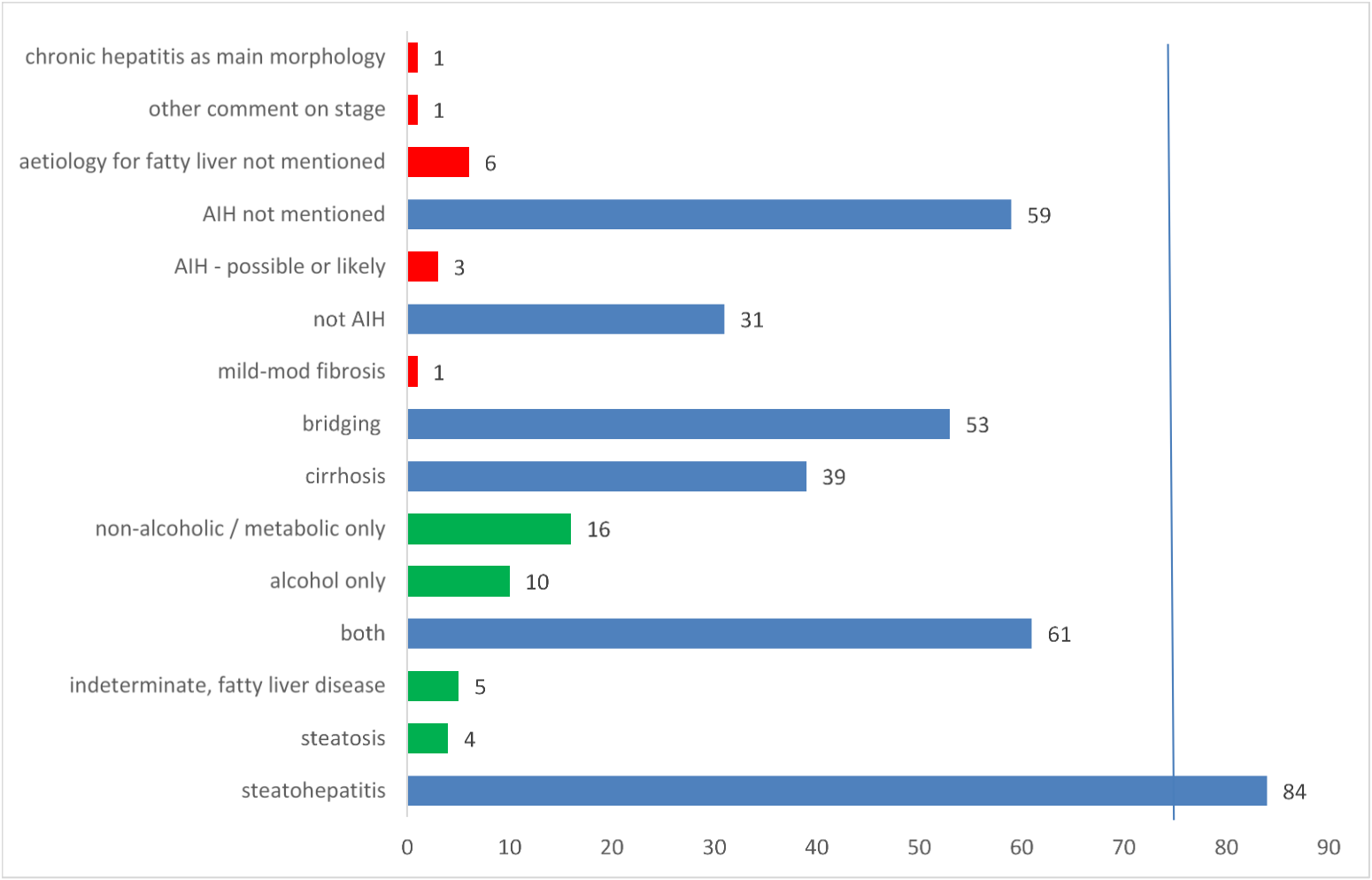


Consensus complete responses would include – fatty liver disease as main diagnosis, with a comment on fibrosis either bridging or cirrhosis, and comment on cause – consistent with NAFLD (clinical diagnosis), +/- alcohol in addition.

Case LT1 65F

NAFLD. Normal immunoglobulins and weakly positive SMA. Recent rise in LFT's. Alcohol 15 units per week. Also reticulin and Sirius Red.

Suggested scoring: for 10 points include – steatosis with steatohepatitis and comment on architecture of bridging or cirrhosis, plus a comment on the cause of fatty liver disease

Lose 5 marks if – not clearly bridging fibrosis or cirrhosis – only 1 response 'mild-mod fibrosis'

Lose 5 marks if – don't comment on cause of fatty liver disease (6)

Lose 5 marks if – includes autoimmune as a probably/possible cofactor (3)

? Lose 5 marks if – state consistent with alcohol related disease, without mentioning non-alcoholic aetiology. (10) – on discussion, a bit harsh, so didn't mark these down.

Lose 5 marks if – steatosis but not steatohepatitis or indeterminate for steatohepatitis -

Lose 5 marks if – chronic hepatitis is the morphological diagnosis (1)

Lose 10 marks (score 0) if – make another diagnosis as the favoured one e.g. autoimmune hepatitis – no-one scores 0

Case LT1 65F

NAFLD. Normal immunoglobulins and weakly positive SMA. Recent rise in LFT's. Alcohol 15 units per week. Also reticulin and Sirius Red.

Observations/potential learning points,

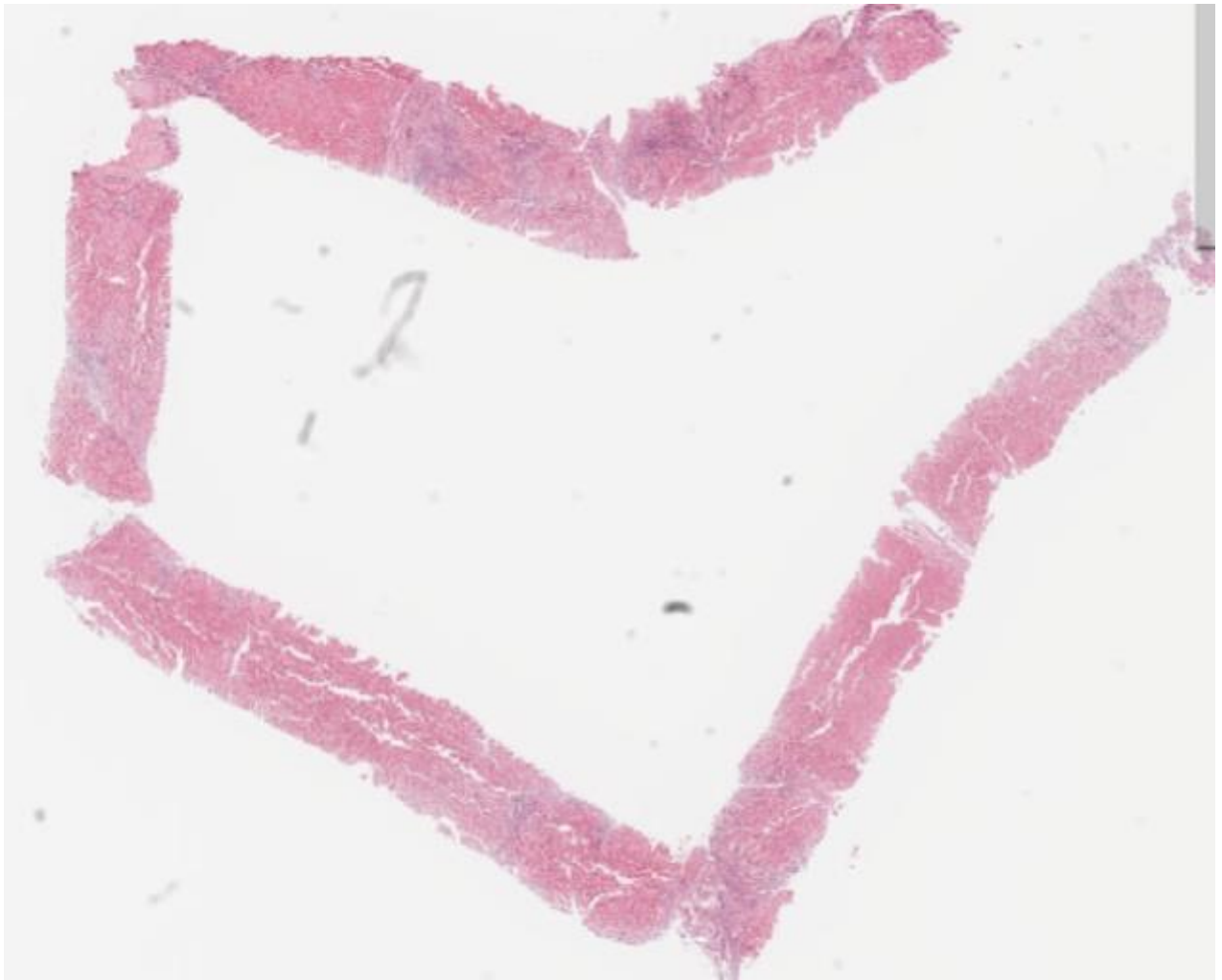
– the fact that there may be significant portal tract inflammation in fatty liver disease and that this feature usually shouldn't lead to a diagnosis of co-existent autoimmune hepatitis

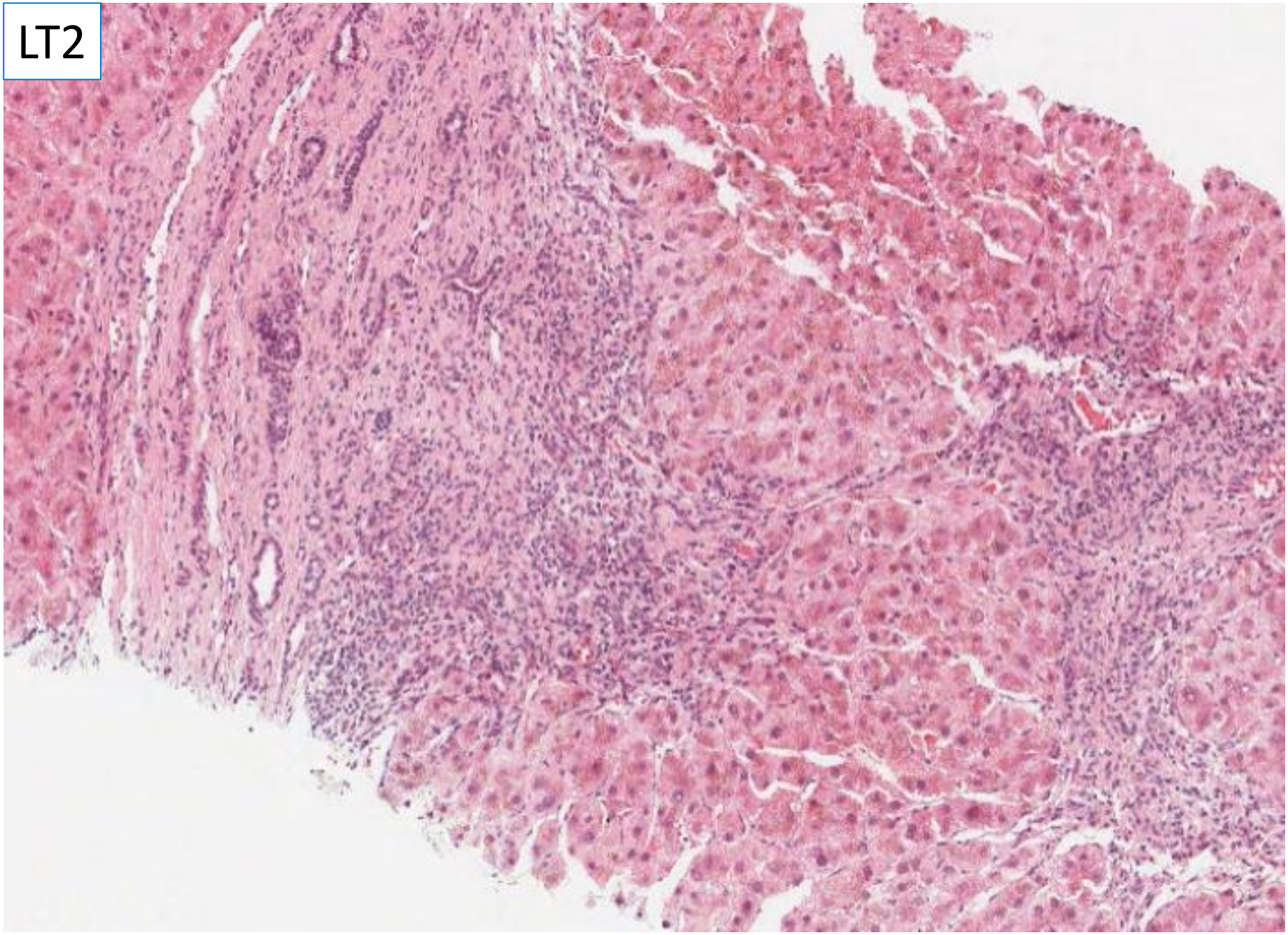
Significance of microvesicular steatosis? Rarely seen in NAFLD, more often in alcohol related fatty liver disease.

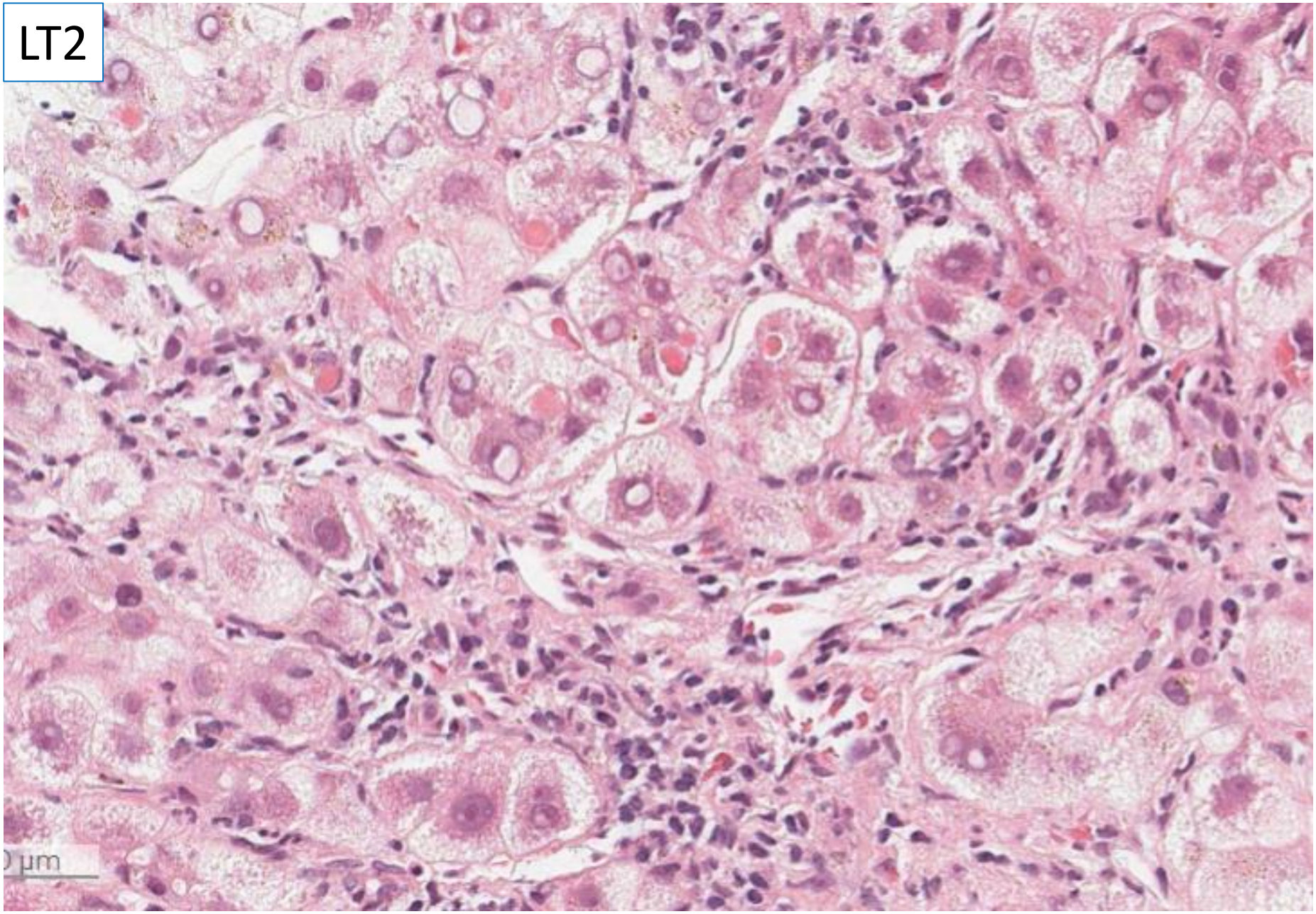
Good practice to indicate that there is not histological support for AIH in this case – since the weakly +ve ANA is part of the clinical indication for the biopsy – but not enough people included this to make it a scoring criteria.

Case LT2 74M Highish ferritin and cirrhosis, no cause found, genotype neg for haemochromatosis but if has xs iron I would venesect. Rest of liver screen neg apart from sl high IgG, ANA neg.
Is there significant iron overload and any other cause of cirrhosis. Very little alcohol.

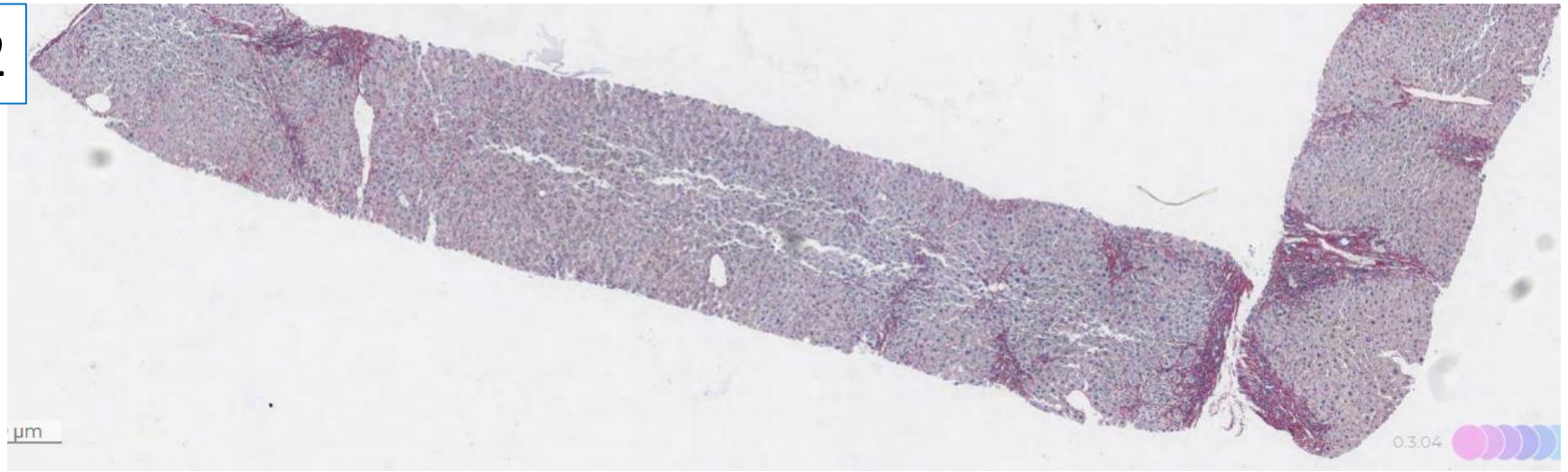
Additional stains: Sirius Red Fast Green, Perls, DPAS, A1AT.




LT2

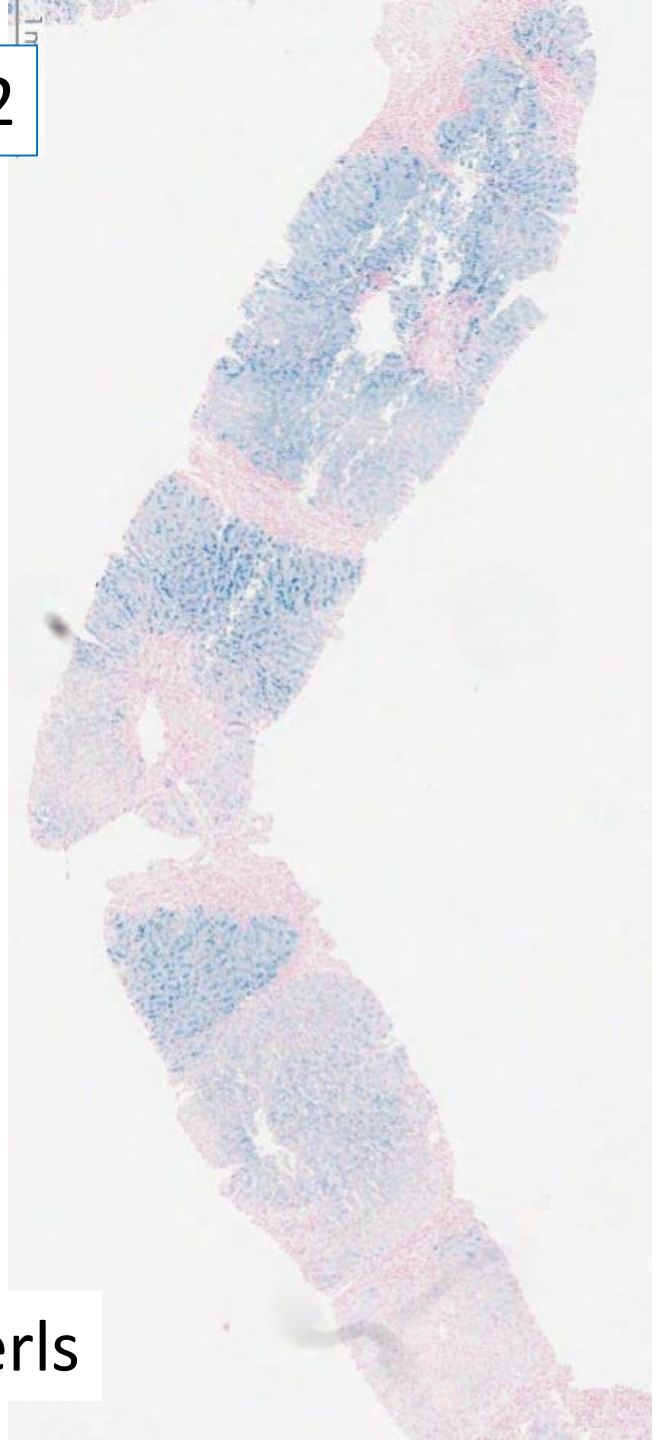

LT2
µm

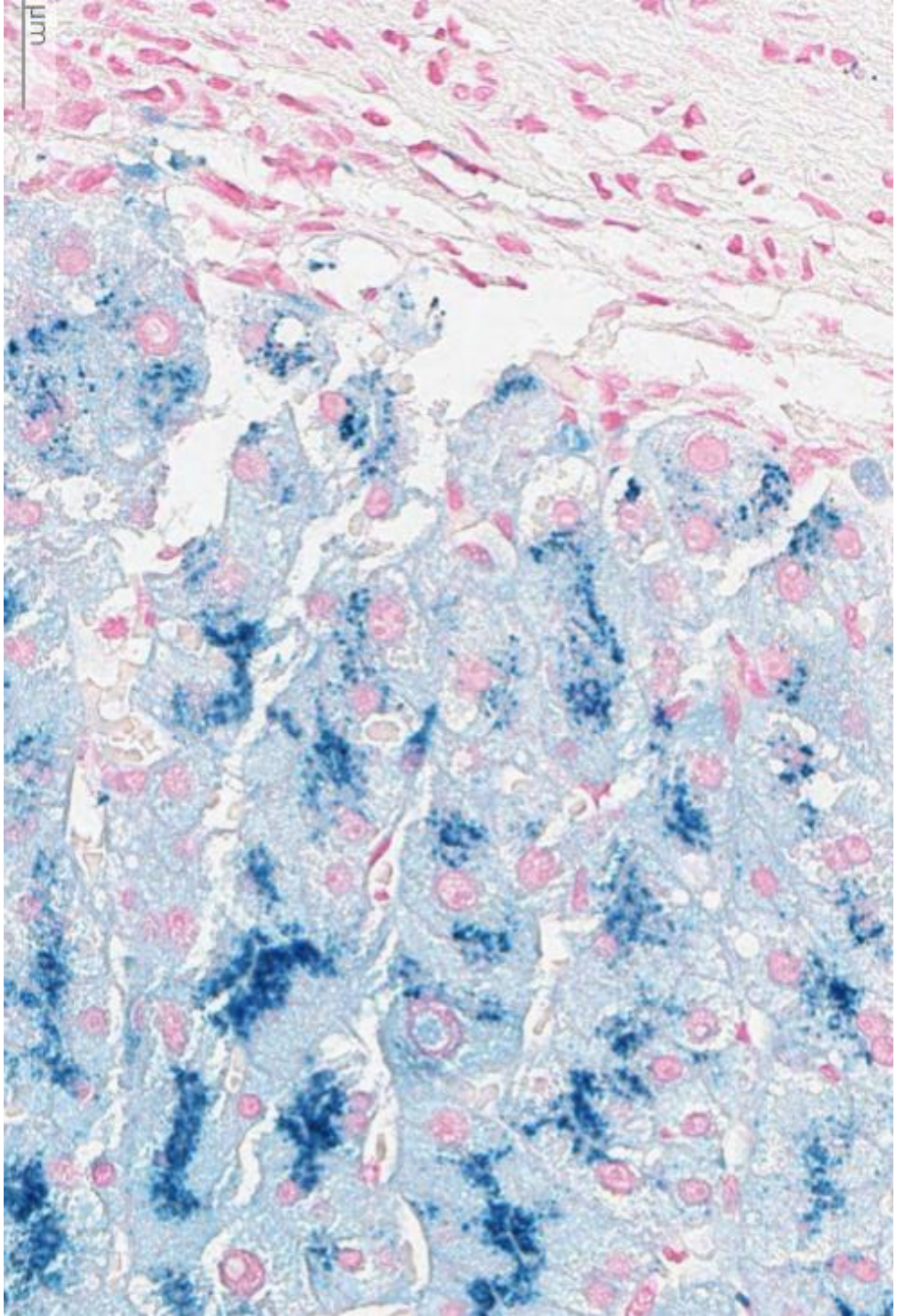
LT2



Sirius red fast green

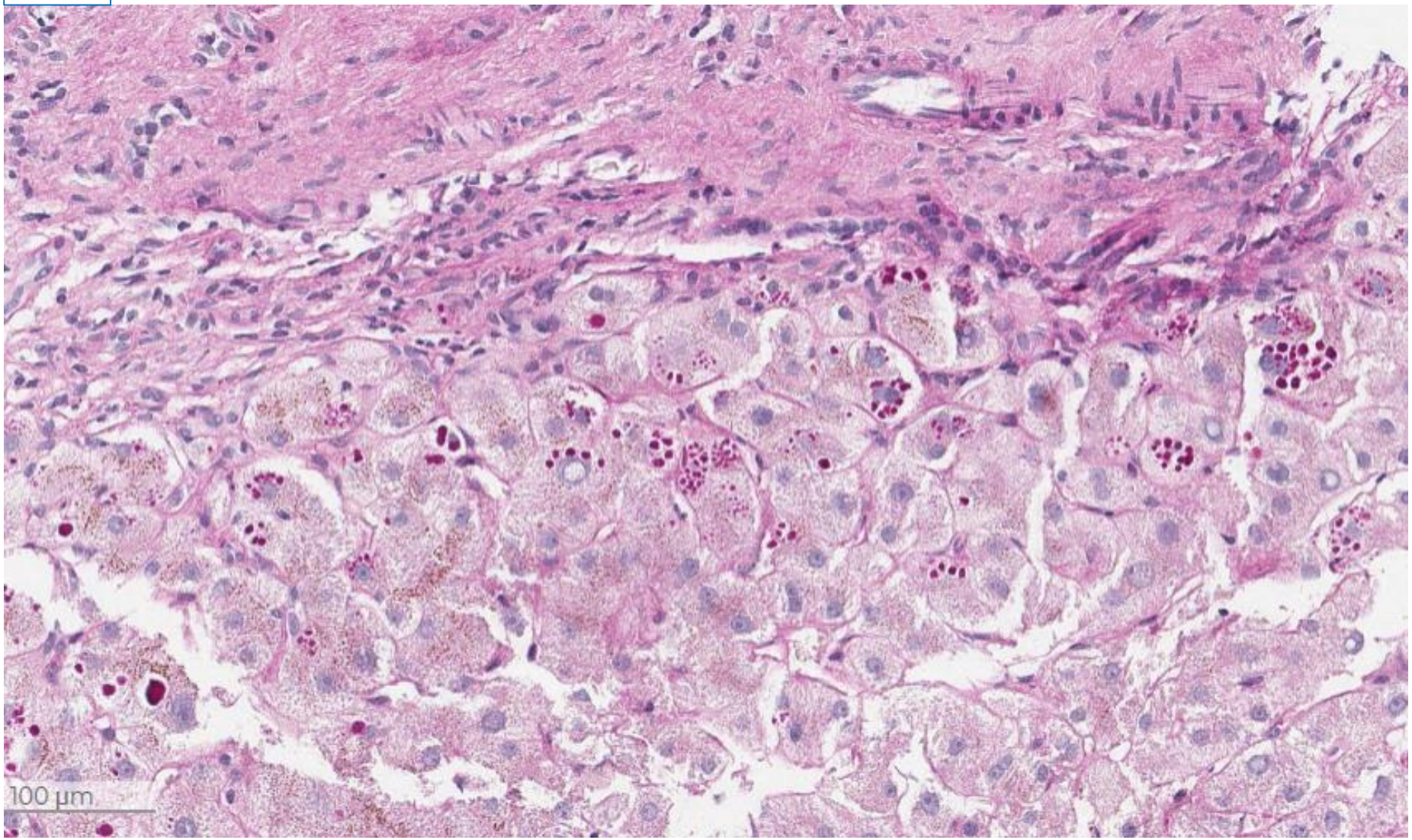
LT2





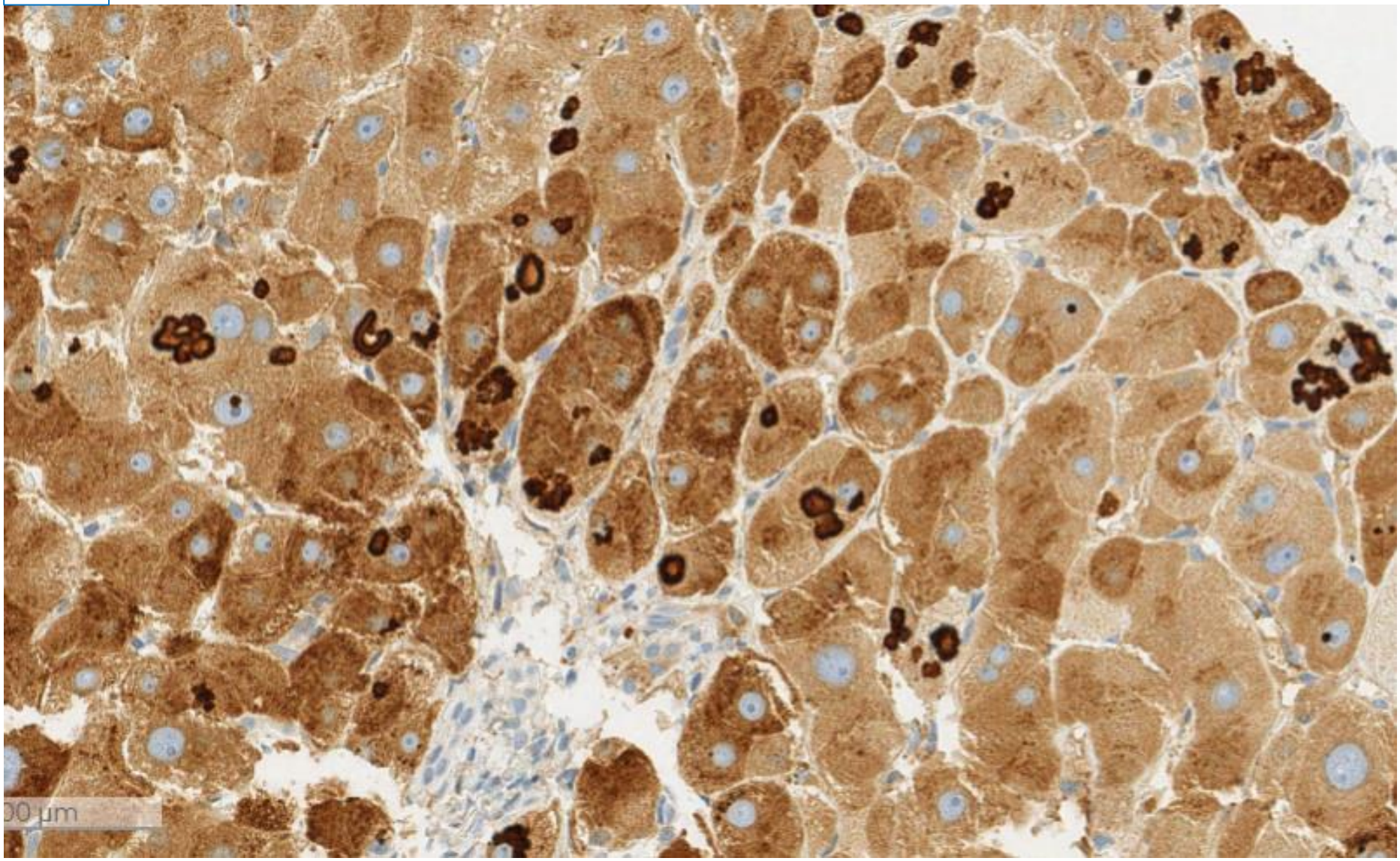
Perls

LT2



PASD

LT2



Alpha 1 antitrypsin

Case LT2 74M Highish ferritin and cirrhosis, no cause found, genotype neg for haemochromatosis but if has xs iron I would venesect. Rest of liver screen neg apart from sl high IgG, ANA neg.
Is there significant iron overload and any other cause of cirrhosis. Very little alcohol.

Additional stains: Sirius Red Fast Green, Perls, DPAS, A1AT.

LT2	
A	Autoimmune hepatitis
B	Burnt out fatty liver disease
C	Fe deposition
D	Alpha 1 antitrypsin accumulation and Fe deposition
E	Alpha 1 antitrypsin accumulation

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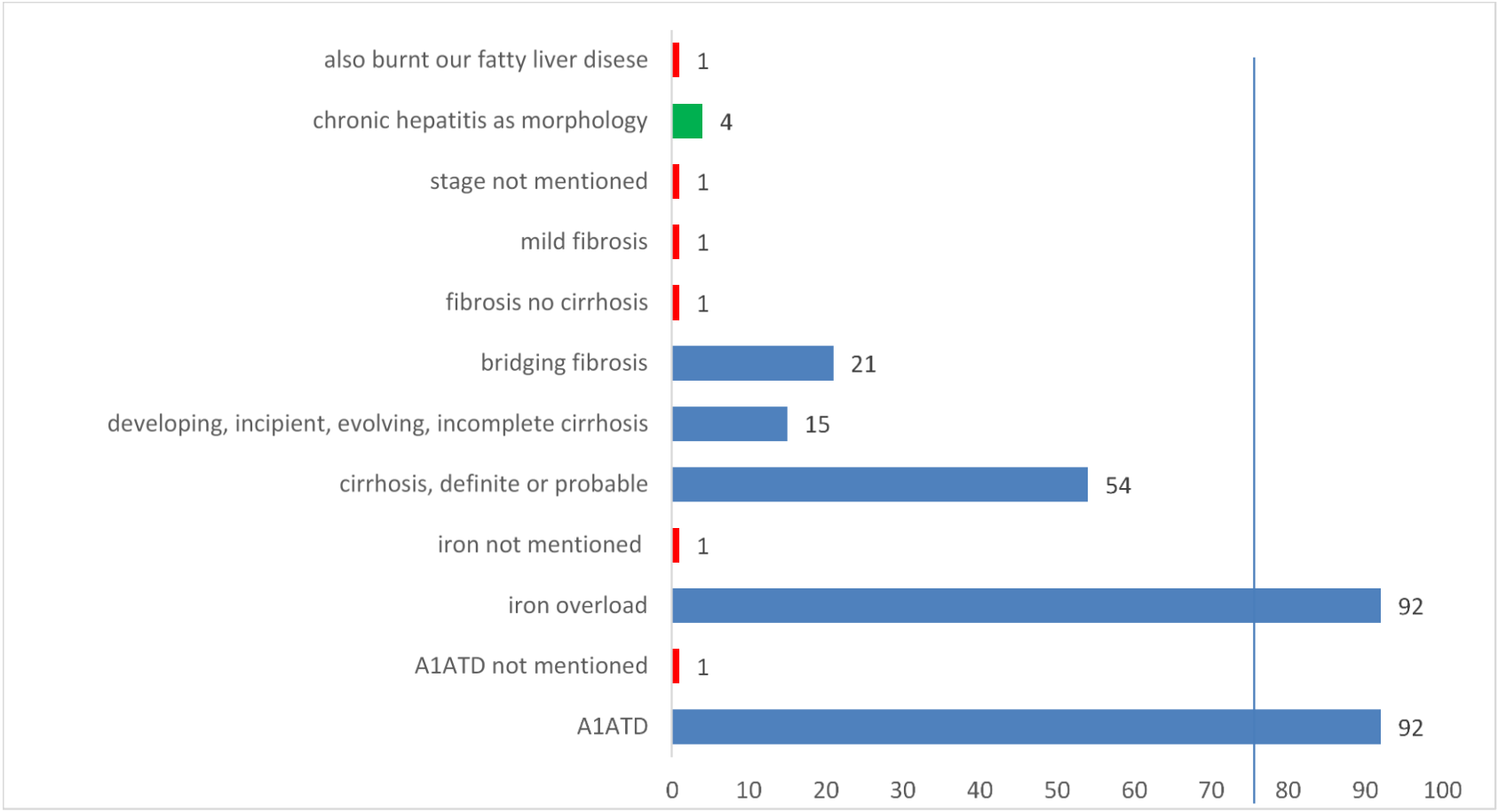


Consensus complete responses would include – description of alpha-1-antitrypsin deficiency and marked iron overload and stage of fibrosis that is cirrhosis, or bridging fibrosis

Case LT2 74M Highish ferritin and cirrhosis, no cause found, genotype neg for haemochromatosis but if has xs iron I would venesect. Rest of liver screen neg apart from sl high IgG, ANA neg.
Is there significant iron overload and any other cause of cirrhosis. Very little alcohol.
Additional stains: Sirius Red Fast Green, Perls, DPAS, A1AT.

Suggested scoring: for 10 points include – description of alpha-1-antitrypsin deficiency, marked iron overload and bridging fibrosis or cirrhosis

Lose 5 marks if – don't mention both alpha-1-antitrypsin deficiency and iron overload (2)

Lose 5 marks if – fibrosis stage is not at least bridging fibrosis or cirrhosis (3)

Lose 5 marks if an additional aetiology is firmly indicated (1)

? Lose 5 marks if - there is a clear diagnosis of 'chronic hepatitis' – this is included in books among disease patterns with a differential diagnosis that includes A1ATD – but does it really imply an immunological/inflammatory mechanism of liver injury? (4)

On review – one response 'with severe chronic hepatitis' 5 points –otherwise ok.

Lose 10 marks (score 0) if – make another diagnosis as the favoured one e.g. autoimmune hepatitis

Case LT2 74M Highish ferritin and cirrhosis, no cause found, genotype neg for haemochromatosis but if has xs iron I would venesect. Rest of liver screen neg apart from sl high IgG, ANA neg.
Is there significant iron overload and any other cause of cirrhosis. Very little alcohol.
Additional stains: Sirius Red Fast Green, Perls, DPAS, A1AT.

Observations/potential learning points

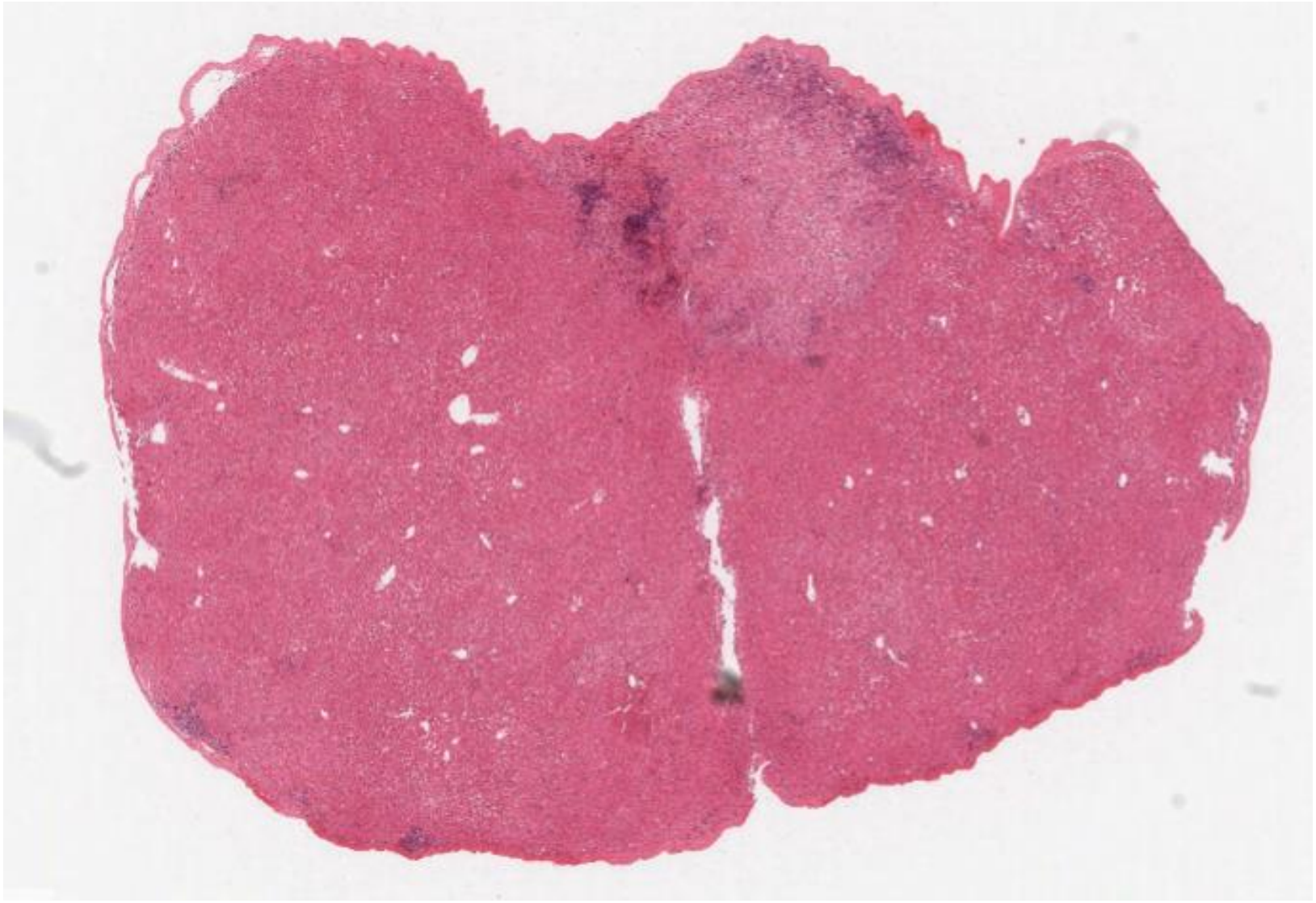
– the fact that iron overload may occur secondary to alpha-1-antitrypsin deficiency, rather than due to genetic haemochromatosis – 7 responses specifically mention hepcidin as a potential mechanism, some including the reference in Human Molecular Genetics 2015.

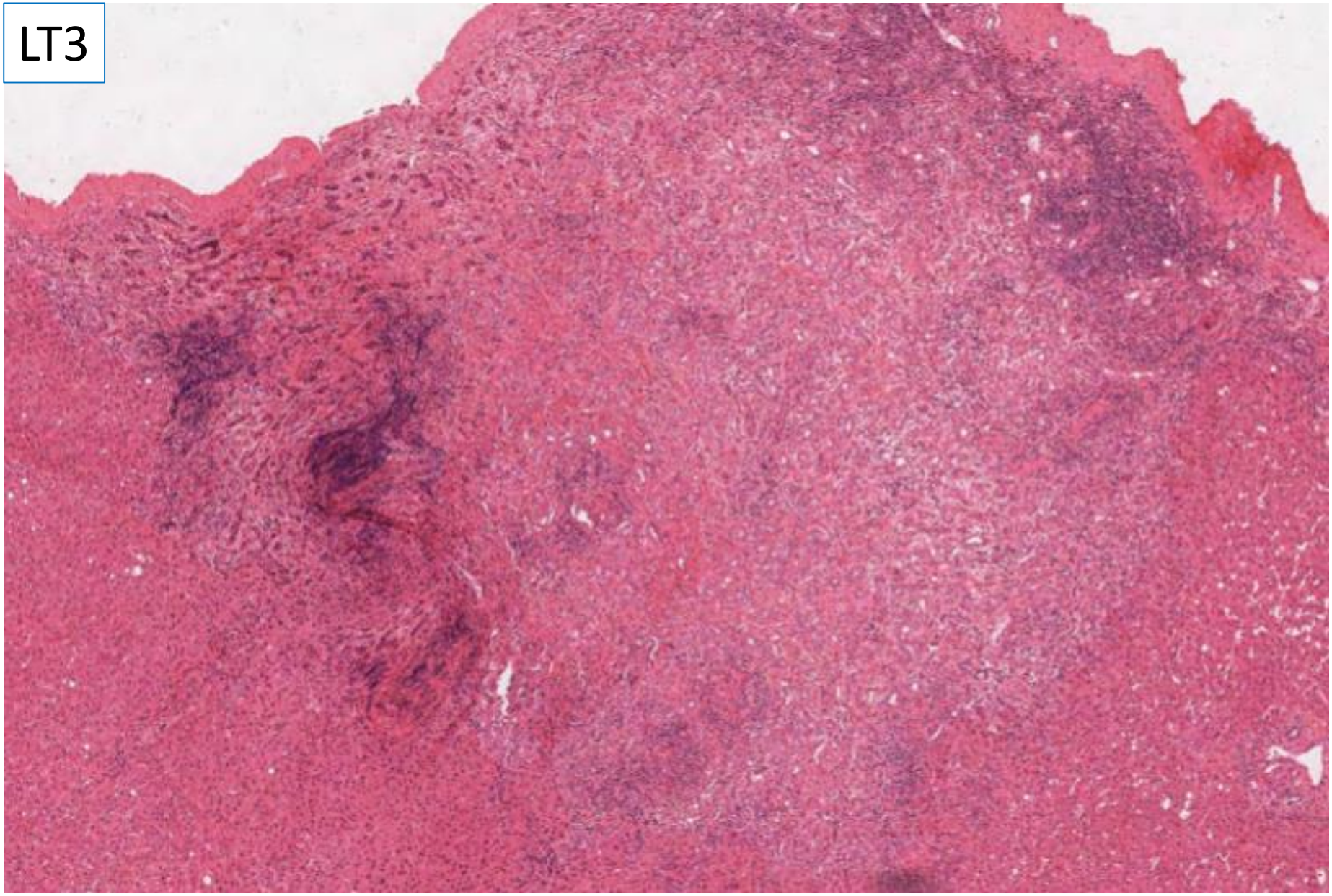
- Still 'genetic haemochromatosis', but not HFE haemochromatosis.
- This is more iron than would be seen just from iron overload as a result of the cirrhosis

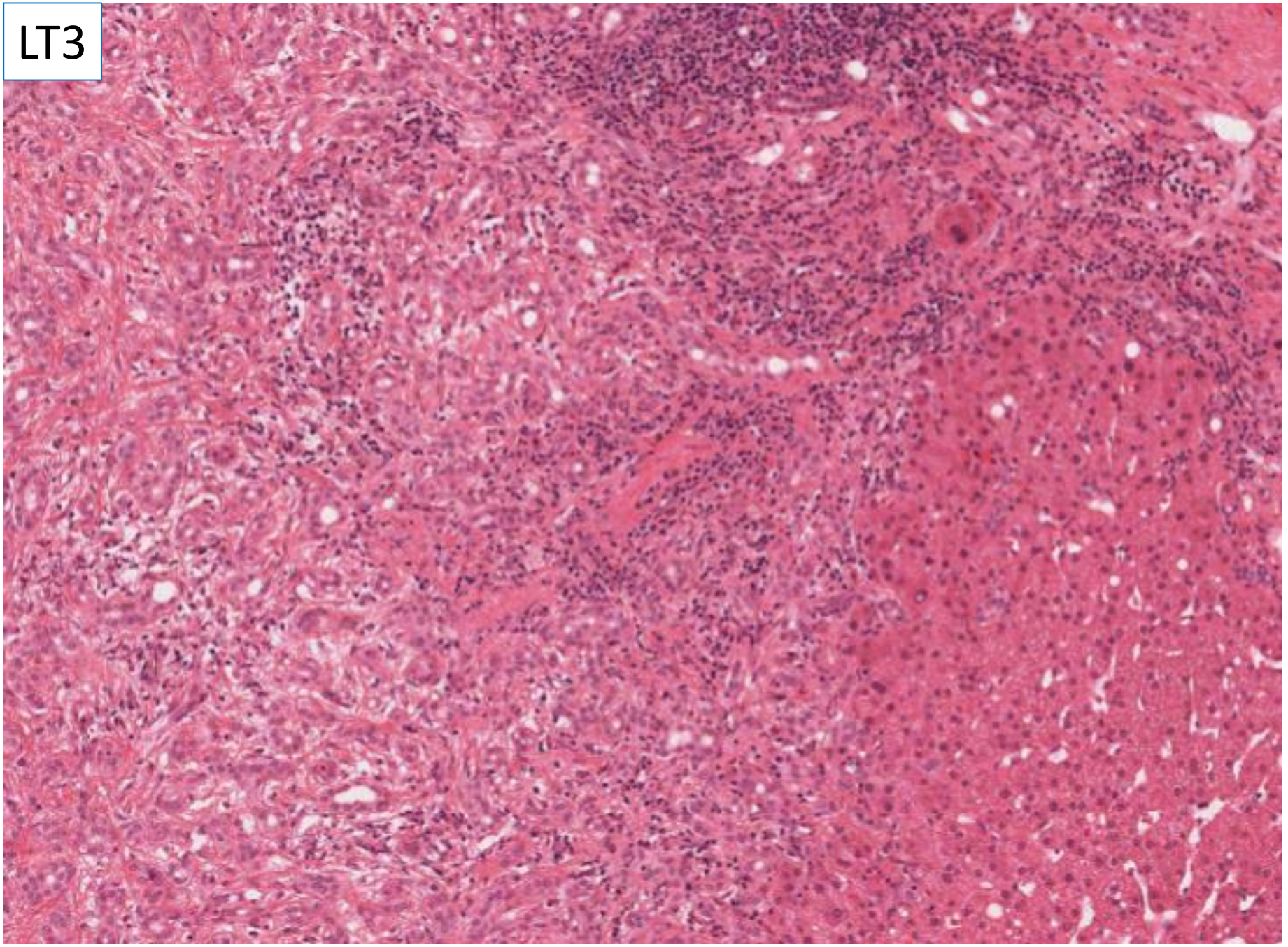
Case LT3 53M

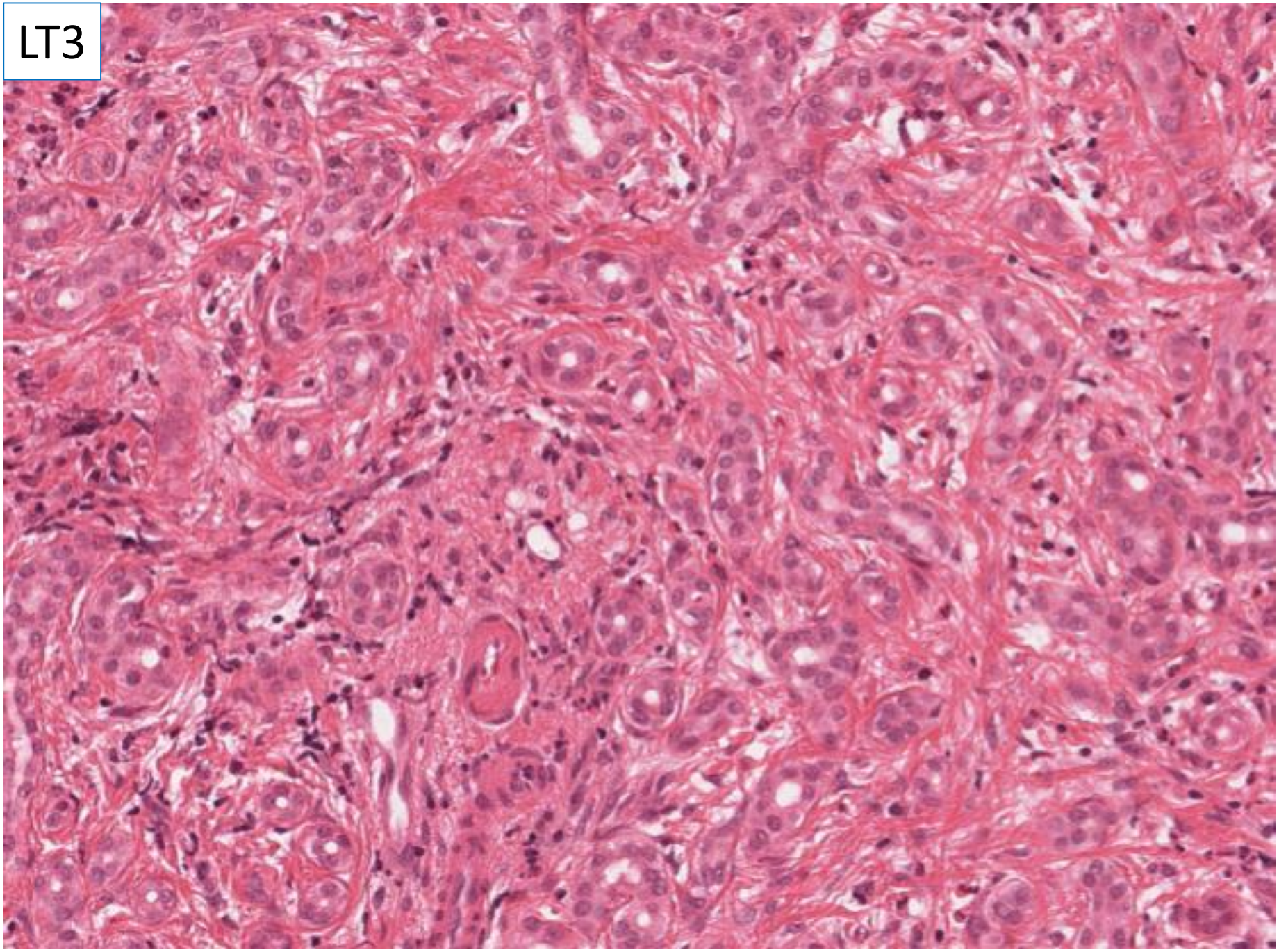
Laparoscopic cholecystectomy for gallstones-liver lesion segment 4.

Wedge of liver 12 x 9 x 2 mm.




LT3


LT3


LT3

Case LT3 53M

Laparoscopic cholecystectomy for gallstones-liver lesion segment 4.
Wedge of liver 12 x 9 x 2 mm.

LT3	
A	Bile duct adenoma/peribiliary gland hamartoma
B	Microhamartoma
C	Von Meyenberg complex
D	Bile duct hamartoma
E	Adenocarcinoma deposit

Case LT3 53M

Laparoscopic cholecystectomy for gallstones-liver lesion segment 4.
Wedge of liver 12 x 9 x 2 mm.

LT3	
A	**Bile duct adenoma/peribiliary gland hamartoma**
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Laparoscopic cholecystectomy for gallstones-liver lesion segment 4.
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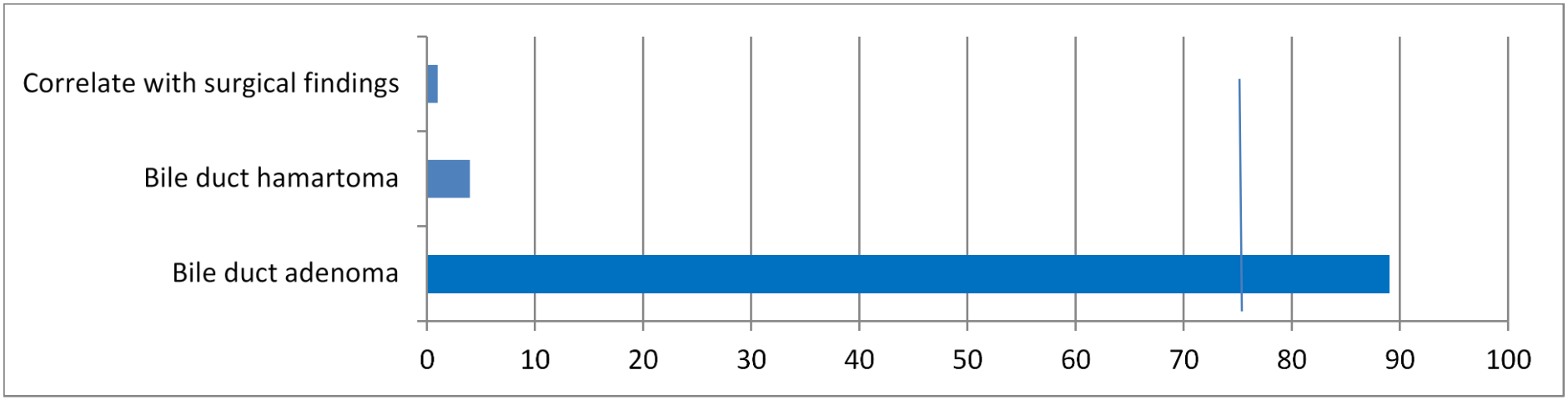


Consensus complete responses would include – description and assessment as a bile duct adenoma/peribiliary gland hamartoma

Case LT3 53M

Laparoscopic cholecystectomy for gallstones-liver lesion segment 4.
Wedge of liver 12 x 9 x 2 mm.

Suggested scoring: for 10 points include bile duct adenoma/peribiliary gland hamartoma

Lose 5 marks if – favour a diagnosis of bile duct hamartoma

meeting 16.10.19 although not perfectly correct allow this as a benign diagnosis – all score 10

Lose 10 marks (score 0) if – don't make a firm diagnosis

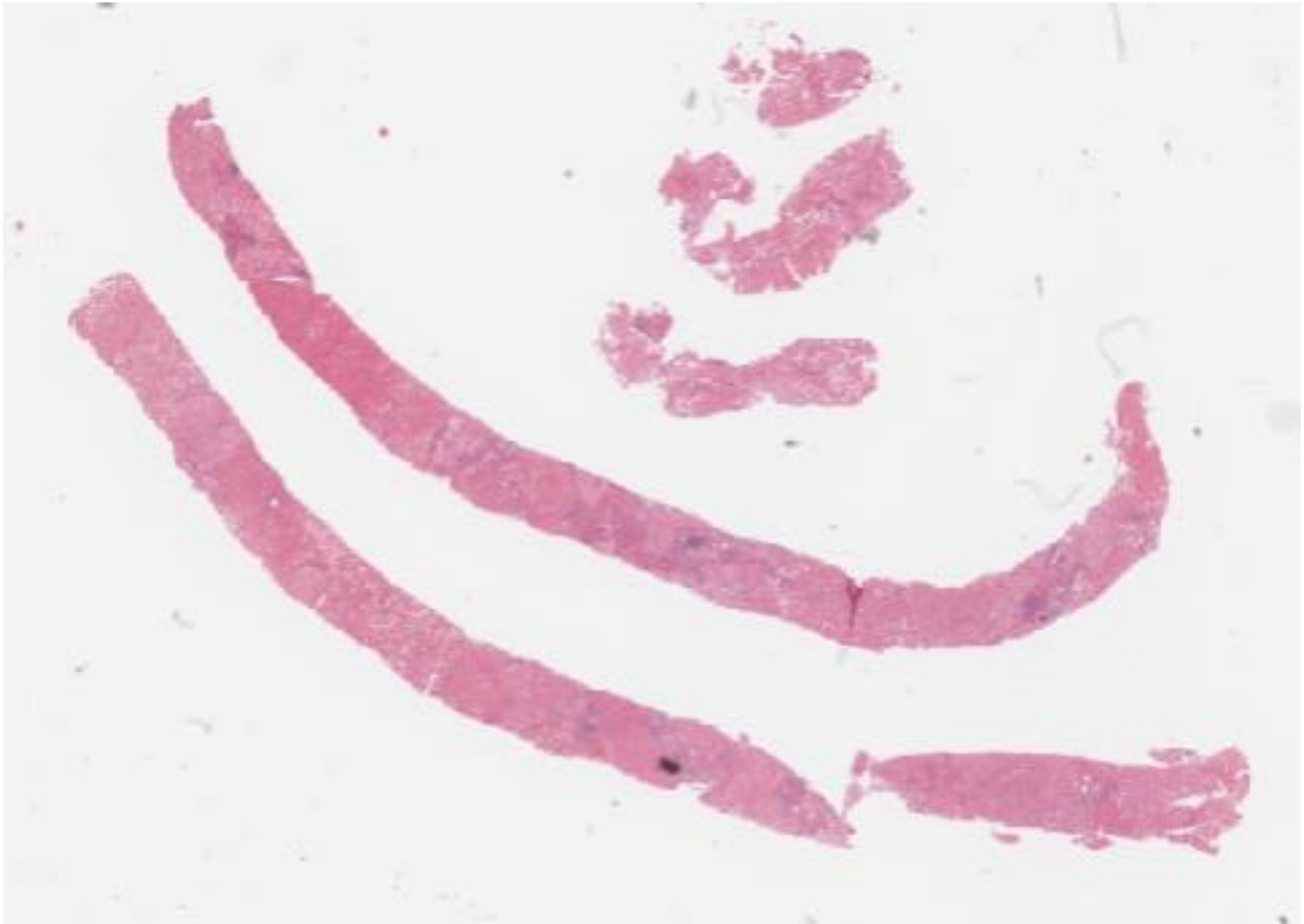
Observations/potential learning points,
– the terminology alternative of 'peribiliary gland hamartoma' vs. 'bile duct adenoma' – either is ok – generally a reparative process where there is thought to be a failure of hepatocyte differentiation after ductular reaction – often contains converging portal tracts and peripheral chronic inflammatory infiltrate.

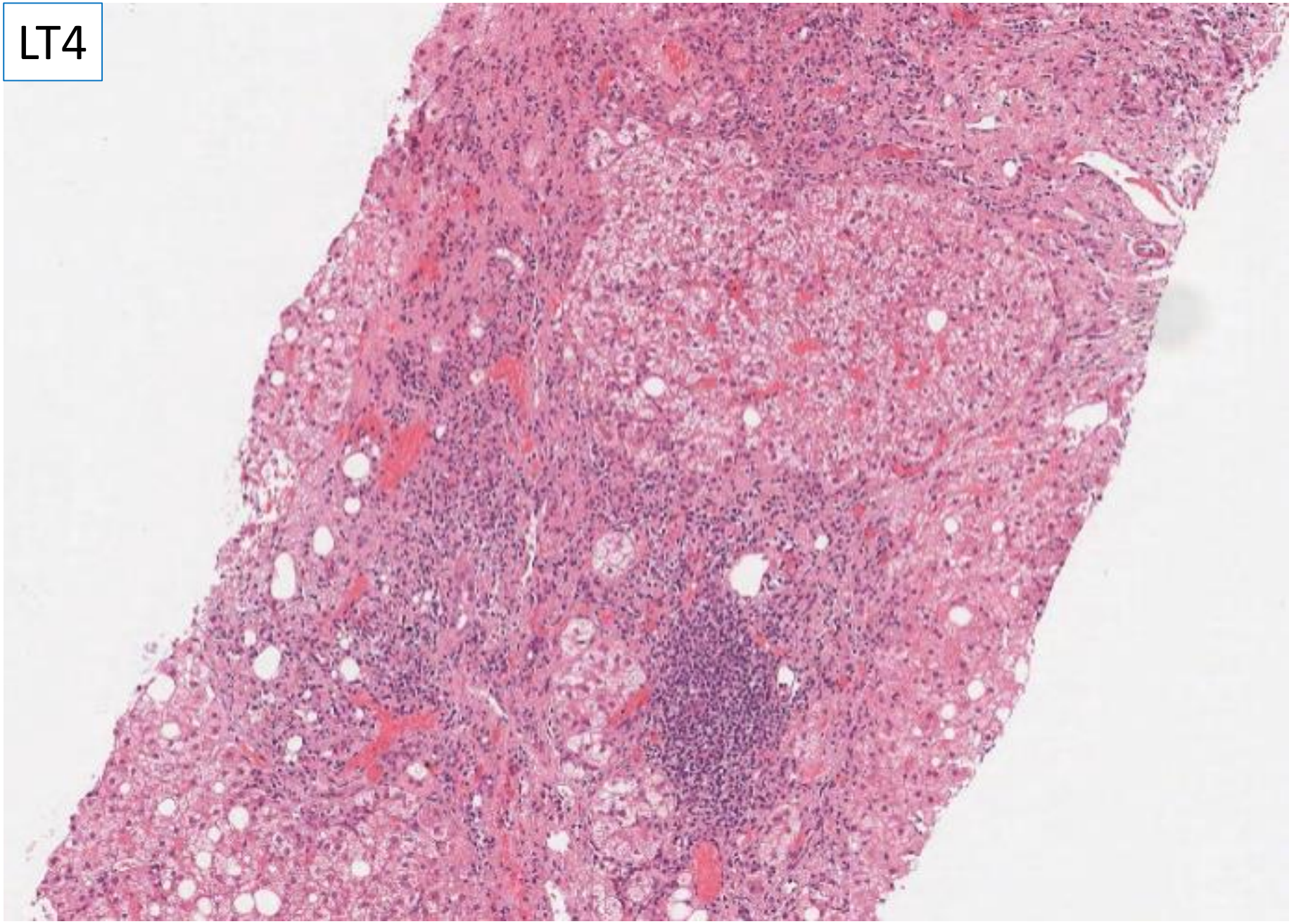
Case LT4 67M

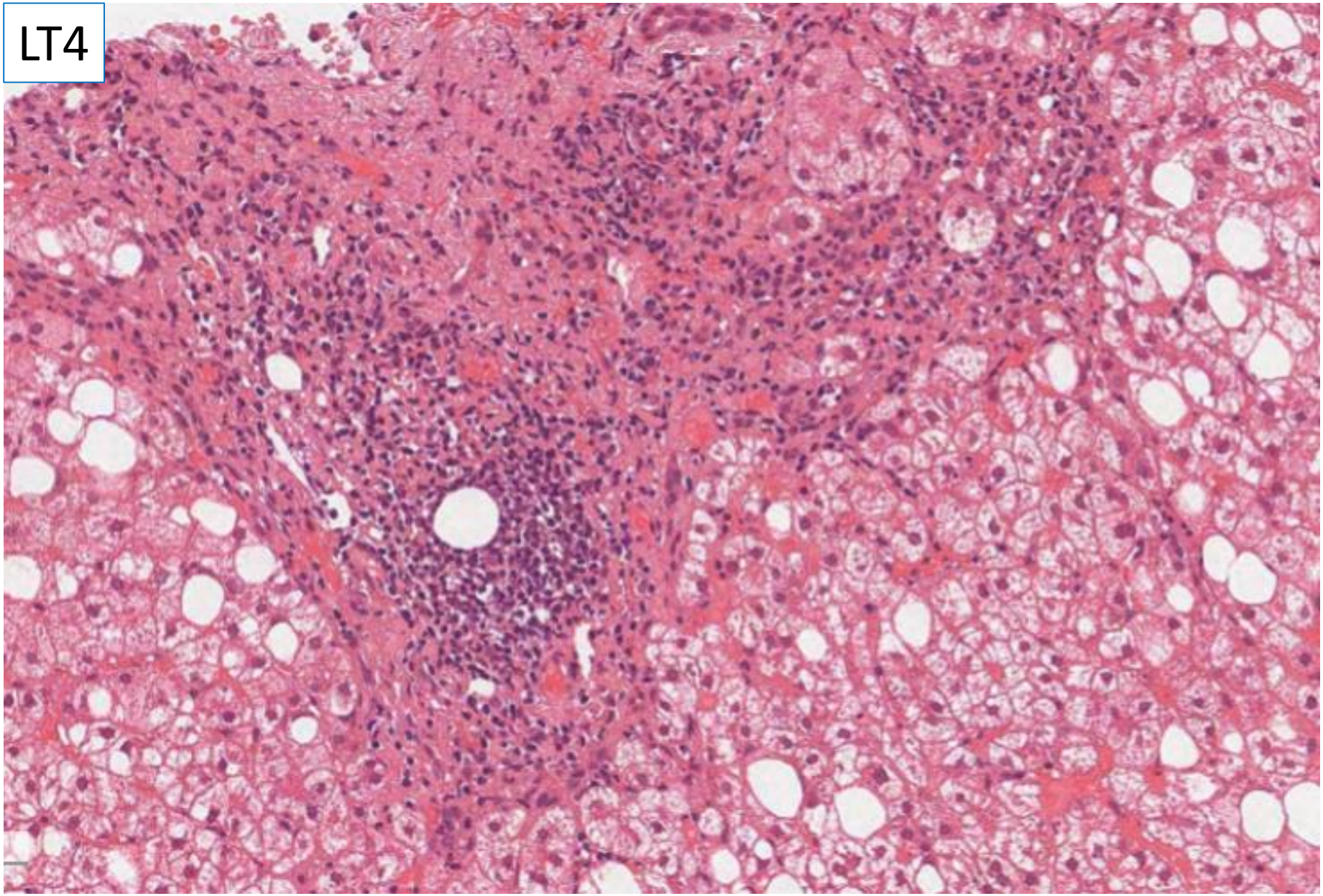
HCV and history of heavy alcohol. Fibroscan reassuring but low platelets.

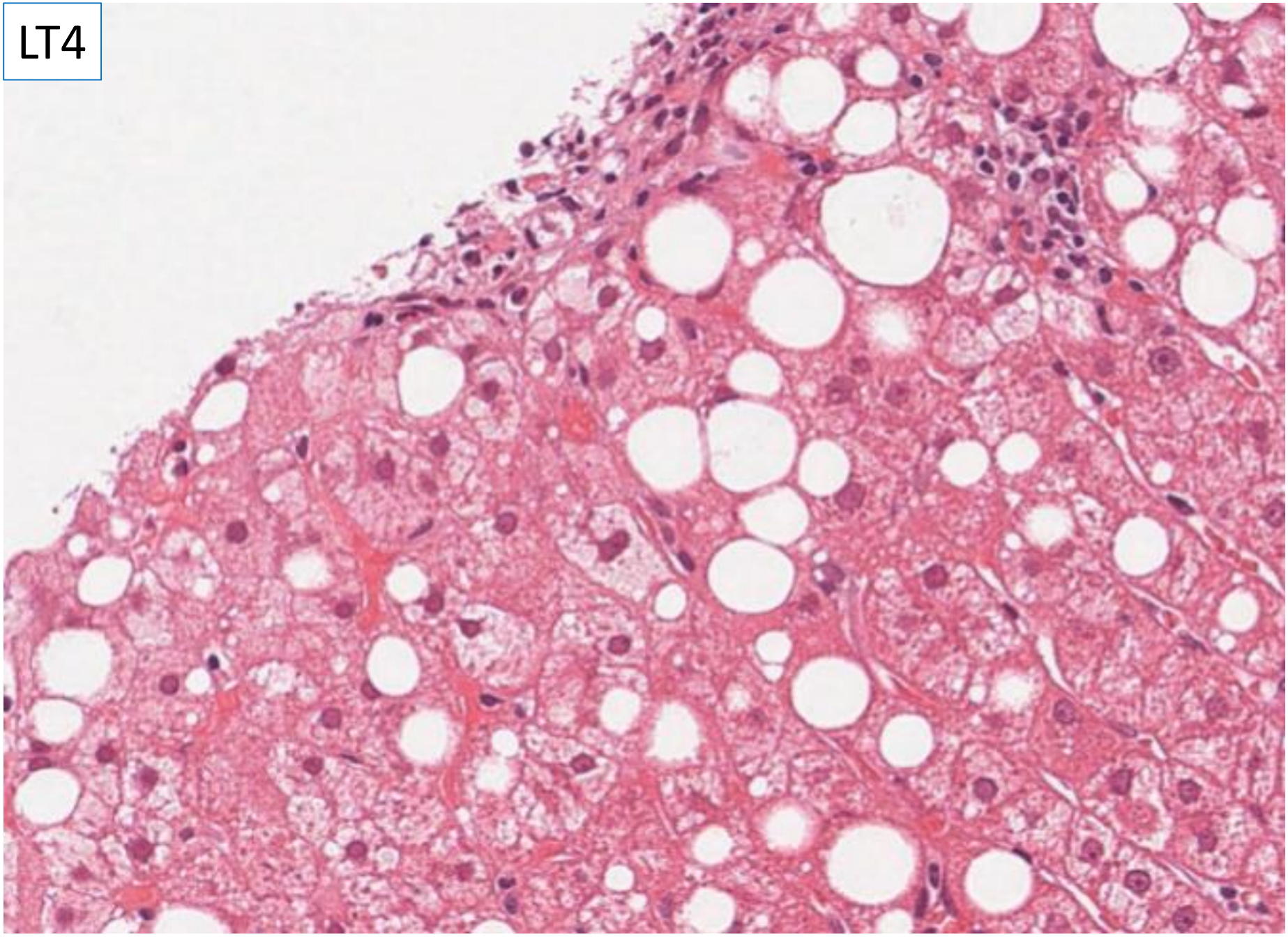
? significant fibrosis.

Additional stains: EPSR.




LT4


LT4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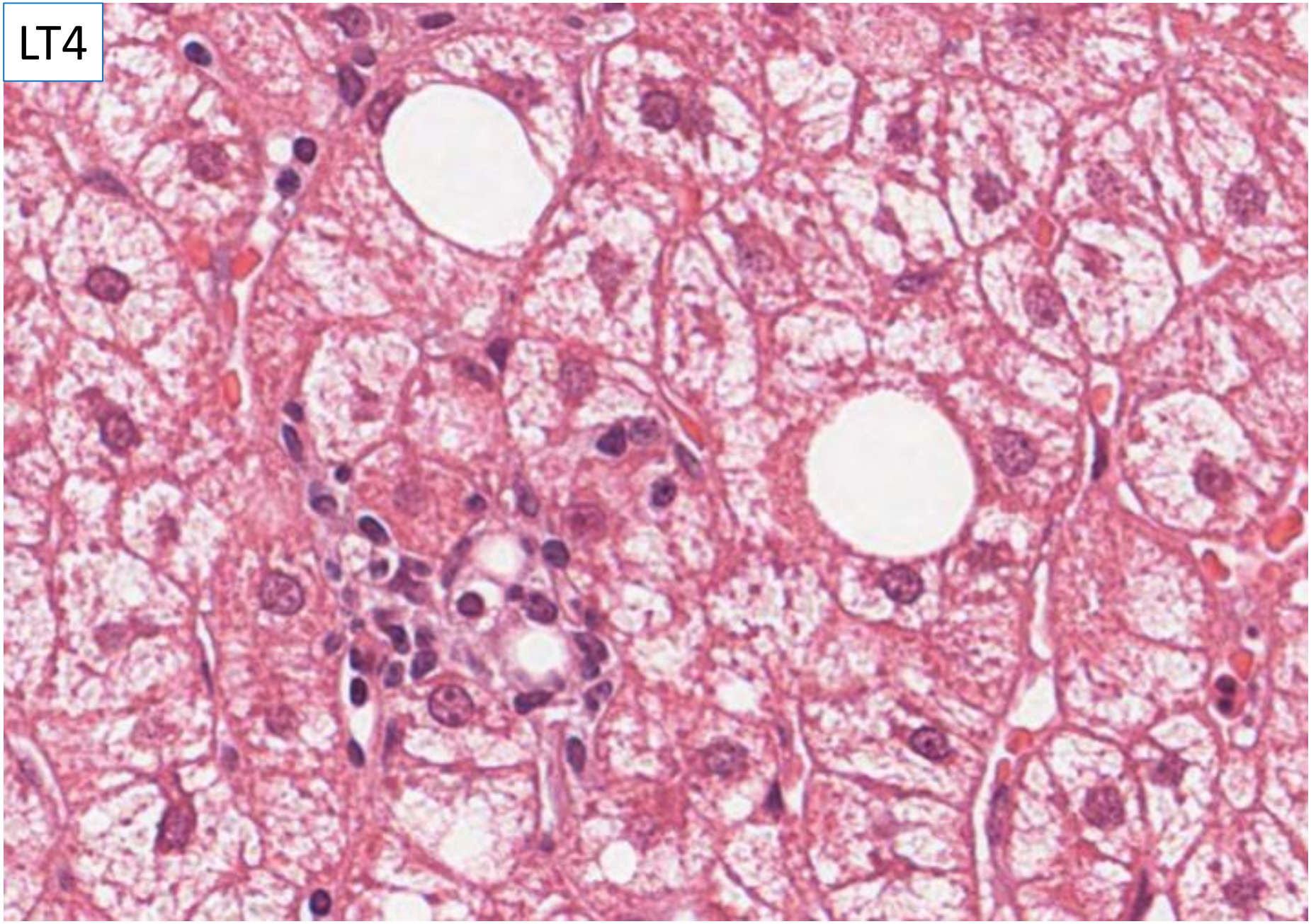
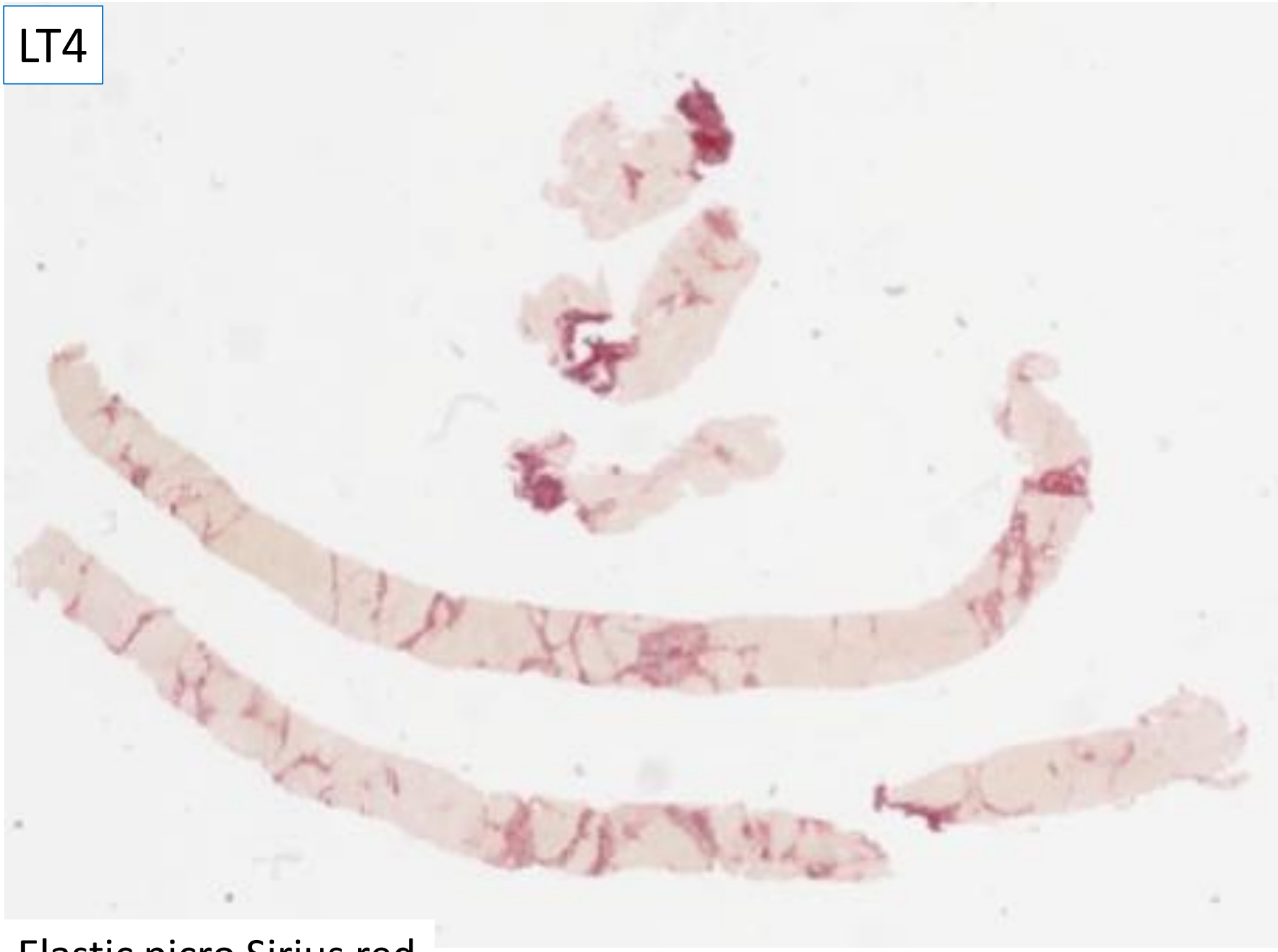
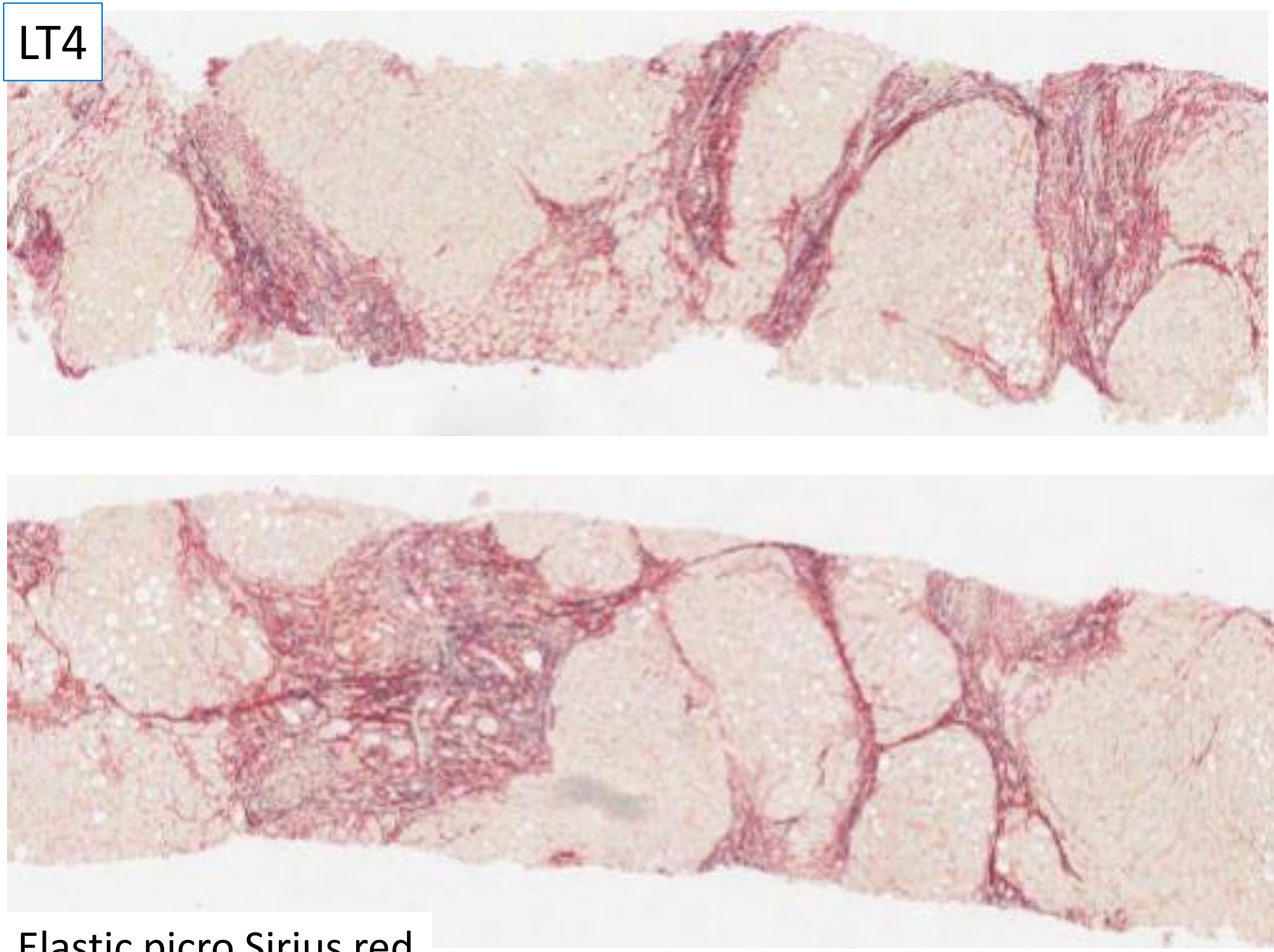

LT4

LT4



Elastic picro Sirius red

LT4



Elastic picro Sirius red

Case LT4 67M

HCV and history of heavy alcohol. Fibroscan reassuring but low platelets.
? significant fibrosis.
Additional stains: EPSR.

LT4	
A	AIH and fatty liver disease (alcohol related)
B	HCV and fatty liver disease (alcohol related)
C	HCV
D	Fatty liver disease (alcohol related)
E	AIH

Case LT4 67M

HCV and history of heavy alcohol. Fibroscan reassuring but low platelets.
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Additional stains: EPSR.

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D	Fatty liver disease (alcohol related)
E	AIH

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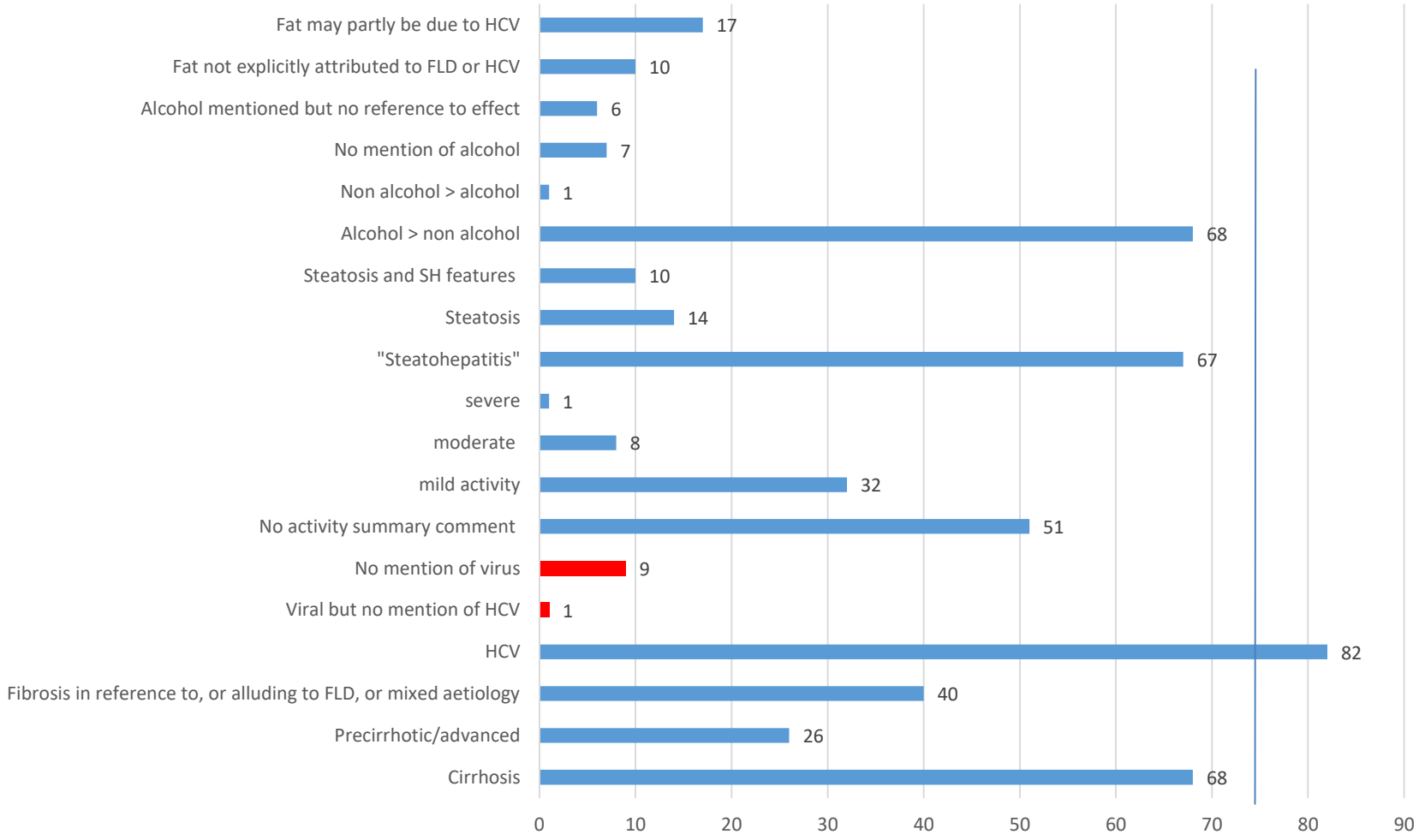


LT4: Scoring proposal

- **Consensus complete responses would include** Cirrhosis or advanced fibrosis (bridging or worse), HCV and FLD i.e. mixed aetiology, with specific mention of alcohol as contributing or potentially contributing

- **Suggested scoring: for 10 points** include: as above, also accepted fatty liver hepatitis
- **Lose 5 marks** if No mention of HCV (as in history) (10)
- or alternative suggestion such as AIH rather than virus or hepatitis NOS.
- **Lose 5 marks** if No reference to fatty liver disease
- **Lose 5 marks** if “moderate fibrosis”
- **Lose 10 marks (score 0) if** No mention of FLD or HCV e.g. AIH as diagnosis

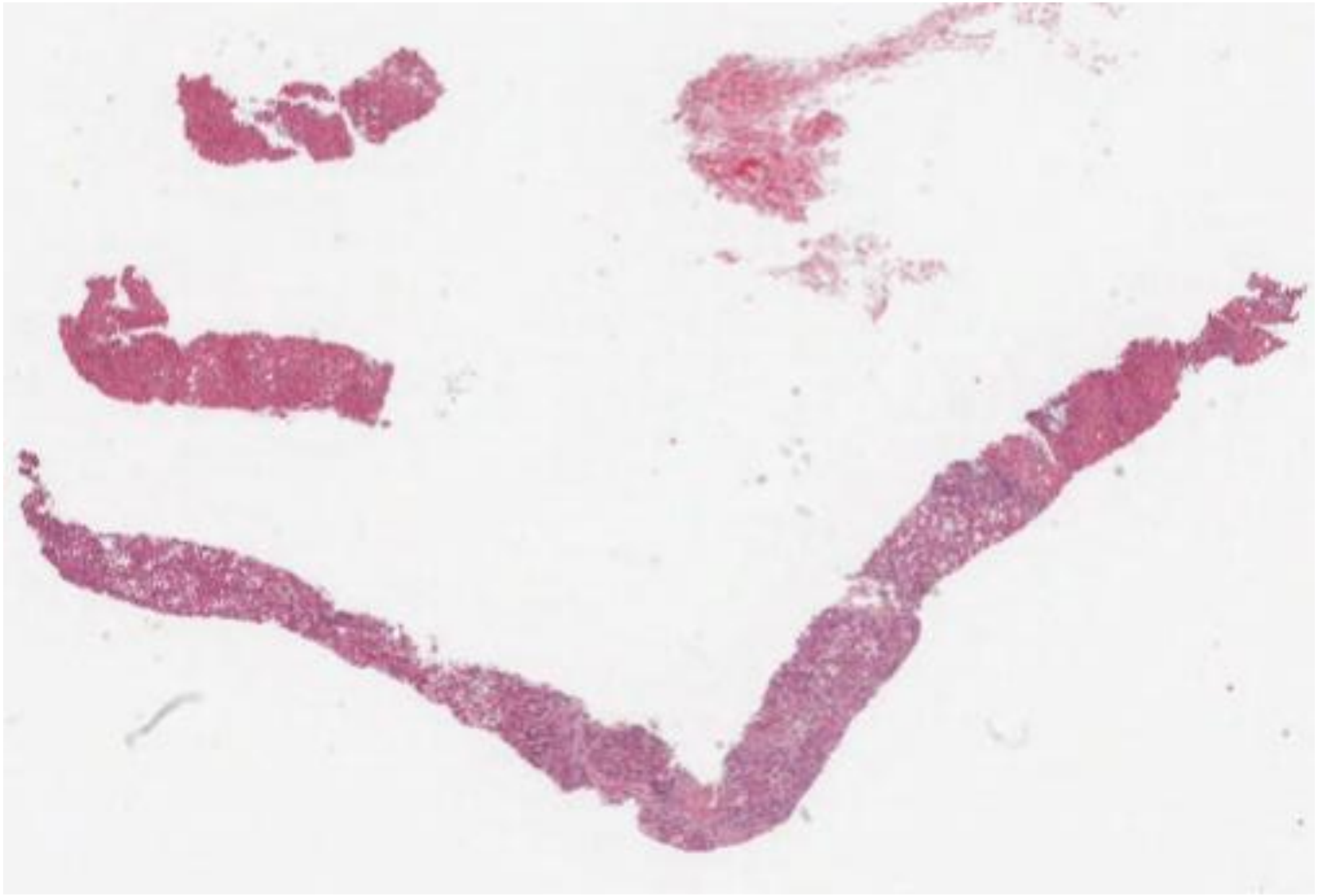
Comments

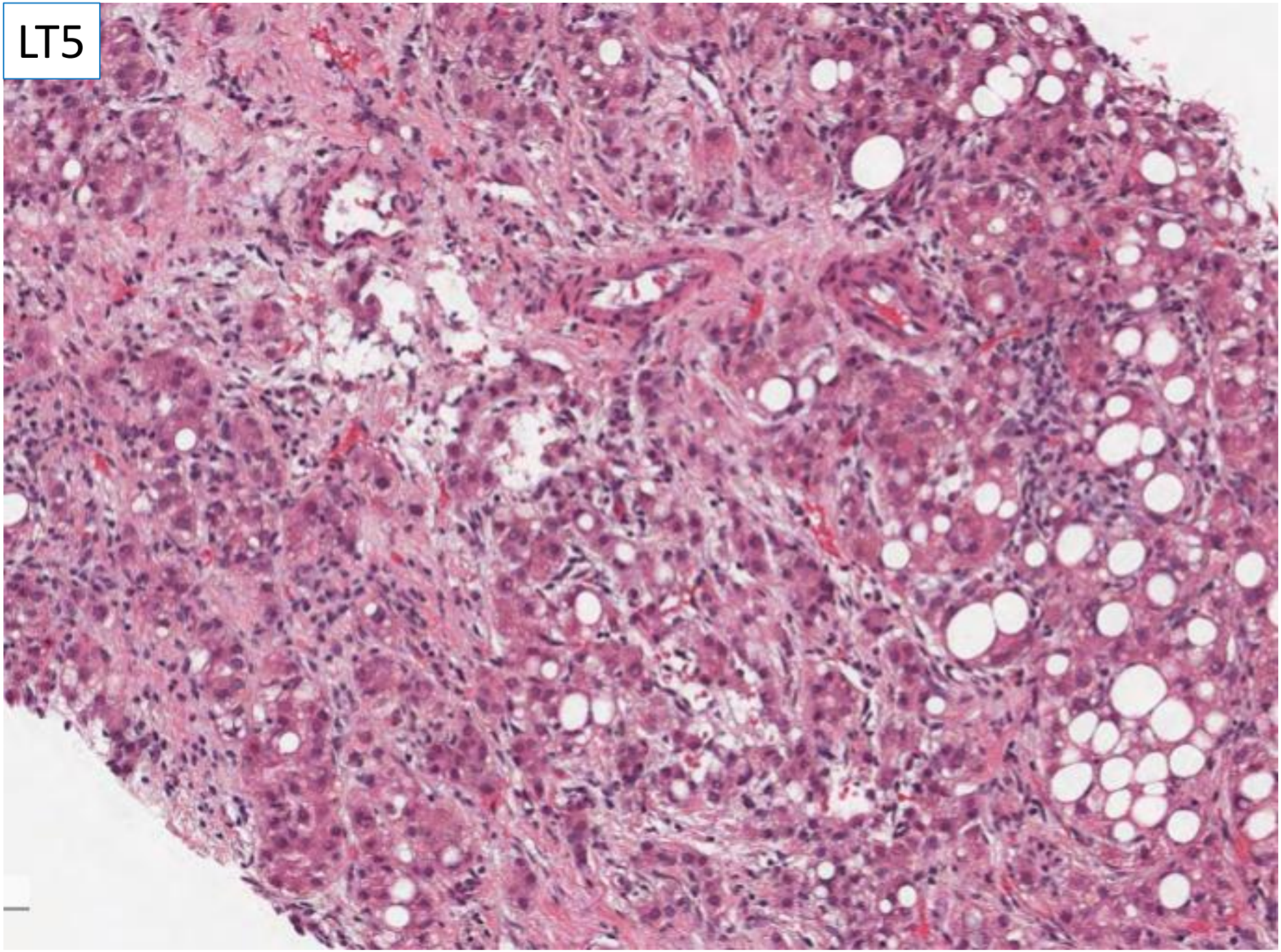
- 9 respondents suggested fat more likely due to HCV (6 commented also steatohepatitis; 3 steatosis)
- 10 respondents felt more likely non-viral aetiology for fat
- 17 respondents used Ishak to grade inflammation (19 to stage fibrosis)
- 4 referred to Kleiner, 1 METAVIR, 1 Laennec

Further information from submitting pathologist - this was genotype 1B – so not genotype 3 which is associated with steatosis on its own.

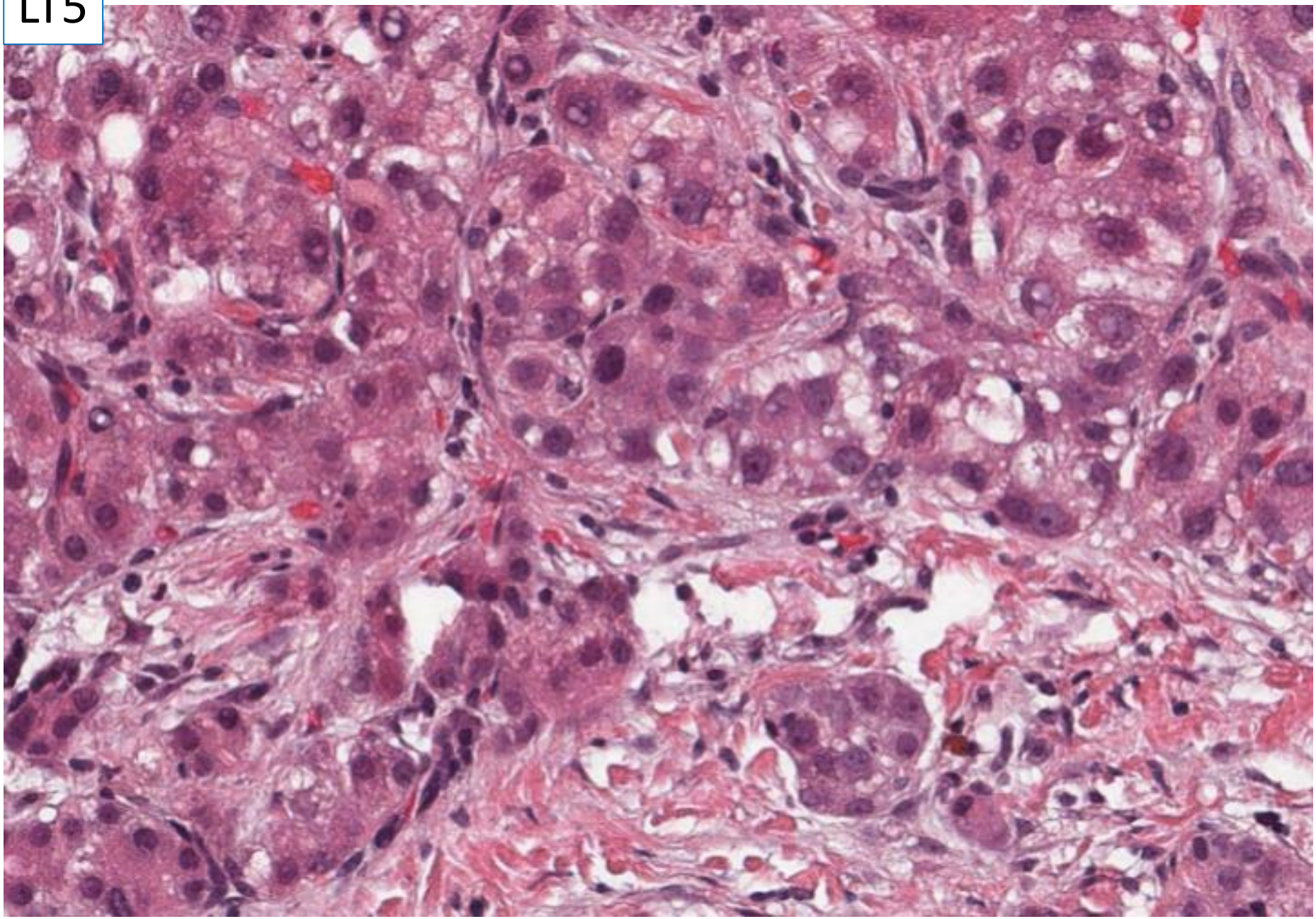
Case LT5 66M

Segment VIII liver lesion biopsy. + background liver biopsy (segment IV).
Microwave ablation post biopsy. ?HCC.
No additional stains submitted.

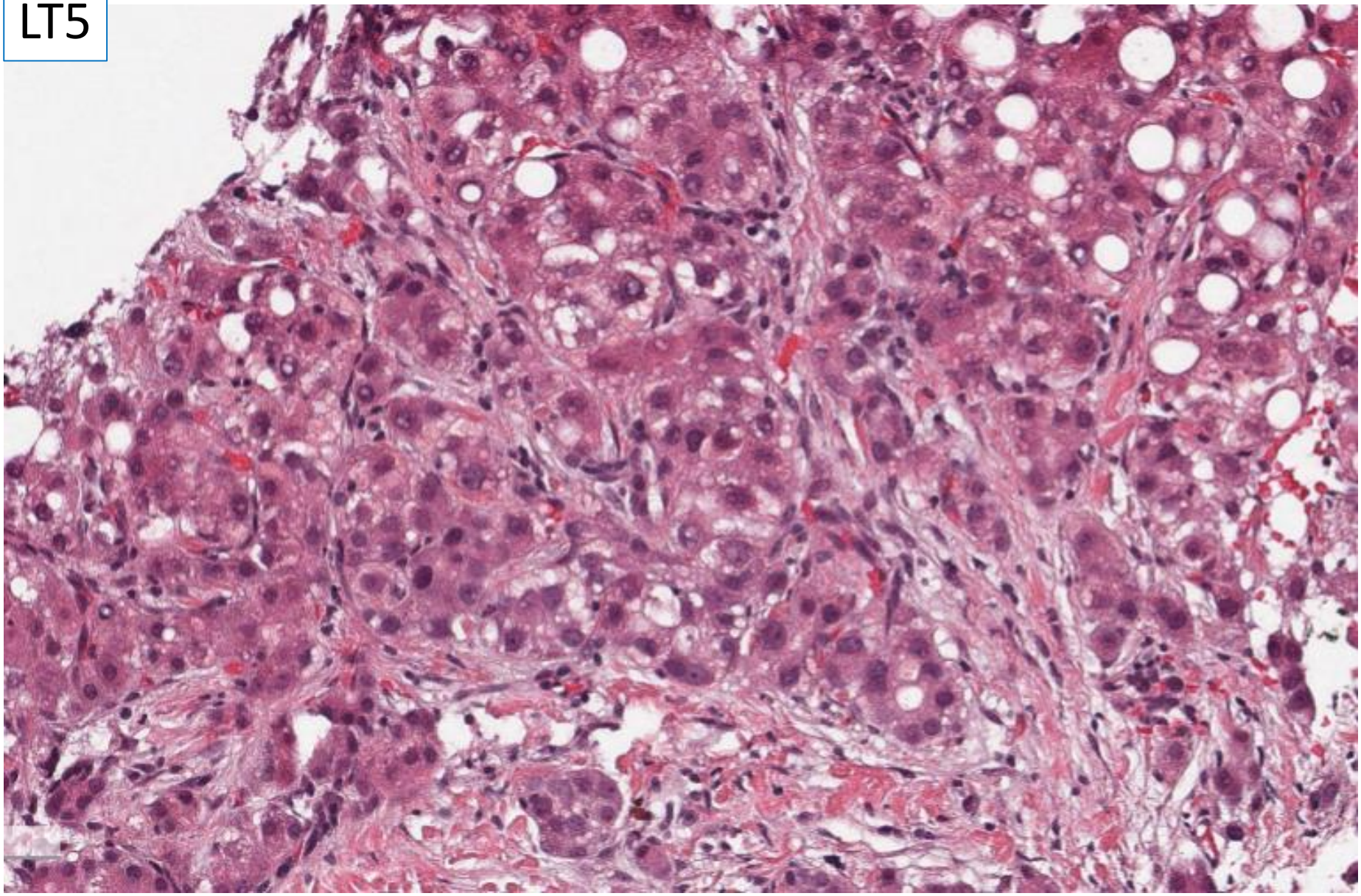


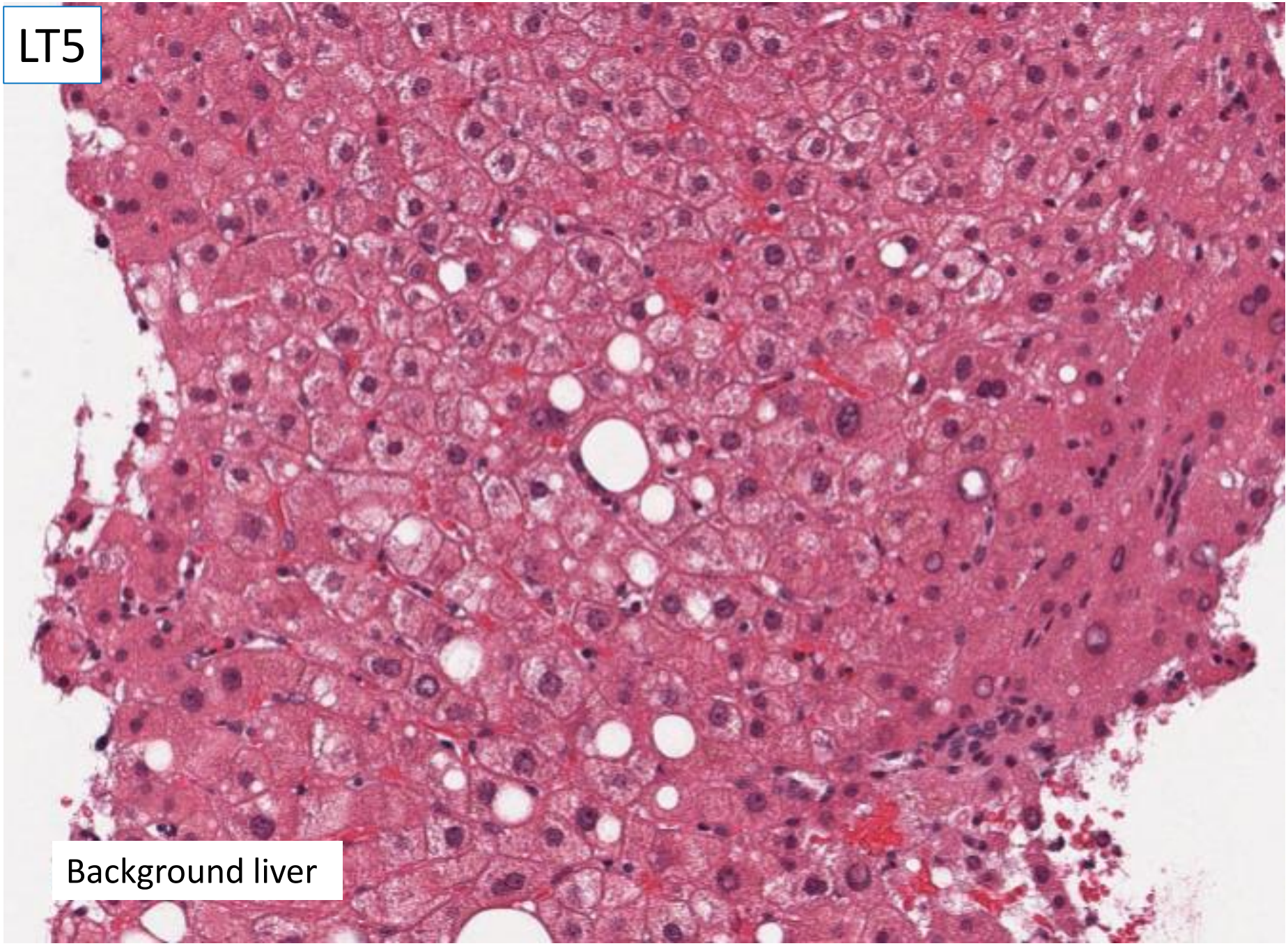

LT5

LT5

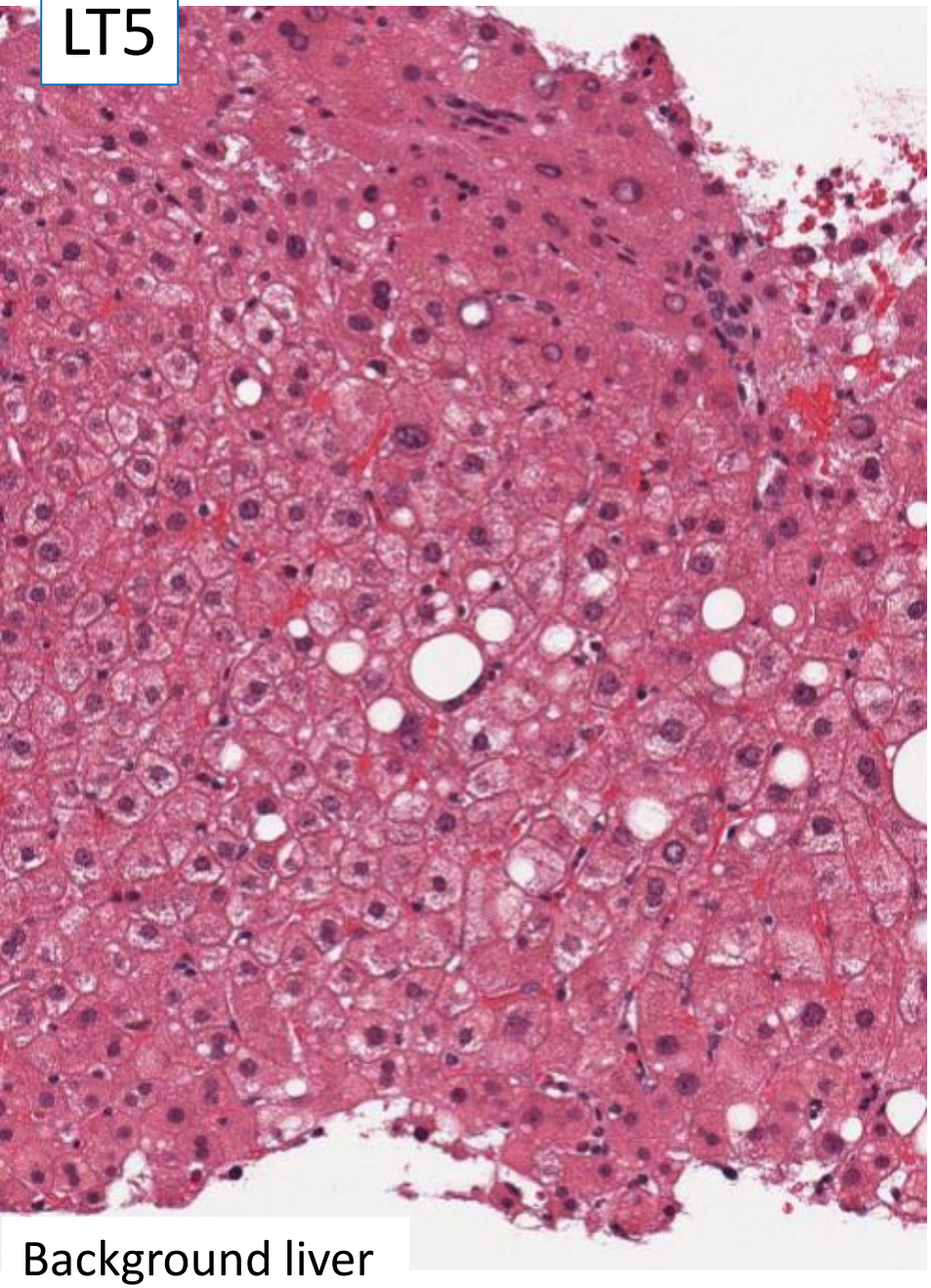


LT5

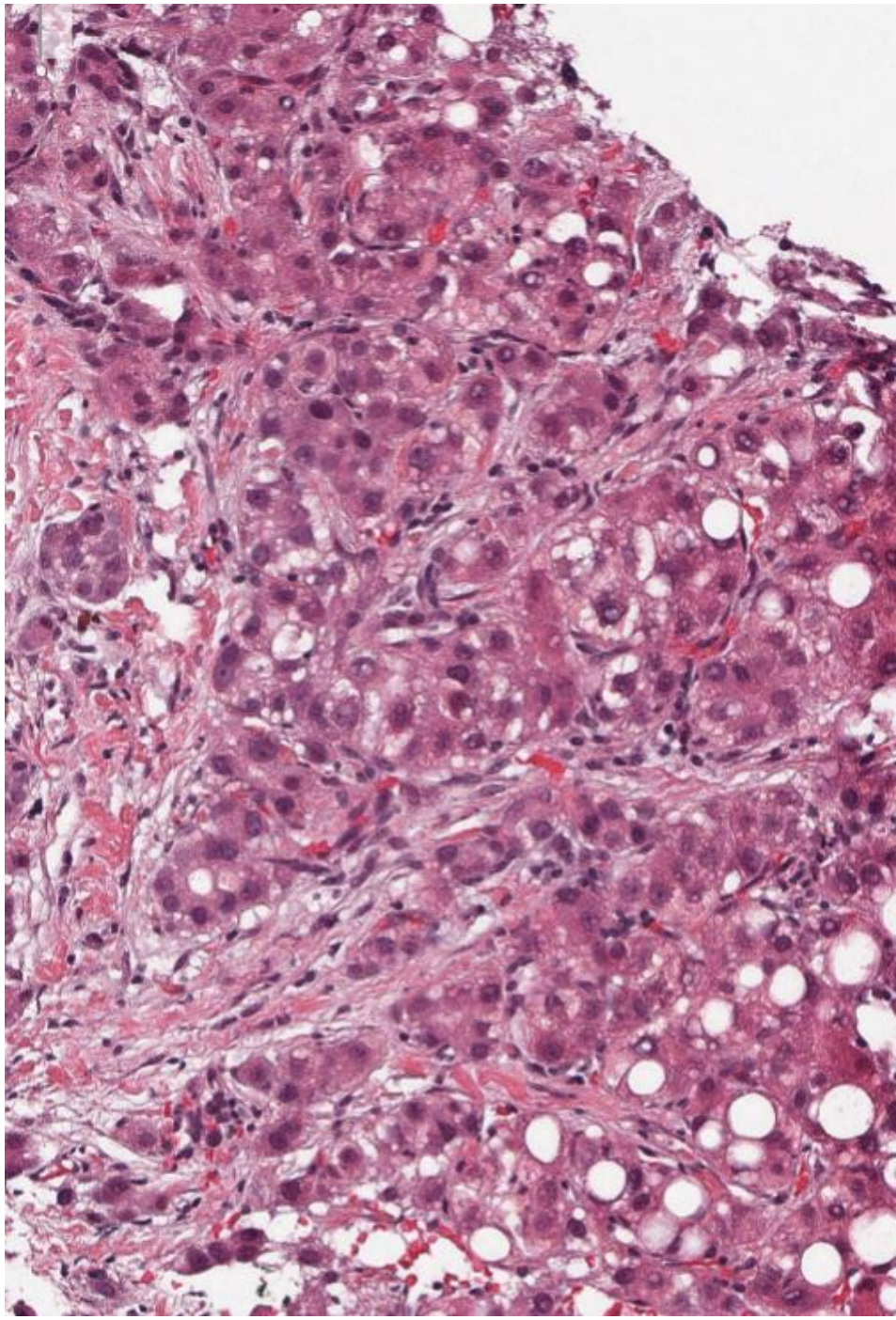



LT5
Background liver

LT5



Background liver



Case LT5 66M

Segment VIII liver lesion biopsy. + background liver biopsy (segment IV).
Microwave ablation post biopsy. ?HCC.
No additional stains submitted.

LT5	
A	Focal nodular hyperplasia
B	Hepatocellular adenoma
C	Hepatocellular carcinoma
D	Bile duct adenoma
E	Fibrolamellar hepatocellular carcinoma

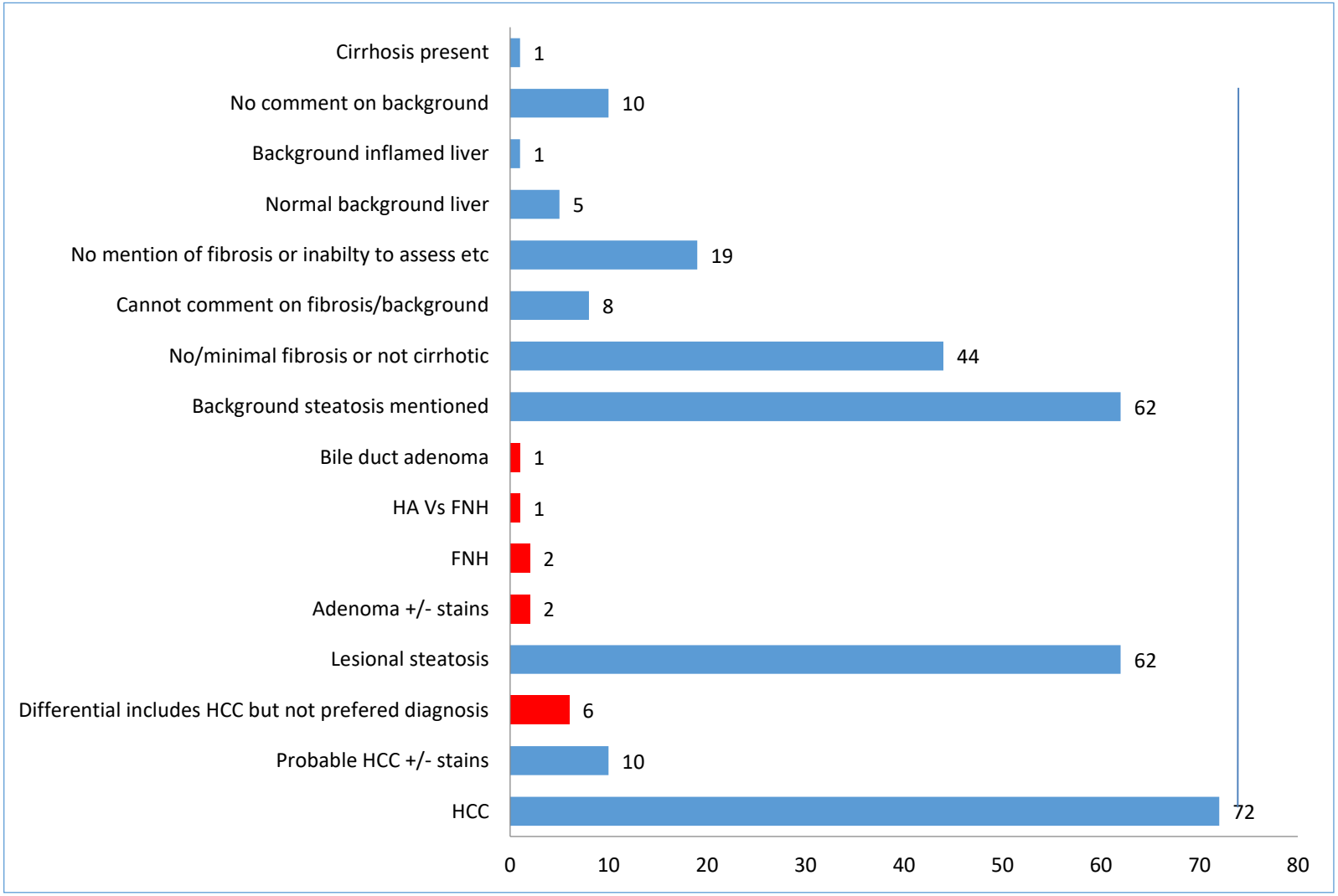
Case LT5 66M

Segment VIII liver lesion biopsy. + background liver biopsy (segment IV).
Microwave ablation post biopsy. ?HCC.
No additional stains submitted.

LT5	
A	Focal nodular hyperplasia
B	Hepatocellular adenoma
C	**Hepatocellular carcinoma**
D	Bile duct adenoma
E	Fibrolamellar hepatocellular carcinoma

Case LT5 66

Segment VIII liver lesion biopsy. + background liver biopsy (segment IV).
Microwave ablation post biopsy. ?HCC.
No additional stains submitted.



LT5: Scoring proposal

- **Consensus complete responses would include** ; HCC or probable HCC

- **Suggested scoring: for 10 points** - as above
- **Lose 5 marks** if HCC in differential diagnosis but not preferred diagnosis (6)
- **Lose 5 marks** if HUMP or FLC
- **Lose 10 marks (score 0) if** diagnosis is HCC not considered in differential diagnosis (6)

Comments LT5

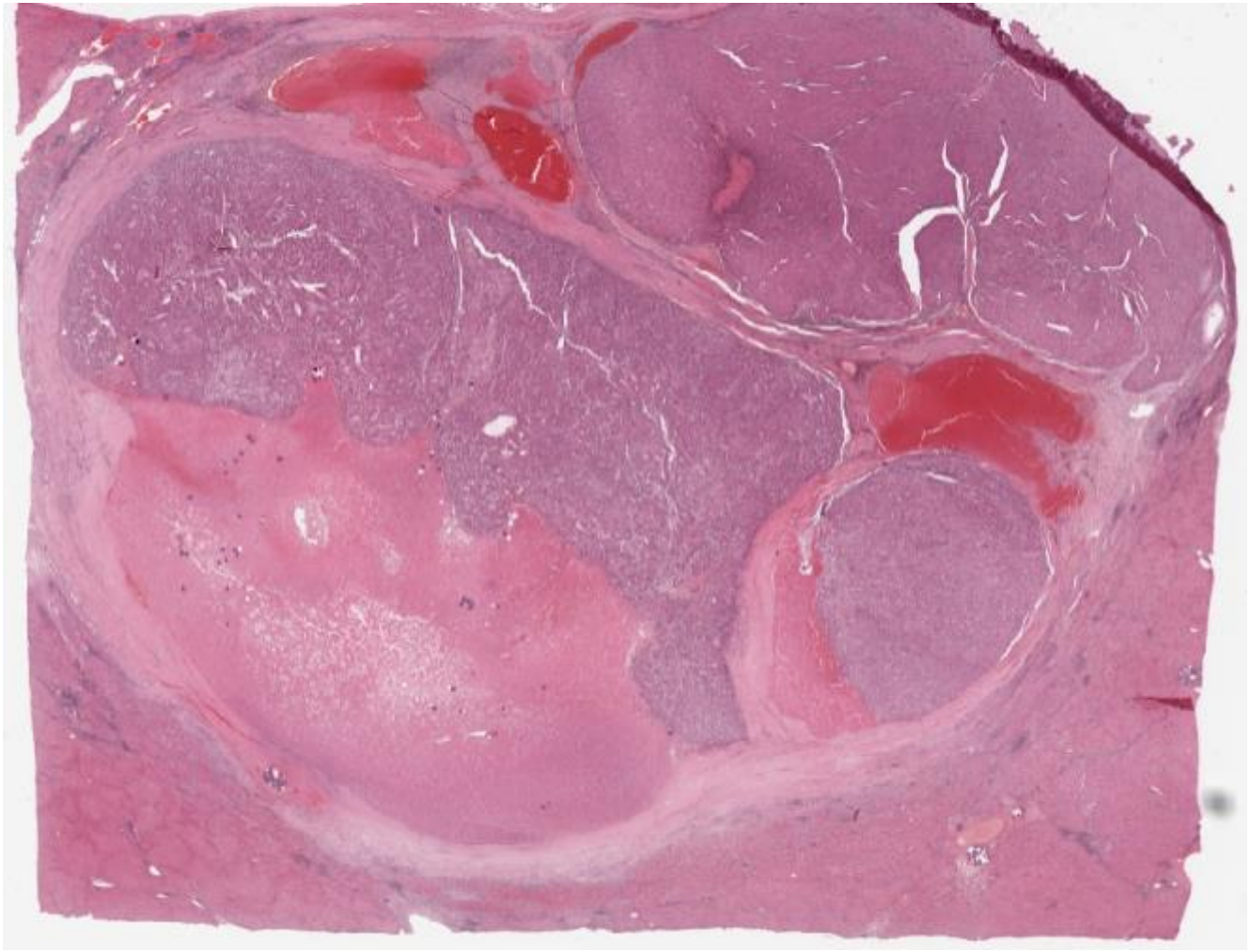
- 62 people commented on lesional steatosis.
- Subtypes specifically mentioned – 7 x steatotic, 7 x steatohepatitic, 1 x FLC, 1 x HCC with fatty change
- 1 x adenoma
- Range of differentiation (well, moderate and 1 x poor)

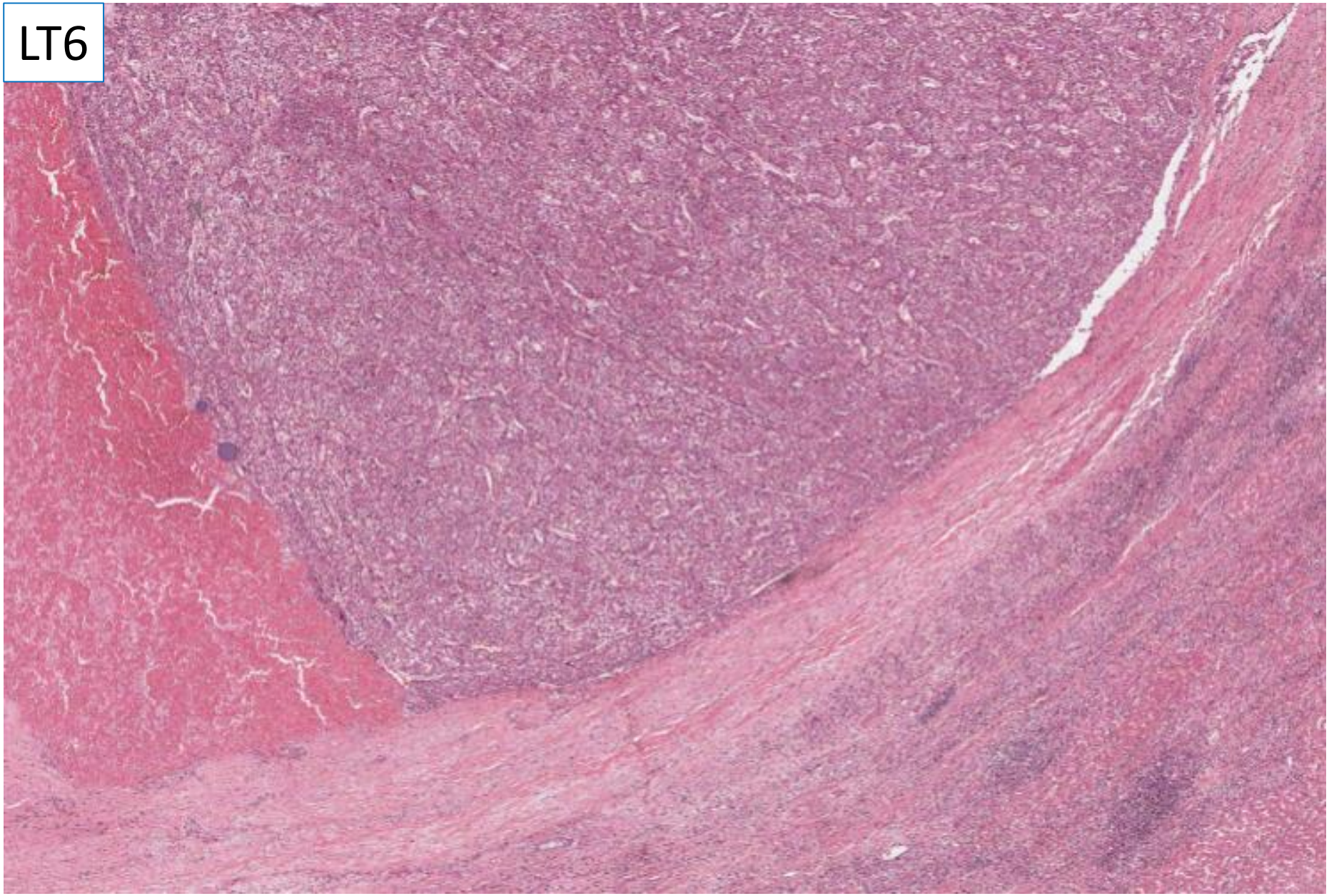
Case LT6 70

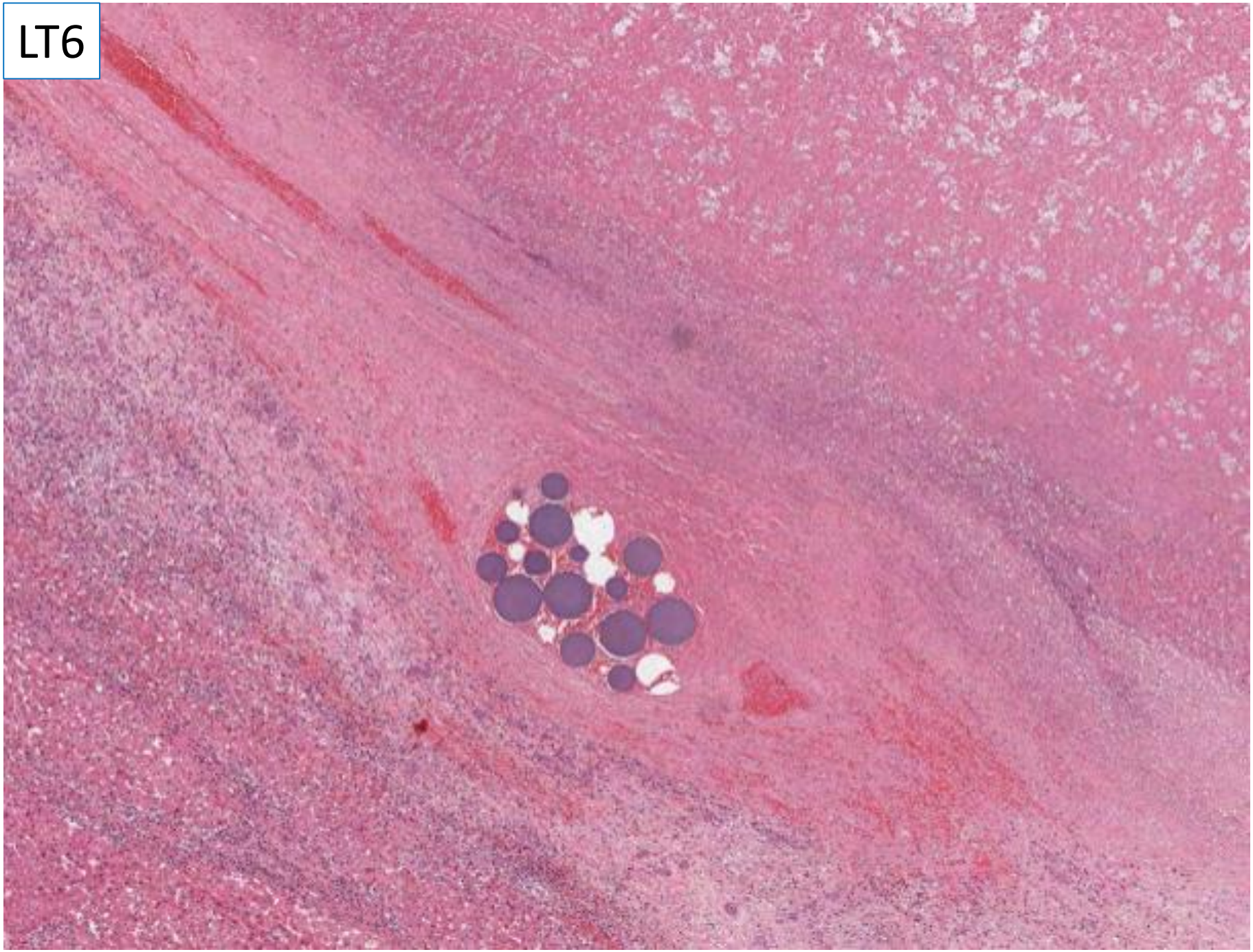
Cirrhosis. Specimen: Liver explant.

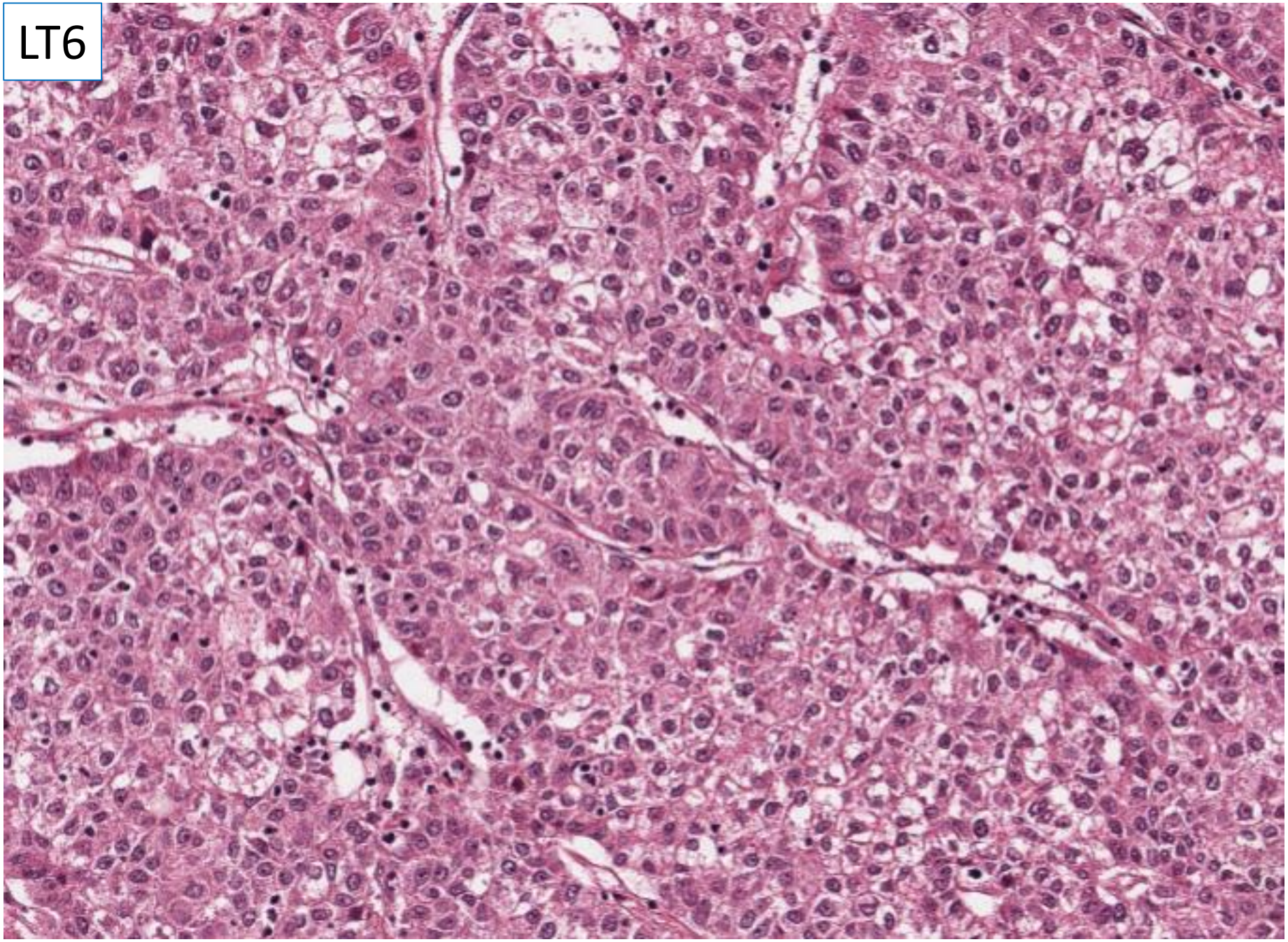
A total hepatectomy, weighing 2030 grams. On slicing, within segment VI and VII, there is a variegated cream/haemorrhagic/bile stained tumour with thickened capsule, which measures 40 x 29 x 22mm. The background liver shows some ill-defined nodularity.

Additional stains: None submitted for EQA.




LT6


LT6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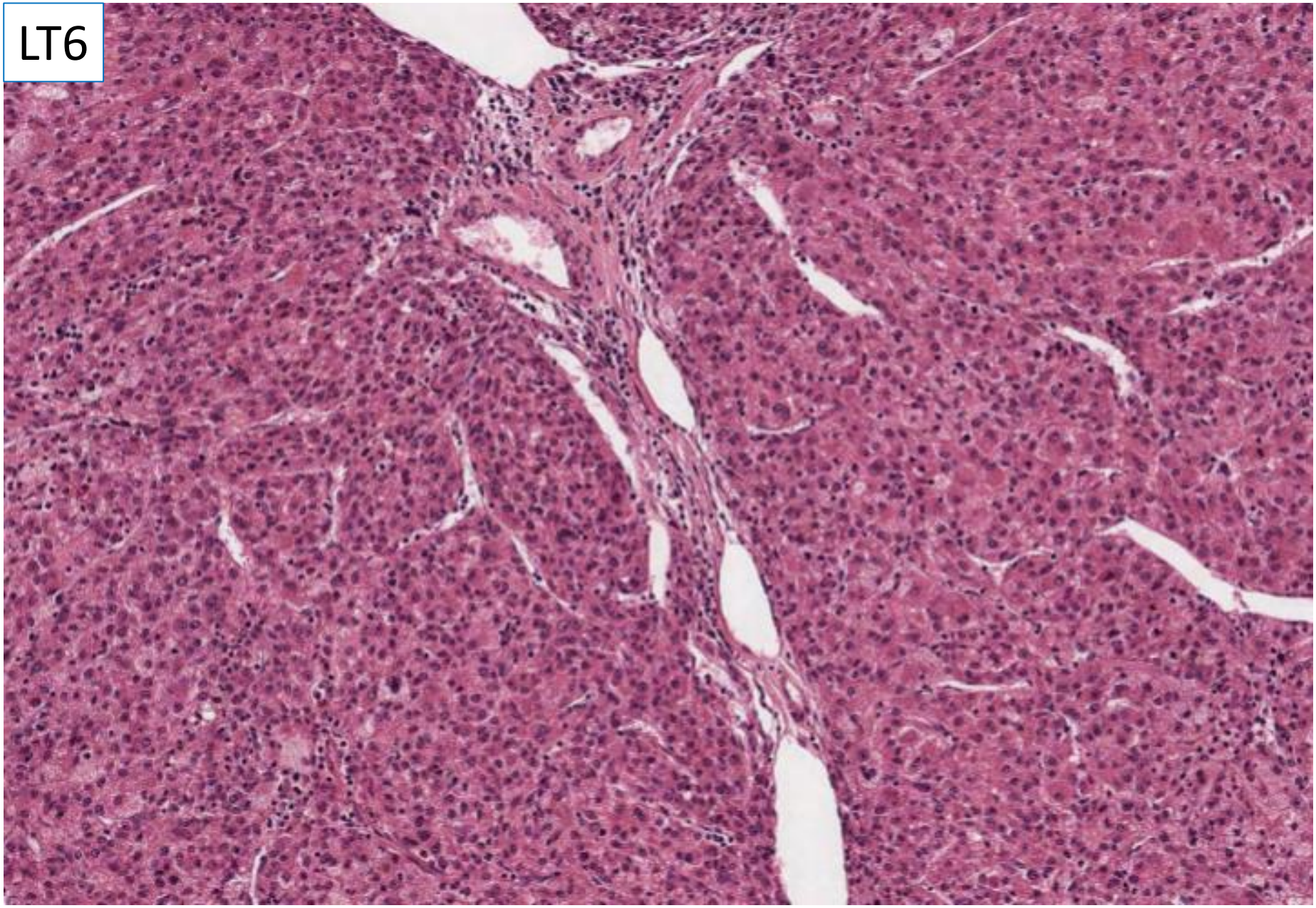
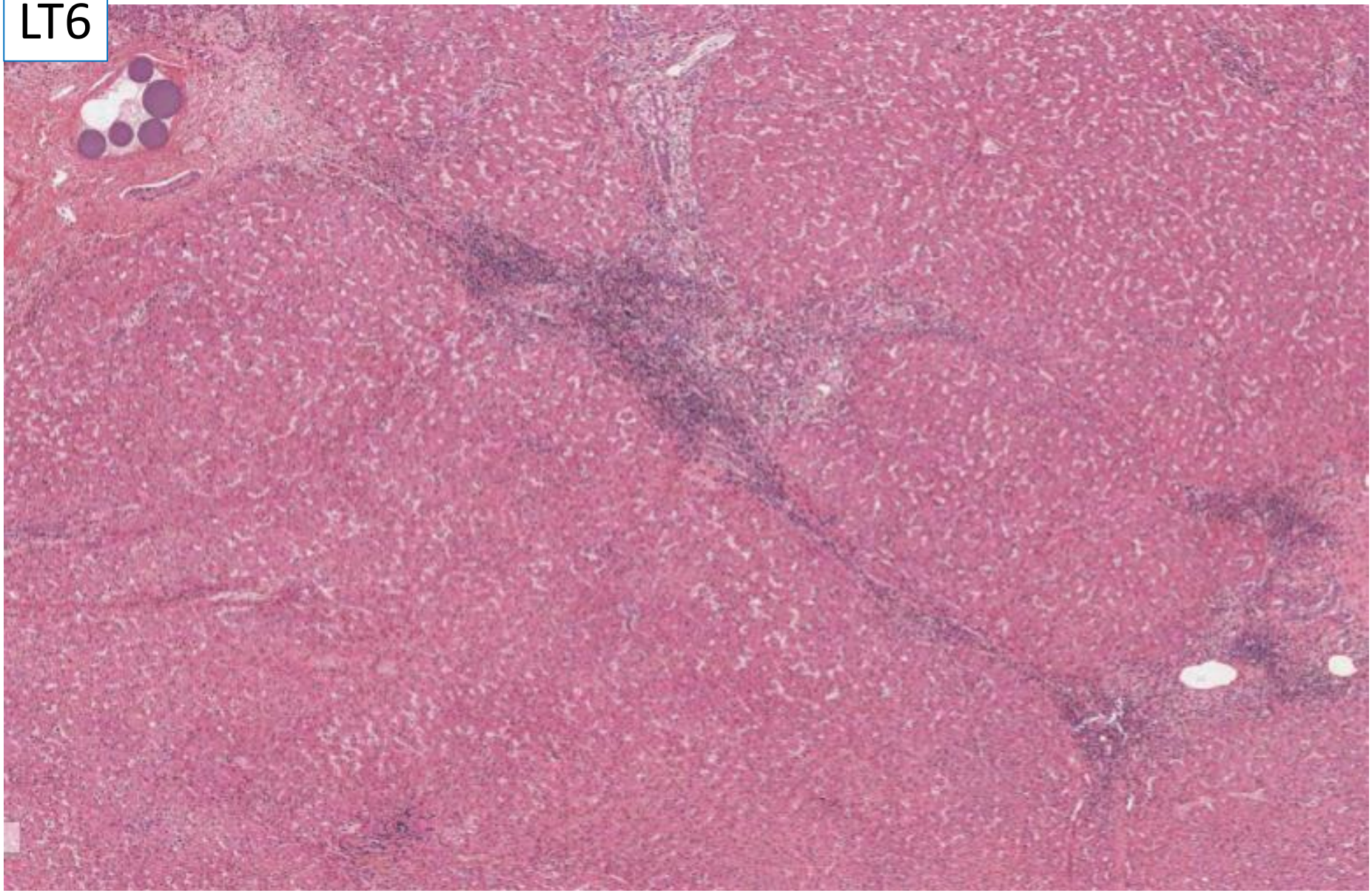

LT6

LT6



Case LT6 70

Cirrhosis. Specimen: Liver explant.

A total hepatectomy, weighing 2030 grams. On slicing, within segment VI and VII, there is a variegated cream/haemorrhagic/bile stained tumour with thickened capsule, which measures 40 x 29 x 22mm. The background liver shows some ill-defined nodularity.

Additional stains: None submitted for EQA.

LT6	
A	Hepatocellular carcinoma with treatment effects
B	Hepatocellular carcinoma
C	Focal nodular hyperplasia
D	Adenoma
E	Fibrolamellar carcinoma

Case LT6 70

Cirrhosis. Specimen: Liver explant.

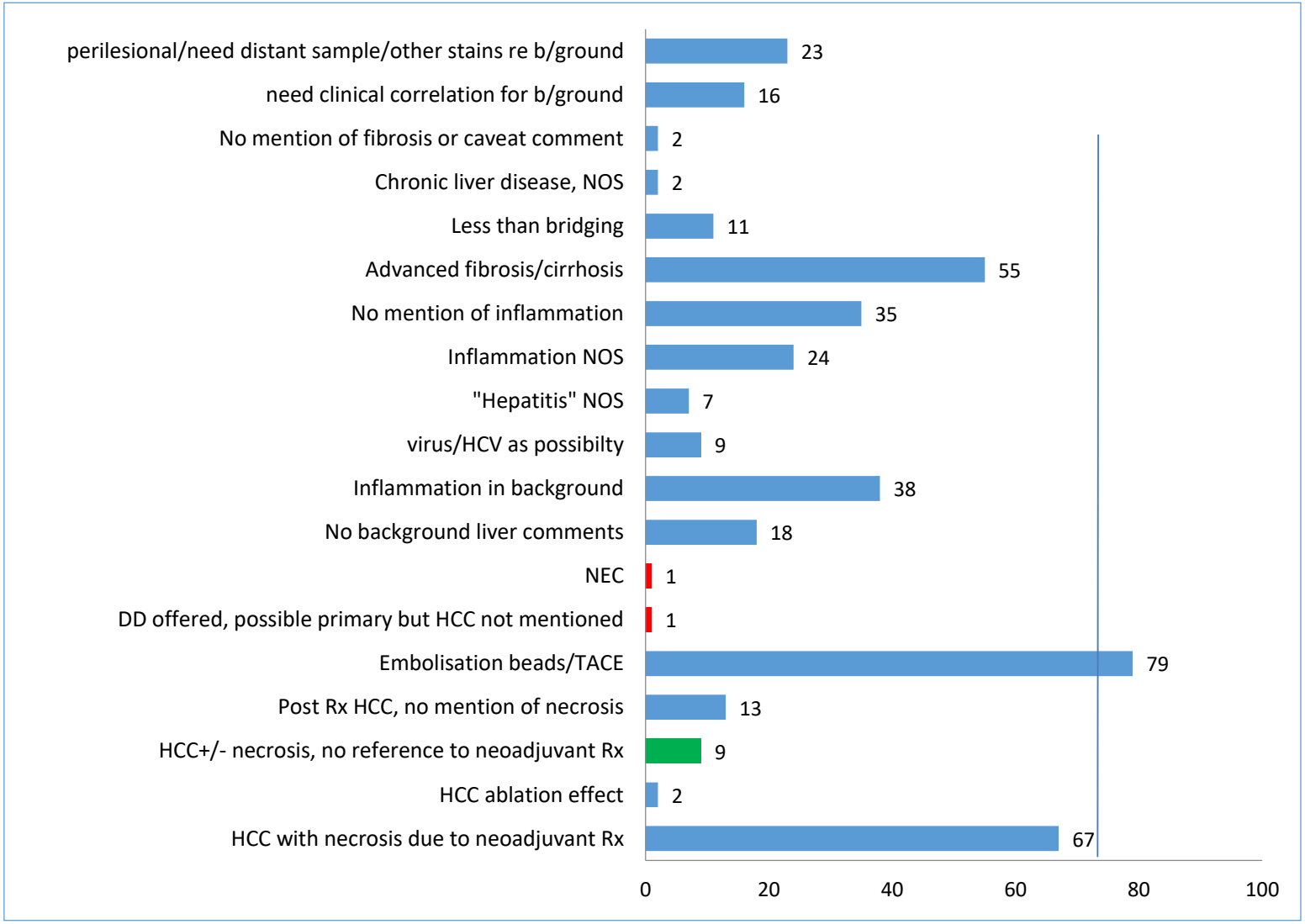
A total hepatectomy, weighing 2030 grams. On slicing, within segment VI and VII, there is a variegated cream/haemorrhagic/bile stained tumour with thickened capsule, which measures 40 x 29 x 22mm. The background liver shows some ill-defined nodularity.

Additional stains: None submitted for EQA.

LT6	
A	**Hepatocellular carcinoma with treatment effects**
B	Hepatocellular carcinoma
C	Focal nodular hyperplasia
D	Adenoma
E	Fibrolamellar carcinoma

Case LT6 70

Cirrhosis. Specimen: Liver explant. A total hepatectomy, weighing 2030 grams.
Contains a variegated cream/haemorrhagic/bile stained tumour with thickened capsule,
The background liver shows some ill-defined nodularity.
Additional stains: None submitted for EQA.



LT6: Scoring proposal

- **Consensus complete responses would include** – HCC with reference to embolization/TACE; No consensus of background liver

Meeting 16.10.19 lump together all mentions of treatment/treatment effect. So potentially score 5 if no mention of treatment effect of any kind – put this to members

- **Suggested scoring: for 10 points** include as above
- **Lose 5 marks** if No mention of embolization or TACE (9) – at meeting – it was agreed to lose 5 marks if there is HCC +/- necrosis but no mention of treatment effect
- **Lose 5 marks** if ablation or if SIRT only referenced?? – no, since some participants will be unfamiliar with different types of embolization material.

- **Lose 10 marks (score 0) if** HCC not diagnosed or not in differential diagnosis (2)

LT6: comments

Observations/potential learning points,

SIRT versus TACE/TAE

Range of comments on background liver – guidance on commenting on background liver in general Vs EQA??

No consensus in this case and no specials provided here – where there are connective tissue stains it's reasonable to expect a comment.

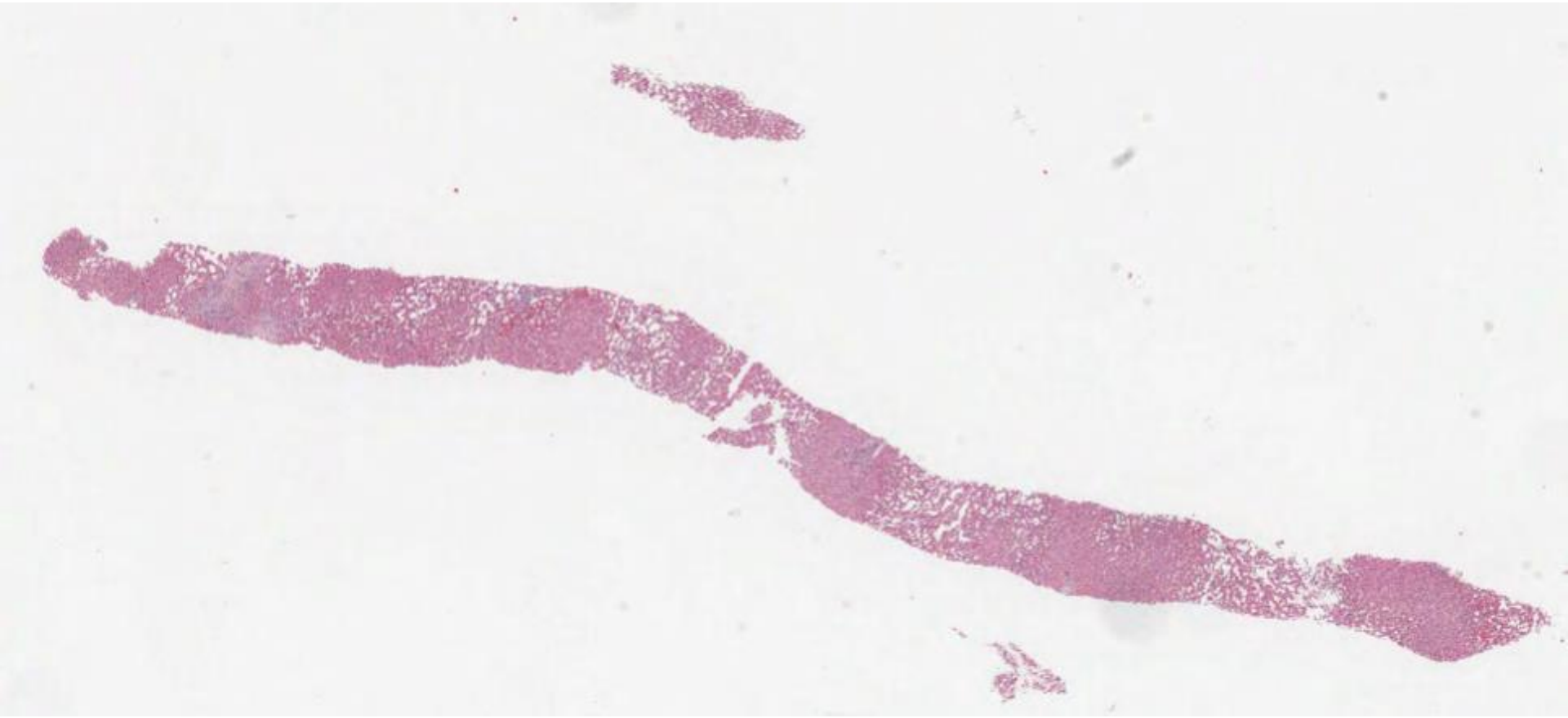
Any consistent methods people are using to record regressive changes?

(TNM8 and WHO blue book do not mention reporting treatment effect)

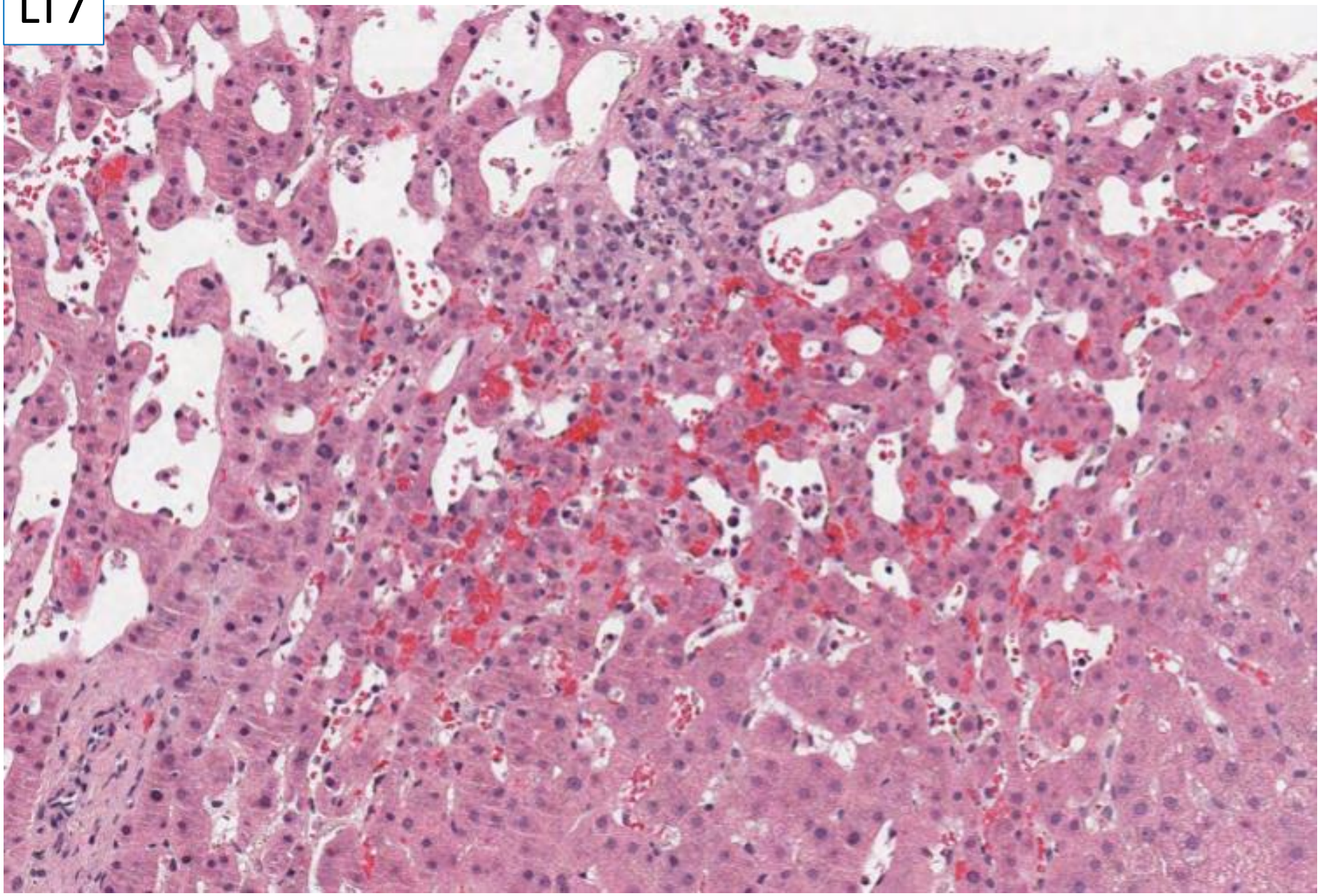
Case LT7 M71

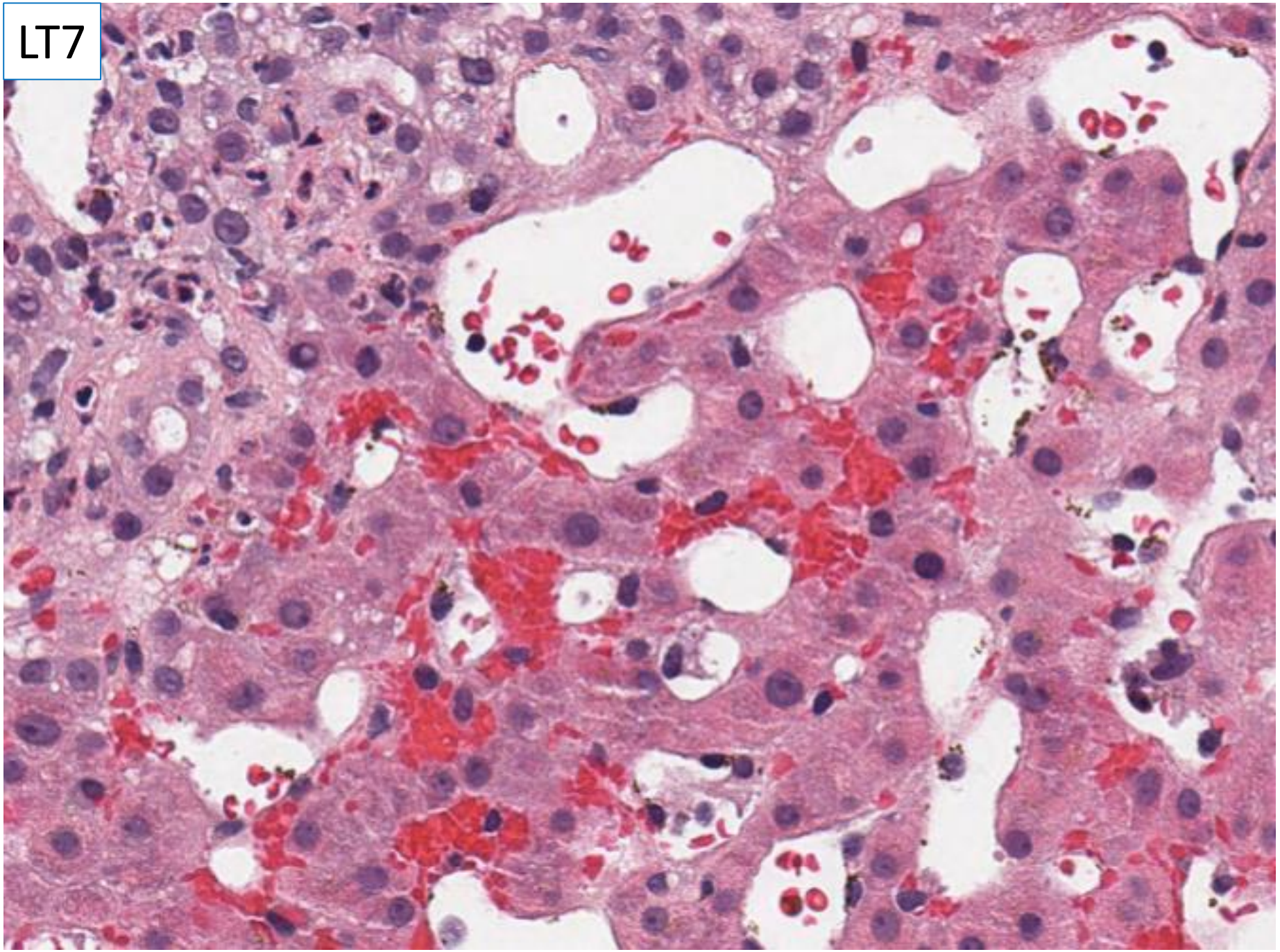
Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312. ?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

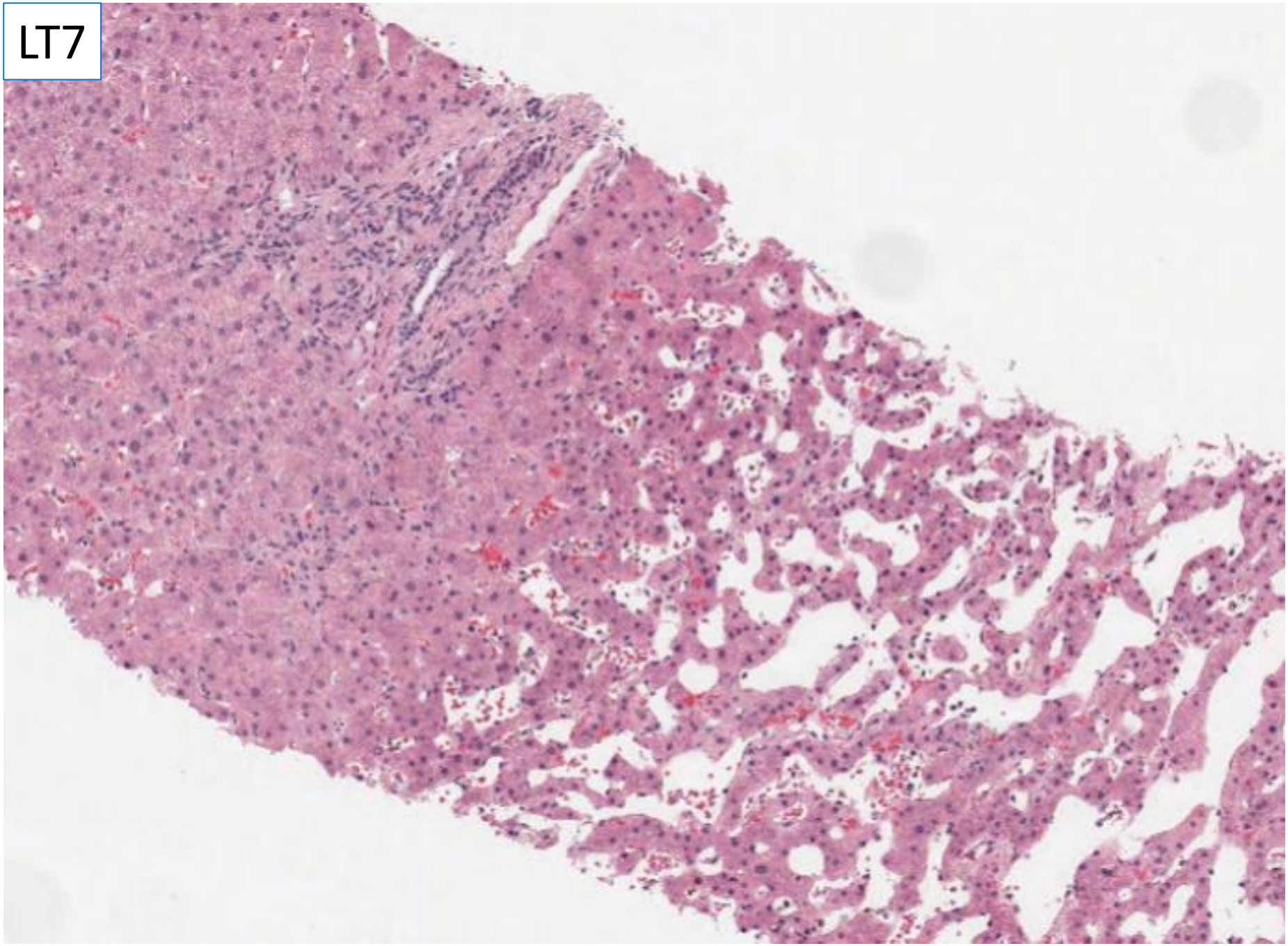
Liver biopsy, USG plugged. Three tan cores measuring 5, 7 and 17mm.
Additional stains: None submitted to EQA.

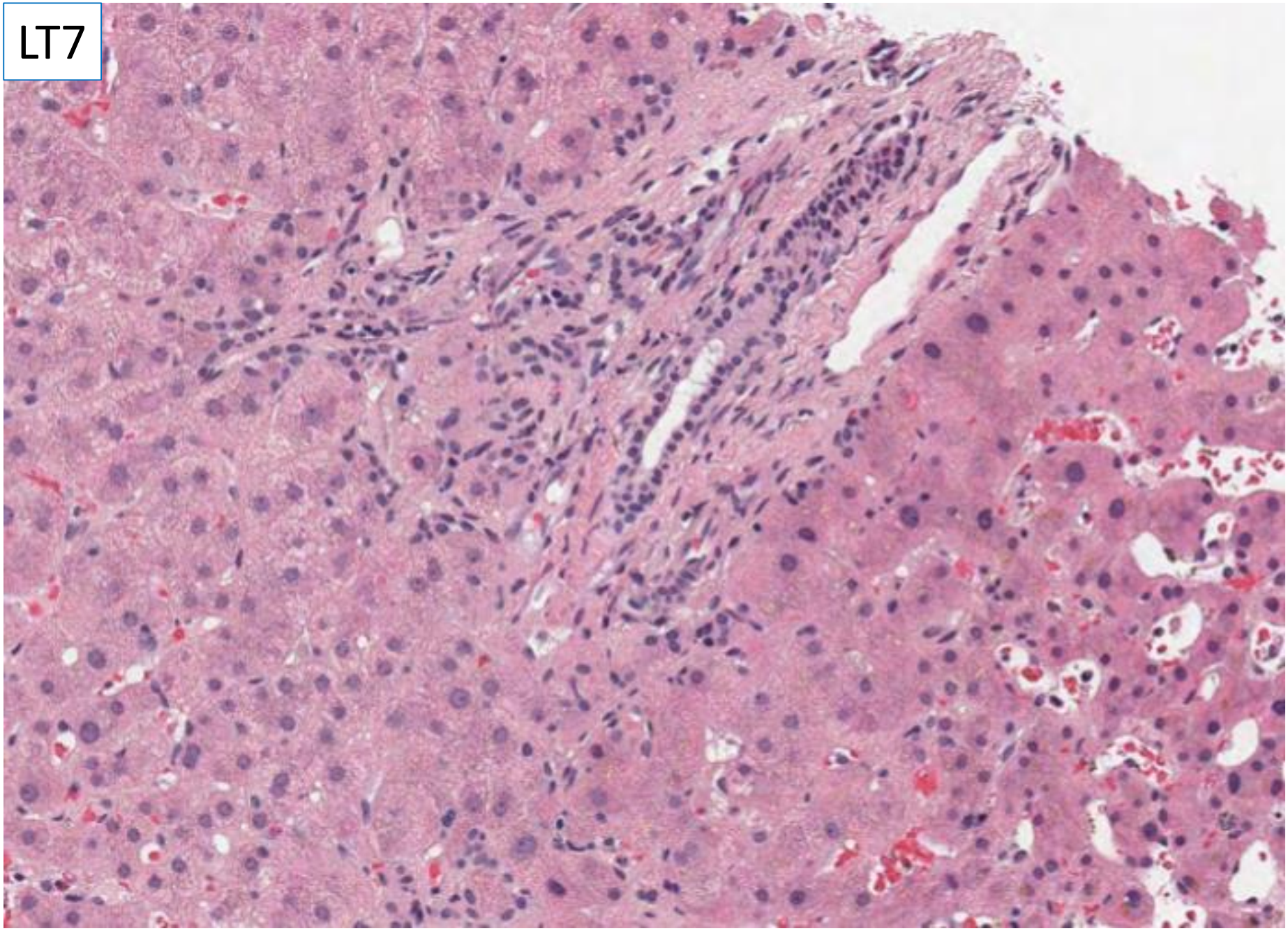


LT7

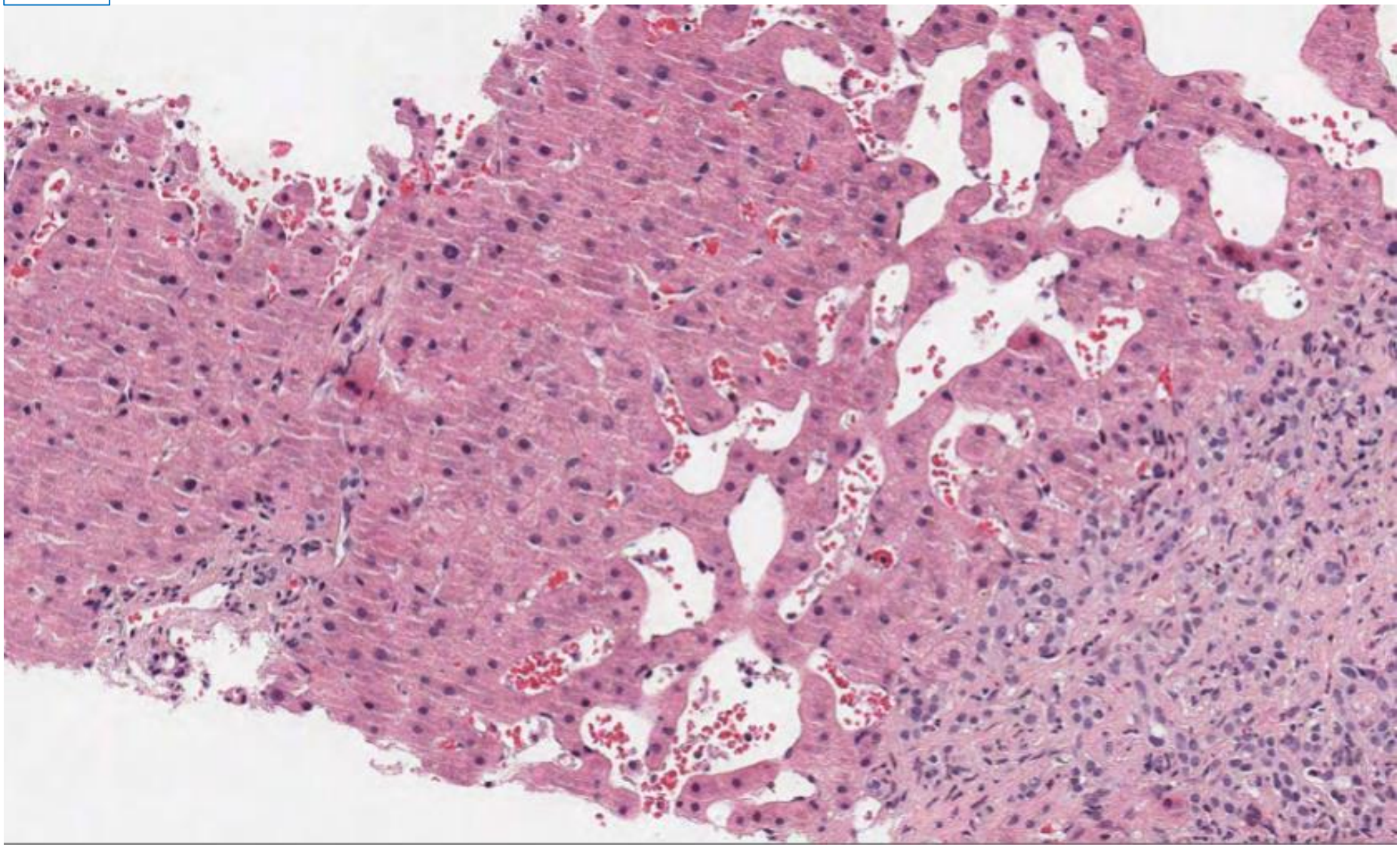



LT7


LT7


LT7

LT7



Case LT7 M71

Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312. ?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

Liver biopsy, USG plugged. Three tan cores measuring 5, 7 and 17mm.
Additional stains: None submitted to EQA.

LT7	
A	Biliary disease
B	Drug induced liver injury DILI
C	Vascular disease (outflow obstruction) and DILI
D	Vascular disease (outflow obstruction)
E	Peliosis hepatis

Case LT7 M71

Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312. ?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

Liver biopsy, USG plugged. Three tan cores measuring 5, 7 and 17mm.
Additional stains: None submitted to EQA.

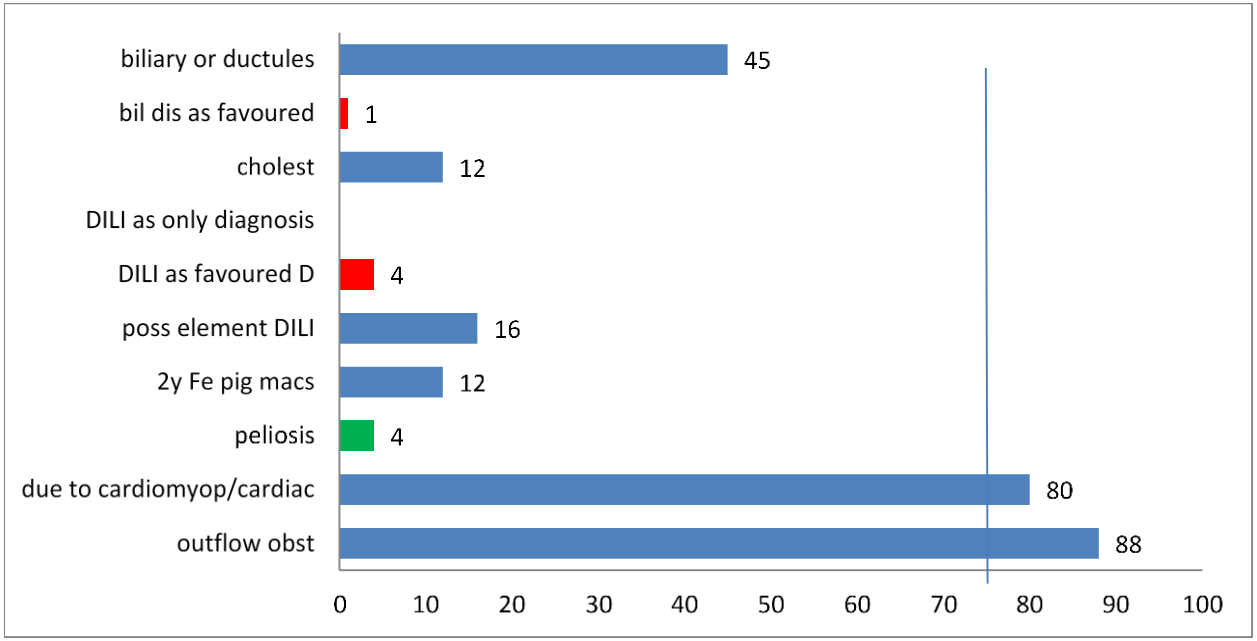
LT7	
A	Biliary disease
B	Drug induced liver injury DILI
C	Vascular disease (outflow obstruction) and DILI
D	**Vascular disease (outflow obstruction)**
E	Peliosis hepatis

Case LT7 M71

Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312.

?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

Additional stains: None submitted to EQA.



Consensus complete responses would include ; ‘outflow obstruction’ or strong implication of that ‘congestive hepatopathy’ for example and cardiac cause.

Case LT7 M71

Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312.

?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

Additional stains: None submitted to EQA.

Suggested scoring: for 10 points ; 'outflow obstruction' or strong implication of that 'congestive hepatopathy' for example and cardiac cause.

Lose 5 marks if no mention of cardiac cause (13)

Lose 5 marks if another diagnosis (DILI biliary disease) is favoured, vascular changes also described (4)

? Lose 5 marks if peliosis – lose marks if no reference to outflow obstruction in response (4) – agreed at meeting that this will lose 5 points.

Lose 10 marks (score 0) if another disease e.g.DILI as only diagnosis (=0)

Case LT7 M71

Jaundice and progressively cholestatic LFT. Dilated cardiomyopathy and liver congestion. Has ICD/CRT-D. Bili 80, ALT 12, ALP 203, GGT 312.

?Drug induced cholestasis. ?Cardiac cirrhosis. DH Rivaroxaban.

Additional stains: None submitted to EQA.

Observations/potential learning points,

'Outflow obstruction' or 'congestive hepatopathy' grouped together
Sometimes outflow obstruction implied.

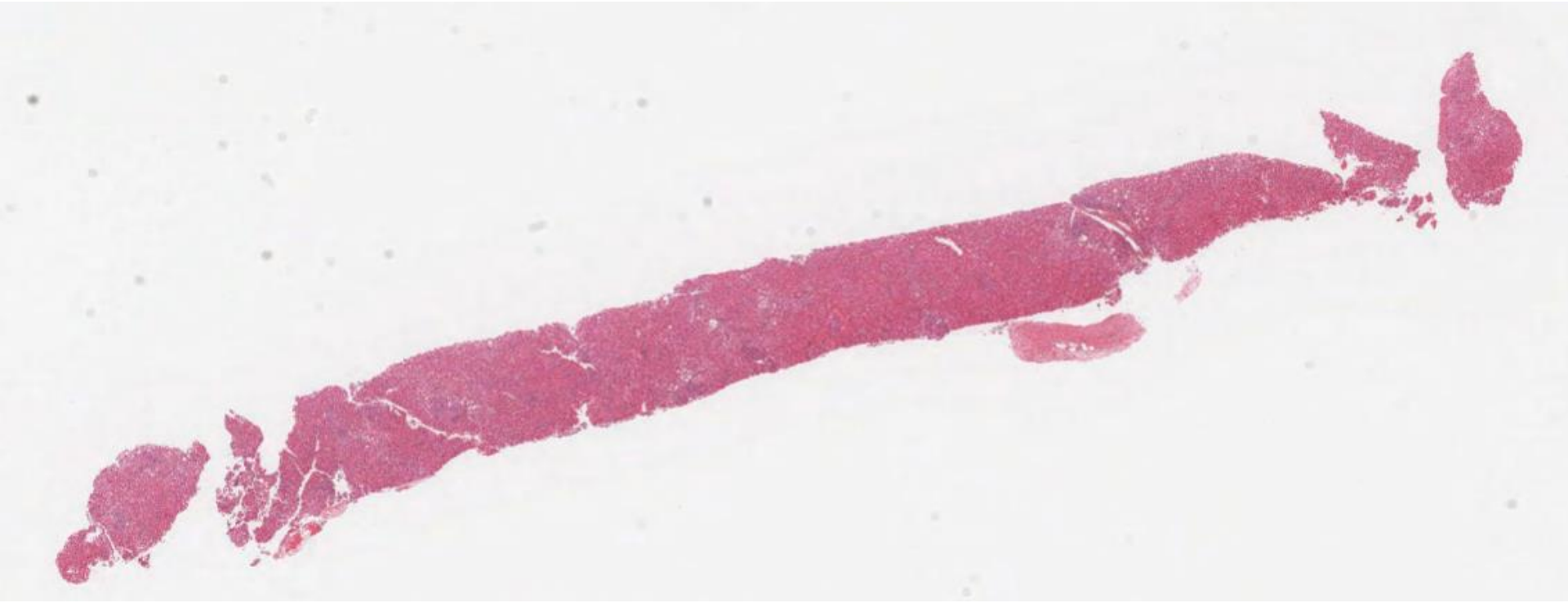
Term 'cardiac cirrhosis' sometimes used often in inverted commas

45 mentioned ductules 'biliary' – but in this context they may represent progenitor cell response

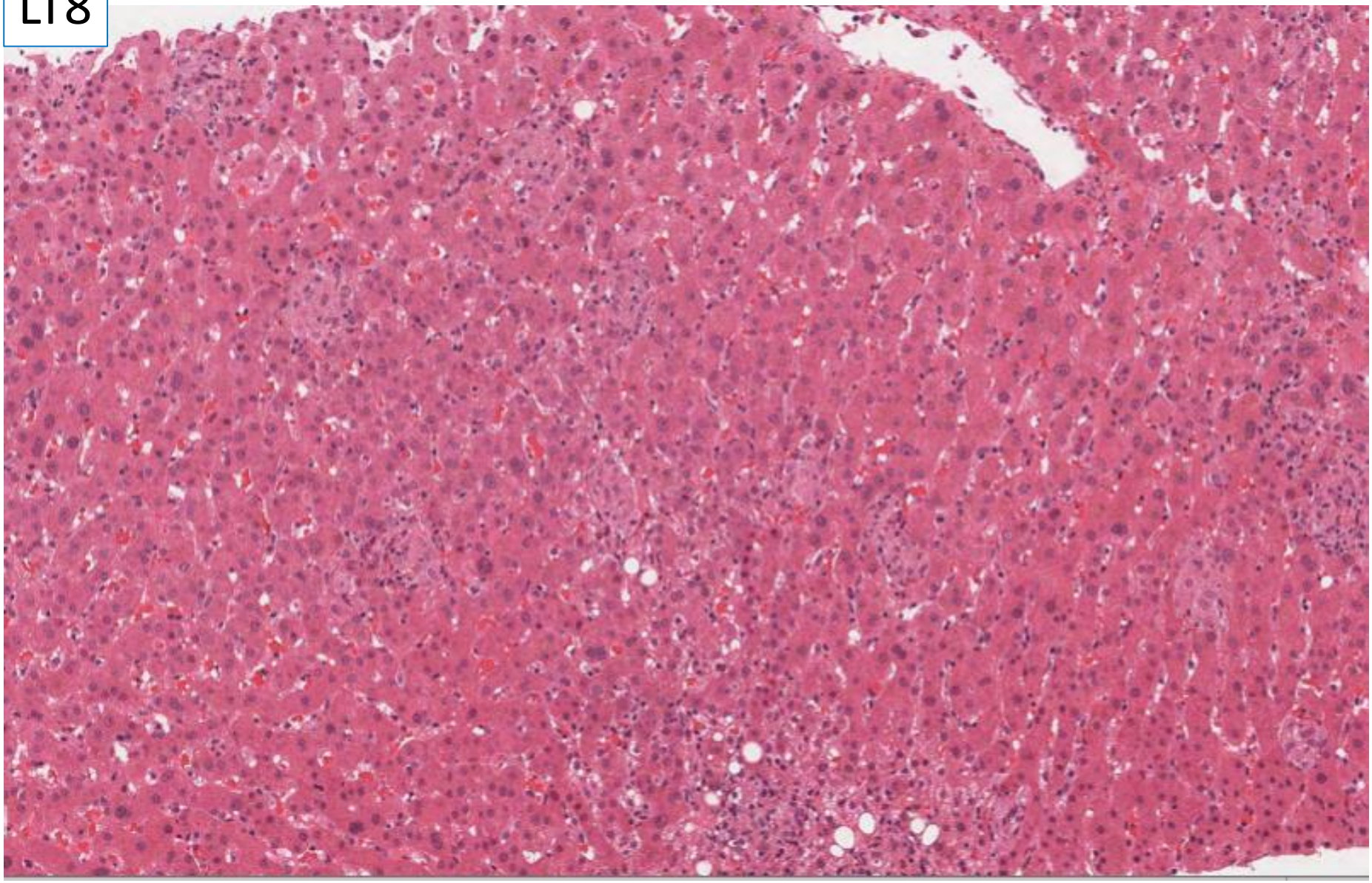
Case LT8 55M

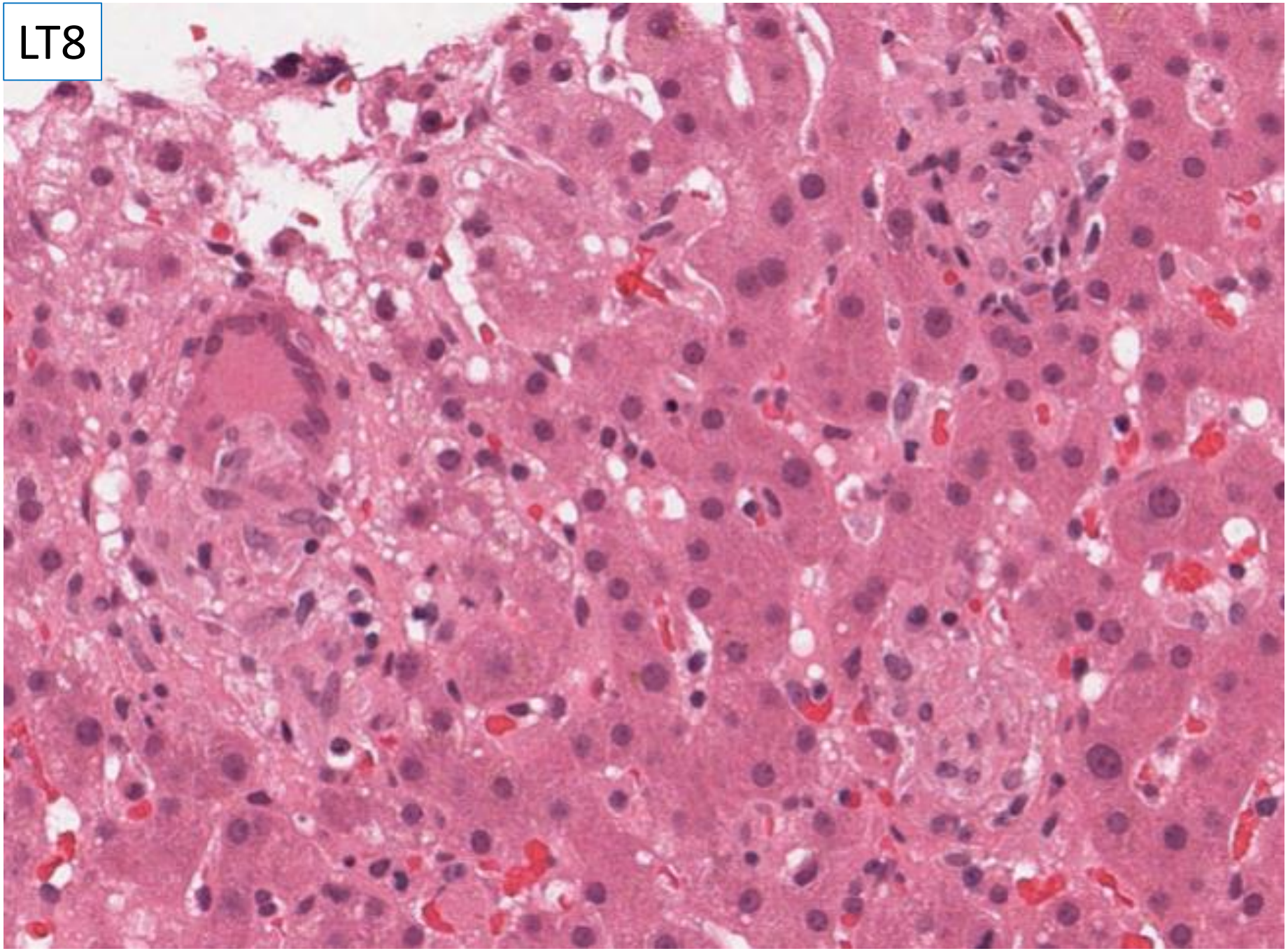
Sepsis of unknown origin. Fever, night sweats, rigor and lethargy. Intravesicle injection BCG for bladder cancer 2 months previously. Deranged liver function tests.

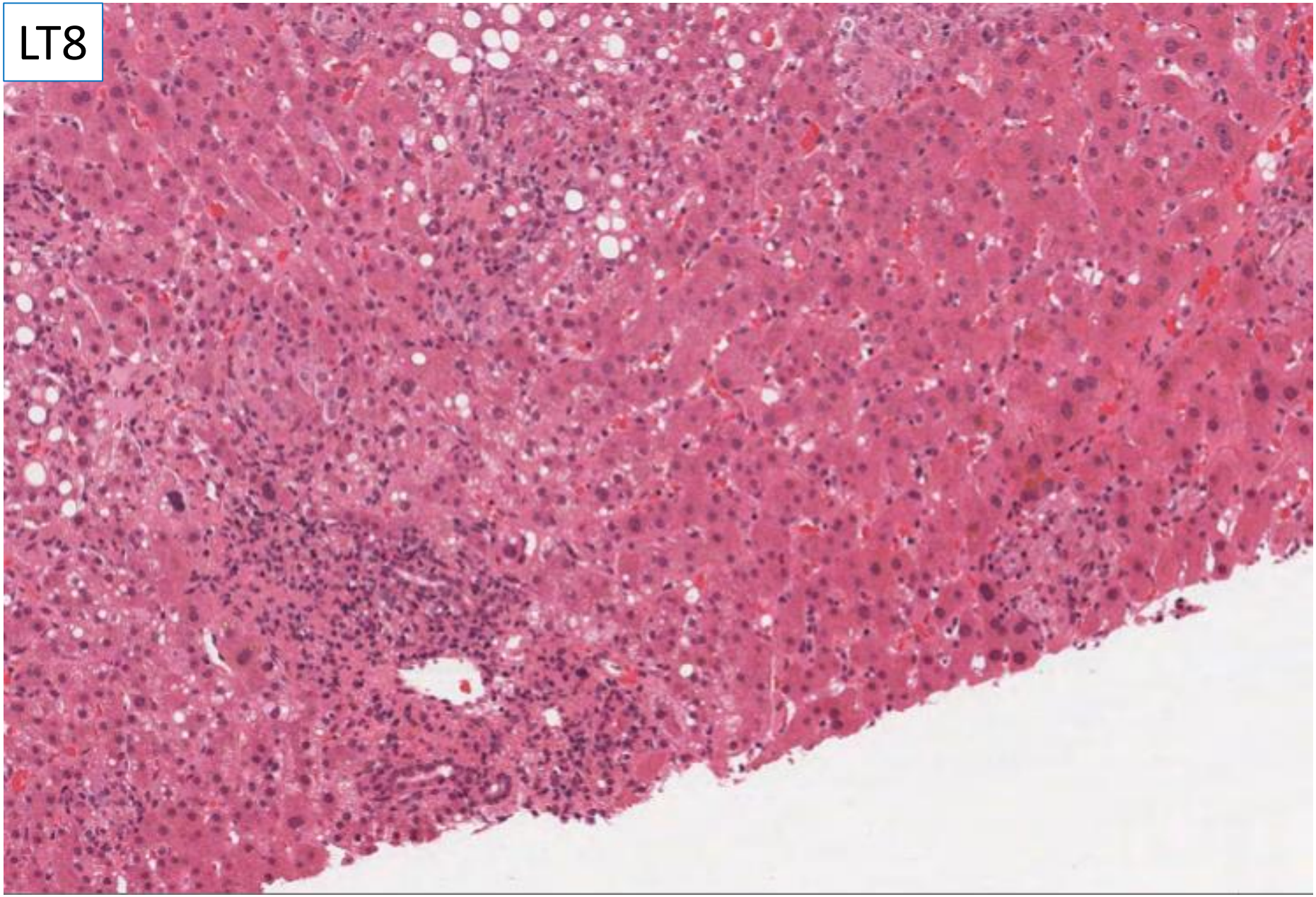
Additional stains: NONE.



LT8




LT8


LT8

Case LT8 55M

Sepsis of unknown origin. Fever, night sweats, rigor and lethargy. Intravesicle injection BCG for bladder cancer 2 months previously. Deranged liver function tests.

Additional stains: NONE.

LT8	
A	Granulomatous hepatitis ? Drug induced liver injury
B	Granulomas most likely sarcoidosis
C	Granulomas most likely TB
D	Granulomas, most likely primary biliary cholangitis
E	Granulomatous inflammation most likely due to BCG

Case LT8 55M

Sepsis of unknown origin. Fever, night sweats, rigor and lethargy. Intravesicle injection BCG for bladder cancer 2 months previously. Deranged liver function tests.

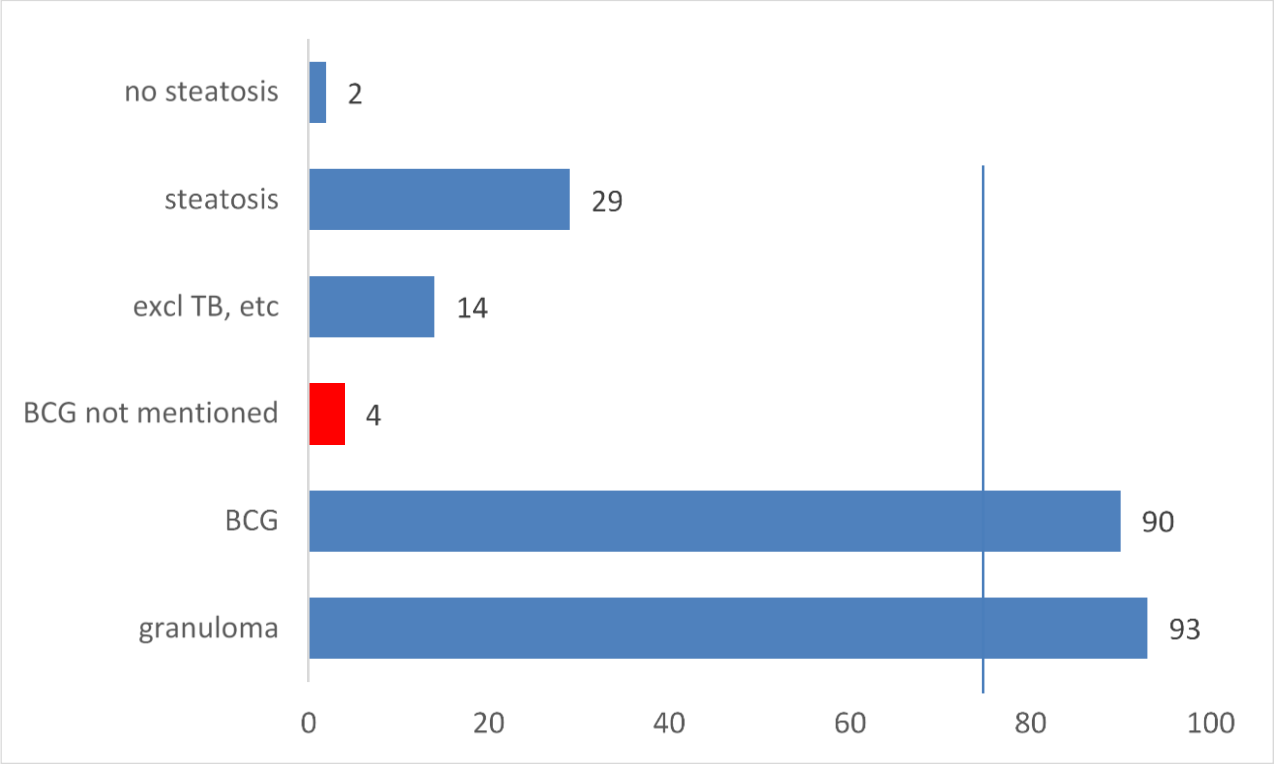
Additional stains: NONE.

LT8	
A	Granulomatous hepatitis ? Drug induced liver injury
B	Granulomas most likely sarcoidosis
C	Granulomas most likely TB
D	Granulomas, most likely primary biliary cholangitis
E	**Granulomatous inflammation most likely due to BCG**

Case LT8 55M

Sepsis of unknown origin. Fever, night sweats, rigor and lethargy. Intravesicle injection BCG for bladder cancer 2 months previously. Deranged liver function tests.

Chart of reposes from standard participants



Consensus complete responses would include – granulomatous inflammation and likely consequence of intravesical BCG, +/- mention of other causes of granulomatous inflammation.

Case LT8 55M

Sepsis of unknown origin. Fever, night sweats, rigor and lethargy. Intravesicle injection BCG for bladder cancer 2 months previously. Deranged liver function tests.

Suggested scoring: for 10 points include – granulomas/granulomatous hepatitis and BSG as the only or most likely cause.

Lose 5 marks if – granulomas but don't mention BCG as a cause.(4)

Lose 10 marks (score 0) if – no mention of granulomas – but everyone did.

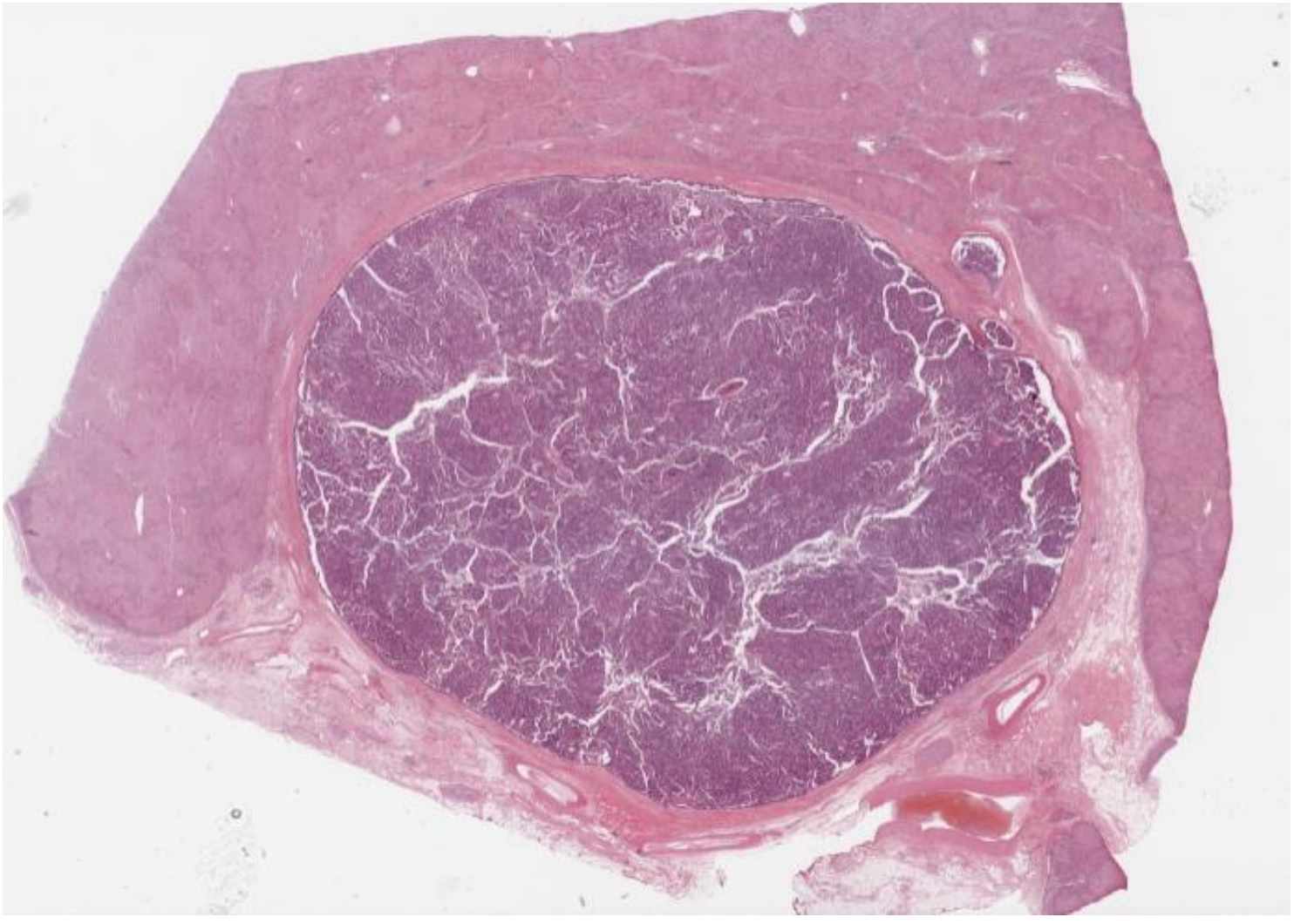
Observations/potential learning points,

– also a mild degree of steatosis – mentioned by a minority.

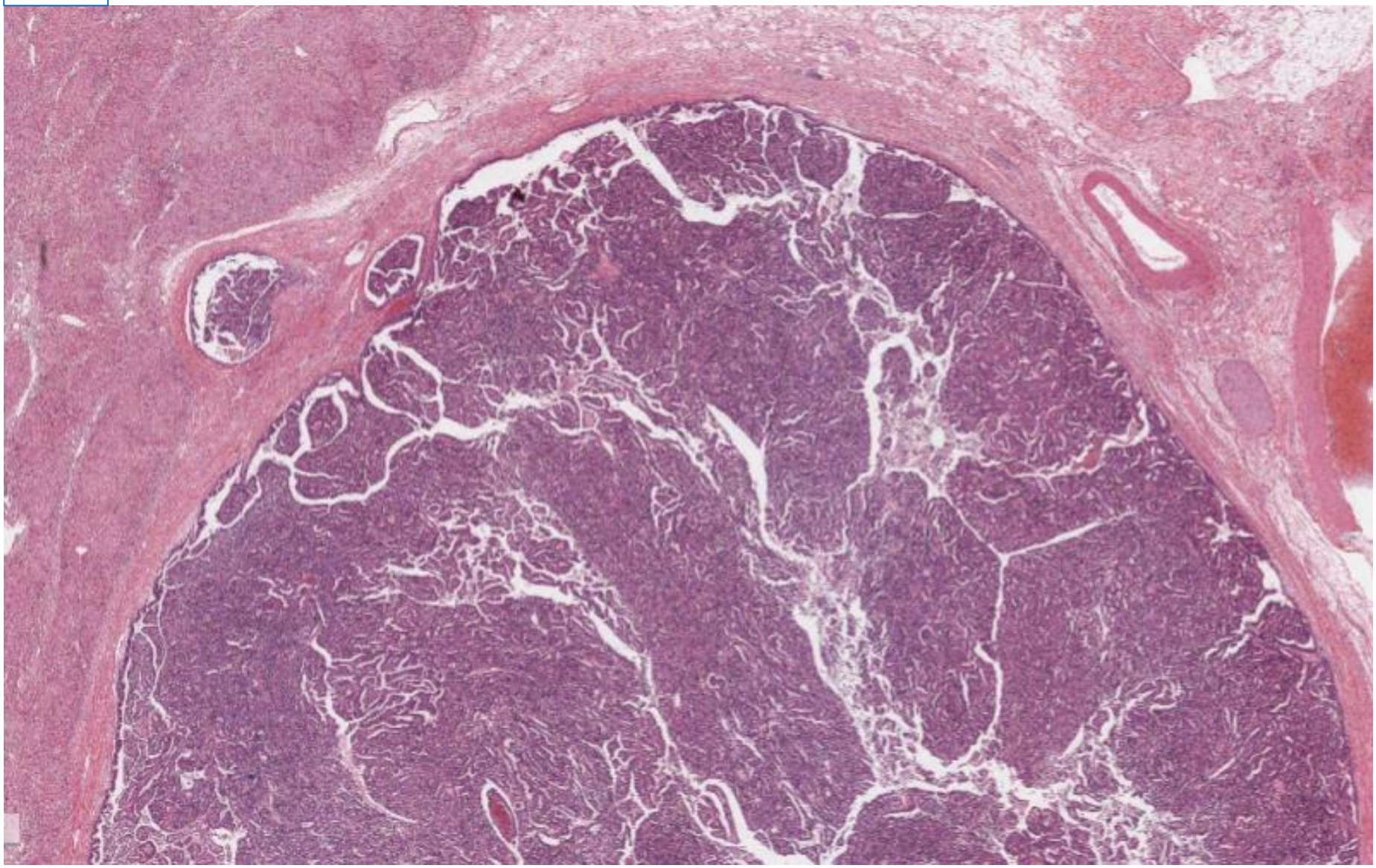
Case LT9 F62

Obstructive jaundice secondary to biliary adenoma [sic].
Native liver, hepatectomy.

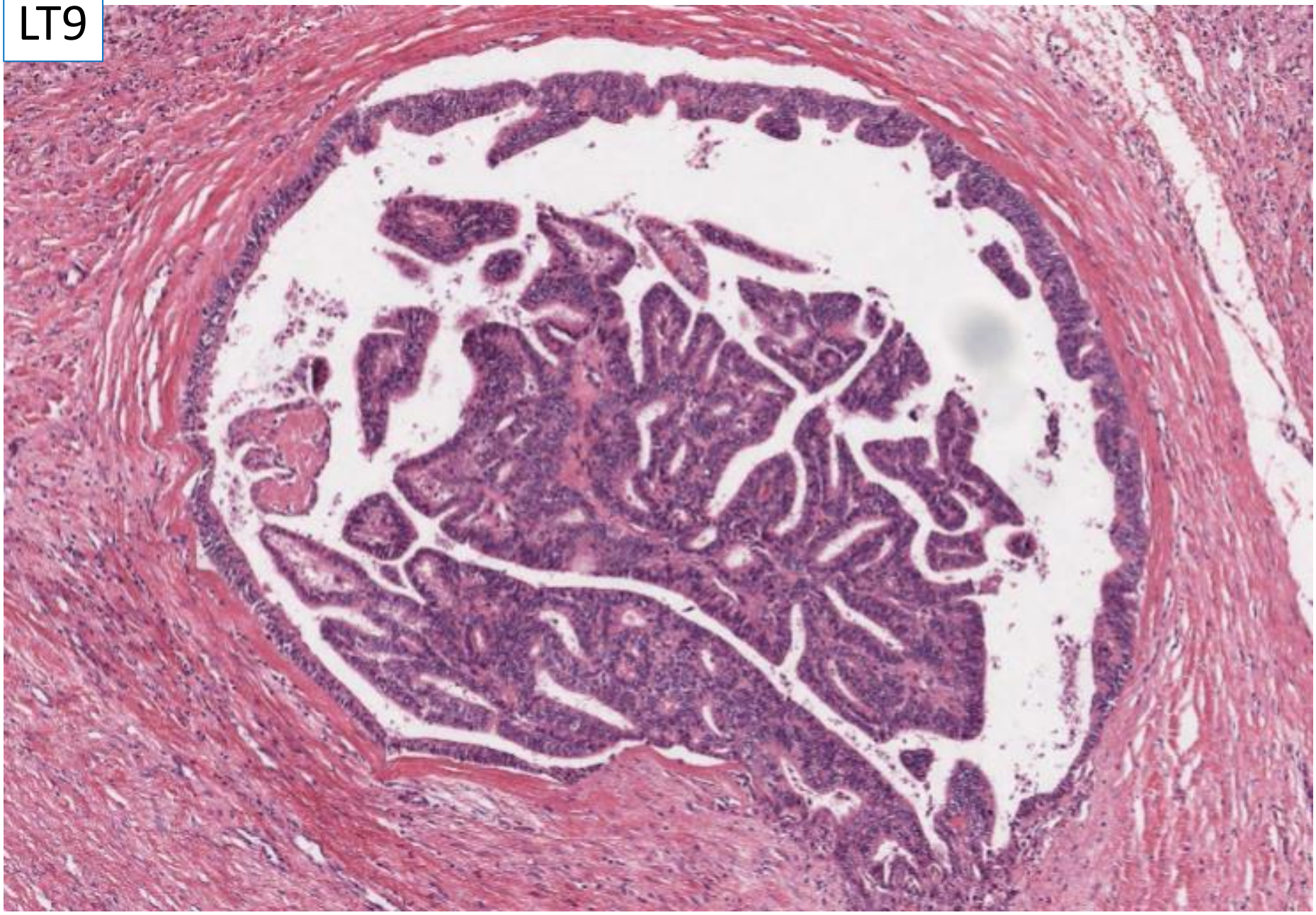
Macroscopic description: Intraductal lesion within CBD, CHD and into R/LHD.
Additional stains: Nil.

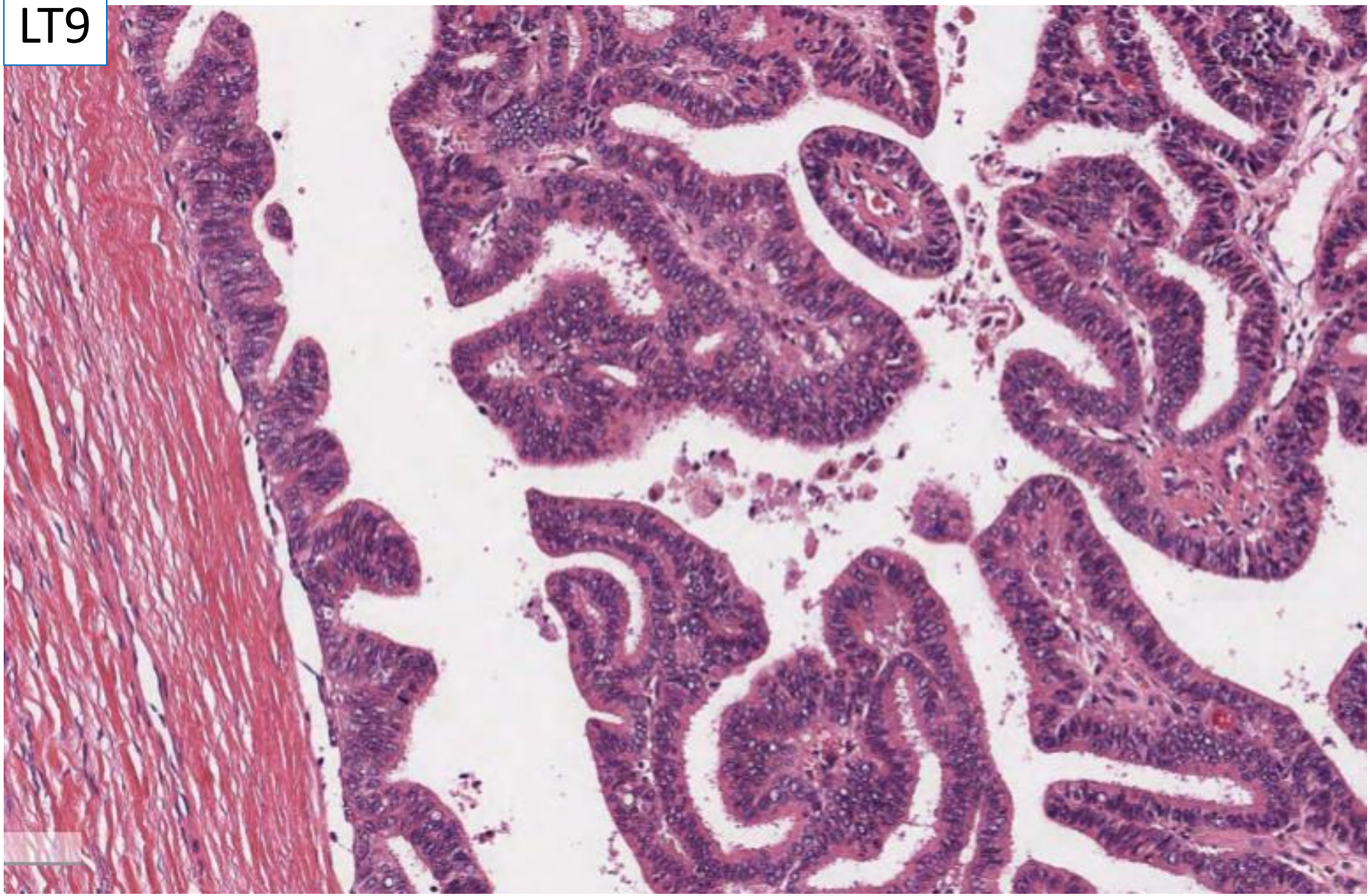


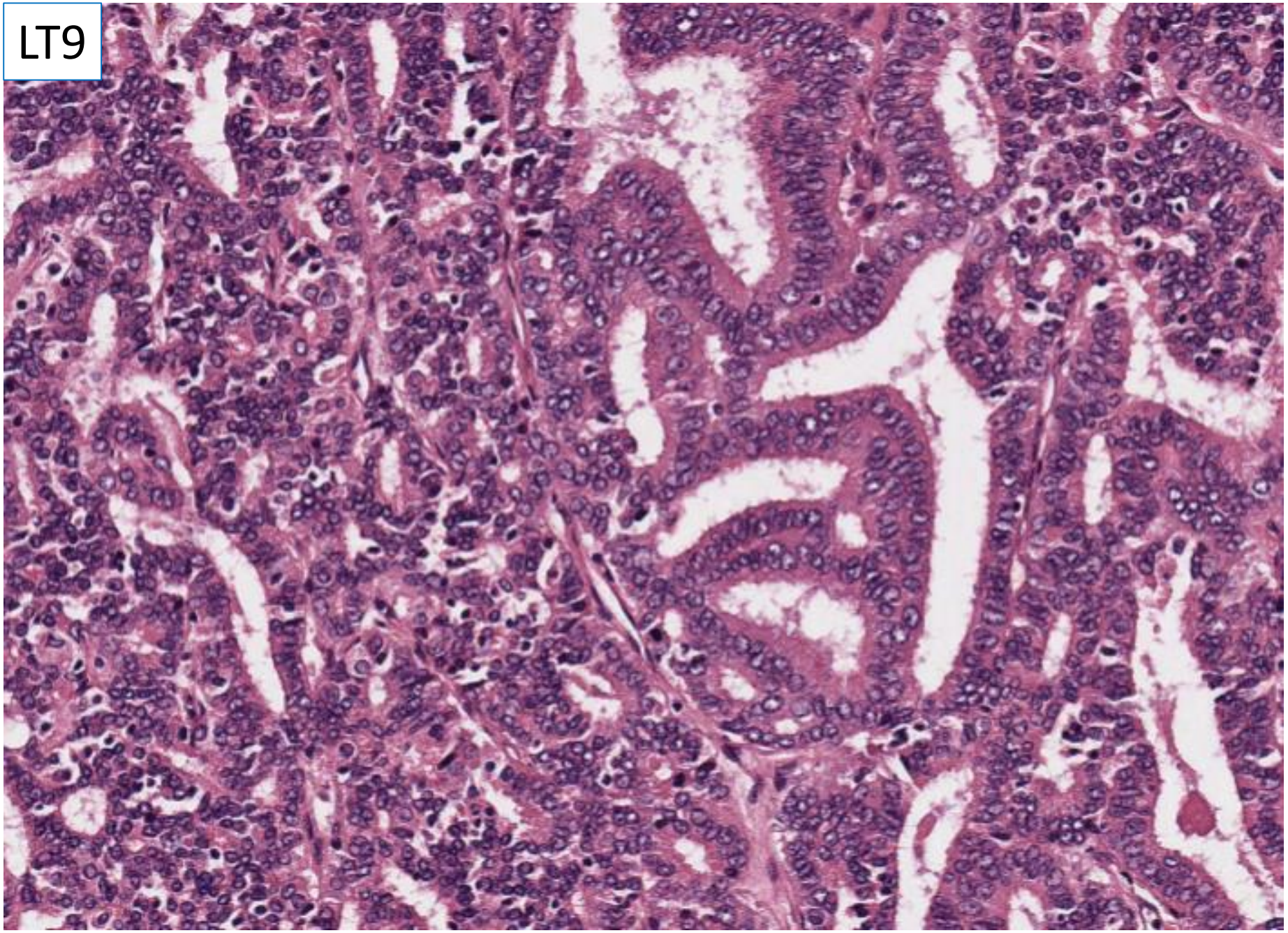
LT9

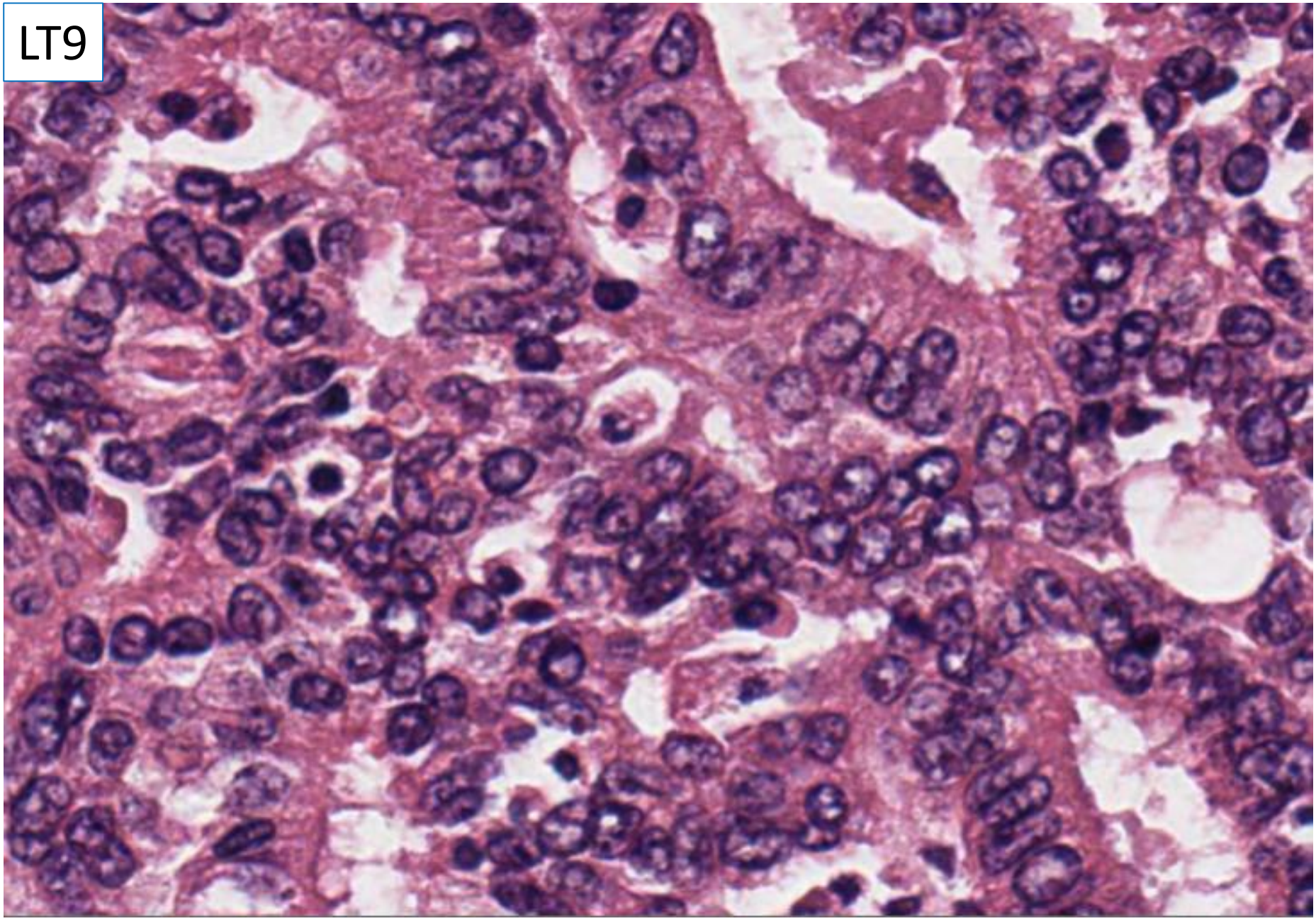


LT9




LT9


LT9


LT9

Case LT9 F62

Obstructive jaundice secondary to biliary adenoma [sic].
Native liver, hepatectomy.

Macroscopic description: Intraductal lesion within CBD, CHD and into R/LHD.
Additional stains: Nil.

LT9	
A	Intraductal Papillary Neoplasia of the Bile Duct (IPNB) or Intraductal TubuloPapillary NeoplasmPNB (ITPN)
B	Intraductal cholangiocarcinoma
C	Hepatobiliary cystadenocarcinoma
D	Biliary Intra-epithelial Neoplasia (BilIN)
E	Biliary papillomatosis

Case LT9 F62

Obstructive jaundice secondary to biliary adenoma [sic].
Native liver, hepatectomy.

Macroscopic description: Intraductal lesion within CBD, CHD and into R/LHD.
Additional stains: Nil.

LT9	
A	**Intraductal Papillary Neoplasia of the Bile Duct (IPNB) or Intraductal TubuloPapillary NeoplasmPNB (ITPN)**
B	Intraductal cholangiocarcinoma
C	Hepatobiliary cystadenocarcinoma
D	Biliary Intra-epithelial Neoplasia (BilIN)
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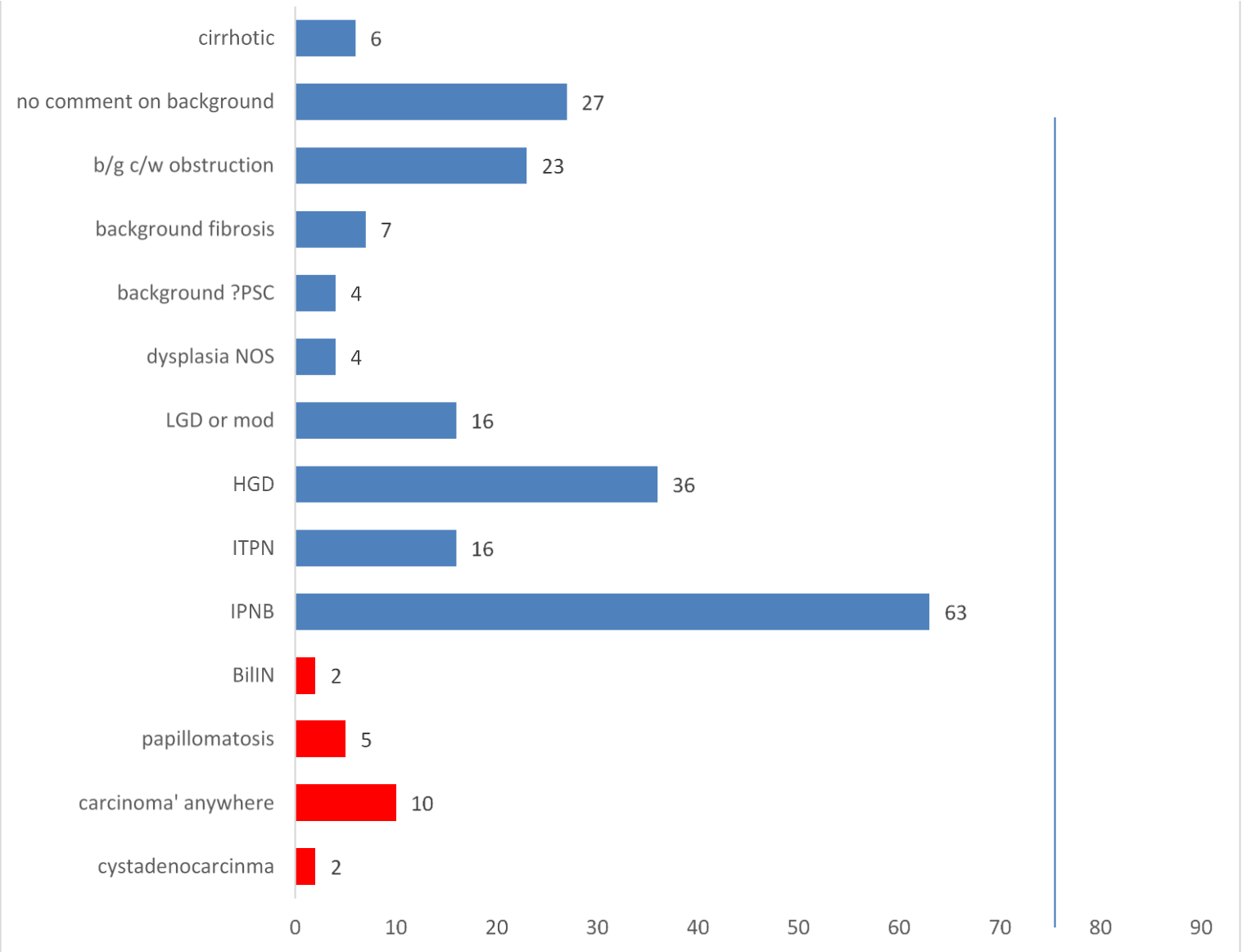
Case LT9 F62

Obstructive jaundice secondary to biliary adenoma [sic].

Macroscopic description: Intraductal lesion within CBD, CHD and into R/LHD.

Additional stains: Nil.



Case LT9 F62

Obstructive jaundice secondary to biliary adenoma [sic].

Macroscopic description: Intraductal lesion within CBD, CHD and into R/LHD.

Additional stains: Nil.

Consensus complete responses would include – bile duct lesion – IPNB or ITPN, or a combination of these = 79 responses.

Should mention the degree of dysplasia, but insufficient consensus for scoring (36/56 mentioning dysplasia said high grade dysplasia).

There should be a comment on the background liver, but insufficient consensus to score.

Many commented that thorough sampling is necessary to exclude invasive malignancy.

Suggested scoring: for 10 points IPNB or ITPN with no indication of malignancy.

Lose 5 marks other benign neoplastic terminology – papillomatosis, BilIN

Lose 10 marks (score 0) if – report implies malignant lesion - ? distinguish intraductal cholangiocarcinoma and cystadenocarcinoma (if implies non-invasive) from cholangiocarcinoma.

Insufficient consensus to score on the background liver

Observations/potential learning points, suitable for masterclass? - Yes

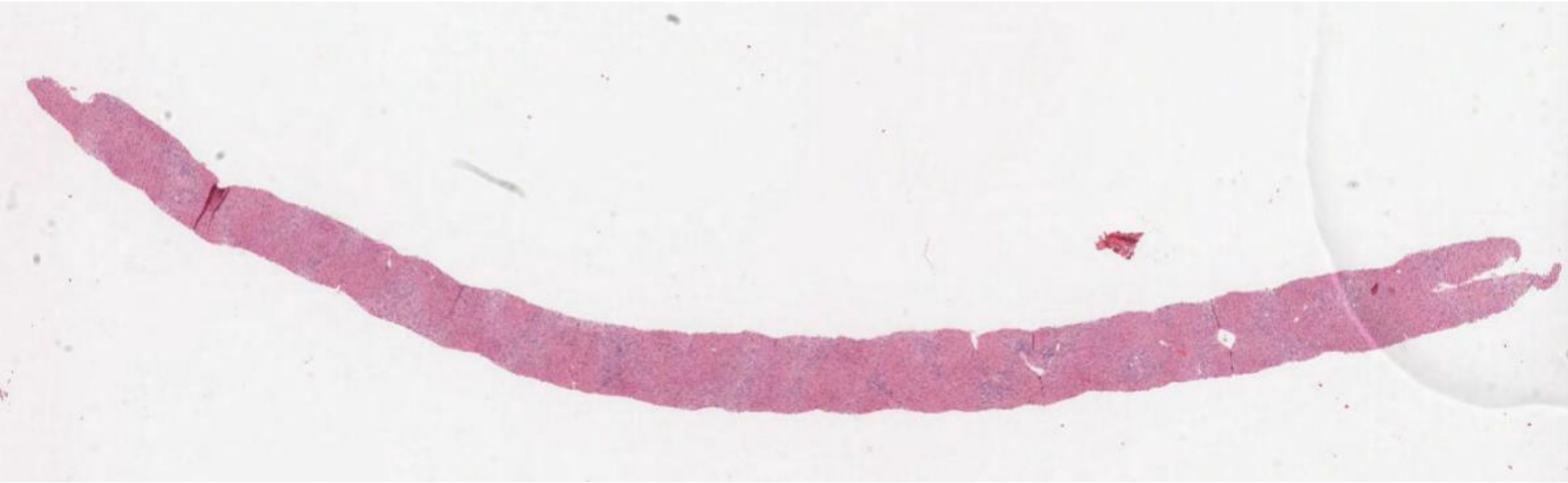
Case 9:

Tim Kendall - IPNB

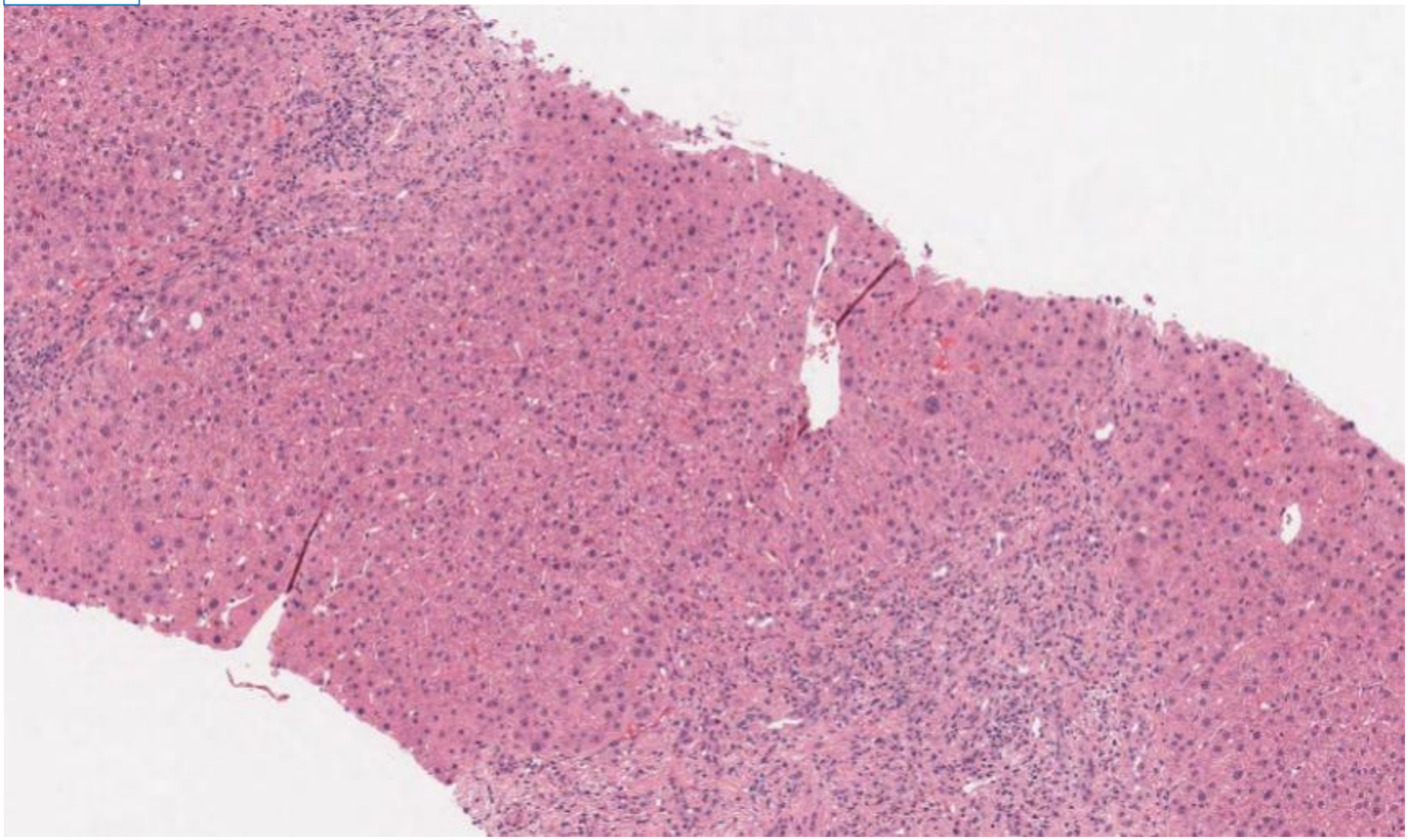
Case LT10 F69

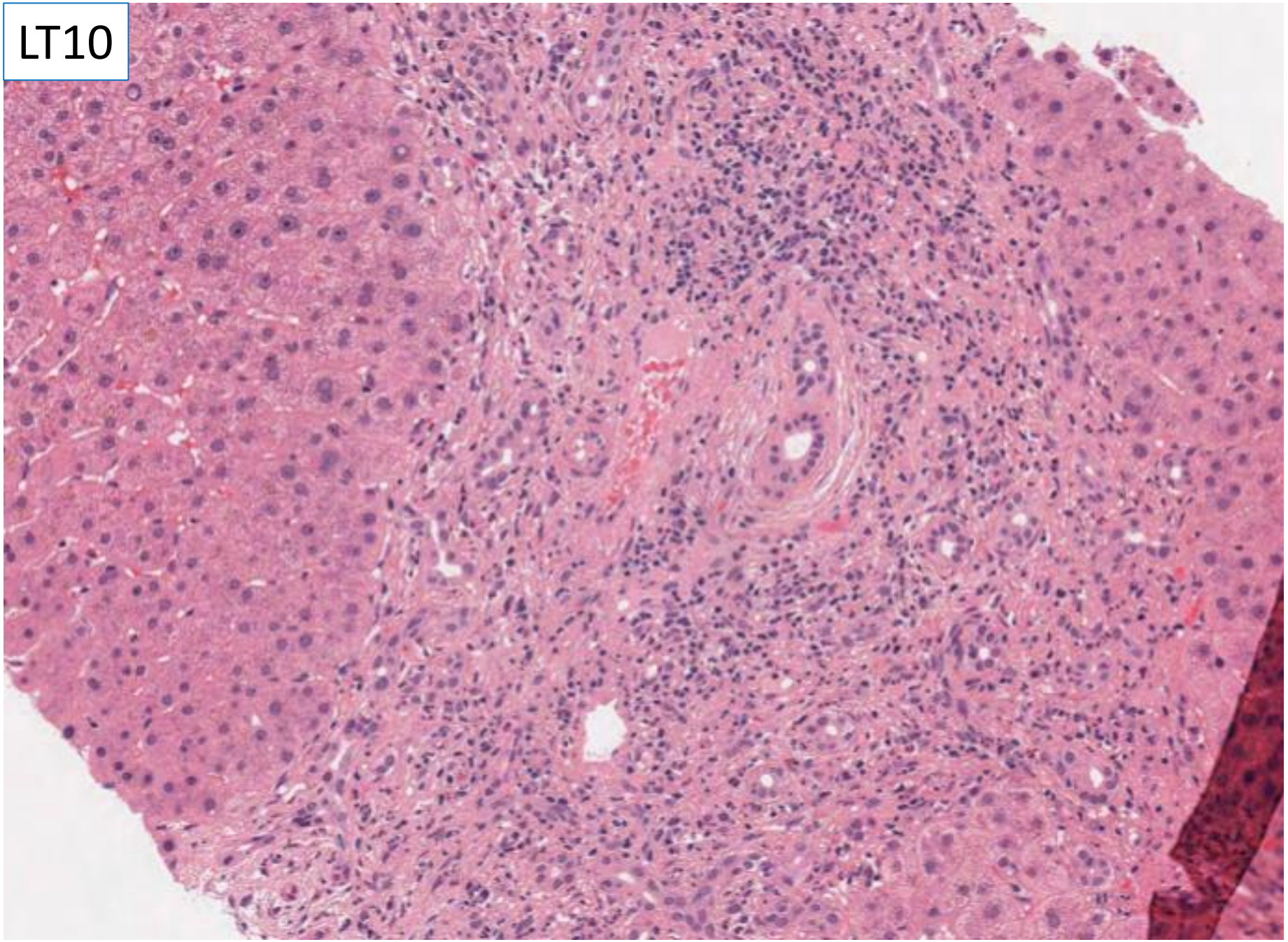
High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis.

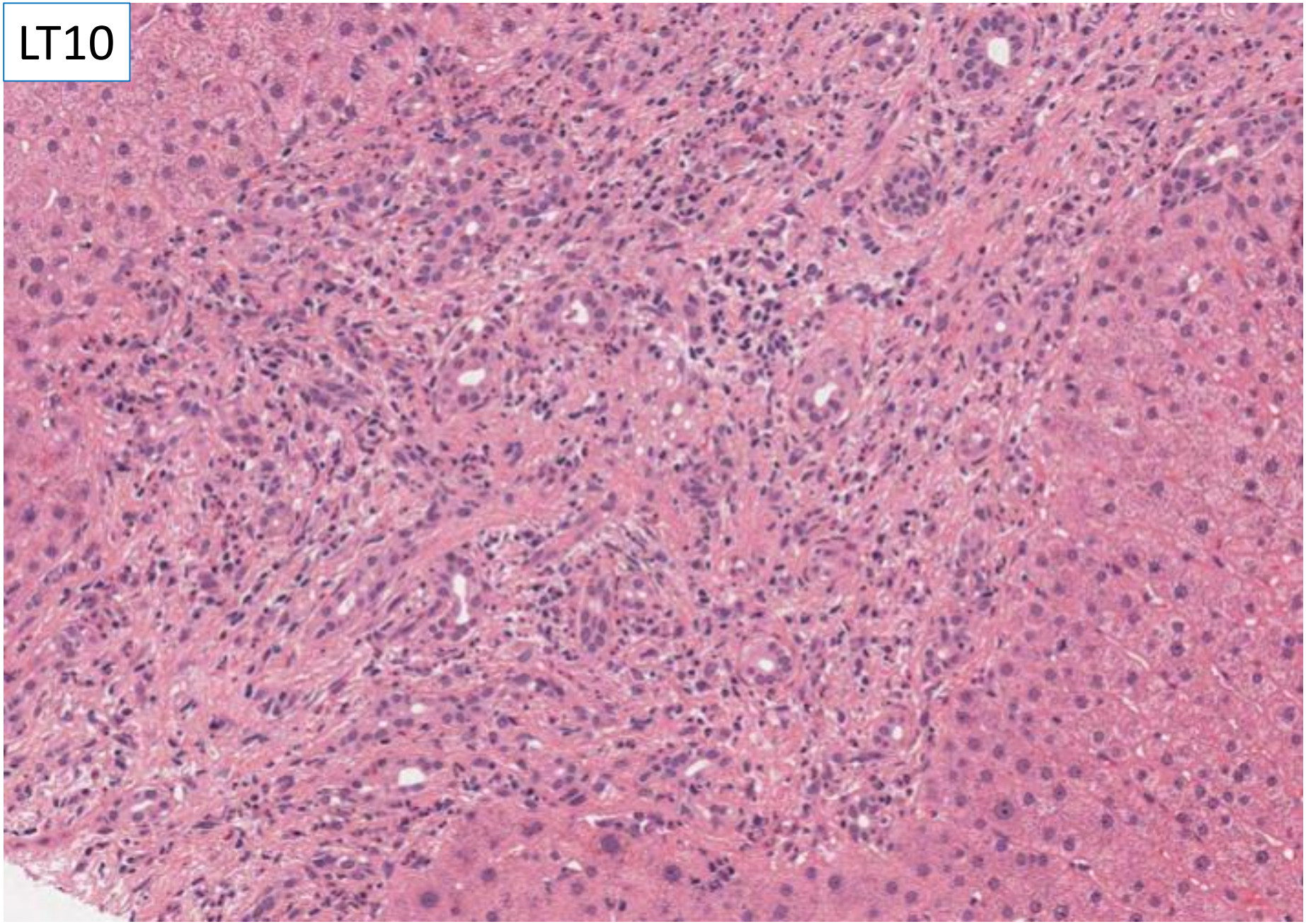
Additional stains: HVG.

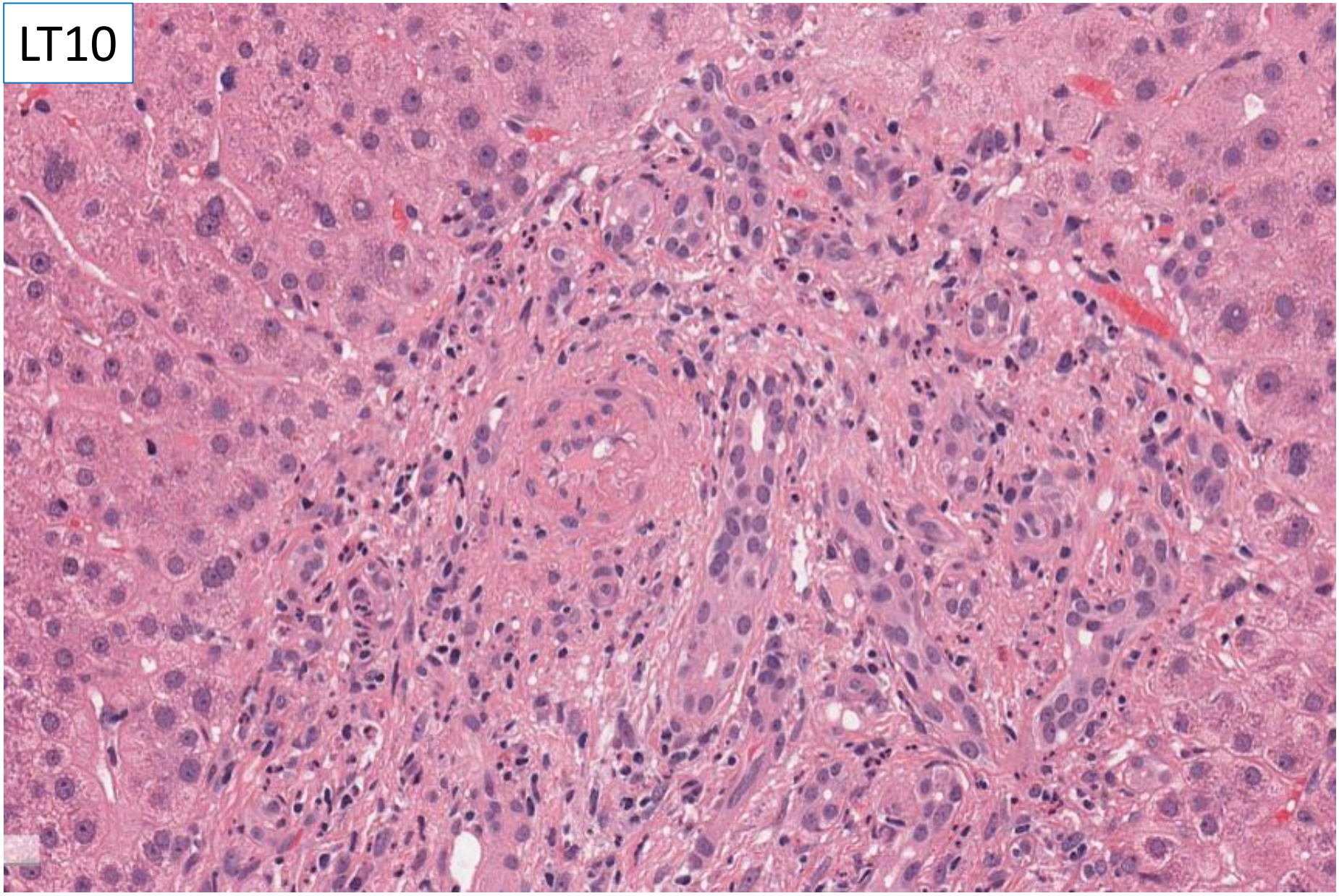


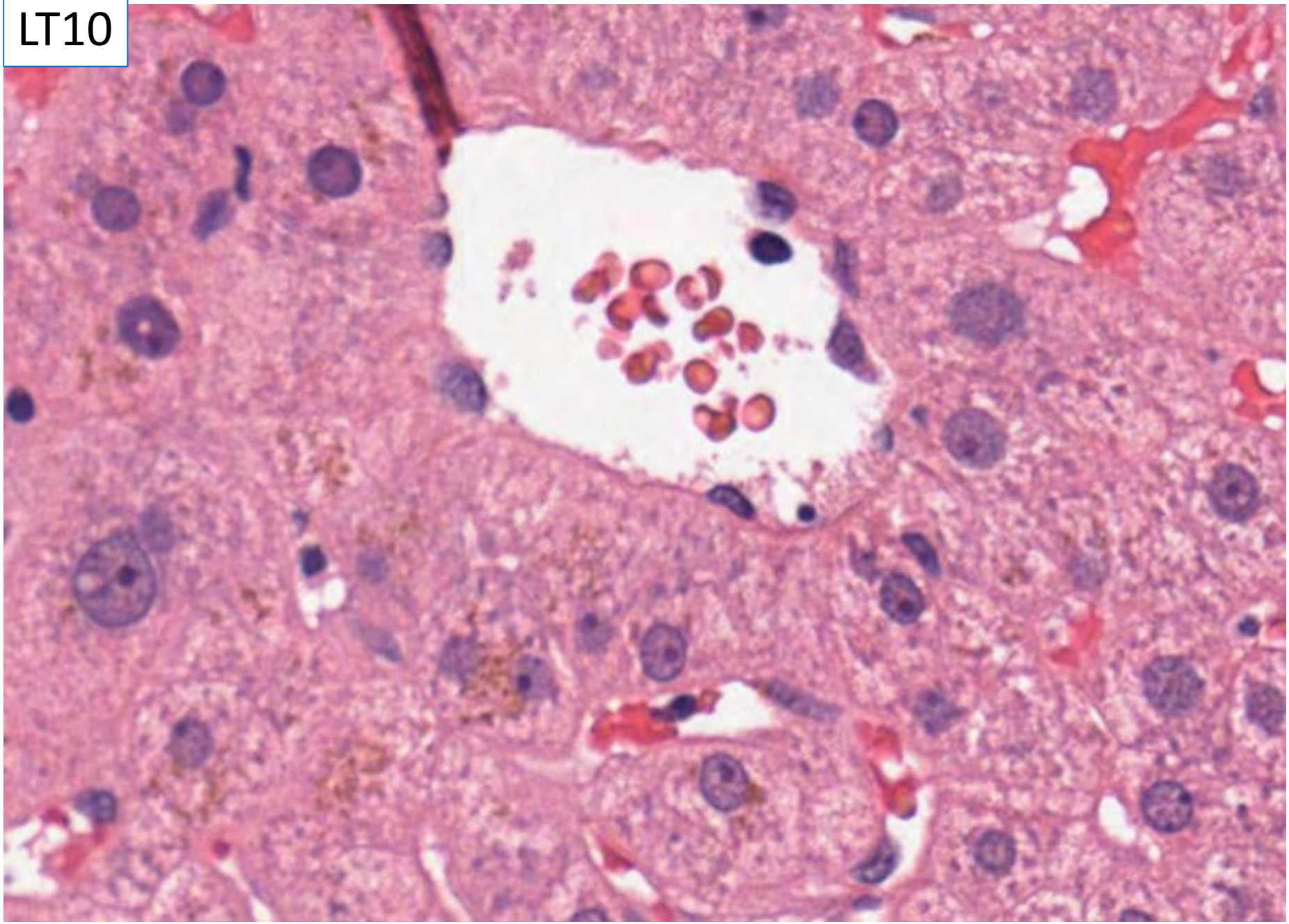
LT10

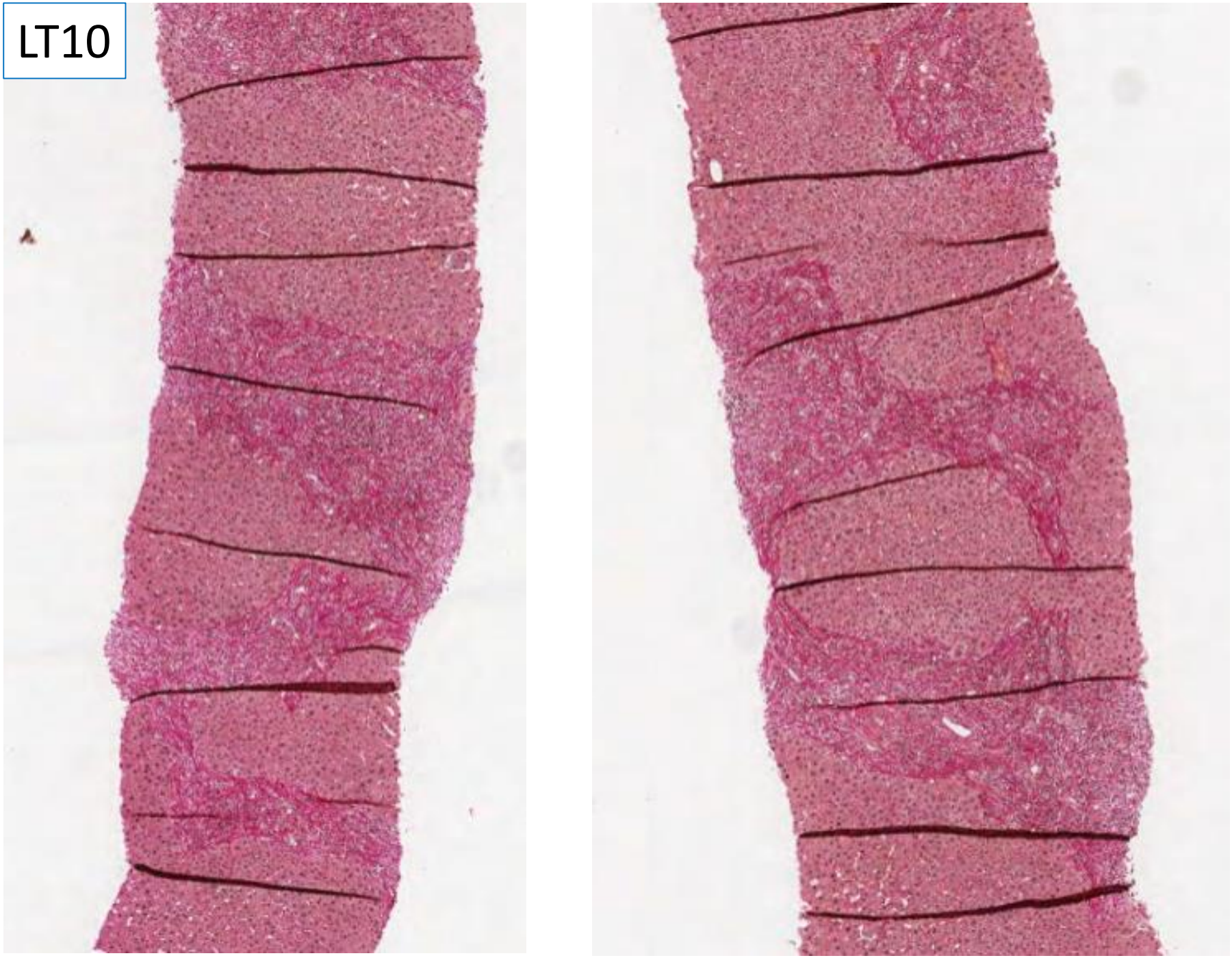



LT10


LT10


LT10


LT10


LT10

Case LT10 F69

High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis.

Additional stains: HVG.

LT10	
A	Chronic hepatitis differential diagnosis AIH DILI viral
B	Biliary features secondary to large bile duct obstruction
C	Biliary features likely biliary tract disease (PBC PSC)
D	Biliary features likely IgG4 disease
E	Metastatic adenocarcinoma

Case LT10 F69

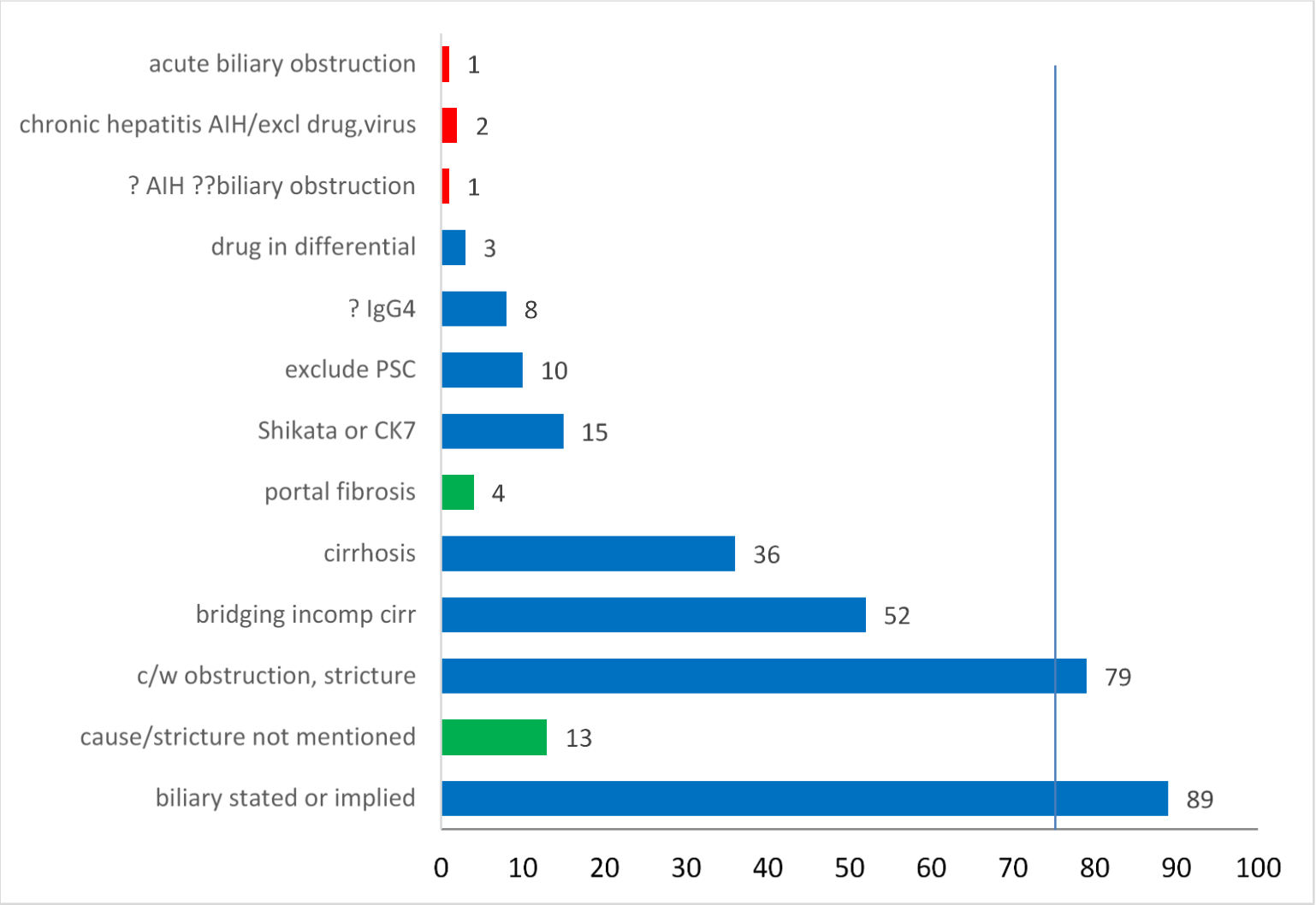
High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis.

Additional stains: HVG.

LT10	
A	Chronic hepatitis differential diagnosis AIH DILI viral
B	**Biliary features secondary to large bile duct obstruction**
C	Biliary features likely biliary tract disease (PBC PSC)
D	Biliary features likely IgG4 disease
E	Metastatic adenocarcinoma

Case LT10 F69

High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis. Additional stains: HVG.



Consensus complete responses would include description clearly favouring biliary disease and consistent with the effects of a biliary stricture.

Case LT10 F69

High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis. Additional stains: HVG.

Suggested scoring: for 10 points include chronic biliary disease, and indication that this may be a consequence of the biliary stricture +/- consideration of other causes.

Lose 5 marks if biliary disease – PBC or PSC, no mention of the stricture (1)

? Lose 5 marks if chronic biliary disease but the fact that this may be a result of the stricture is not mentioned (13). *Agreed at meeting that this should lose 5 points.*

Lose 5 marks if no mention of fibrosis/stage – but all include some comment on fibrosis/cirrhosis.

? lose 5 marks if 'portal fibrosis' rather than bridging/cirrhosis – only 4 did not describe at least bridging fibrosis. *Agreed*

Lose 10 marks (score 0) if main disease process is not biliary (chronic hepatitis, AIH/ exclude drug, virus) (2)

Case LT10 F69

High suggestion of fibrosis. Benign biliary stricture ? secondary to chronic pancreatitis. Additional stains: HVG.

Observations/potential learning points,

The clinical history included a biliary stricture - ? due to chronic pancreatitis – so report should include a comment that the biliary disease could be a consequence of that, rather than favouring an alternative such as IgG4 or PSC.

Should we deduct points if there is no comment about the stricture?
Meeting 16.10.19 agreed

The purpose of the biopsy will be to stage the fibrosis, so need to include some mention of fibrosis (everyone did)

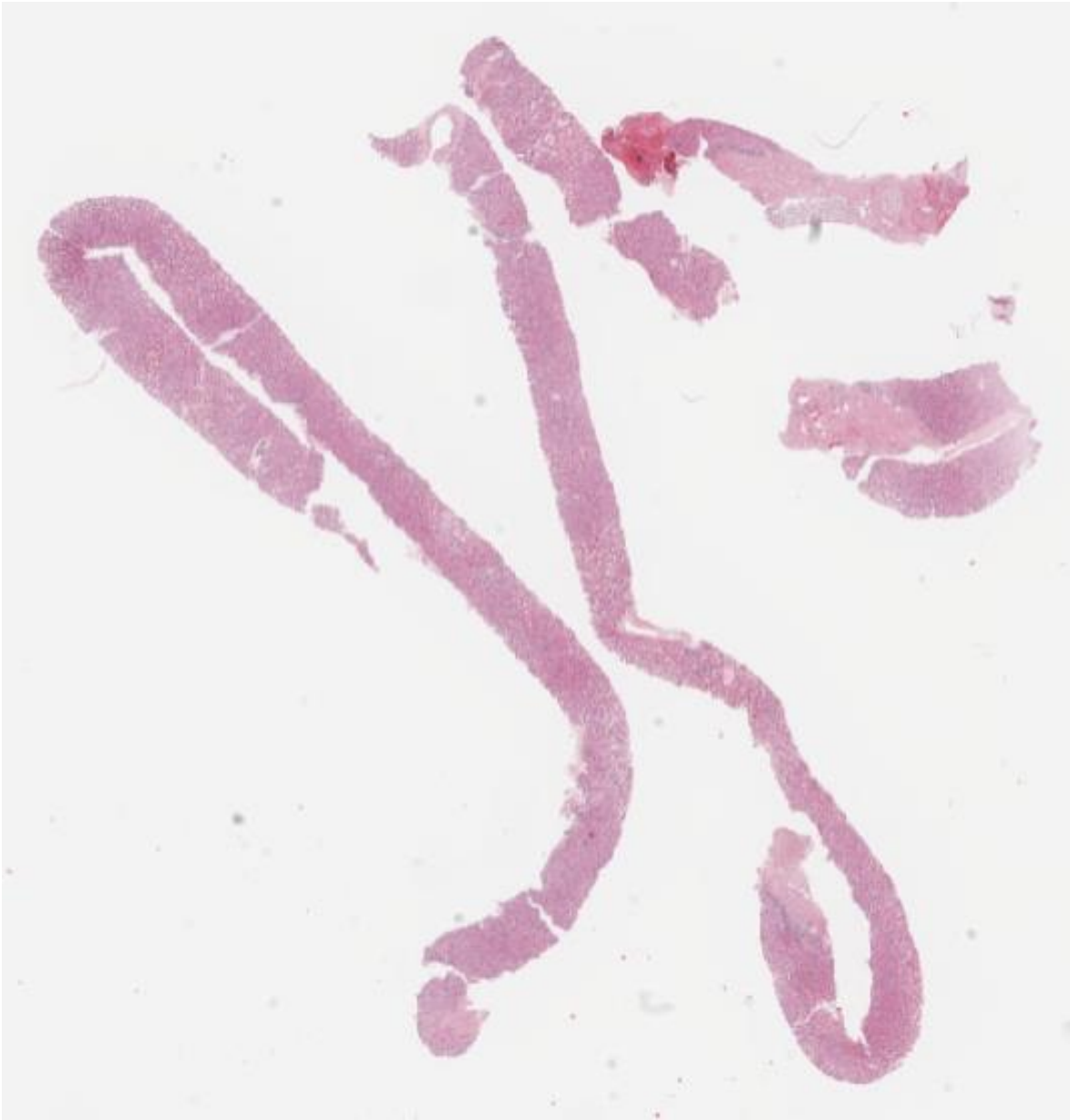
– should we deduct marks for portal fibrosis without bridging? - minority of 4.
Meeting 16.10.19 agreed

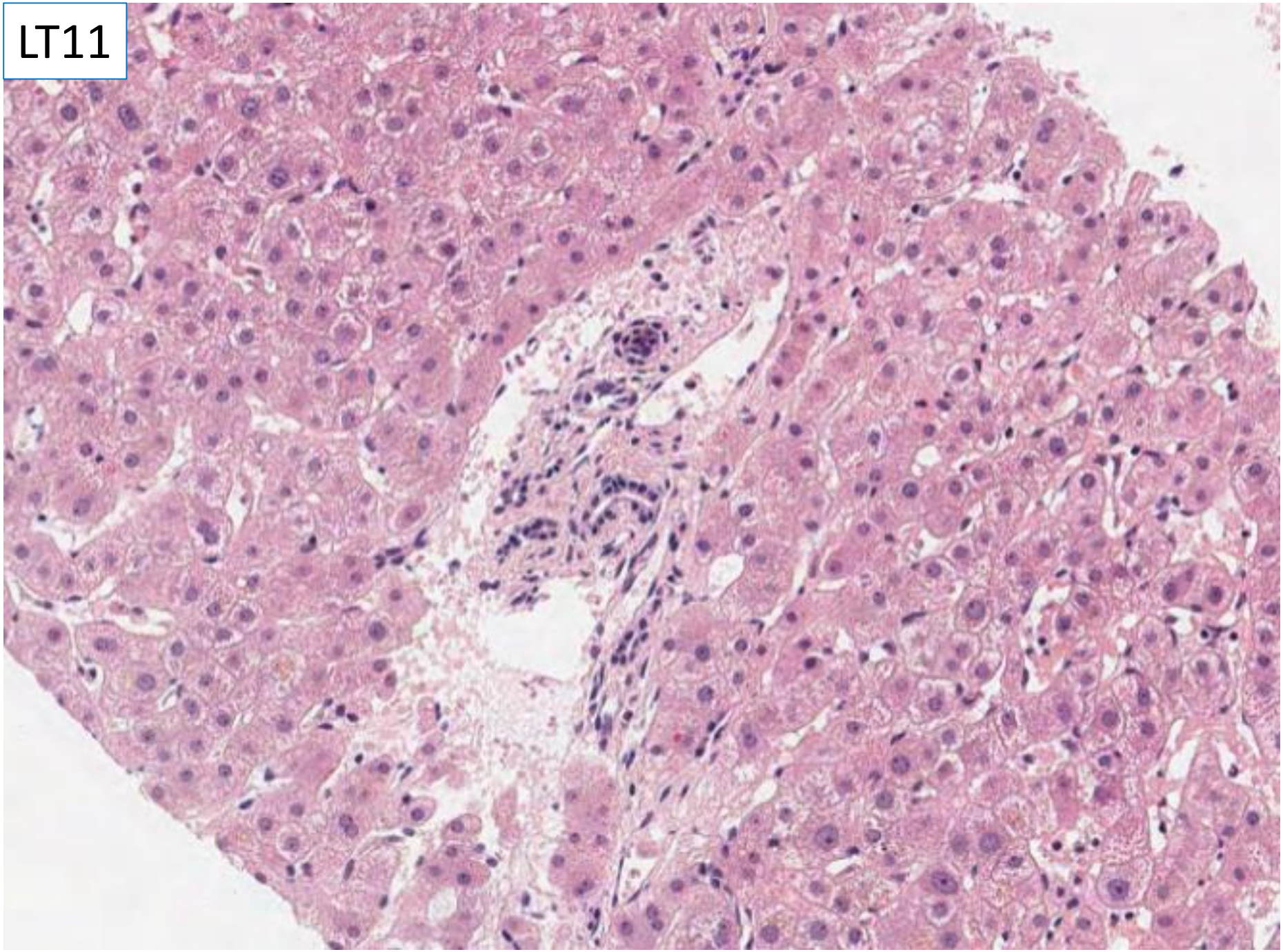
Case LT11 66M

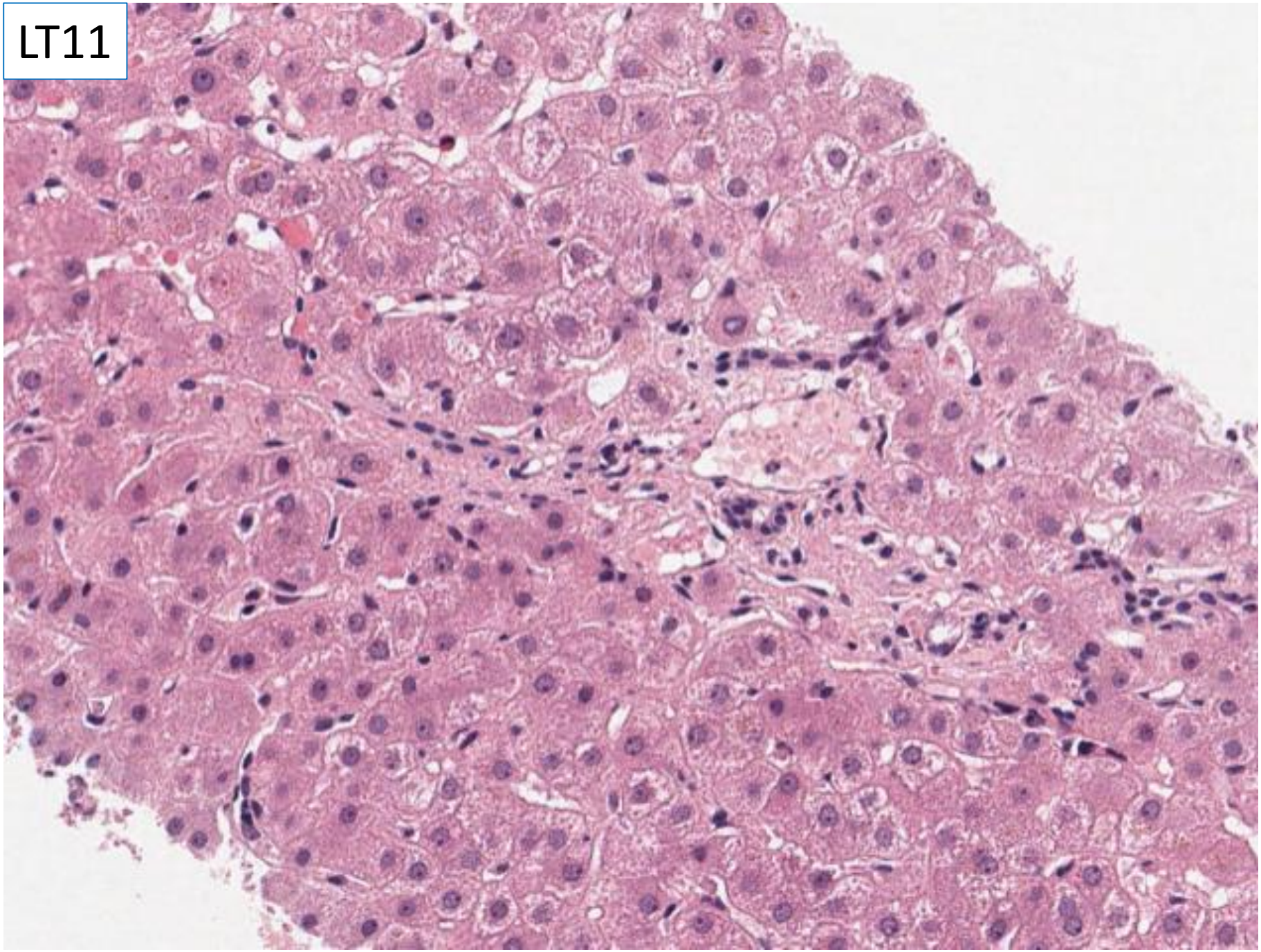
Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement. Any evidence of cirrhosis? drug induced liver injury? alcohol related?

Specimen:
Transjugular liver biopsy
- three cores 15mm max.

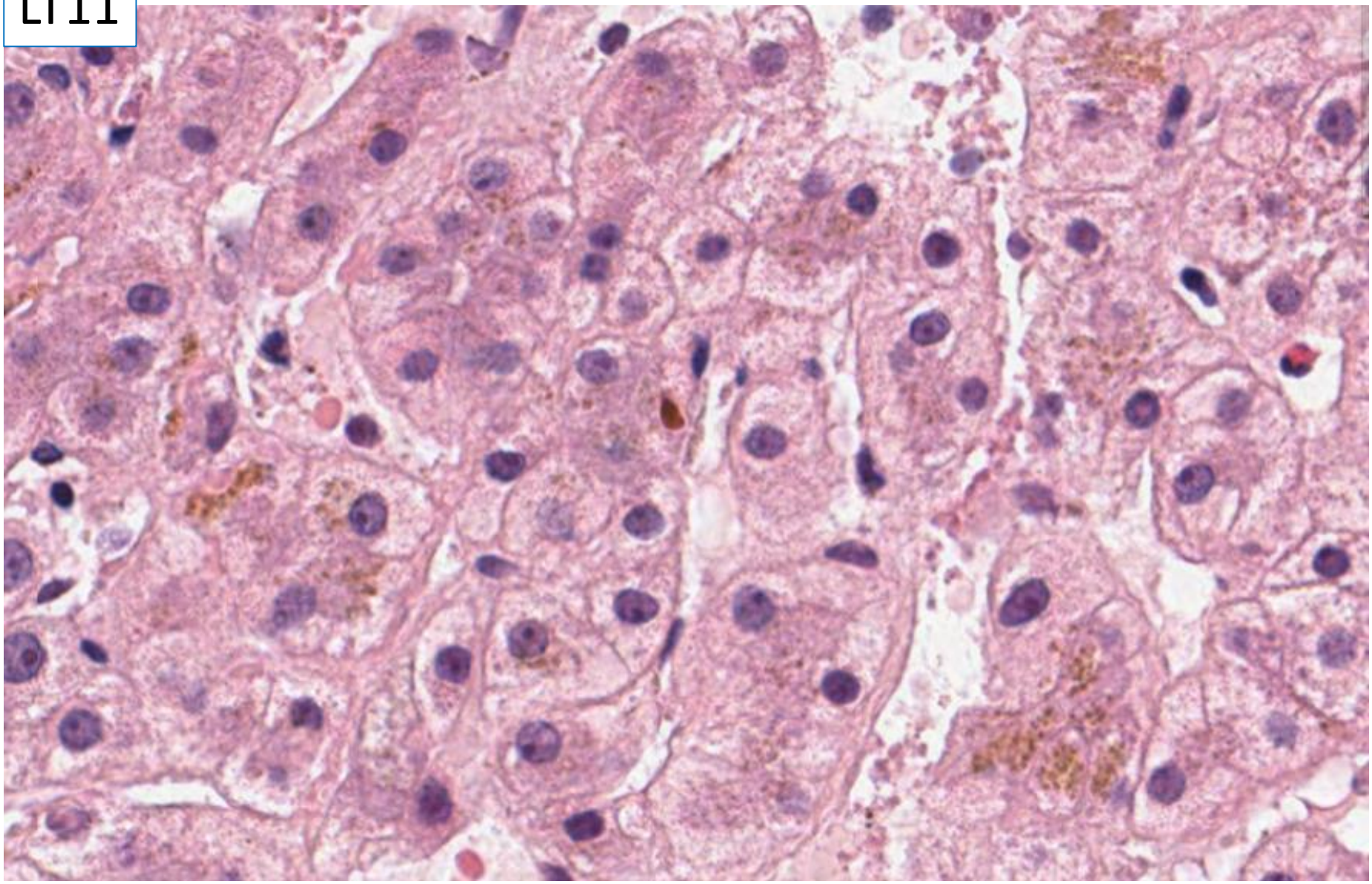
Additional stains: EVG, CK7.




LT11


LT11

LT11



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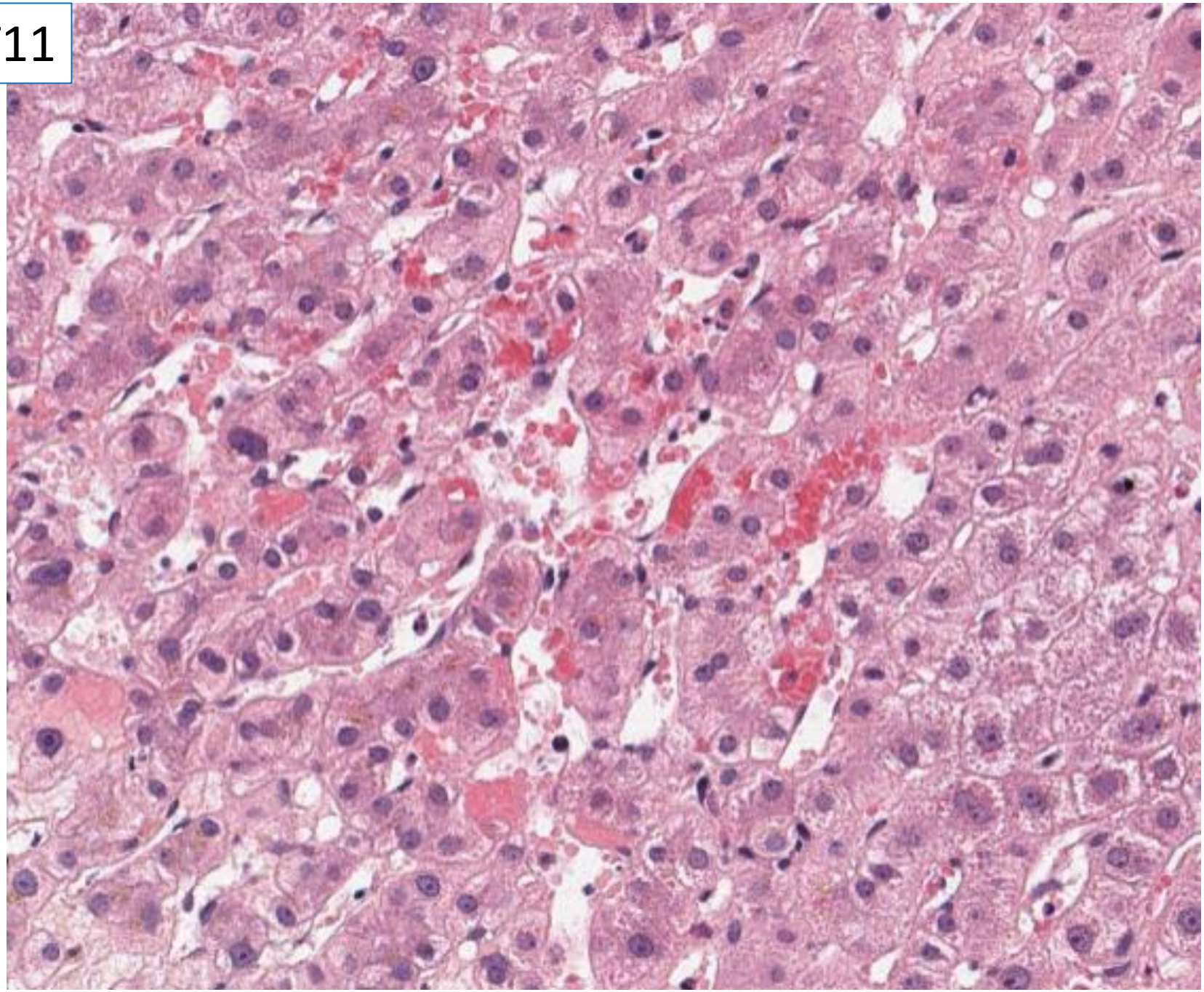
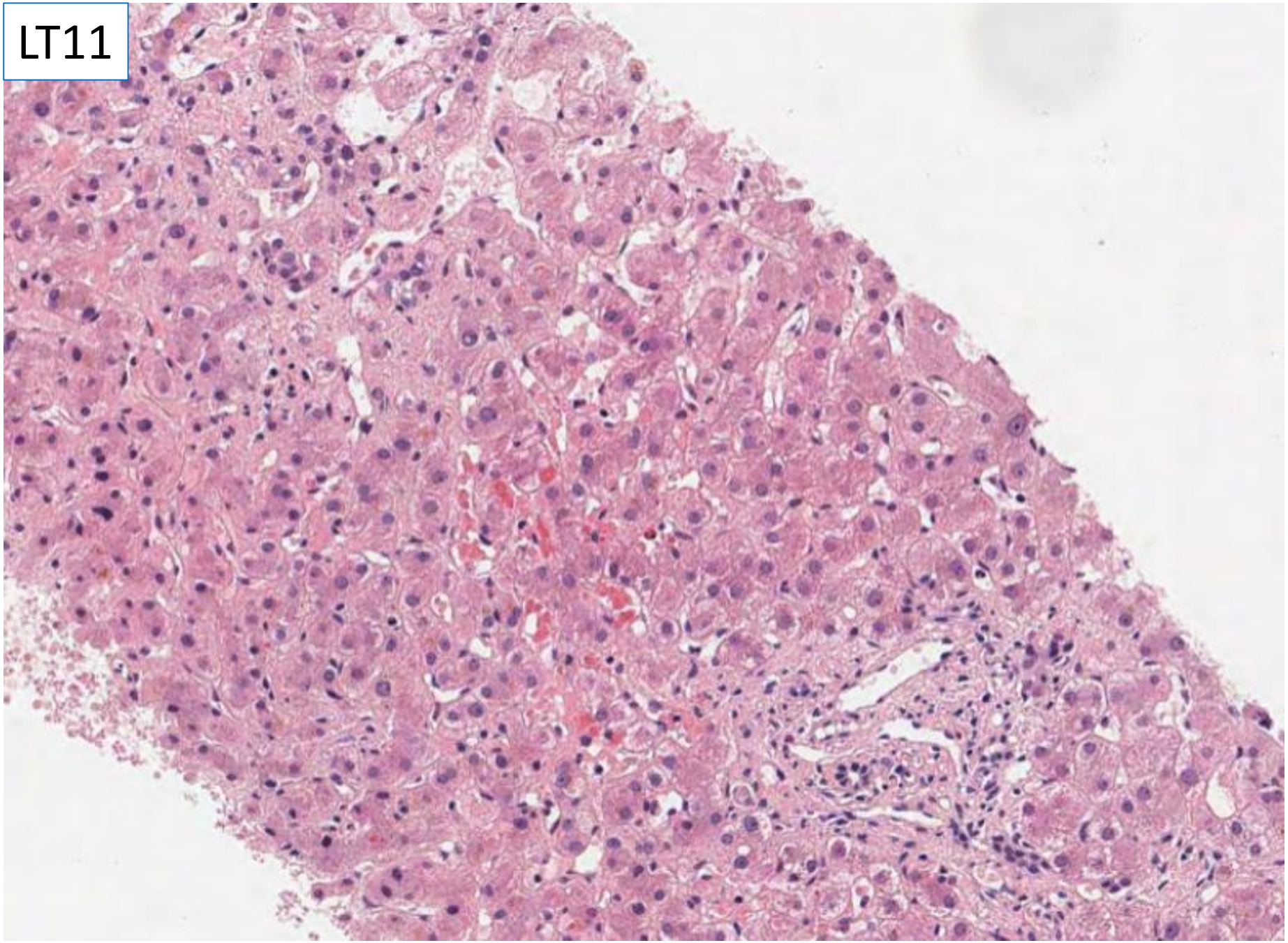
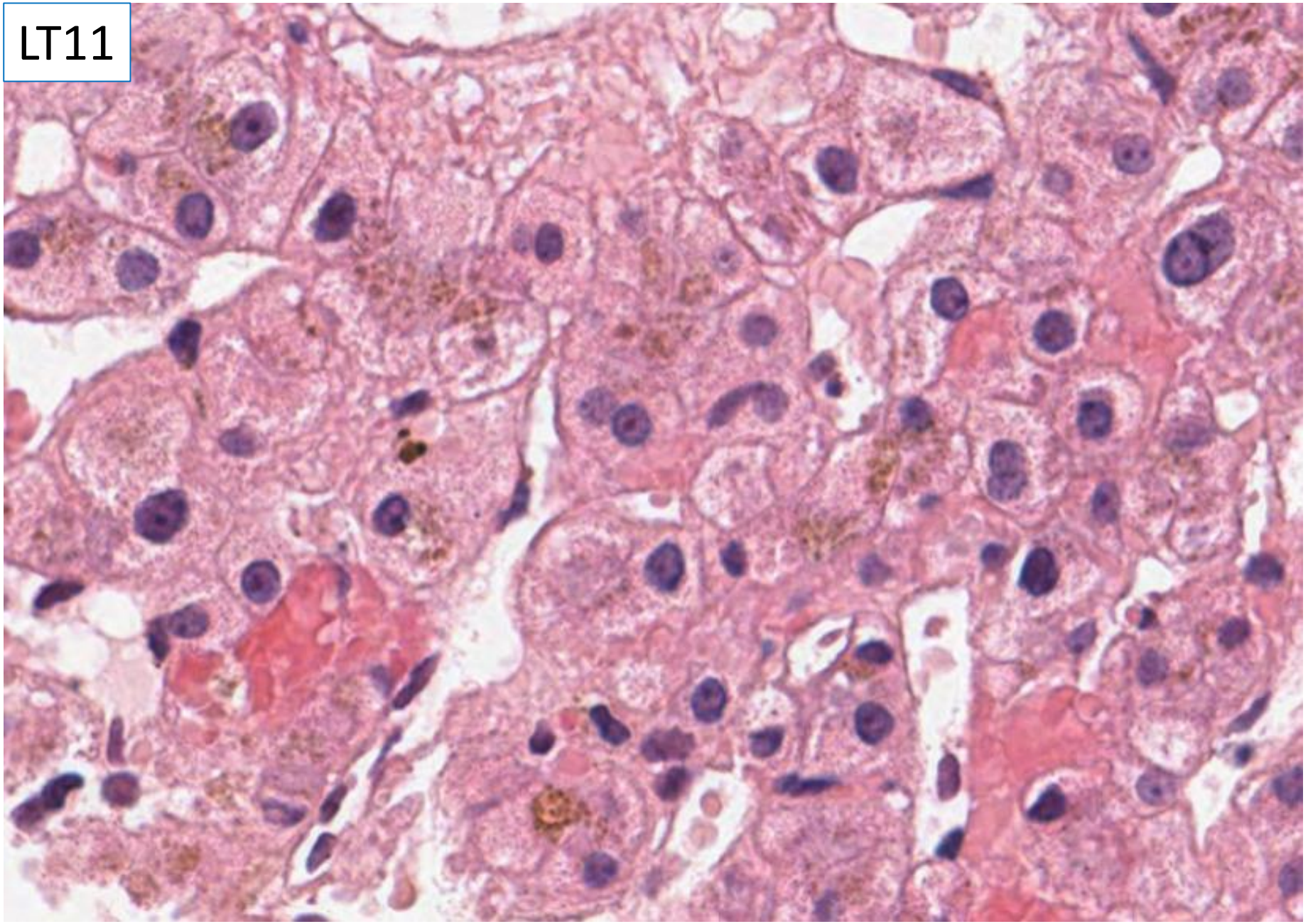
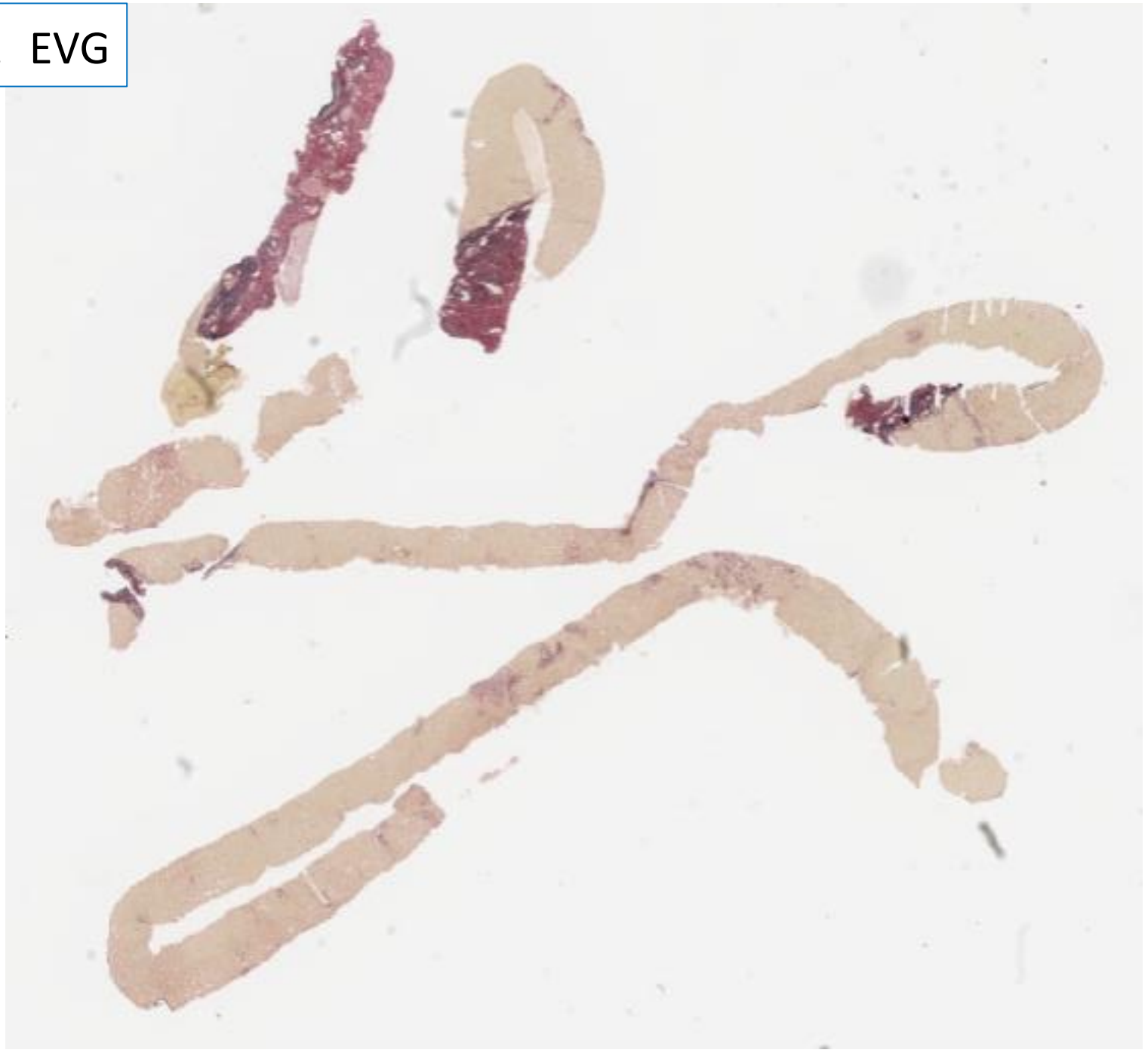


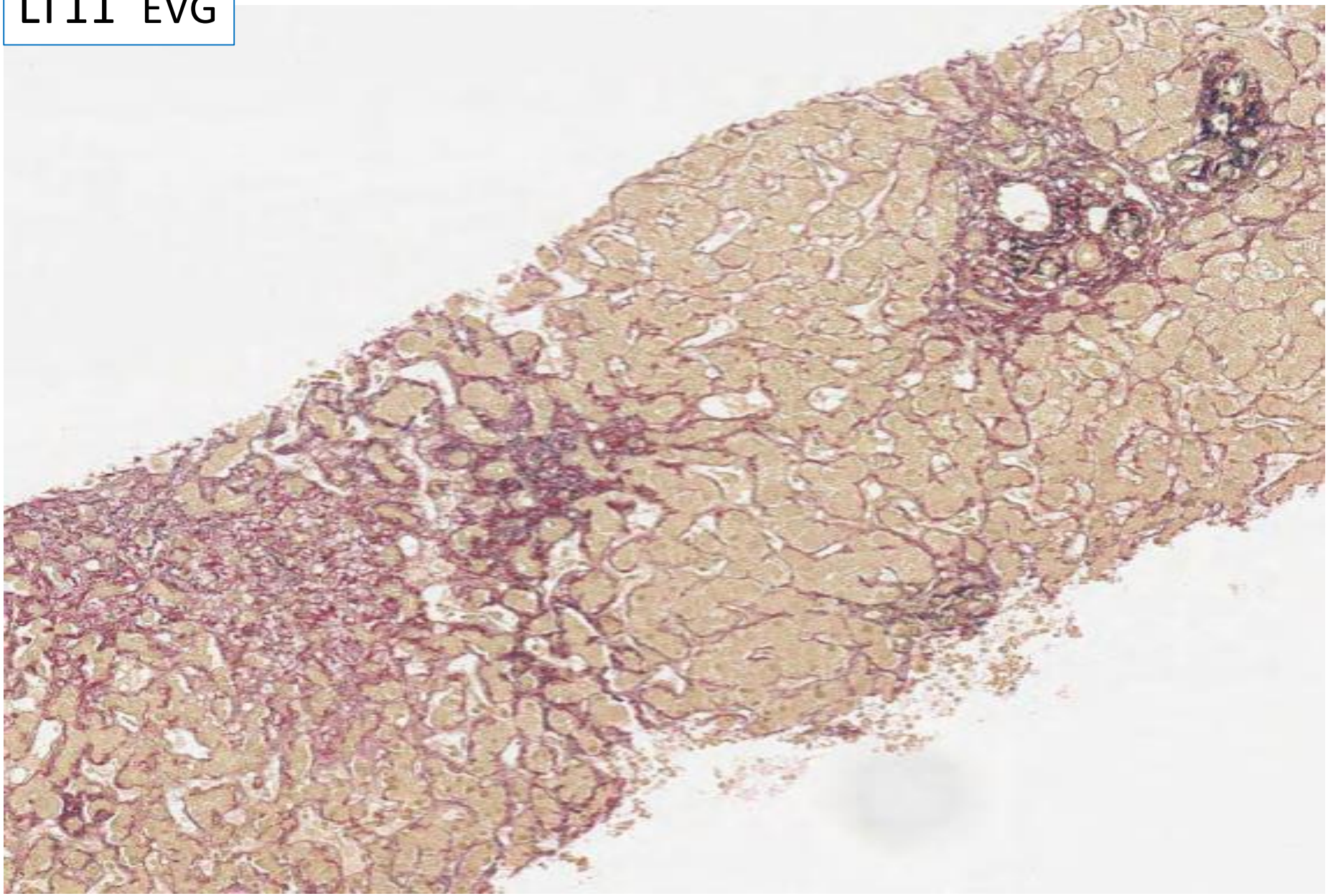

LT11

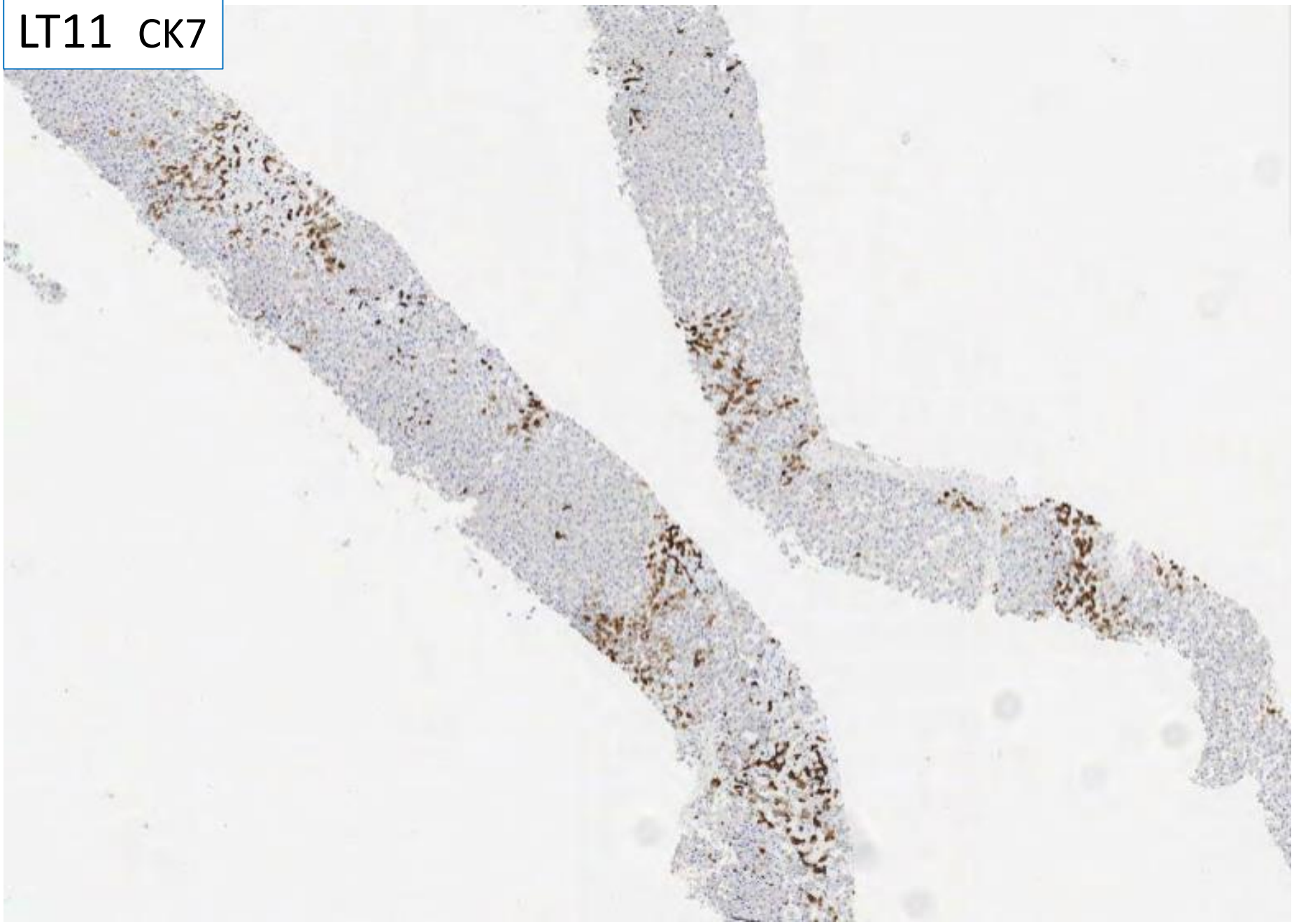

LT11

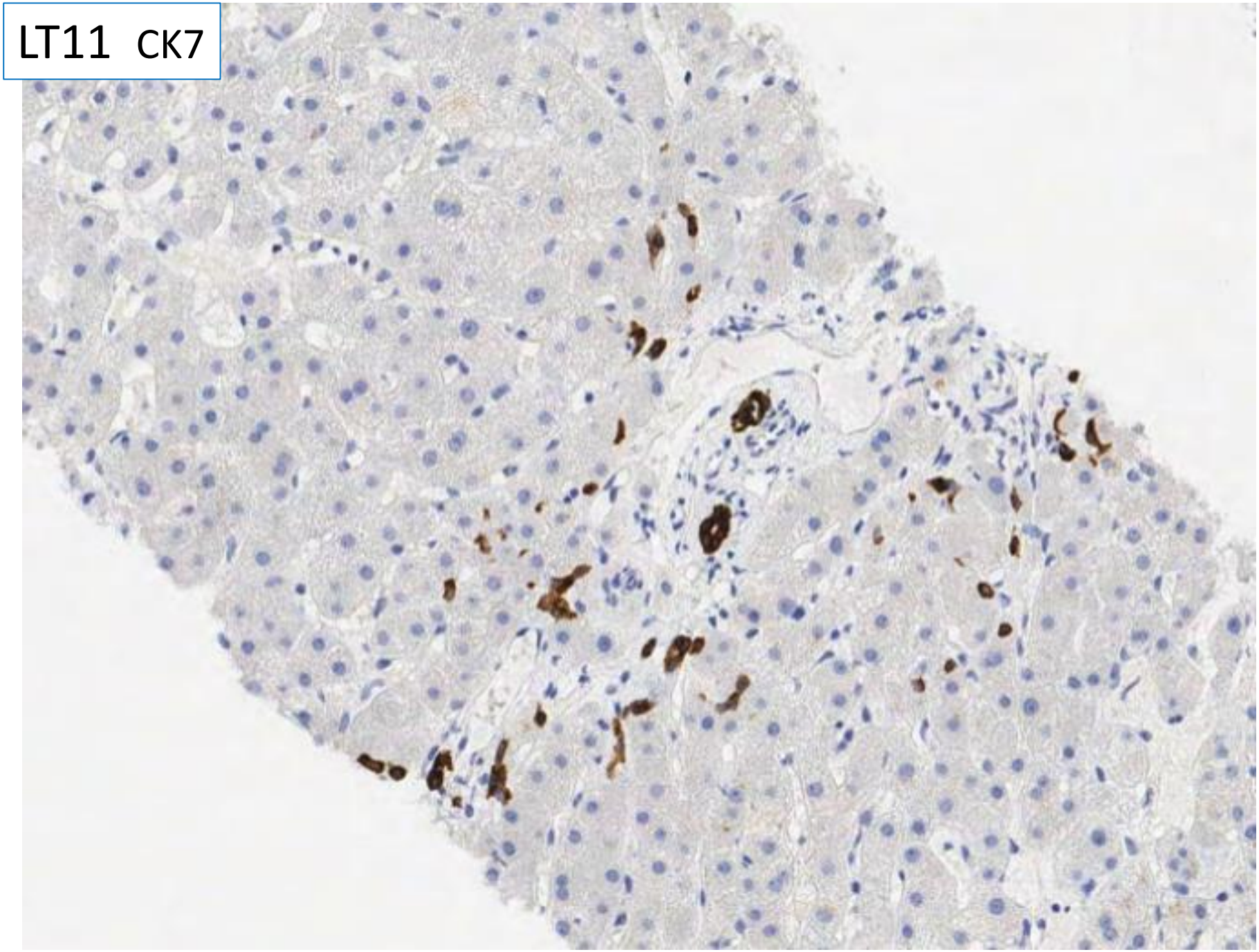
LT11 EVG

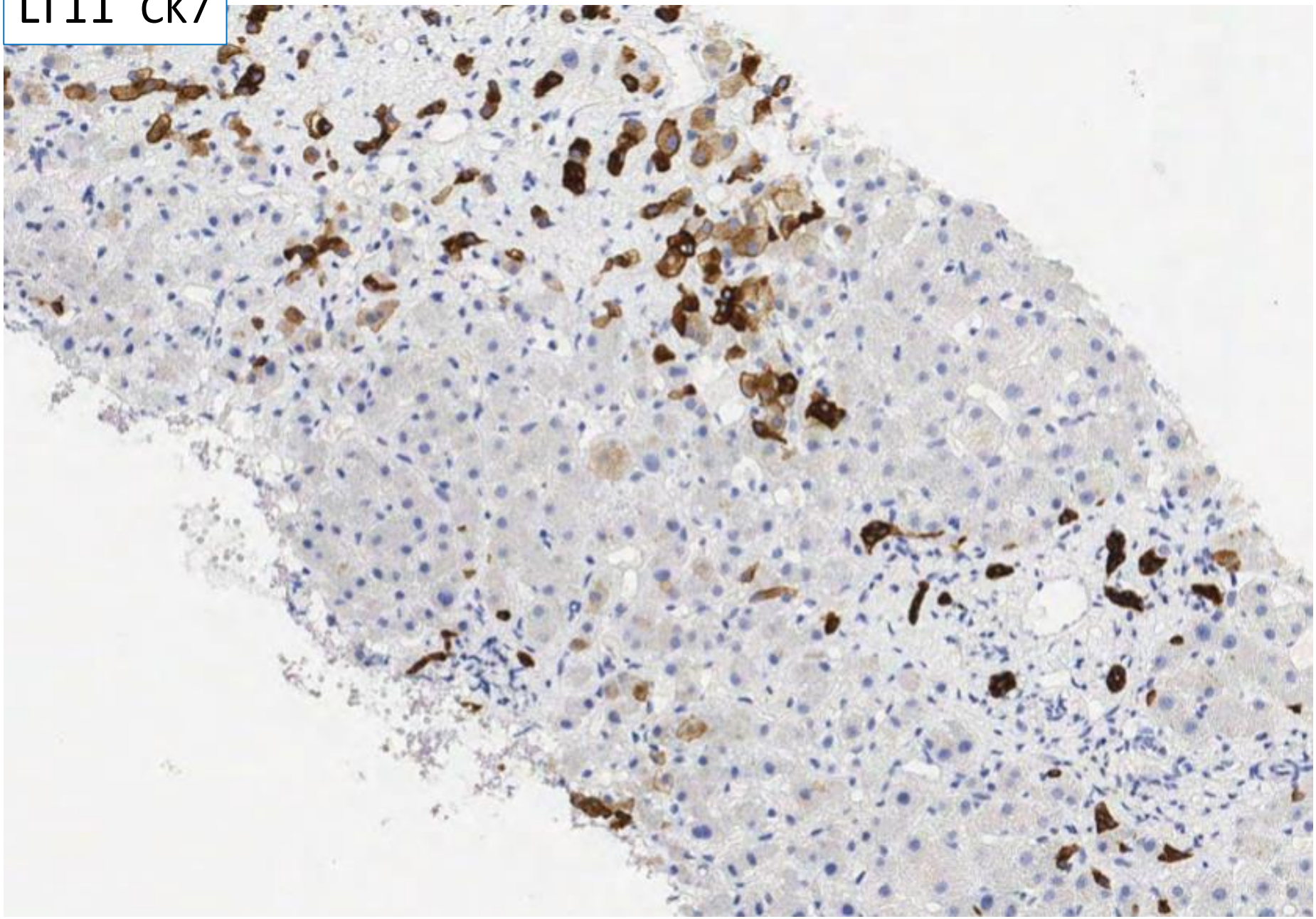


LT11 EVG




LT11 CK7


LT11 CK7


LT11 CK7

Case LT11 66M

Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement. Any evidence of cirrhosis? drug induced liver injury? alcohol related?

LT11	
A	Drug induced liver injury
B	Alcohol related liver disease
C	Cholestasis/Biliary disease
D	Venous outflow obstruction
E	Sickle cell disease

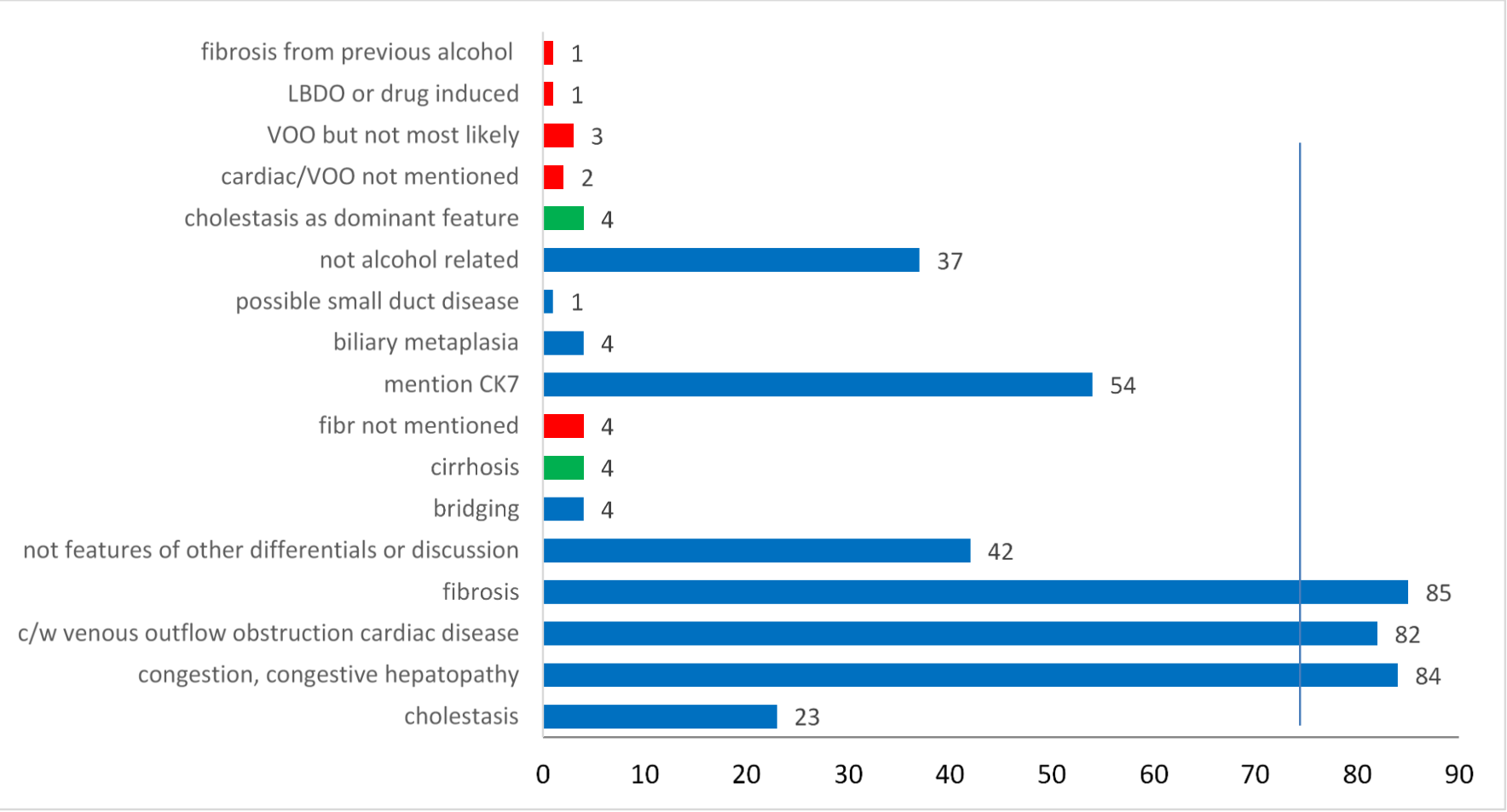
Case LT11 66M

Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement. Any evidence of cirrhosis? drug induced liver injury? alcohol related?

LT11	
A	Drug induced liver injury
B	Alcohol related liver disease
C	Cholestasis/Biliary disease
D	**Venous outflow obstruction**
E	Sickle cell disease

Case LT11 66M

Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement. Any evidence of cirrhosis? drug induced liver injury? alcohol related? Additional stains: EVG, CK7.



Consensus complete responses would include features of venous outflow obstruction, and mention of fibrosis. Fibrosis is not considered to be cirrhotic or bridging by most.

Case LT11 66M

Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement. Any evidence of cirrhosis? drug induced liver injury? alcohol related? Additional stains: EVG, CK7.

Suggested scoring: for 10 points include changes consistent with the effects of venous outflow obstruction/chronic venous congestion. Some comment on fibrosis.

Lose 5 marks if VOO in the differential diagnosis but not the main/most likely diagnosis (3).

Lose 5 marks if no mention of fibrosis.(4)

? Lose 5 marks if confident diagnosis of cirrhosis. (4)
? lose 5 marks if Cholestasis as the dominant feature (4)

Lose 10 marks (score 0) if venous outflow obstruction not mentioned – diagnoses were previous alcohol and LBDO or drug induced. (2)

Case LT11 66M

Cardiac cirrhosis? under investigations. Mild constrictive pericarditis/bicuspid aortic valve with tissue valve replacement.

Any evidence of cirrhosis? drug induced liver injury? alcohol related?

Additional stains: EVG, CK7.

Observations/potential learning points, suitable for masterclass?

23/94 (almost 25%) reported cholestasis – is there any?

Purpose of the biopsy included ? alcohol related – 38 responses mentioned alcohol – 1 alcohol related fibrosis, 37 no evidence of alcohol related liver disease.

CK7 stain was provided, shows positivity in atrophic zone 3 hepatocytes, characteristic of venous outflow obstruction. Some responses interpreted this as periportal, and possibly this was a factor in diagnoses of biliary disease. This would be a useful topic for a masterclass?

Masterclass: Agreed 3 vascular cases across LT and LU

Bilirubinostasis – anything that blocks sinuses and interferes with blood flow can cause bilirubinosasis – best example is amyloidosis – in this case, collagen in sinusoids.

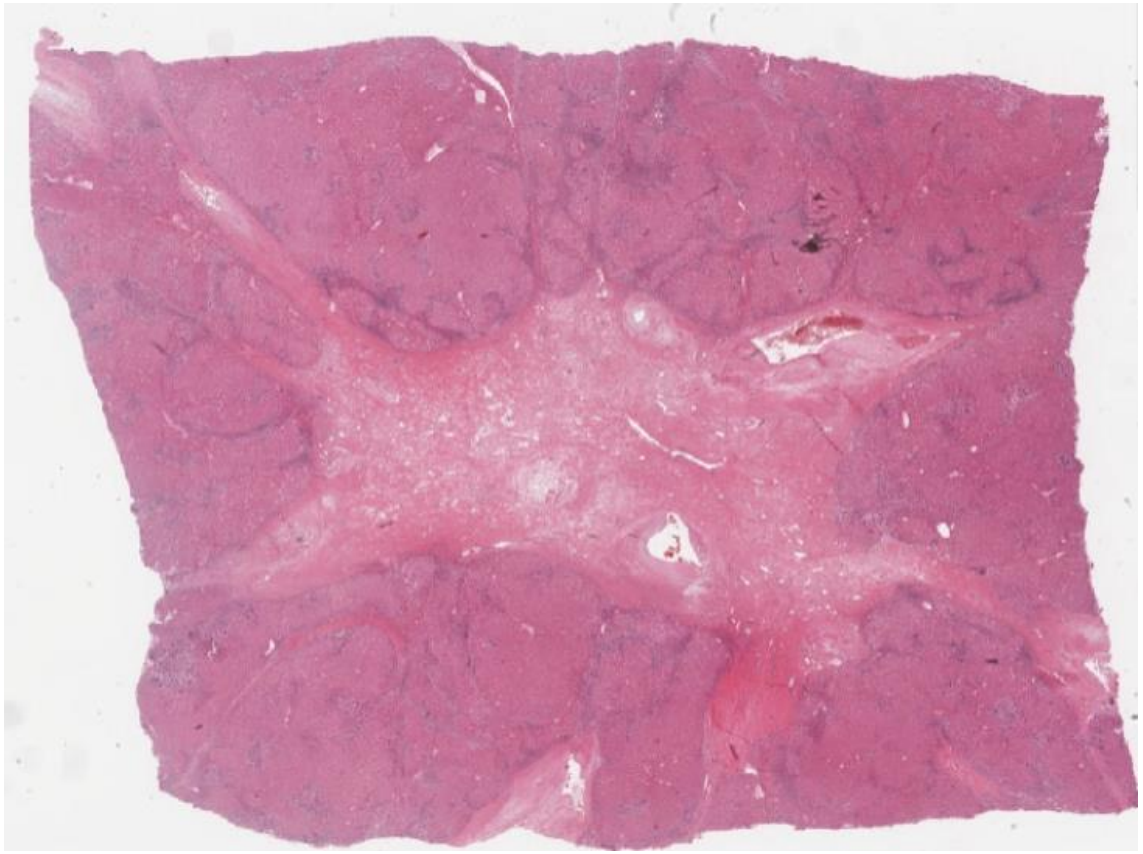
Case LT12 50F

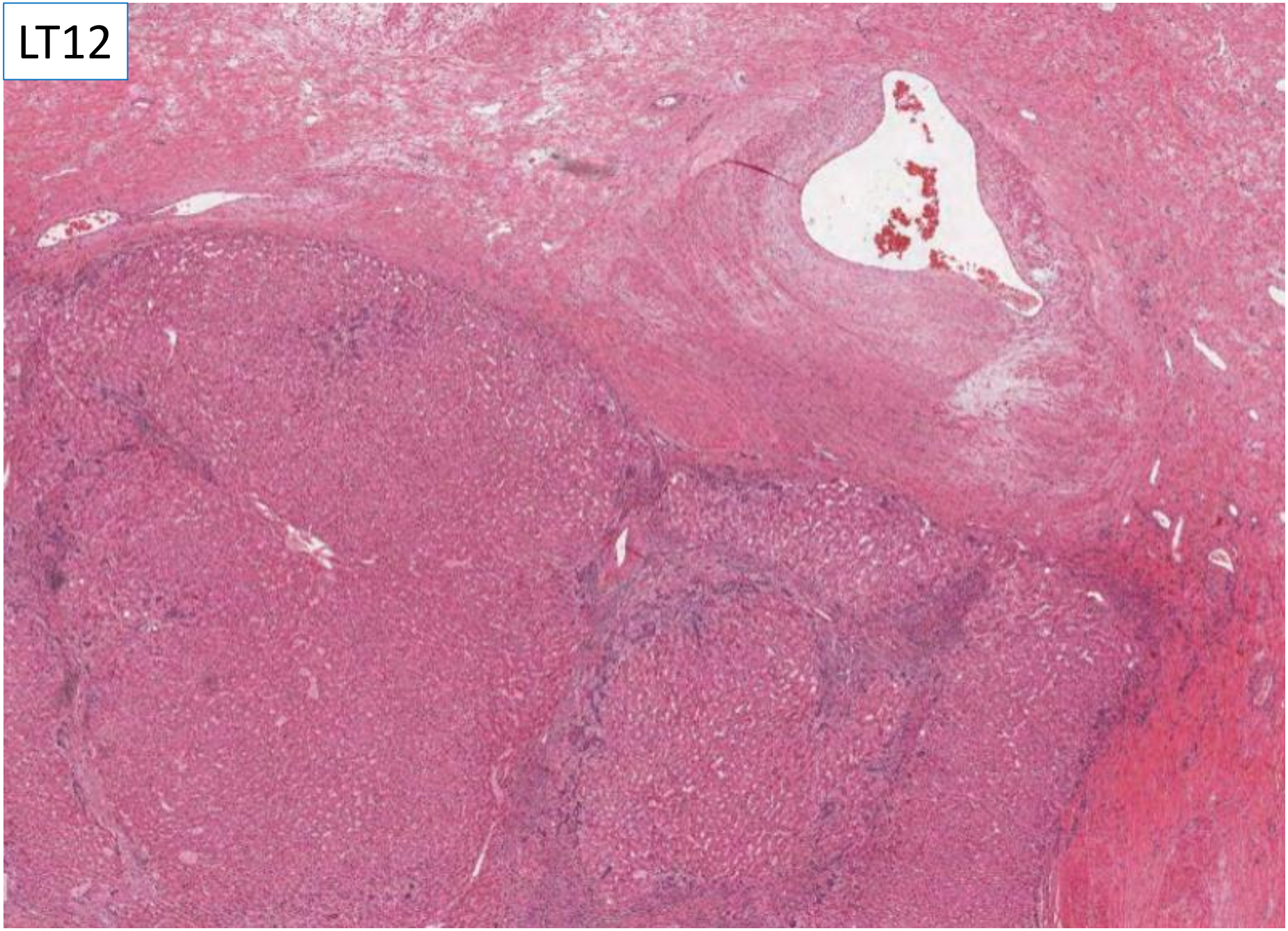
Hepatic adenoma 100K Genome project sent fresh. Not sampled for Genome project.

Specimen: Left lateral sectionectomy (segments 2 and 3).

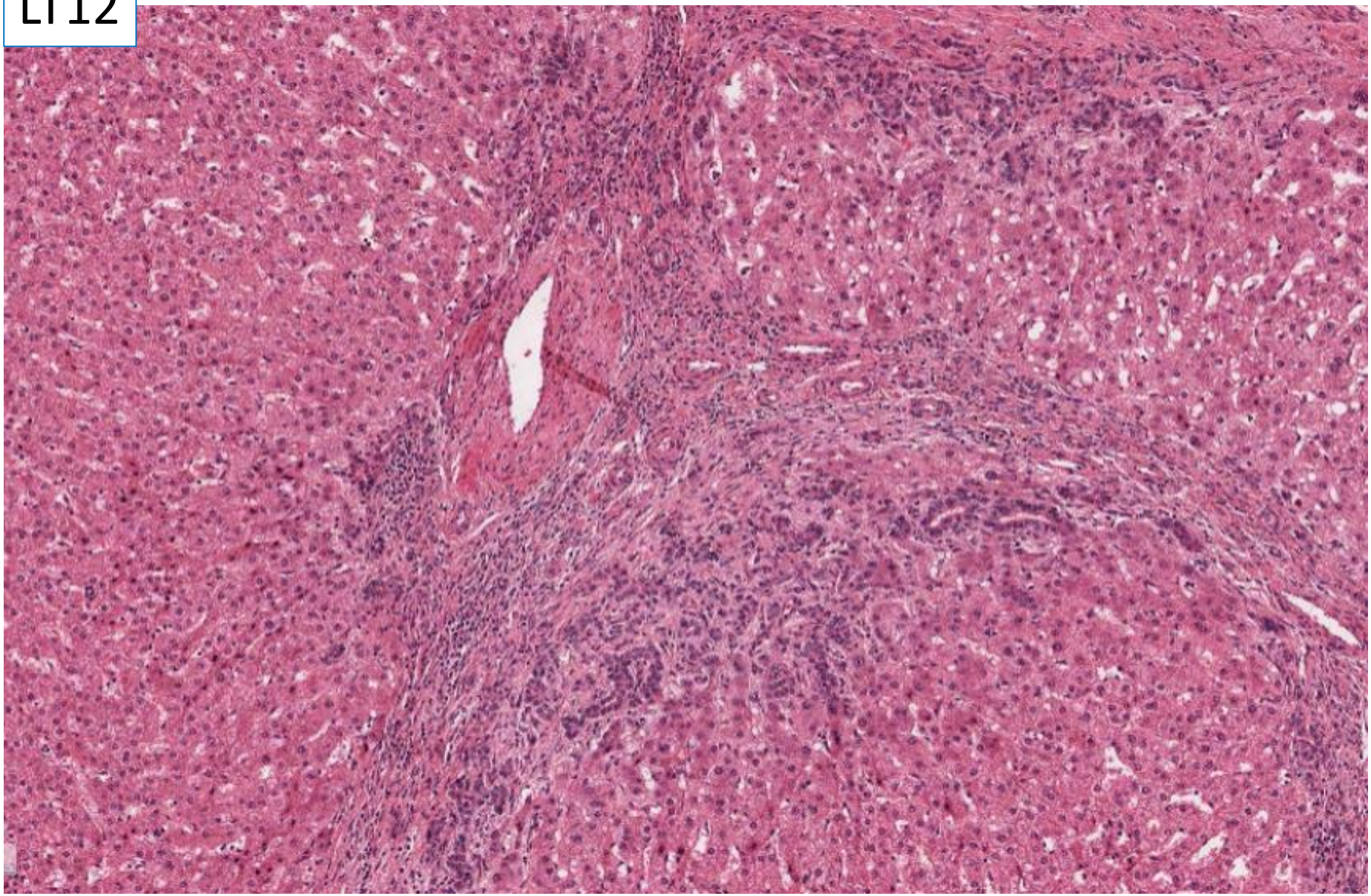
Multinodular, irregularly shaped, tan with interspersed vessels, and focal central ?fibrosis., Tumour size: 115mm x 95mm x 45mm.

Additional stains: Keratin 7, Glutamine synthetase, van Gieson, Shikata.

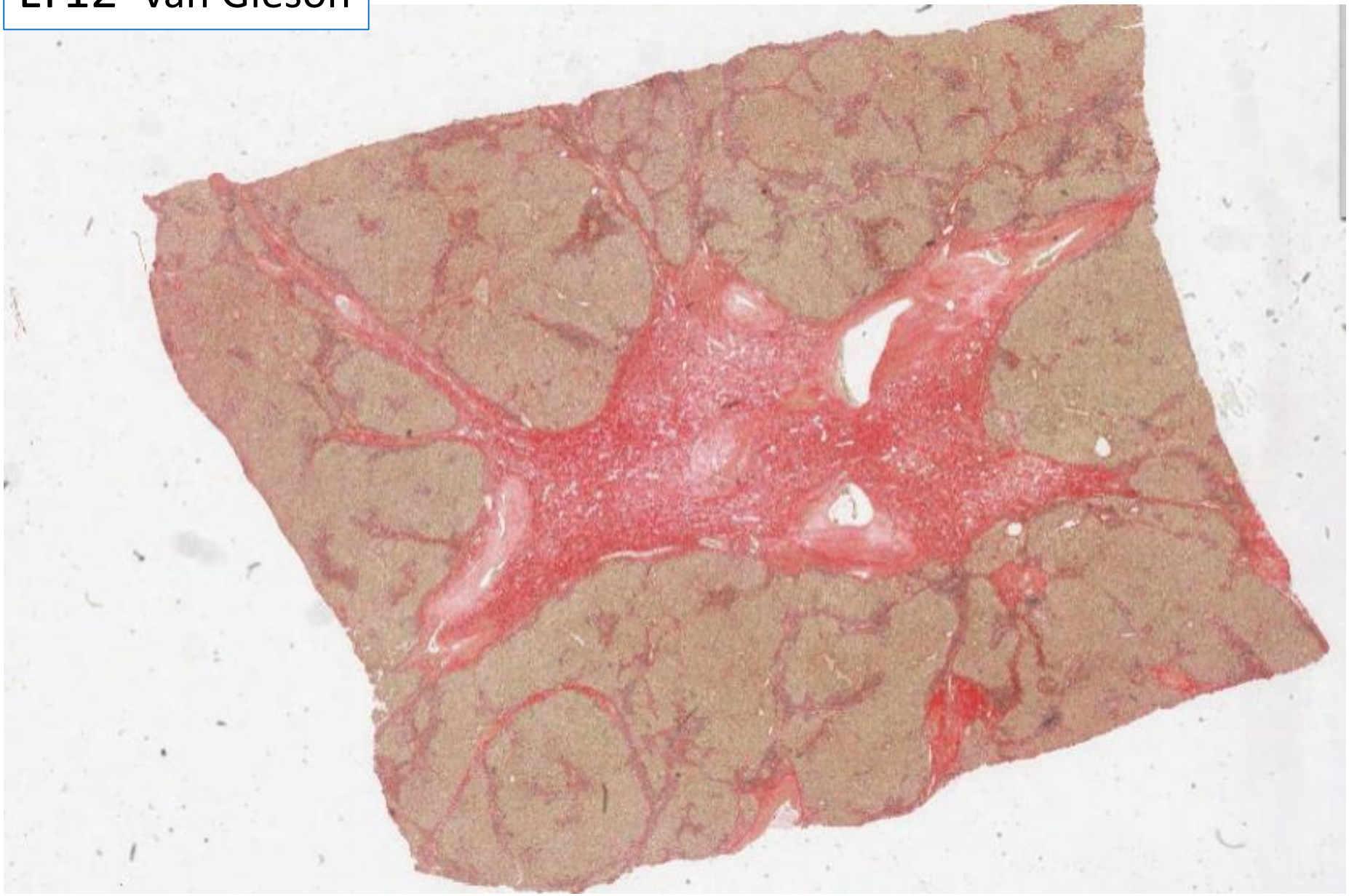



LT12

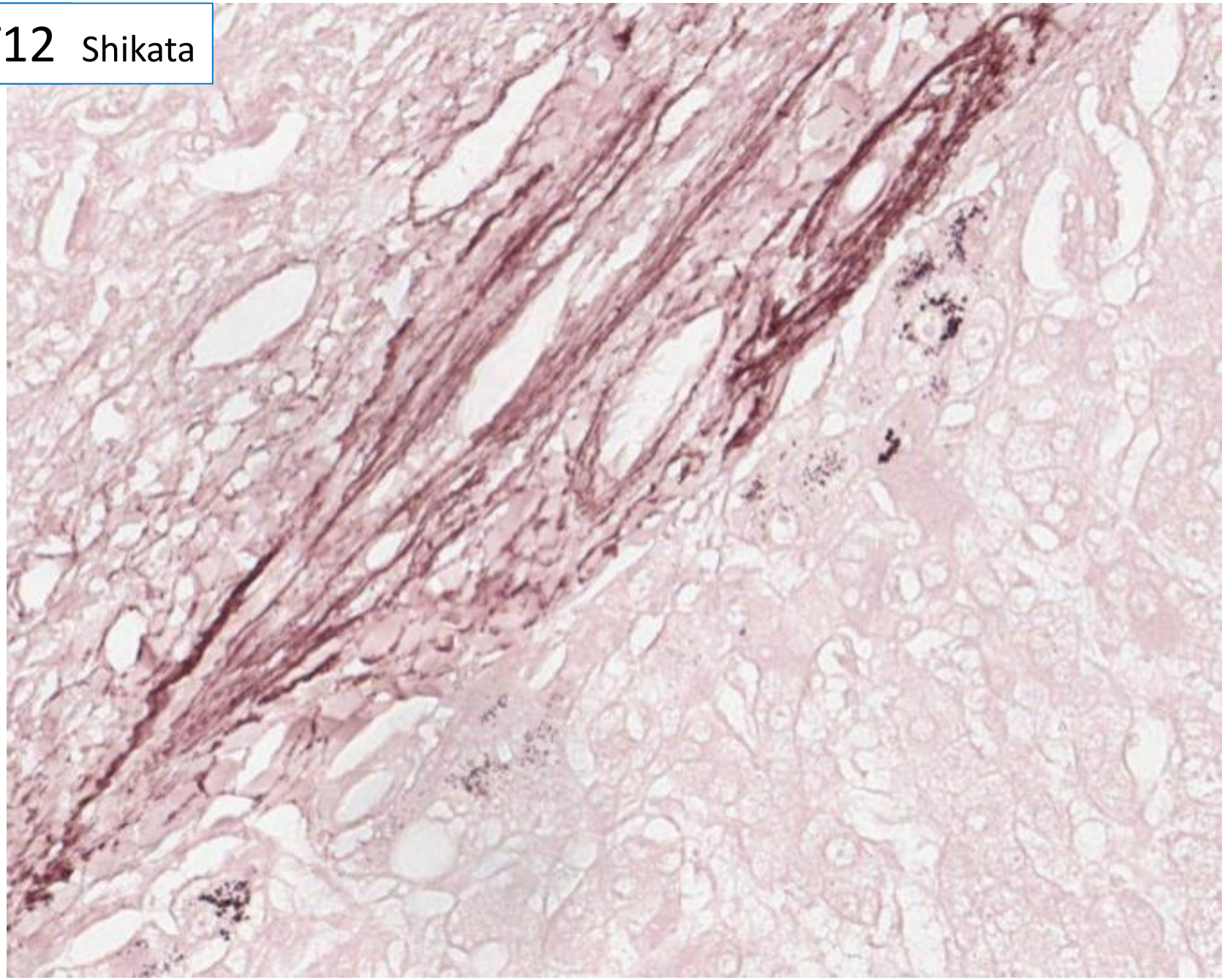
LT12



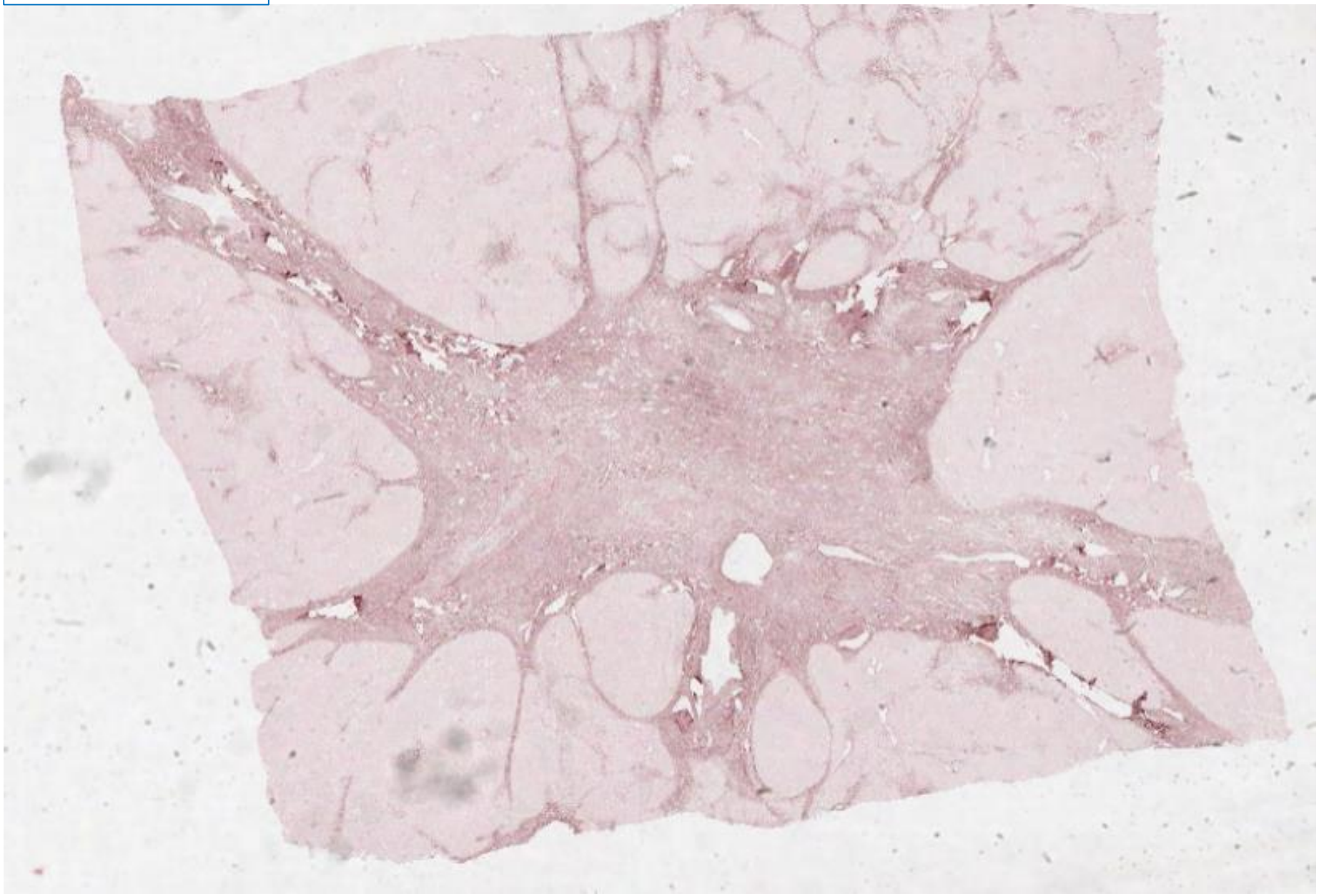
LT12 van Gieson



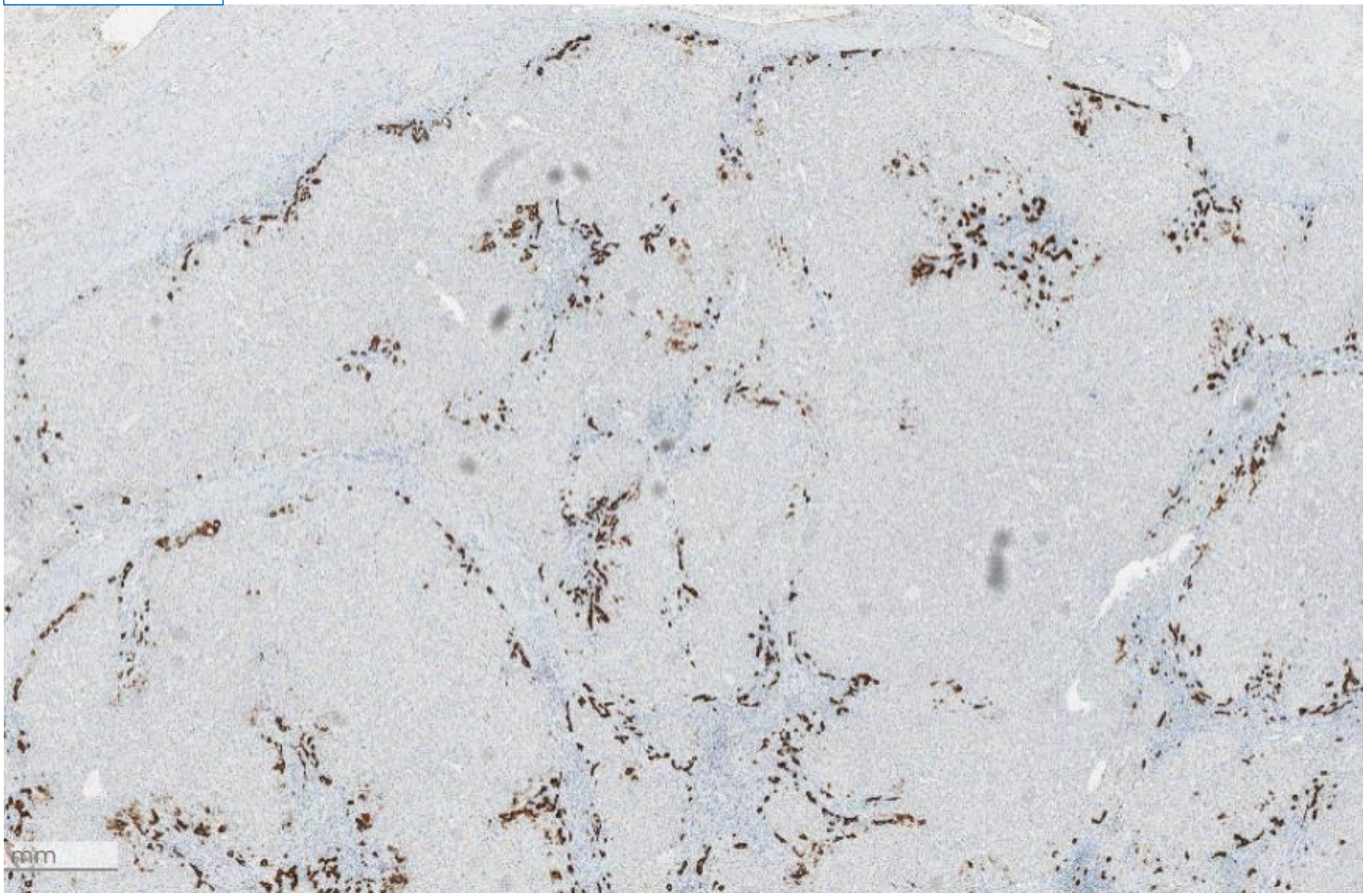
LT12 Shikata

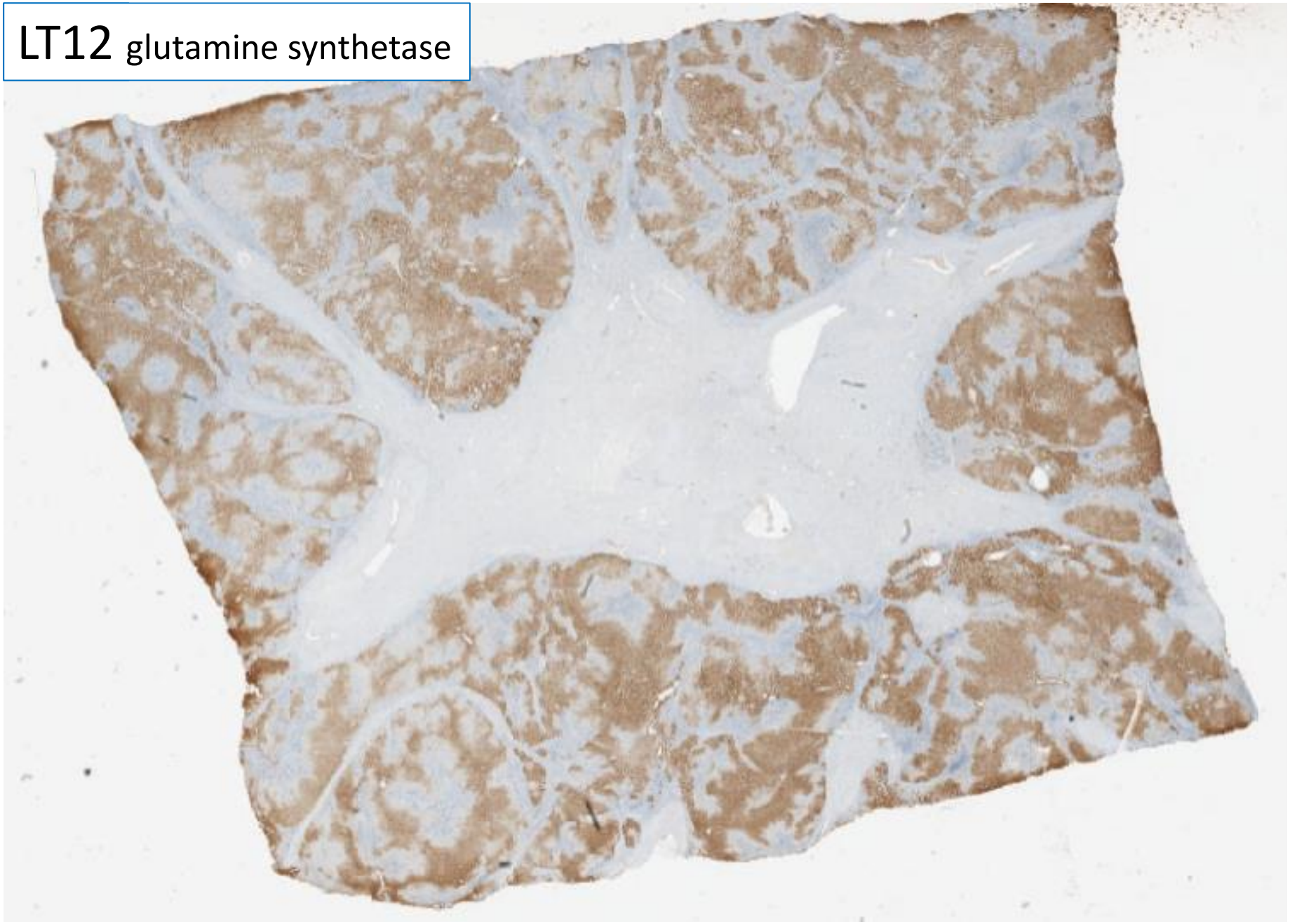


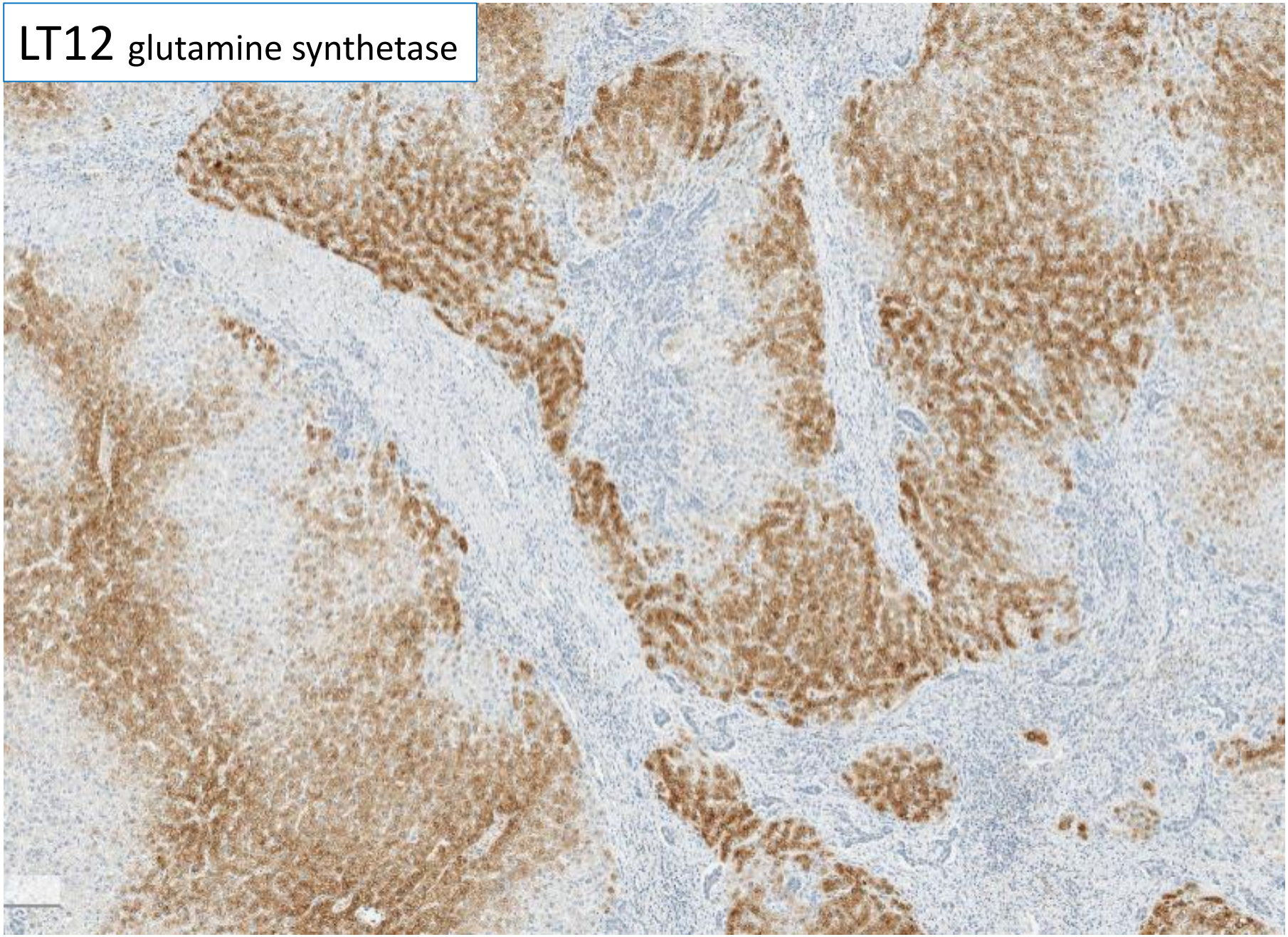
LT12 Shikata



LT12 CK7




LT12 glutamine synthetase


LT12 glutamine synthetase

Case LT12 50F

Hepatic adenoma 100K Genome project sent fresh. Not sampled for Genome project.

Specimen: Left lateral sectionectomy (segments 2 and 3).

Multinodular, irregularly shaped, tan with interspersed vessels, and focal central ?fibrosis., Tumour size: 115mm x 95mm x 45mm.

LT12	
A	Hepatocellular adenoma
B	Cirrhosis
C	Focal nodular hyperplasia
D	Hepatocellular carcinoma
E	Nodular regenerative hyperplasia

Case LT12 50F

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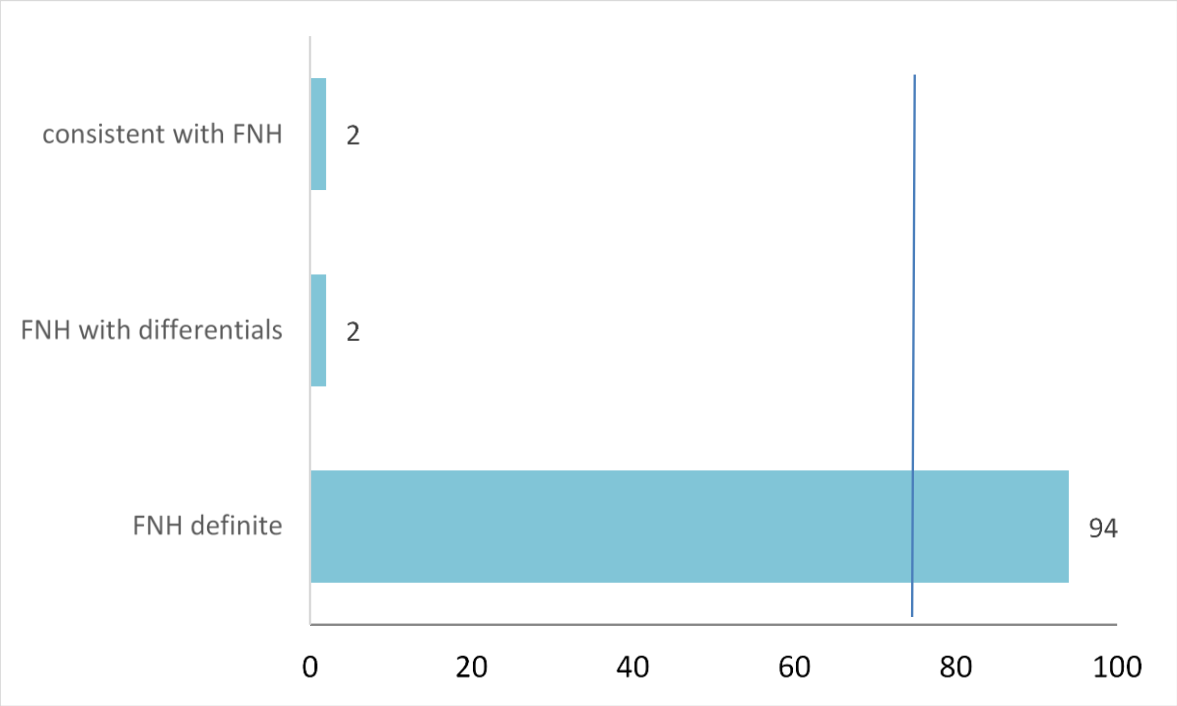

Consensus complete responses would include clear diagnosis of focal nodular hyperplasia

Case LT12 50F

Hepatic adenoma Specimen: Left lateral sectionectomy (segments 2 and 3).

Multinodular, irregularly shaped, tan with interspersed vessels, and focal central ?fibrosis., Tumour size: 115mm x 95mm x 45mm.

Consensus complete responses would include clear diagnosis of focal nodular hyperplasia

Suggested scoring: for 10 points include unequivocal diagnosis of FNH – all score 10 points

Observations/potential learning points

Some use terminology 'consistent with FNH' – but without offering any specific alternative

-

"FNH (I have no experience with Glutamine synthetase but would love to learn more about it), I think the background liver might be cirrhotic"

The End