

Liver histopathology EQA Scheme

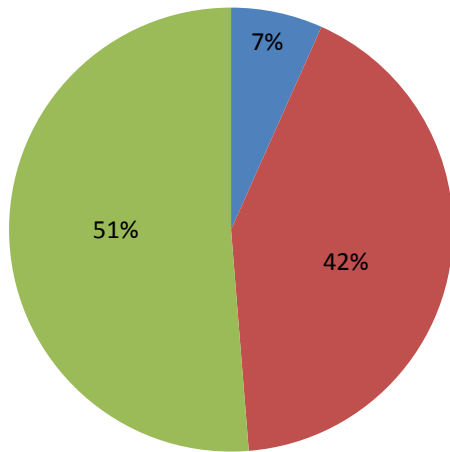
Circulation LO Summer 2016

Circulation LO – Summer 2016

- Responses received from 87 participants.
- 80% consensus – at least 70 agree
- Responses collated and suggested scores sent to EQA members
 - half marks blue, no marks red, how to score? Green
- Comments on suggested scoring received from 10
- Shown as Half marks in slides below
- For MCQ version – responses from 24.
- Survey monkey charts added to presentation yesterday

Gloucester course 2012:

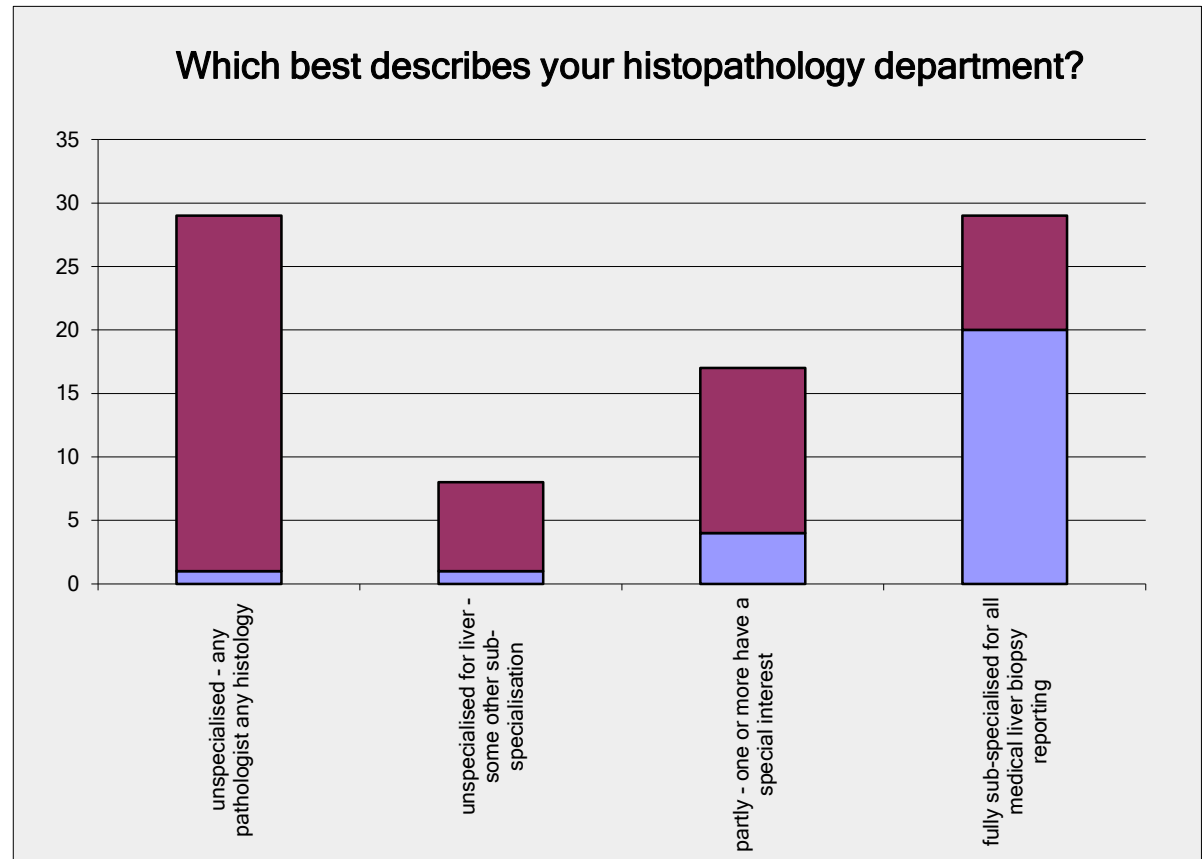
2696 biopsies per year reported by 78 of you



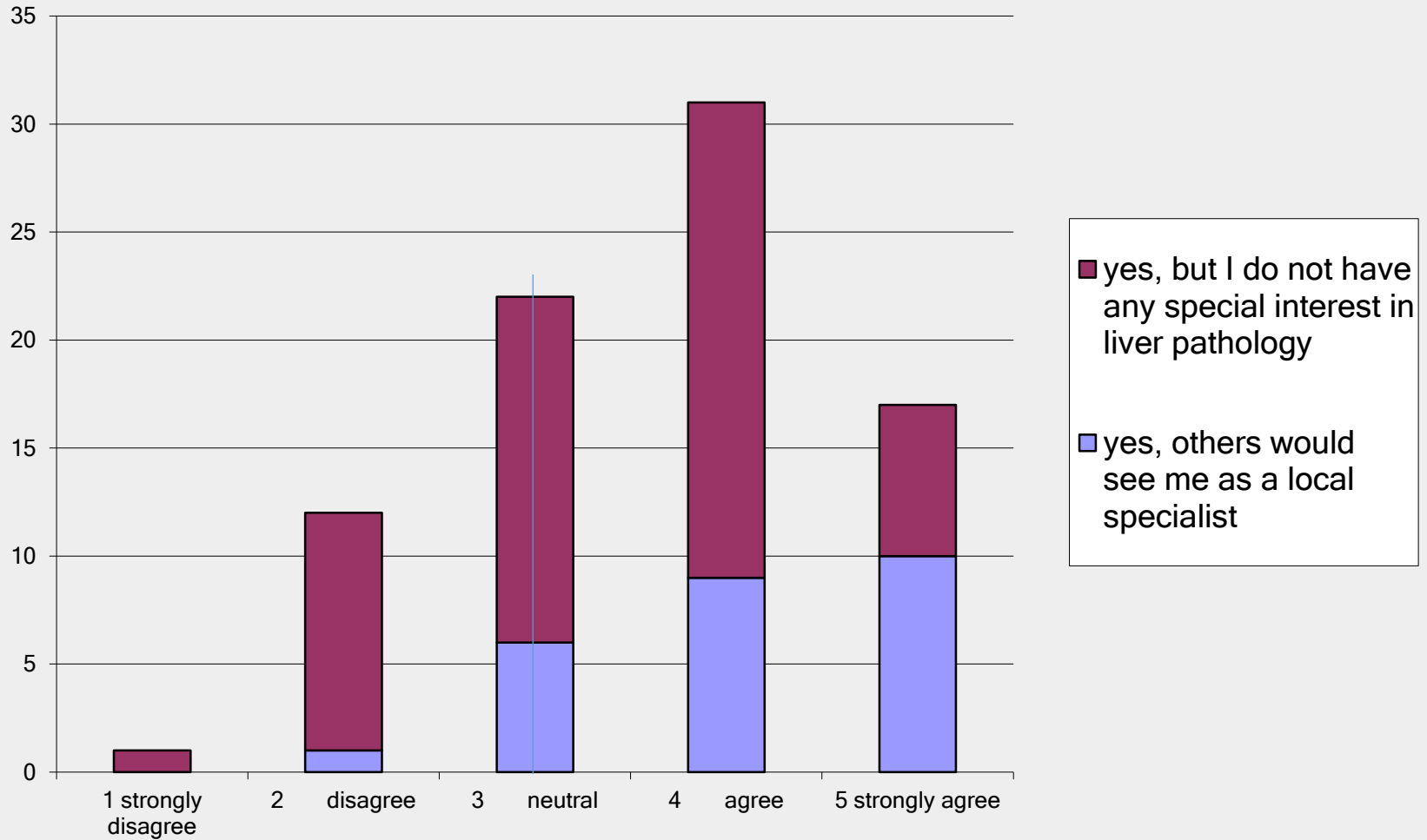
■ <20 n=19
■ 20-40 n=40
■ > 50 n=19

■ Yes, but I do not have any special interest in liver pathology

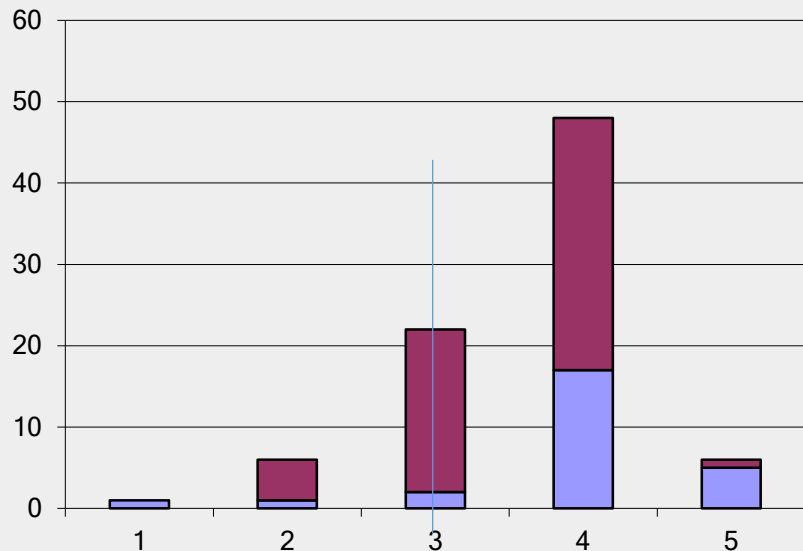
■ Yes, others would see me as a local specialist



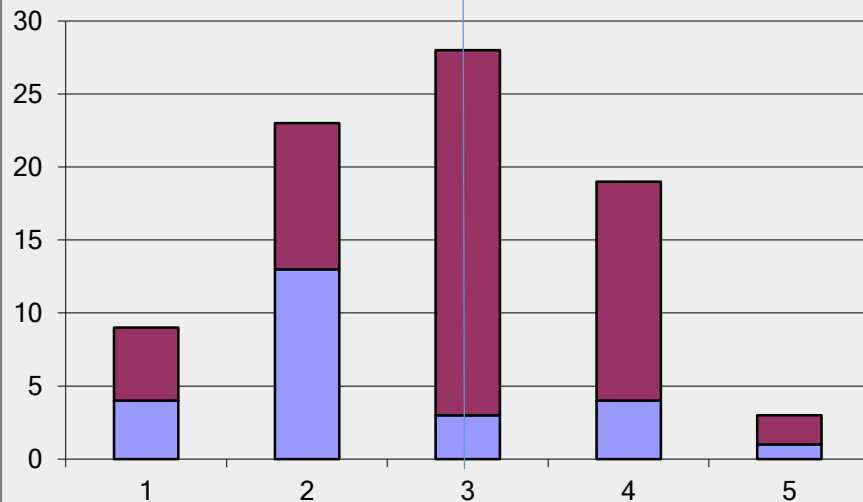
In general, I enjoy reporting liver biopsies



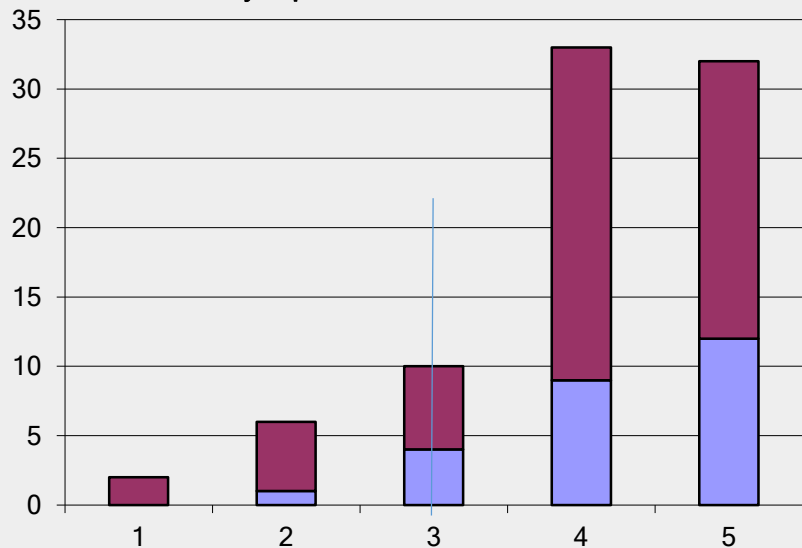
I feel confident that I can provide an accurate report that is clinically useful



I feel 'rusty' in liver histology and wonder if my report covers what the clinician needs



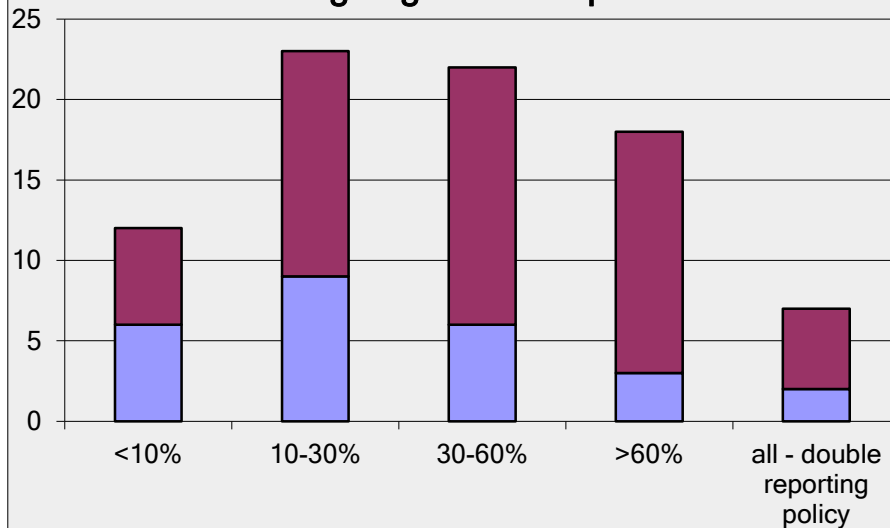
I look up literature about the case before composing my report in at least 10% of cases



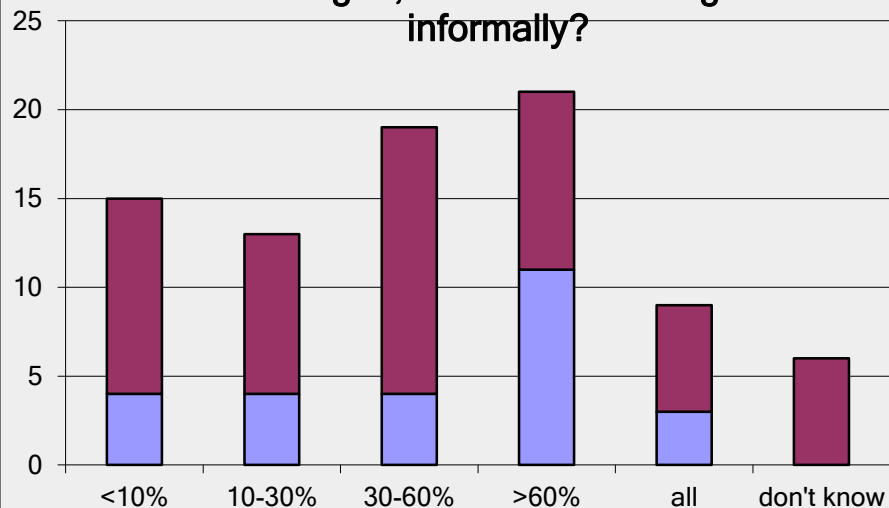
Actually, I tend to struggle with liver biopsies, and would rather not have to report them at all



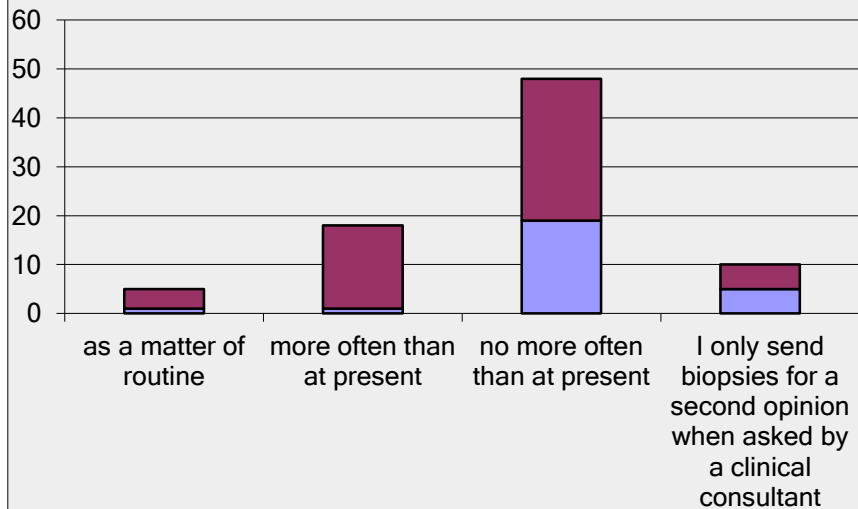
Roughly how often do you discuss liver biopsies with a pathologist colleague before signing out the report about:



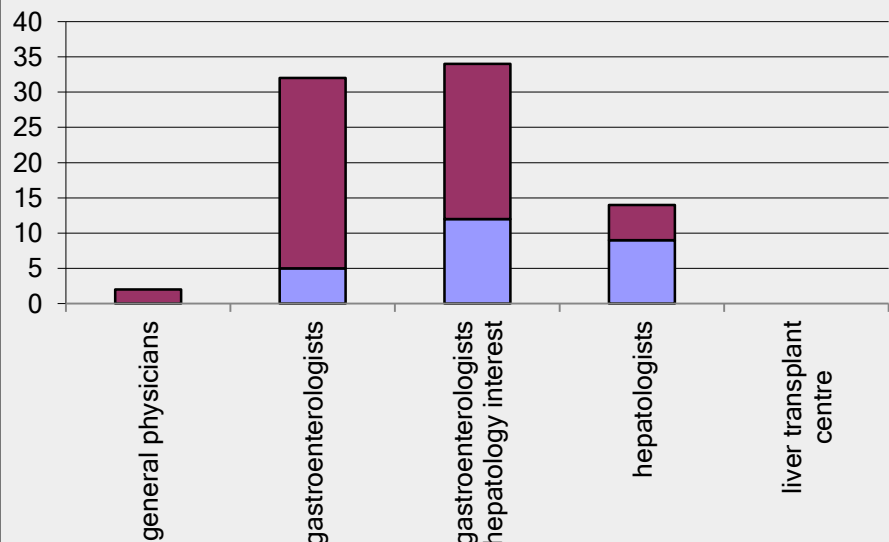
Roughly what proportion of your medical liver biopsies are discussed with a clinician colleague, either in a meeting or informally?



I would like to send biopsies to a specialist liver pathologist for their opinion or to report



Which clinicians look after the medical liver patients in your Trust?



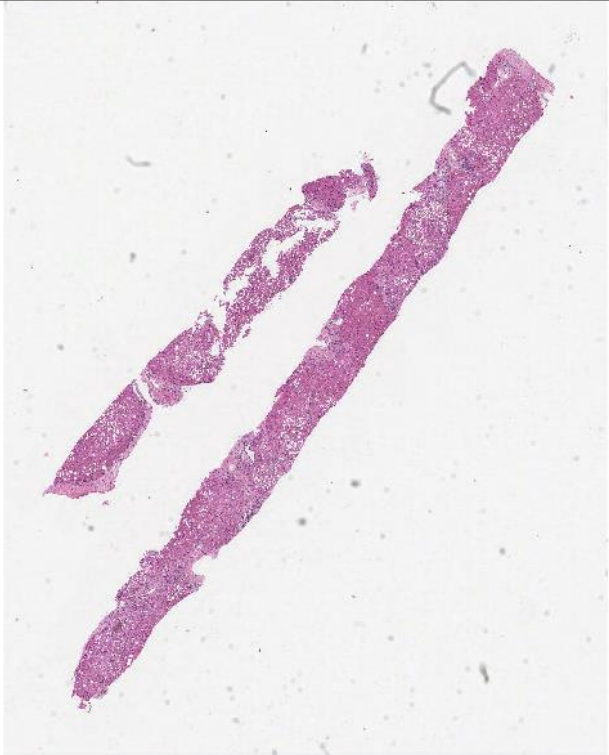
Case LO1 Age 68, Male

Raised ferritin. Raised Transferrin Sat. Haemochromatosis screen negative.
?iron overload secondary to variant haemochromatosis.

Sign | (2981) | Histo | BBC i | BBC | RC Chec | Surve | Ama: | Histo | Admi | Liver | S X | S Volur | RC The s | BBC BBC | Amaz + - □ X

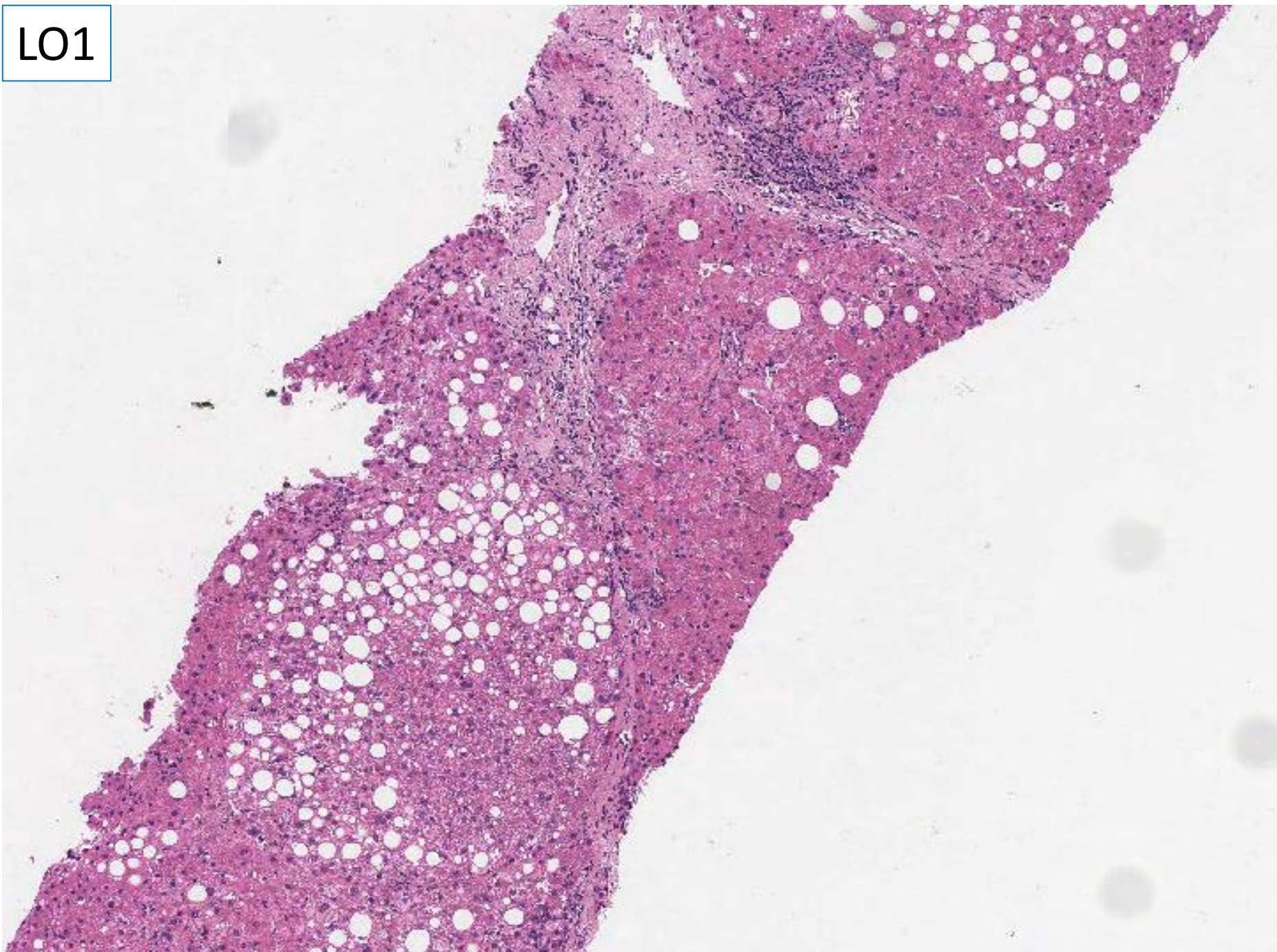
virtualpathology.leeds.ac.uk/slides/library/view.php?path=%2FResearch_4%2FTeaching%2FEQA%2FLIVER%2FCirculation_LO%2F345894.sys

Virtual Pathology at the University of Leeds

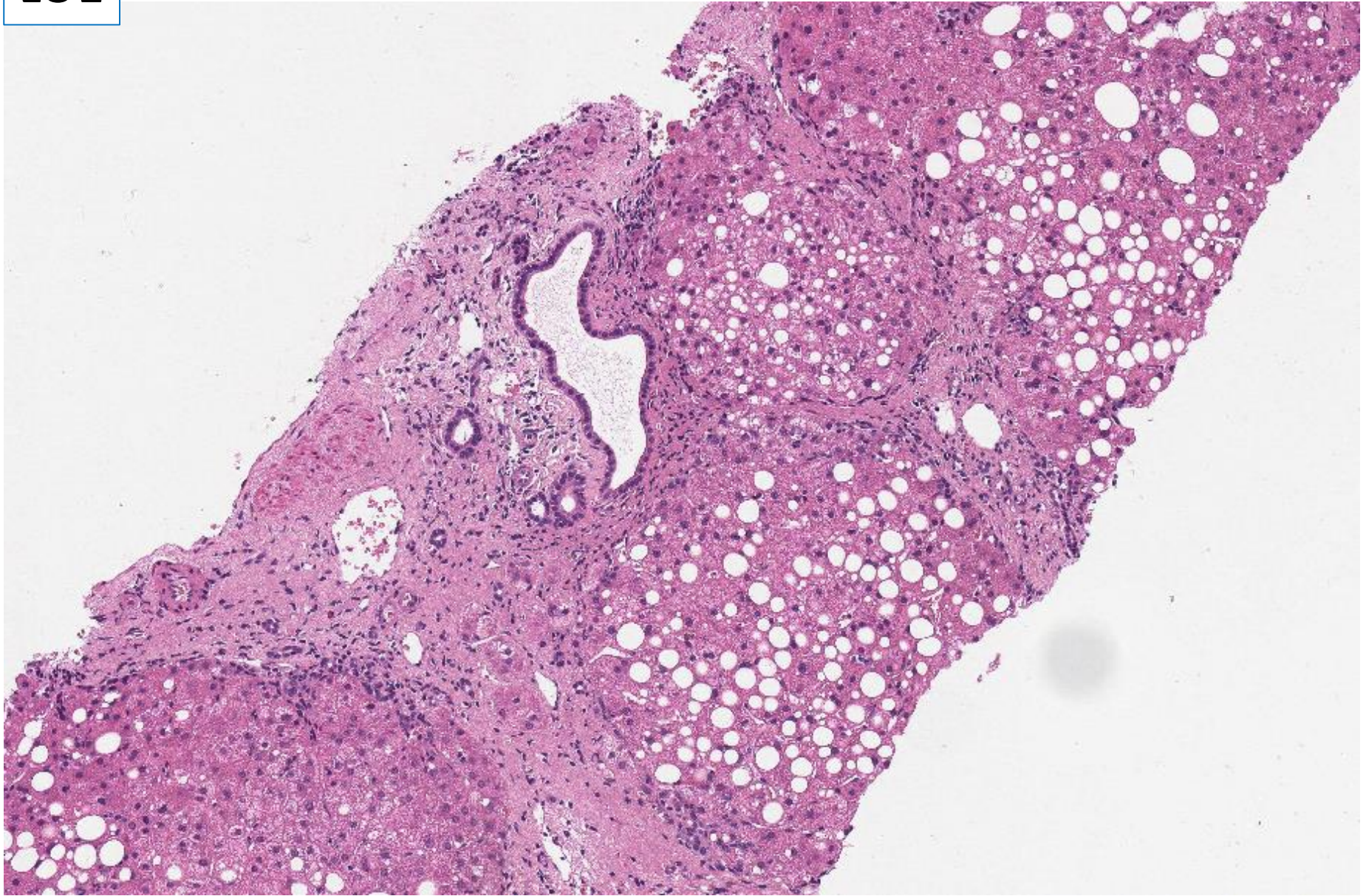


Windows taskbar showing icons for File Explorer, Edge, and other applications. System tray on the right shows the time as 06:10 and the date as 23/09/2016.

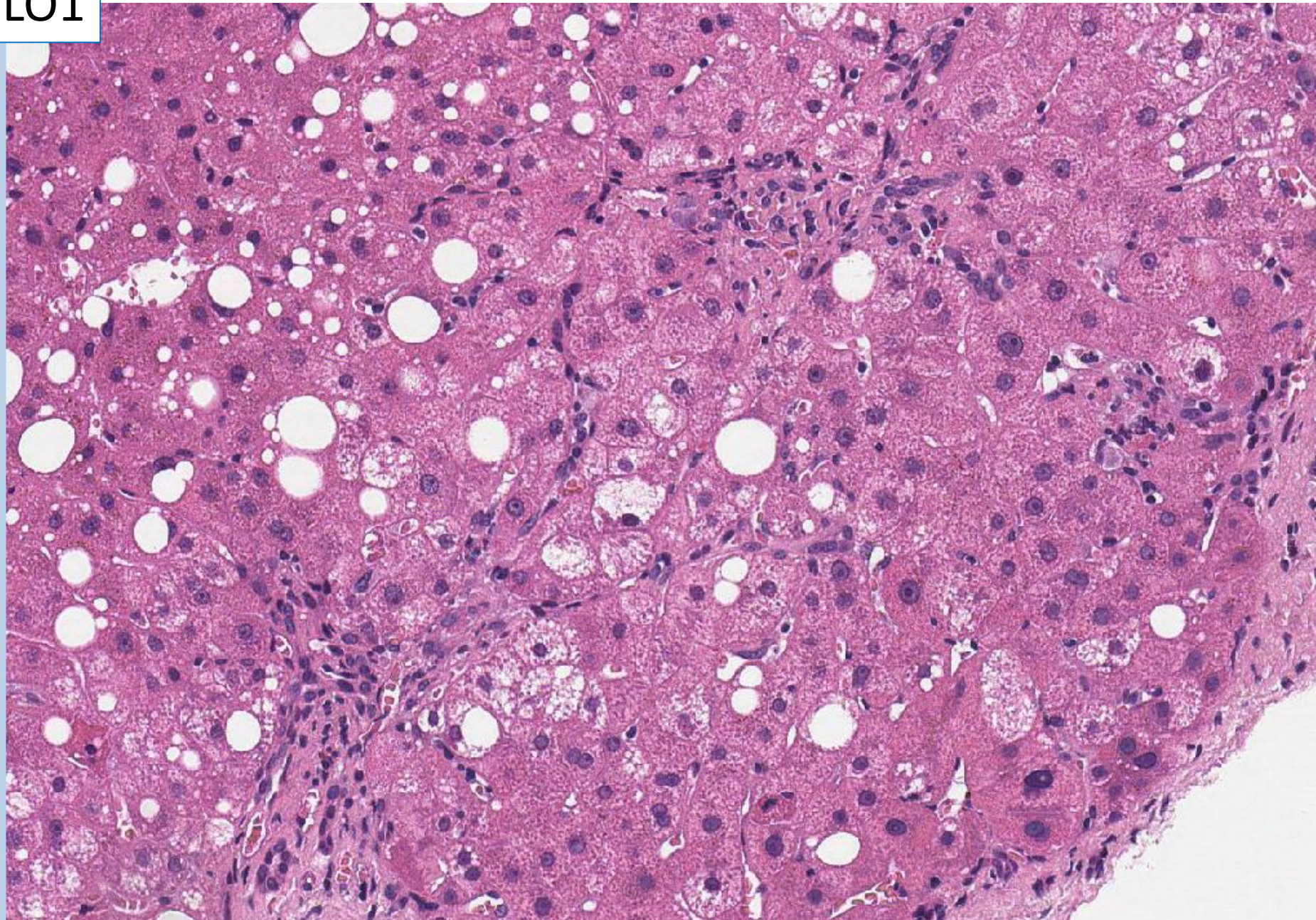
LO1



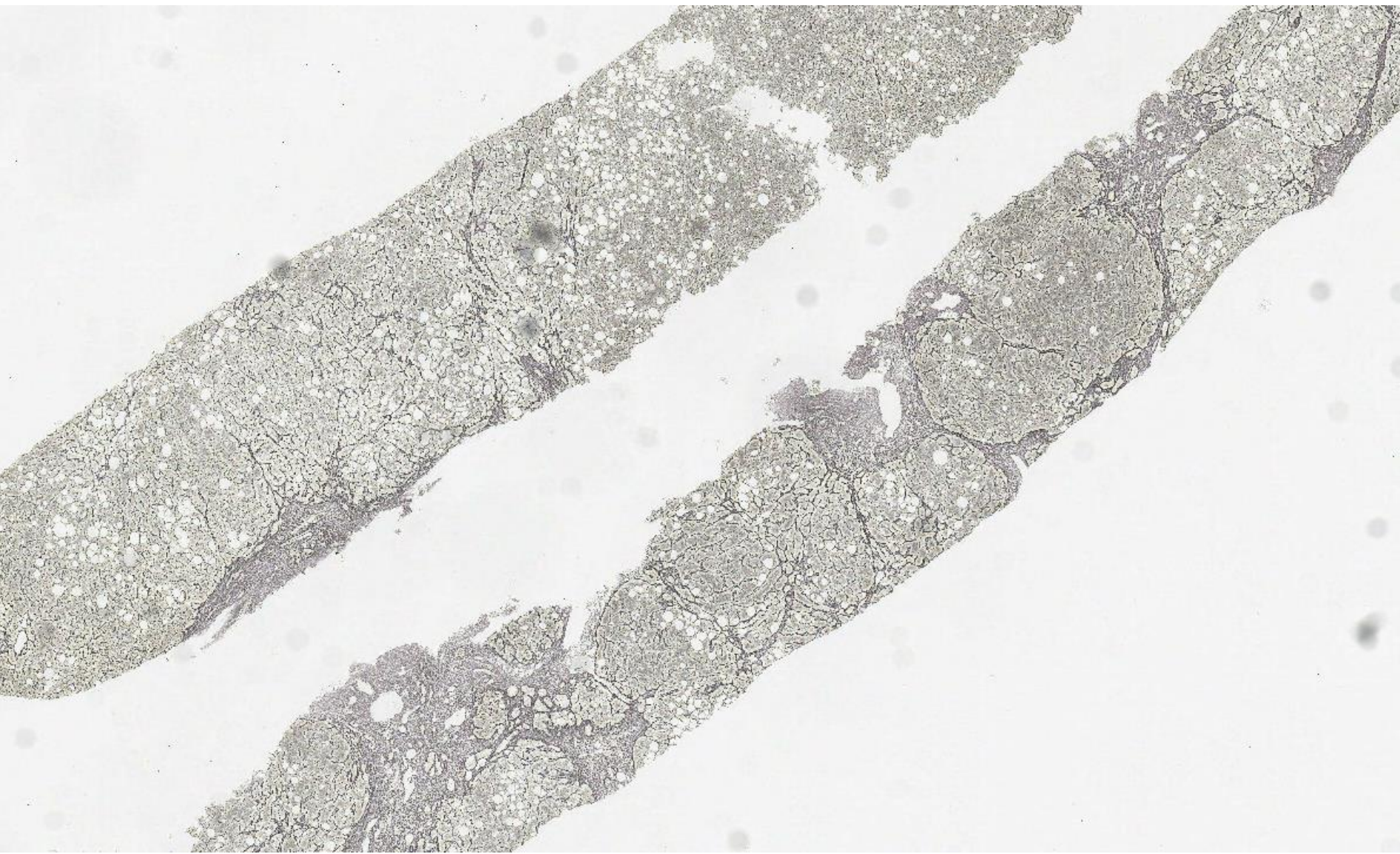
LO1



LO1

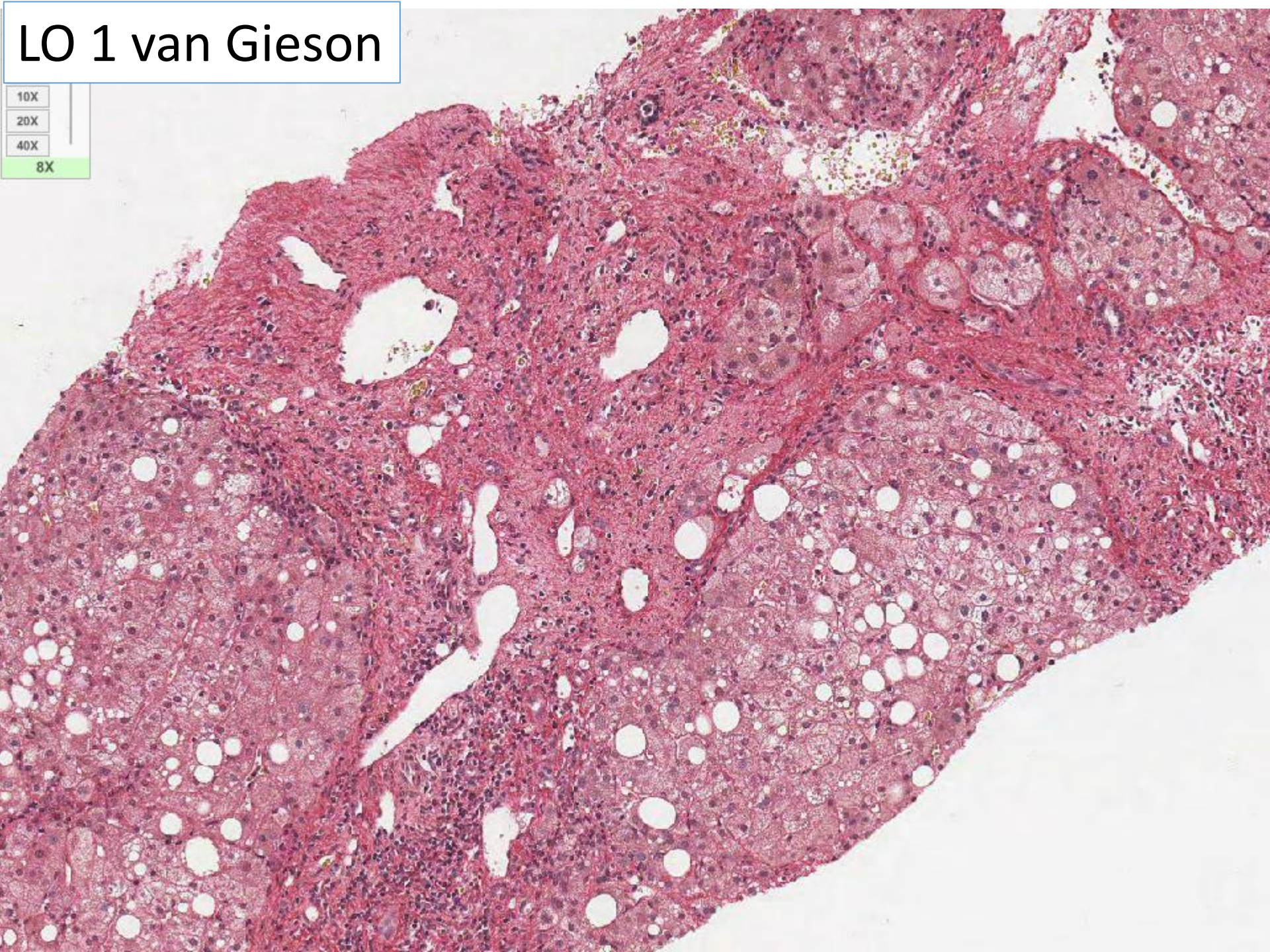


- LO 1 reticulin

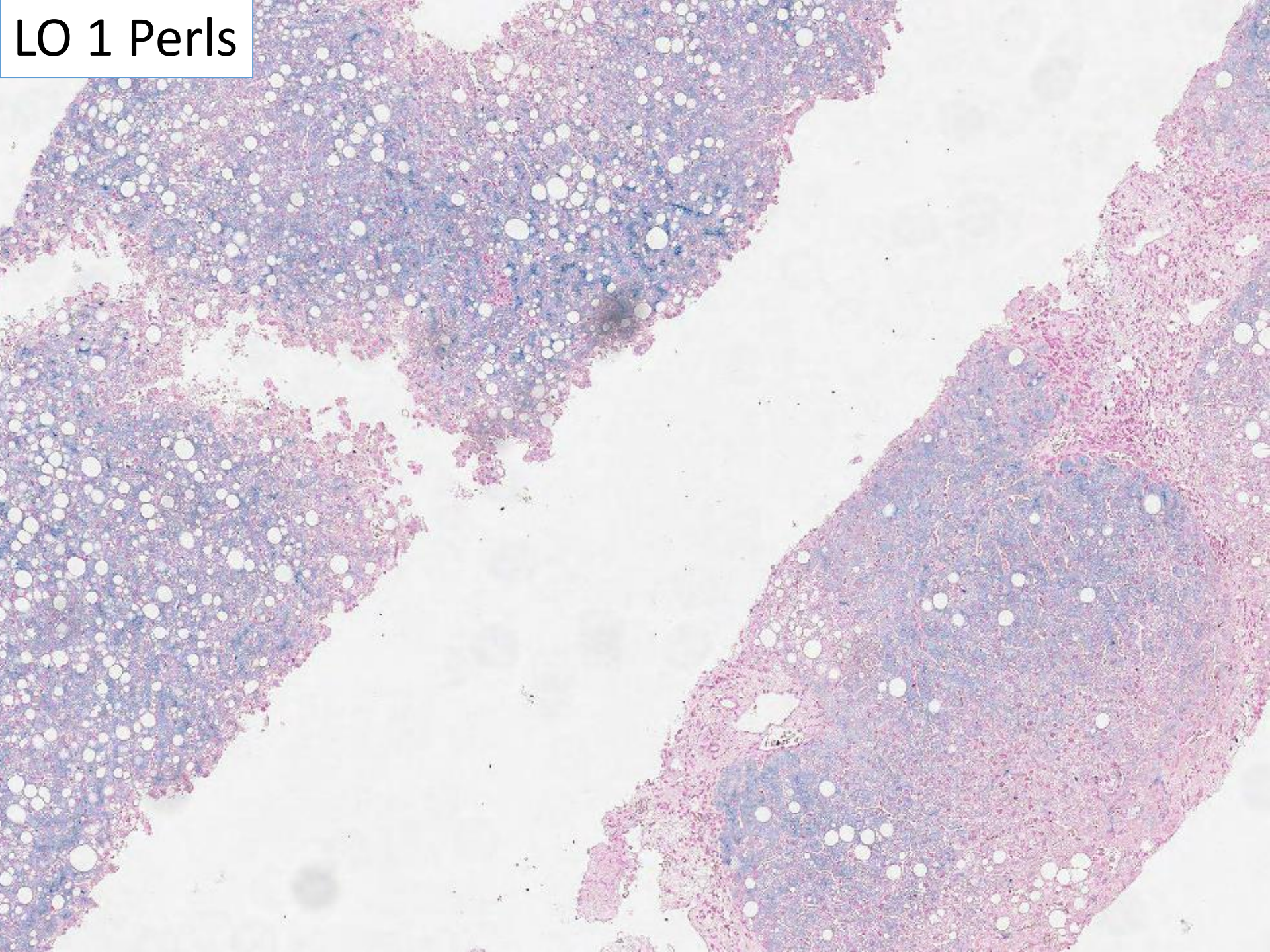


LO 1 van Gieson

- 10X
- 20X
- 40X
- 8X



LO 1 Perls



Case LO1 Age 68, Male

Raised ferritin. Raised Transferrin Sat. Haemochromatosis screen negative.

?iron overload secondary to variant haemochromatosis

Stage		
Cirrhosis, definite		74
Bridging fibrosis	Half marks	6
Fibrosis with nodules	Full/half	5
Steatosis:		
Steatosis not mentioned		2
Steatohepatitis		59
Steatosis, not steatohepatitis		11
Fat mentioned in description, not implying NAFLD		13
Clinical cause of steatosis – Alcohol or NAFLD		48
Clinical cause of steatosis not mentioned		27
Iron – all included comment on iron		87
Cause of iron excess not mentioned		4
Iron due to inherited cause, secondary iron overload not mentioned	Full/half	9
Either inherited or secondary – can't tell		27
More likely inherited cause of increased iron		34
More likely secondary to fatty liver disease/alcohol		17
“cirrhosis due to haemosiderosis”		1
“chronic hepatitis Ishak 8/18 stage 5, mild steatosis + iron due to alcohol”		1

Case LO1 Age 68, Male

Raised ferritin. Raised Transferrin Sat. Haemochromatosis screen negative.

?iron overload secondary to variant haemochromatosis

Suggested scoring: Difficult to score – three aspects are stage, fatty liver disease and iron.

9/10 suitable for scoring

For full marks – a clear diagnosis of cirrhosis, and that both fatty liver disease and increased iron may have contributed to the progression of the liver disease.

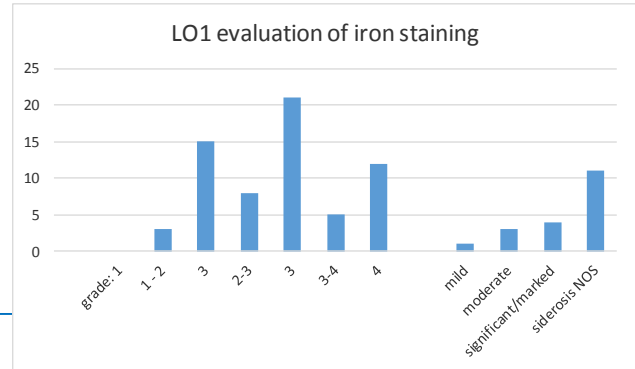
Should score half marks if not cirrhosis? and half marks if there is no indication that the fatty liver disease may be contributing?

Insufficient consensus on comments of cause of fatty liver disease to include this.

Grading of Perl’s stain included for information –

Also suggest half marks for two responses at the end – answers not precise.

For information: evaluations of iron stain:



LO1: final scoring after meeting discussion: For full marks, need cirrhosis/advanced, late stage fibrosis/bridging fibrosis with nodules, and an indication that both fatty liver disease and iron are potential contributory factors.

Half marks for bridging fibrosis only, and if steatosis is not mentioned at all.

Also half marks if main diagnosis was chronic hepatitis.

Case LO2 Age 38, Male

Chronic inactive hepatitis. B carrier. Rise ALT. Reactivation or rogue mutation of virus? Additional laboratory information HepB PCR positive, HBSag +ve, HBeAg -ve (+ve in past), HepC -ve. ALT 59 iu/l, ALP 51 iu/l

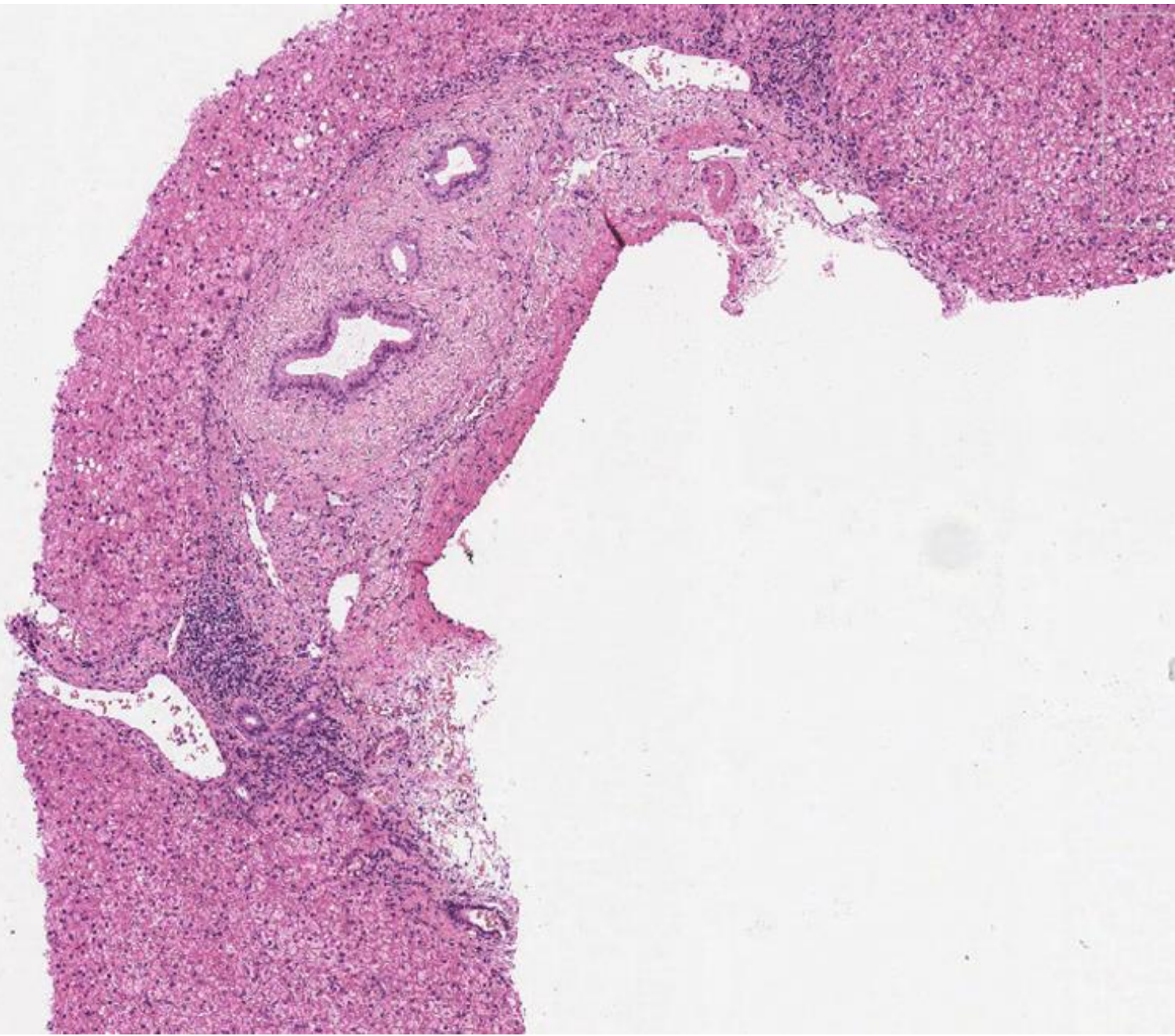
Sign | (2981) | Histo | BBC i | BBC BBC 1 | RC Chec | Surve | Amaz | Histo | Admi | Liver | S X | S Volur | RC The £ | BBC BBC 1 | Amaz +

virtualpathology.leeds.ac.uk/slides/library/view.php?path=%2FResearch_4%2FTeaching%2FEQA%2FLIVER%2FCirculation_LO%2F345916.svs

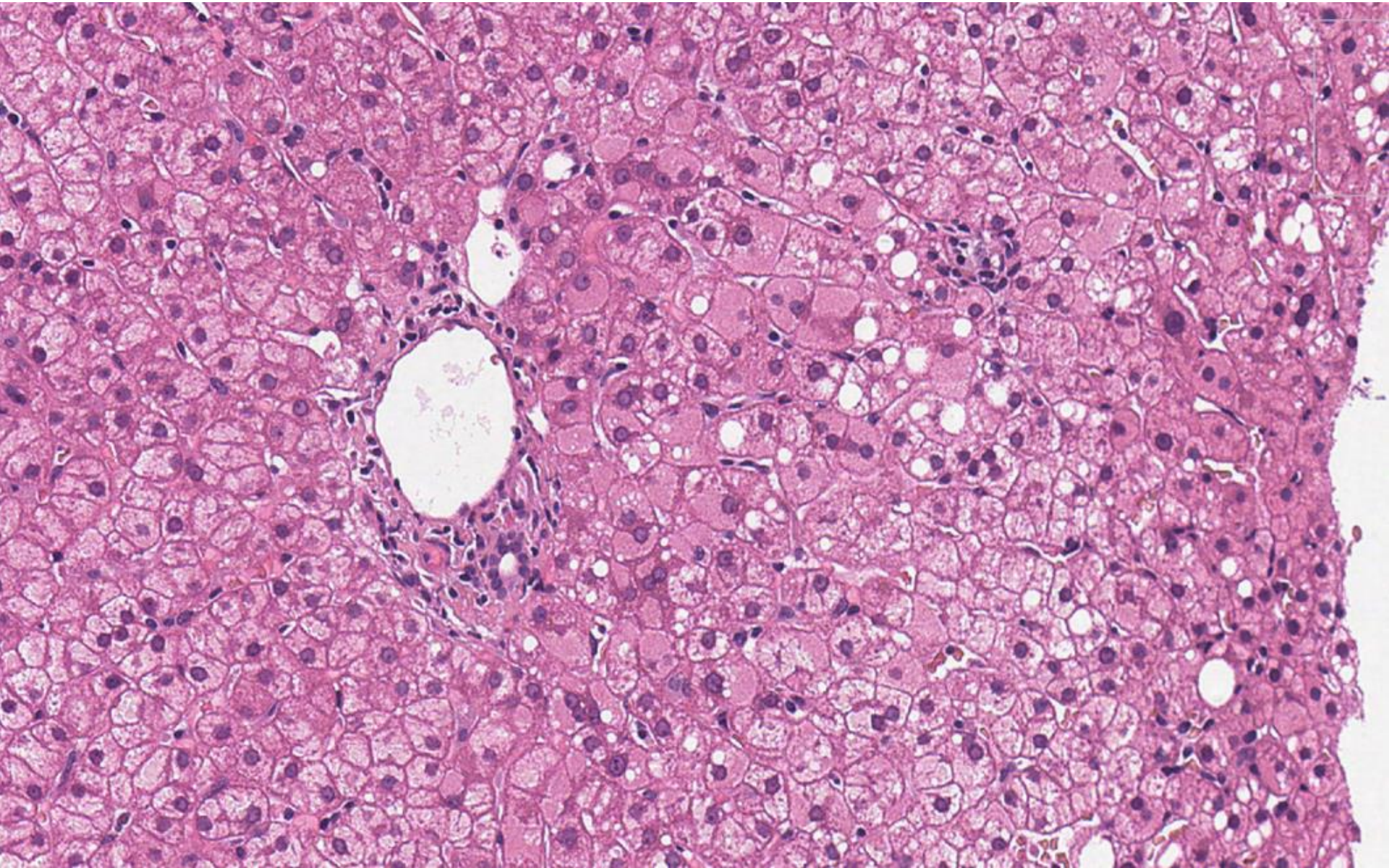
Virtual Pathology at the University of Leeds

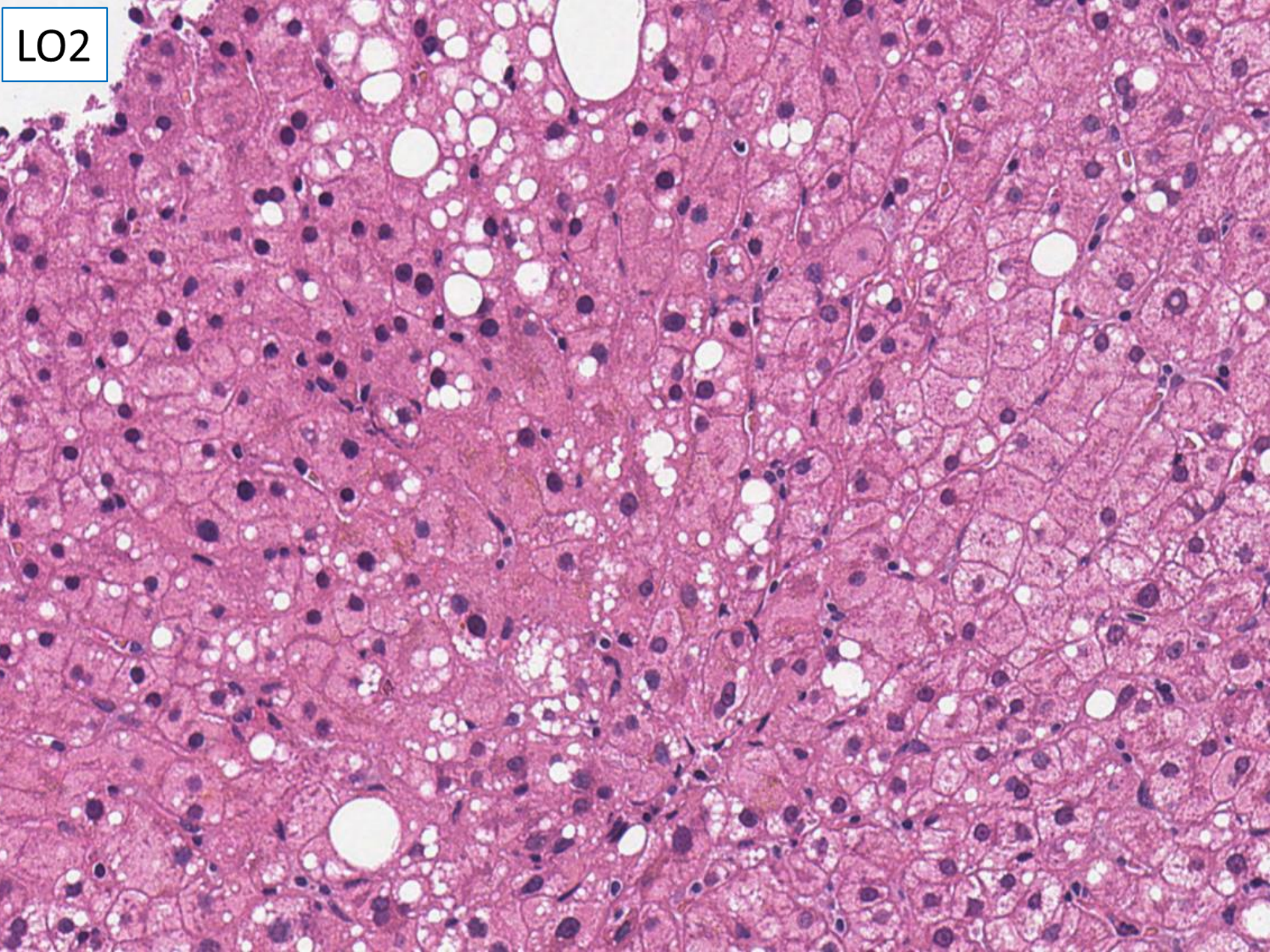


LO2



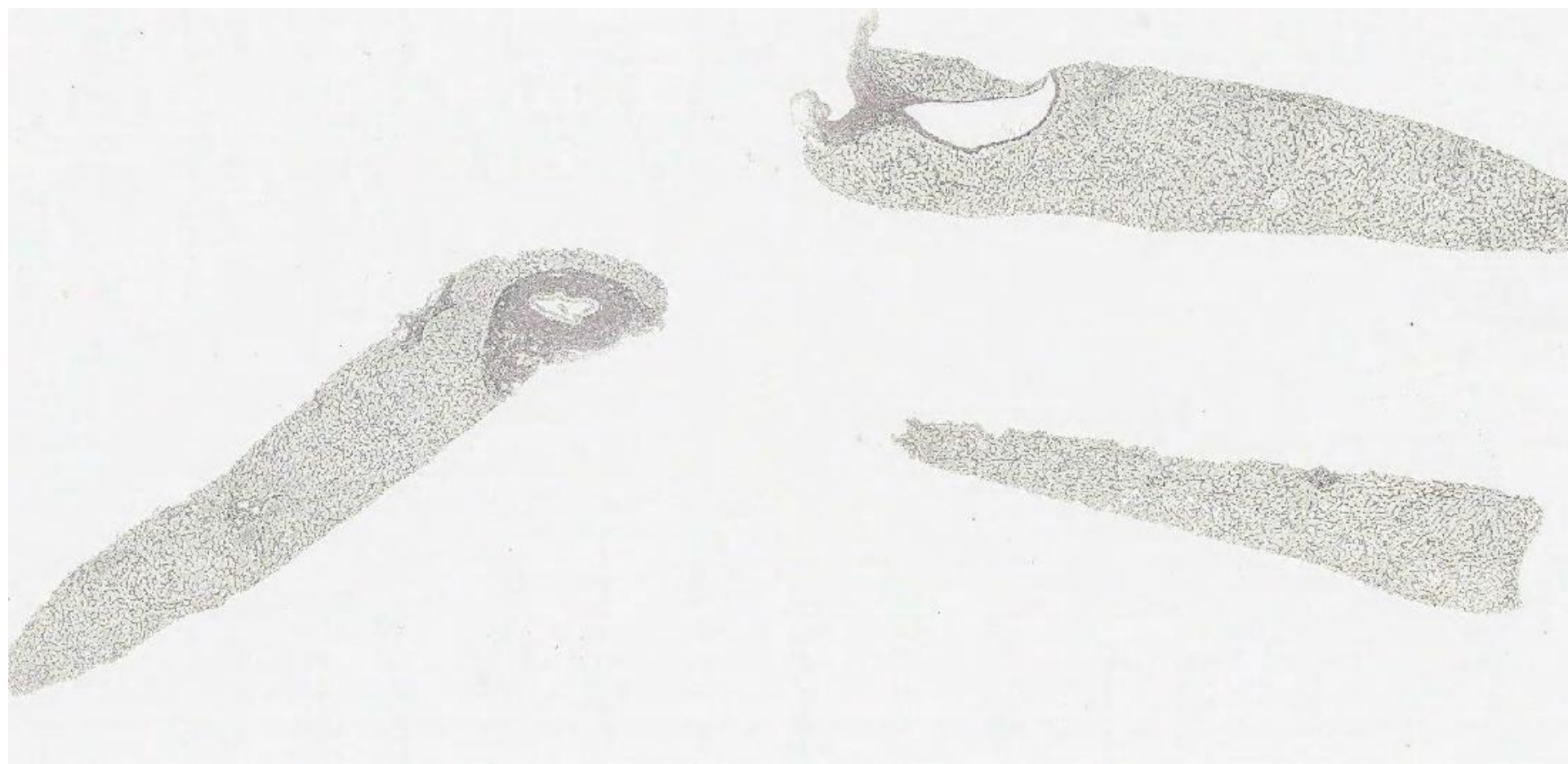
LO2



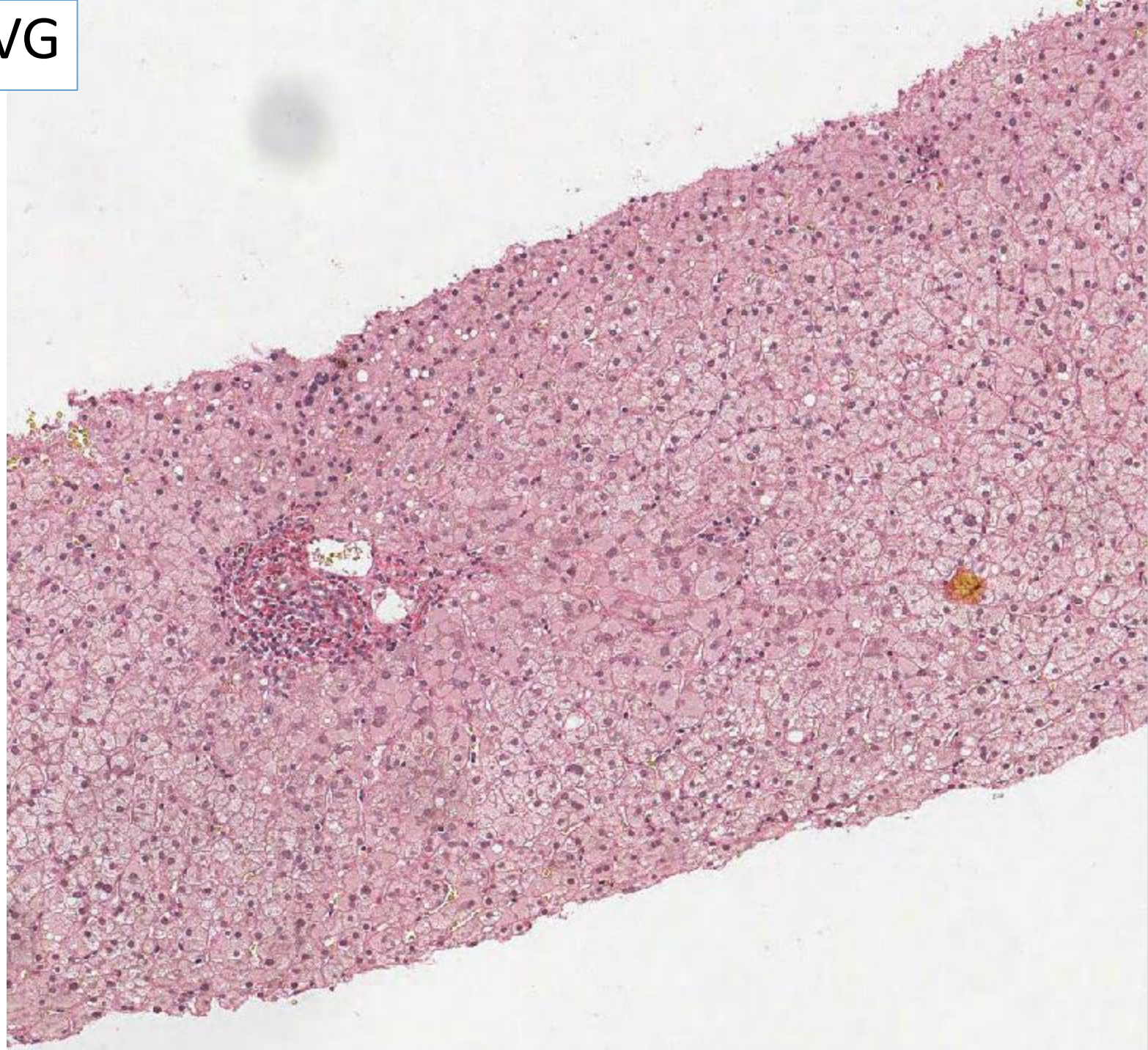


LO2

LO 2 reticulin



LO 2 VG



Case LO2 Age 38, Male

Chronic inactive hepatitis. B carrier. Rise ALT. Reactivation or rogue mutation of virus? Additional laboratory information HepB PCR positive, HBSag +ve, HBeAg -ve (+ve in past), HepC -ve. ALT 59 iu/l, ALP 51 iu/l

Consistent with chronic hepatitis B		79
Chronic hepatitis B also steatohepatitis	Half marks	3
“mild acute hepatitis B”		1
“chronic active hepatitis – hepatitis B or other”		1
“mild steatohepatitis – no hepatitis B, Kleiner st2 gr5”		1
Consistent with viral hepatitis, mentions ground glass		1
“suspect PSC, no convincing hepatitis B, (needs IHC)”		1
Of chronic hepatitis B diagnosis: Stage – Ishak (45) or descriptive (28)		73
No stage mentioned		6
Grade – Ishak (42) or descriptive (36)		78
No indication of degree of activity/grade		1

Suggested scoring: For full marks – need chronic hepatitis B with an indication of fibrosis stage.

This case had very clear ground glass hepatocytes (“gorgeous” for one participant).

Many commented on the presence of some steatosis, but 3 indicated that this was additional steatohepatitis – lose marks for that?

Case LO2 Age 38, Male

Chronic inactive hepatitis. B carrier. Rise ALT. Reactivation or rogue mutation of virus? Additional laboratory information HepB PCR positive, HBSag +ve, HBeAg -ve (+ve in past), HepC -ve. ALT 59 iu/l, ALP 51 iu/l

Consistent with chronic hepatitis B		79
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Consistent with viral hepatitis, mentions ground glass		1
“suspect PSC, no convincing hepatitis B, (needs IHC)”		1
Of chronic hepatitis B diagnosis: Stage – Ishak (45) or descriptive (28)		73
No stage mentioned		6
Grade – Ishak (42) or descriptive (36)		78
No indication of degree of activity/grade		1

LO2: Final scoring after meeting discussion :

For full marks, chronic hepatitis B and a comment on the stage.

Half marks if no mention of stage.

The consensus is that fatty change is mild and steatohepatitis is not present – half marks for steatohepatitis if additional to hepatitis B, no marks if just steatohepatitis, and no marks for PSC without hepatitis B.

Also no marks for acute hepatitis B – ground glass hepatocytes are a sign of chronicity, and the pattern is not of acute hepatitis.

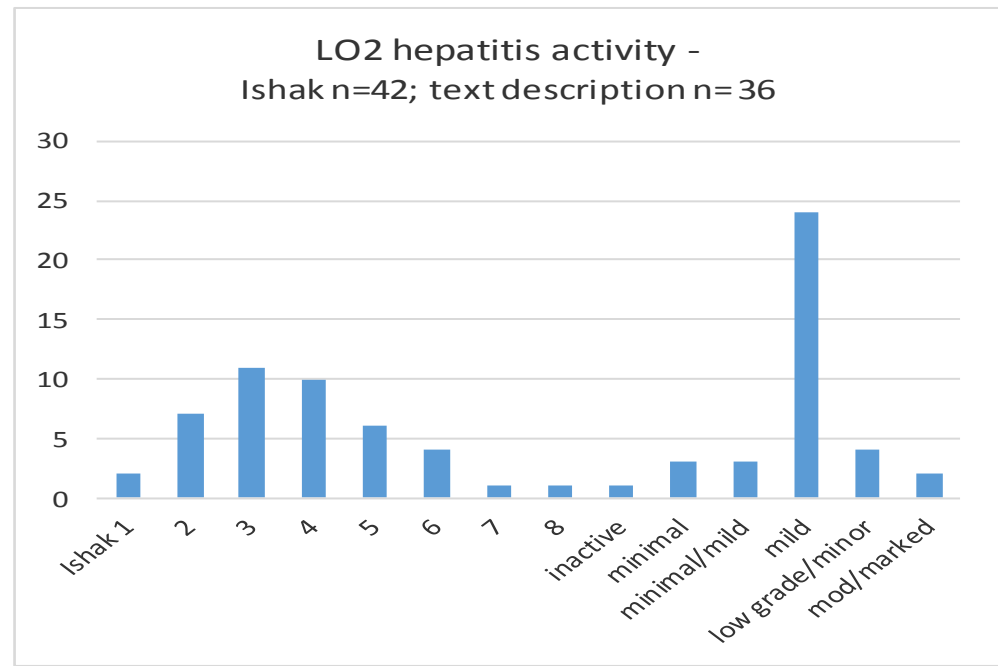
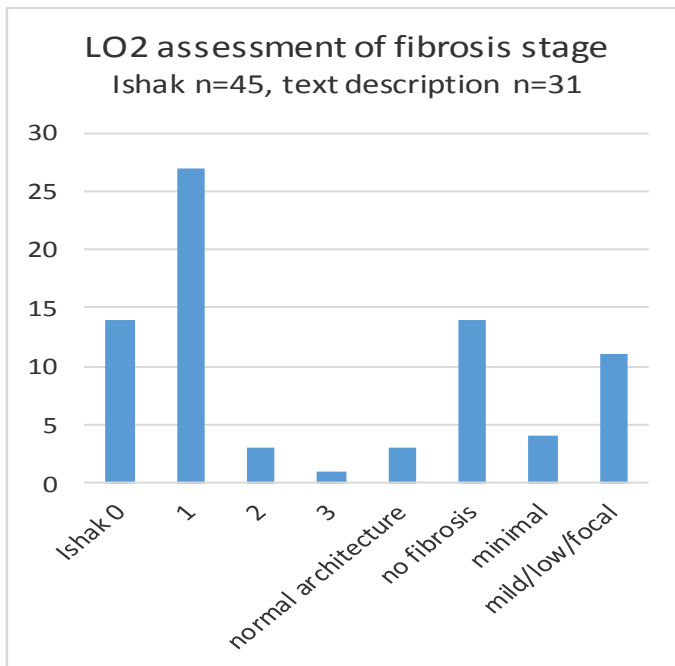
Half marks for ‘chronic active hepatitis’ as this terminology is no longer current.

Case LO2 Age 38, Male

Chronic inactive hepatitis. B carrier. Rise ALT. Reactivation or rogue mutation of virus? Additional laboratory information HepB PCR positive, HBSag +ve, HBeAg -ve (+ve in past), HepC -ve. ALT 59 iu/l, ALP 51 iu/l

The purpose of the biopsy is to assess the stage and also the activity of chronic hepatitis B – so half marks if either of these is missing.

The grade/stage is shown in histograms so that participants can compare their results with their peers, but not used for scoring.



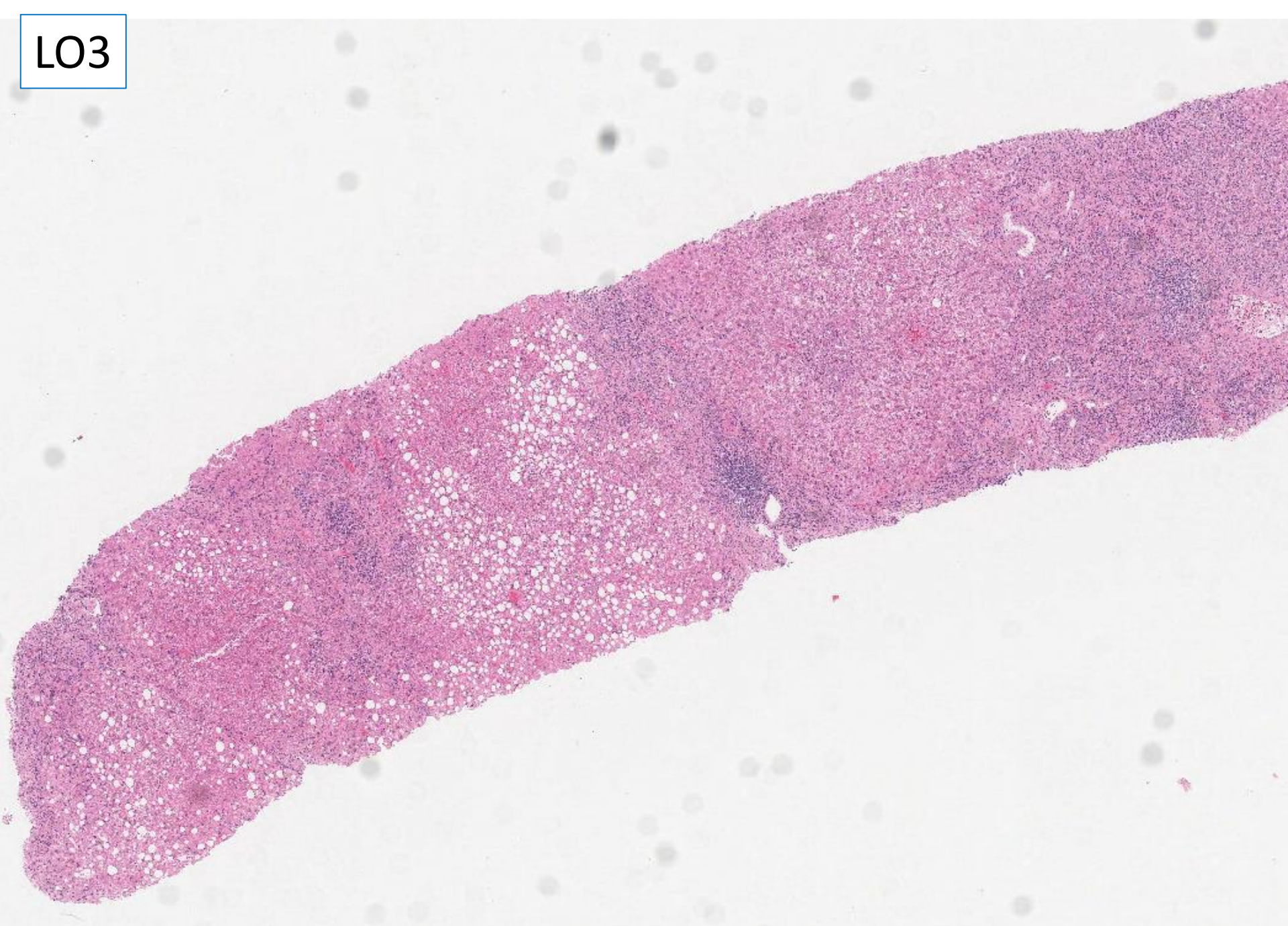
Case LO3

Age 52, Male

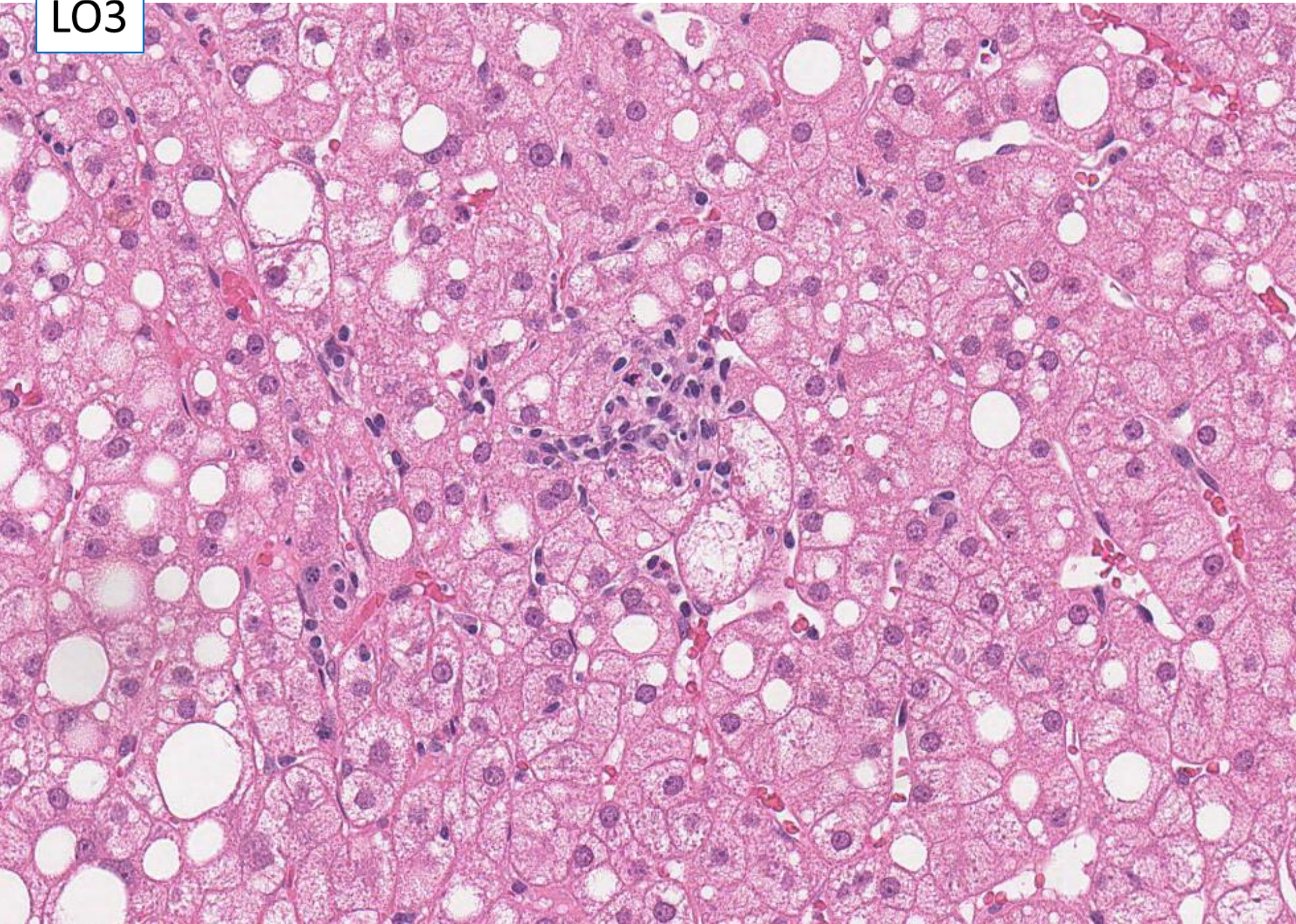
Presumed cirrhosis on imaging. Risk factors for liver disease: excess alcohol, overweight. Possible SLE therefore AIH?



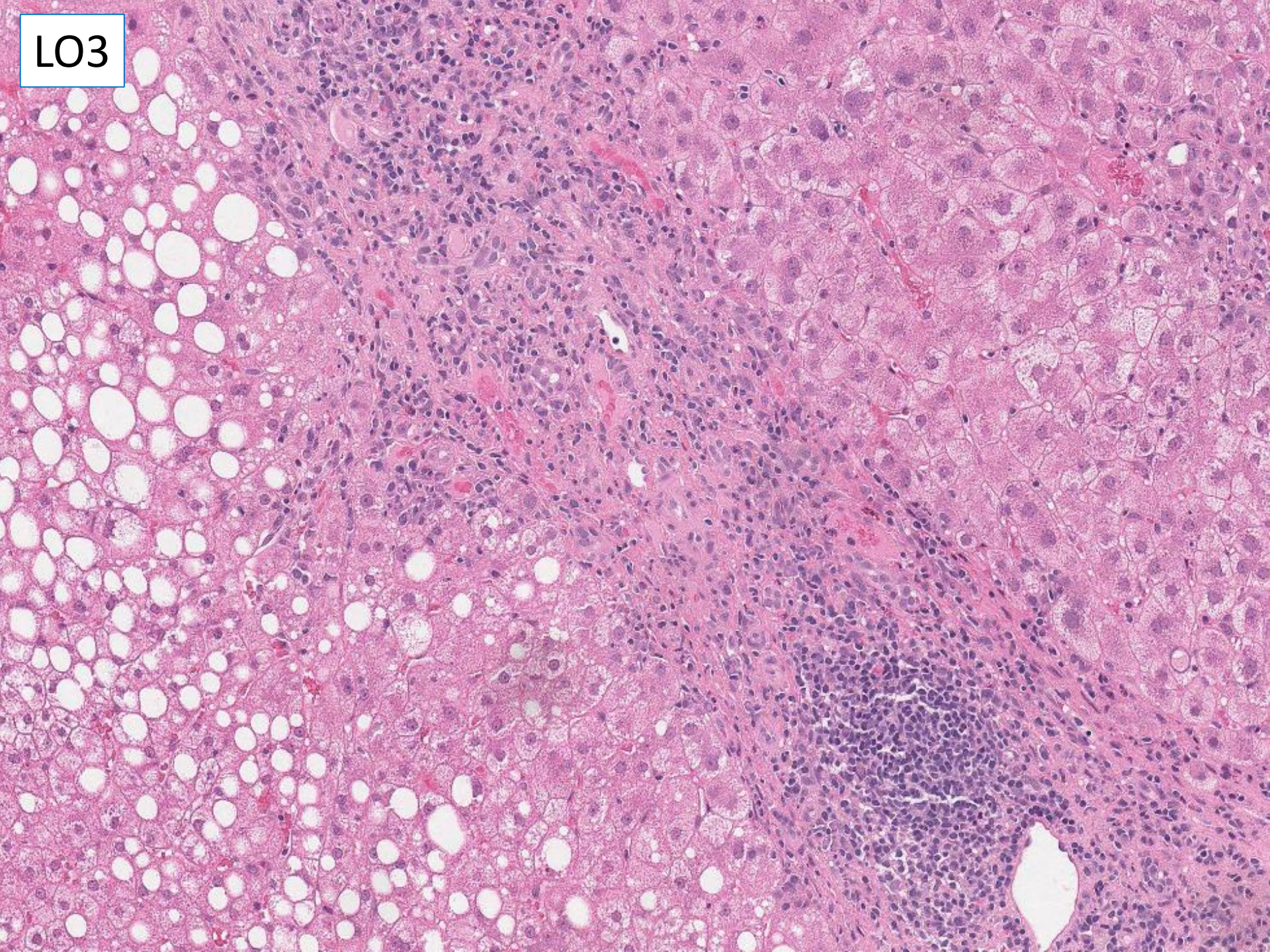
LO3



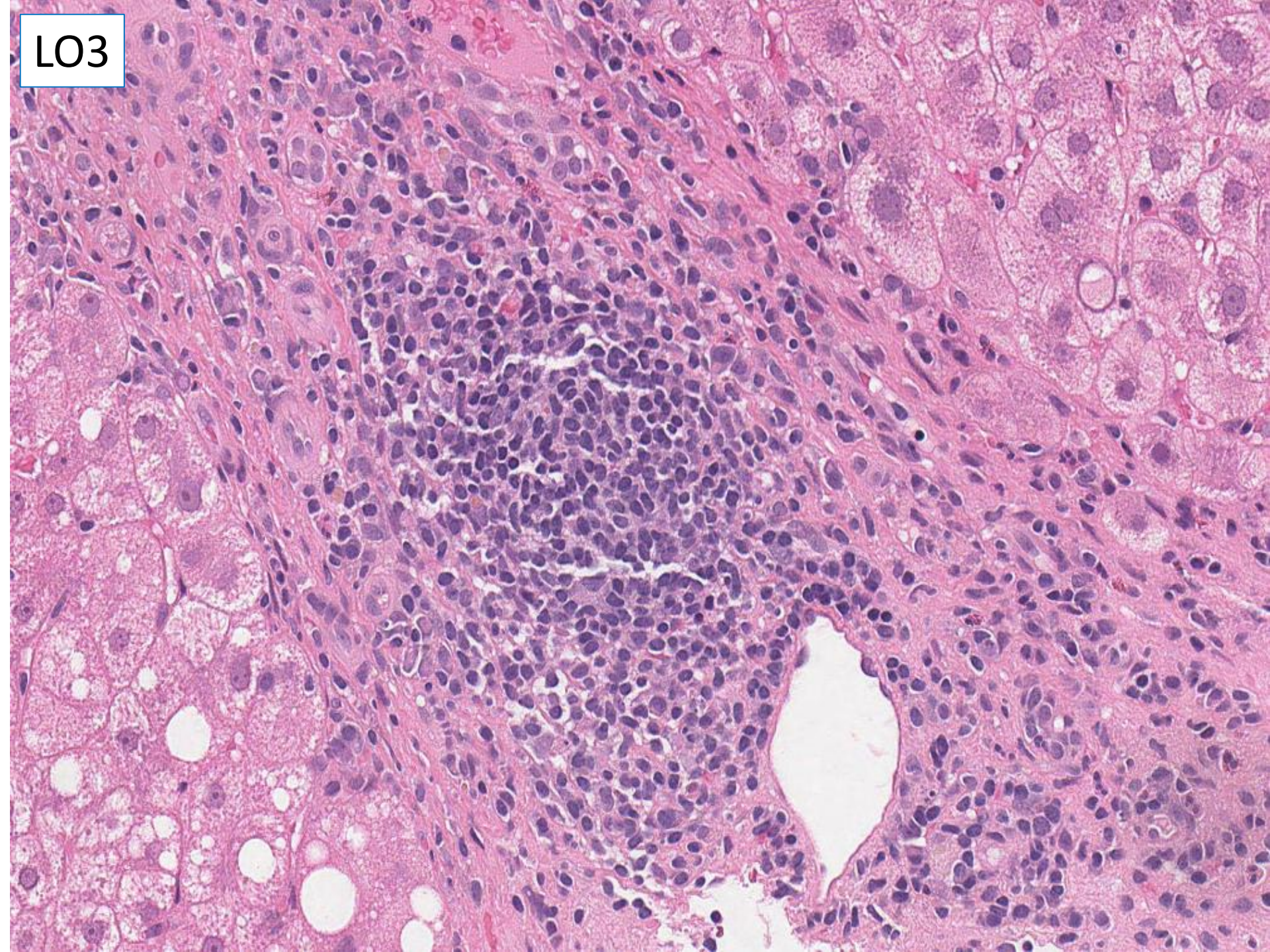
L03



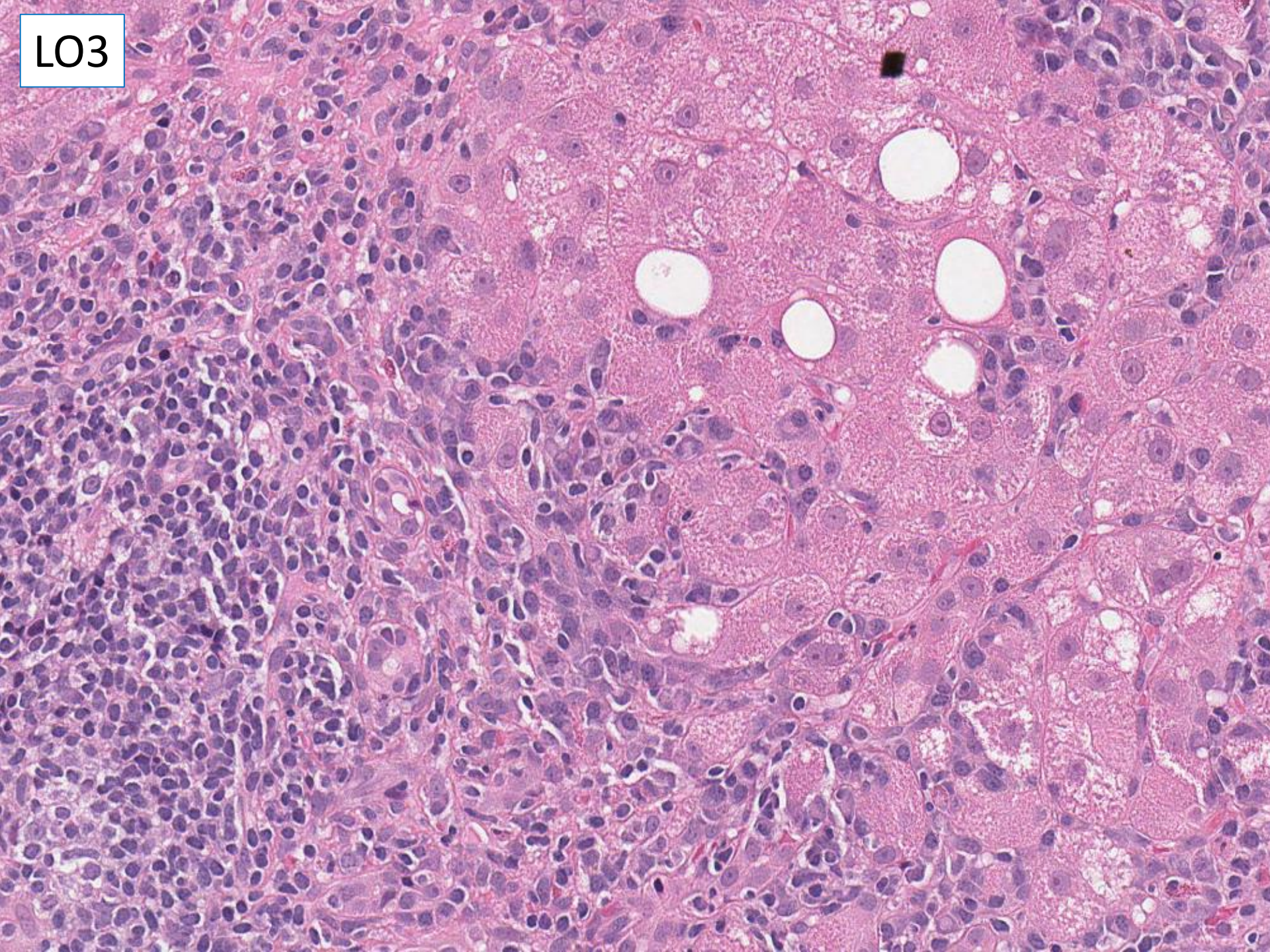
L03



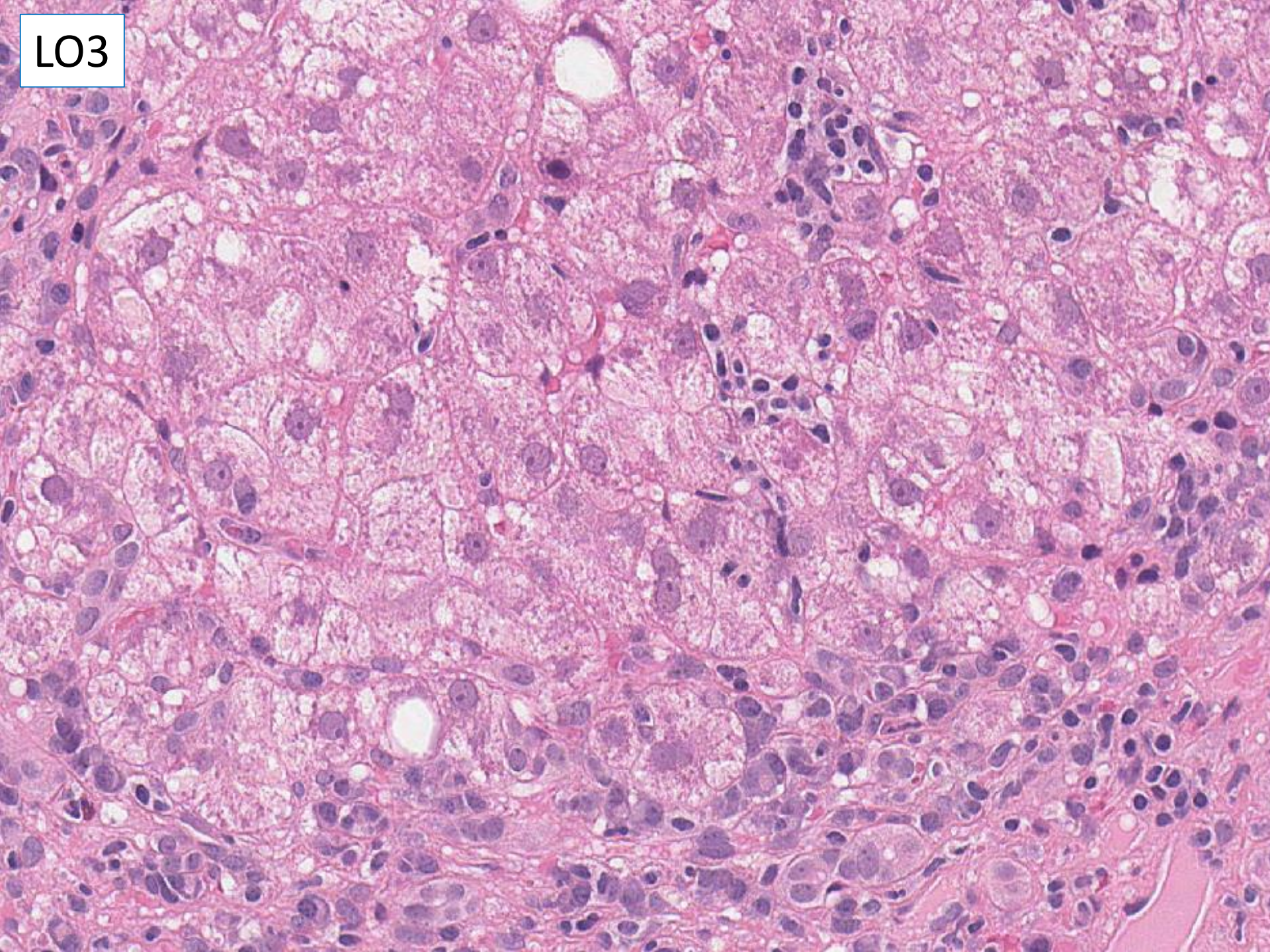
L03



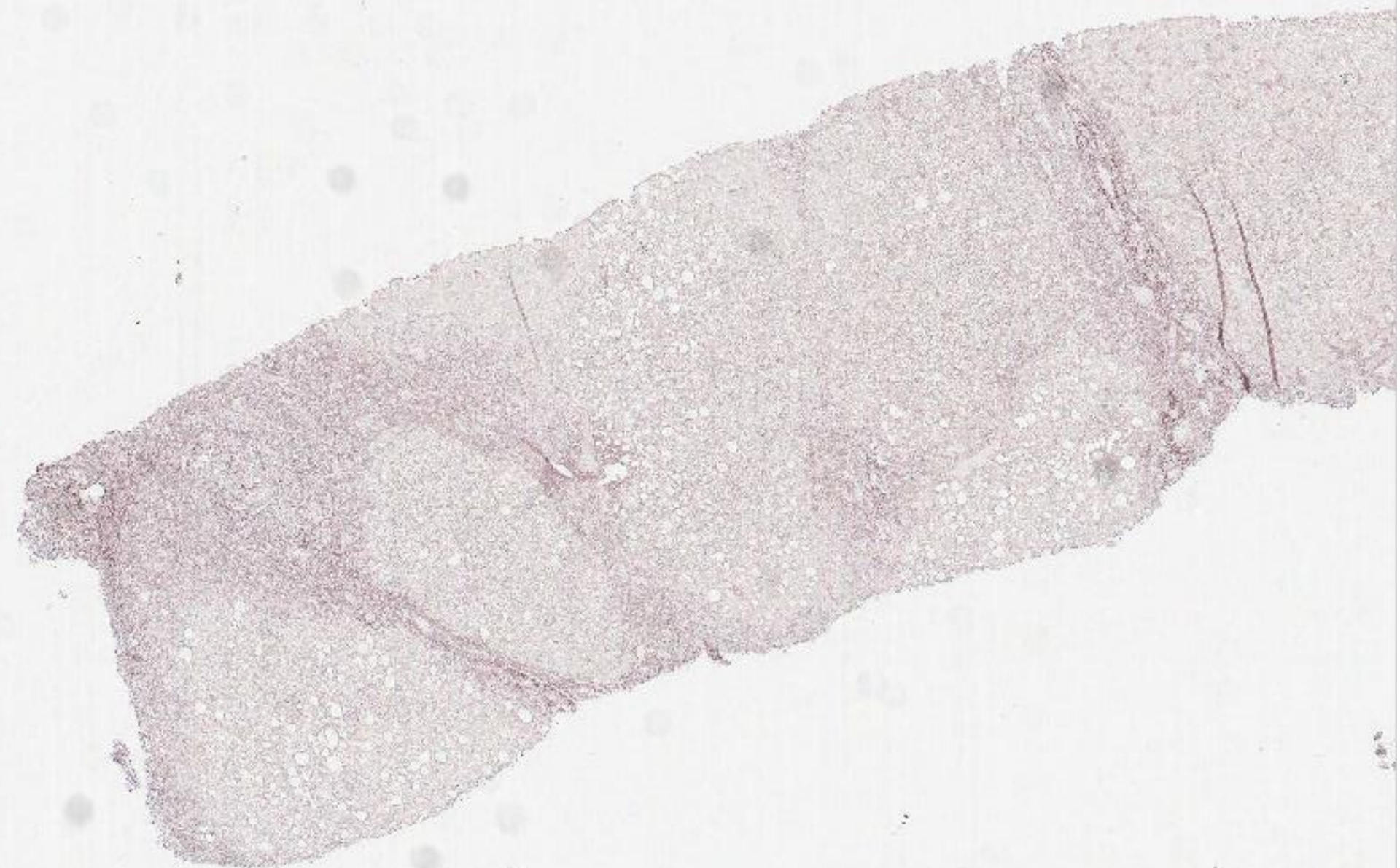
L03



L03



LO 3 Orcein



Case LO3 Age 52, Male

Presumed cirrhosis on imaging. Risk factors for liver disease: excess alcohol, overweight. Possible SLE therefore AIH?

Cirrhosis		73
Less than cirrhosis:	Half marks	
Bridging/stage 2-4		8
Mild fibrosis, not cirrhotic, stage 1		1
'nodular architecture'		2
'heterogeneous architecture'		1
No comment on stage except connective tissue stain not available		2
Steatosis		47
Steatohepatitis (actually using the word)		31
Fat not mentioned	Half marks	3
Cause of disease – implies both AIH and fatty liver disease contributing		62
Chronic hepatitis/autoimmune hepatitis (may mention steatosis in description)		17
AIH/PBC overlap, (may mention steatosis in description)		5
Just steatohepatitis – autoimmune hepatitis not mentioned	Half marks	3
of chronic hepatitis, nearly all mentioned features consistent with AIH, alone or with other differentials of chronic hepatitis. Most said more clinical information is needed.		
"ASH/NASH and chronic active hepatitis grade 3 stage 1, ? drugs ?? not typical of lupoid"		1
"chronic active hepatitis, chronic biliary disease is favoured" neither AIH nor fat mentioned		1

Case LO3 Age 52, Male

Presumed cirrhosis on imaging. Risk factors for liver disease: excess alcohol, overweight. Possible SLE therefore AIH?

- Suggested scoring: ? suitable for scoring – another one with two diseases that may be contributing to the diagnosis. 8/10 yes
- **For full marks, need cirrhosis, and some comment indicating that autoimmune hepatitis and fatty liver may be involved.**
- Participants found the disease stage difficult with many adding an element of recent confluent necrosis on top of established chronic liver disease. However, there is sufficient consensus for cirrhosis to score this – **could deduct half marks for responses not including possible or definite cirrhosis.**
- For cause – could score on the basis of **half marks if no mention at all of steatosis, or no mention at all of autoimmune hepatitis.** There were 22 responses indicating that this is autoimmune hepatitis +/- overlap with PBC, without indicating a contribution from fatty liver disease, but most of these included steatosis in the description.
- For discussion - one comment “it is rare to have criteria-compliant SLE and AIH in the same patient, so serology/virology also needs review” - what is the relationship of SLE and autoimmune hepatitis?

Case LO3 Age 52, Male

Presumed cirrhosis on imaging. Risk factors for liver disease: excess alcohol, overweight. Possible SLE therefore AIH?

- Suggested scoring: ? suitable for scoring – another one with two diseases that may be contributing to the diagnosis. 8/10 yes

LO3: Final scoring after meeting discussion:

For full marks, need cirrhosis/late stage fibrosis and an indication that there is evidence of both autoimmune hepatitis and fatty liver disease.

Half marks if there is no mention of steatosis or no mention of autoimmune hepatitis, and for use of 'chronic active hepatitis'.

Half marks if stage 1 fibrosis;

Marks not deducted if describes architectural change but unclear if this is due to recent necrosis or chronic disease.

Masterclass – Rob Goldin
– dual diagnosis with fatty liver

**The approach to fatty liver disease when it's
combined with another disease
- how should we report it?**

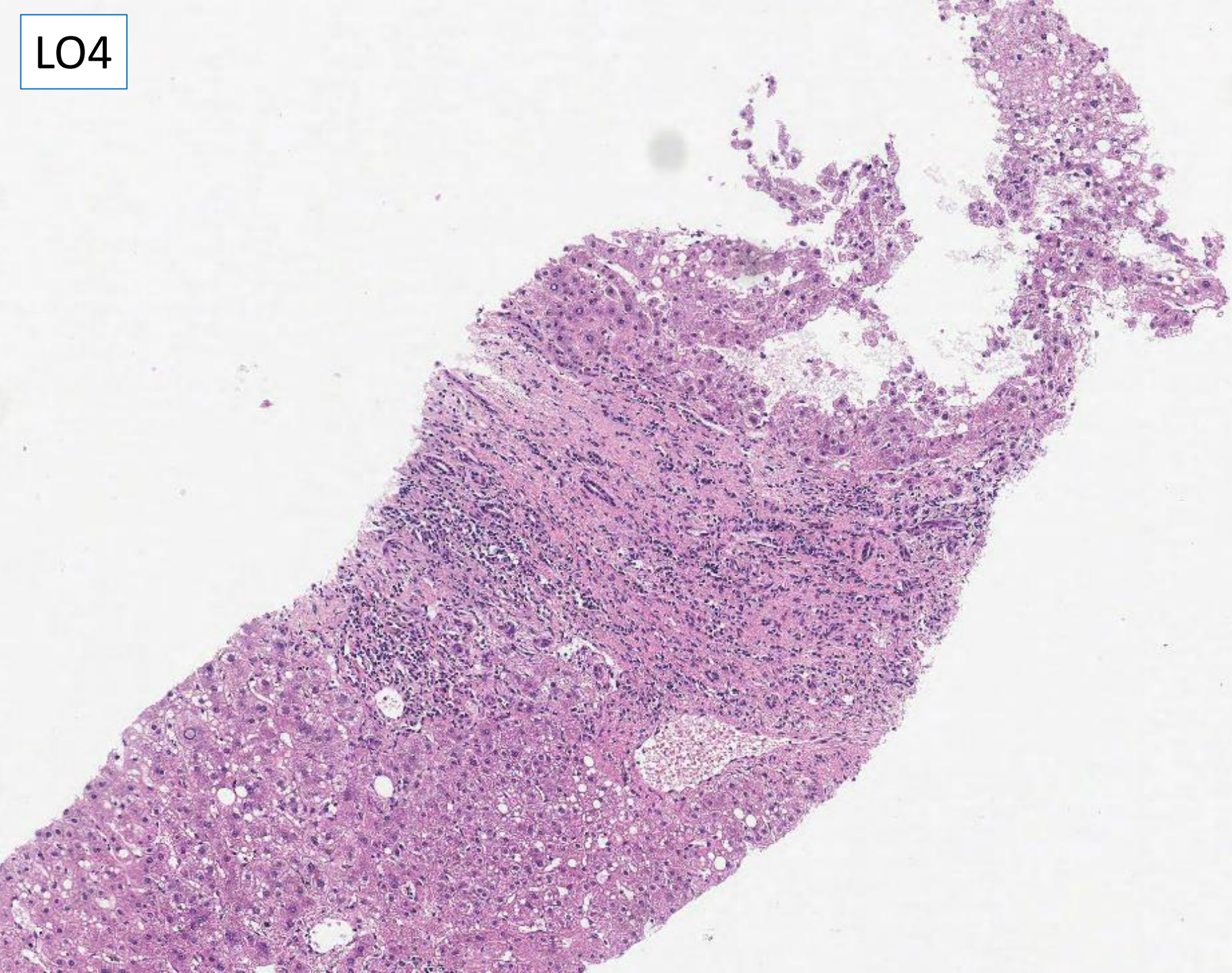
The powerpoint and video presentation are on
the CPD page, 2016 update meeting,
Cheltenham

Case LO4 Age 79, Male

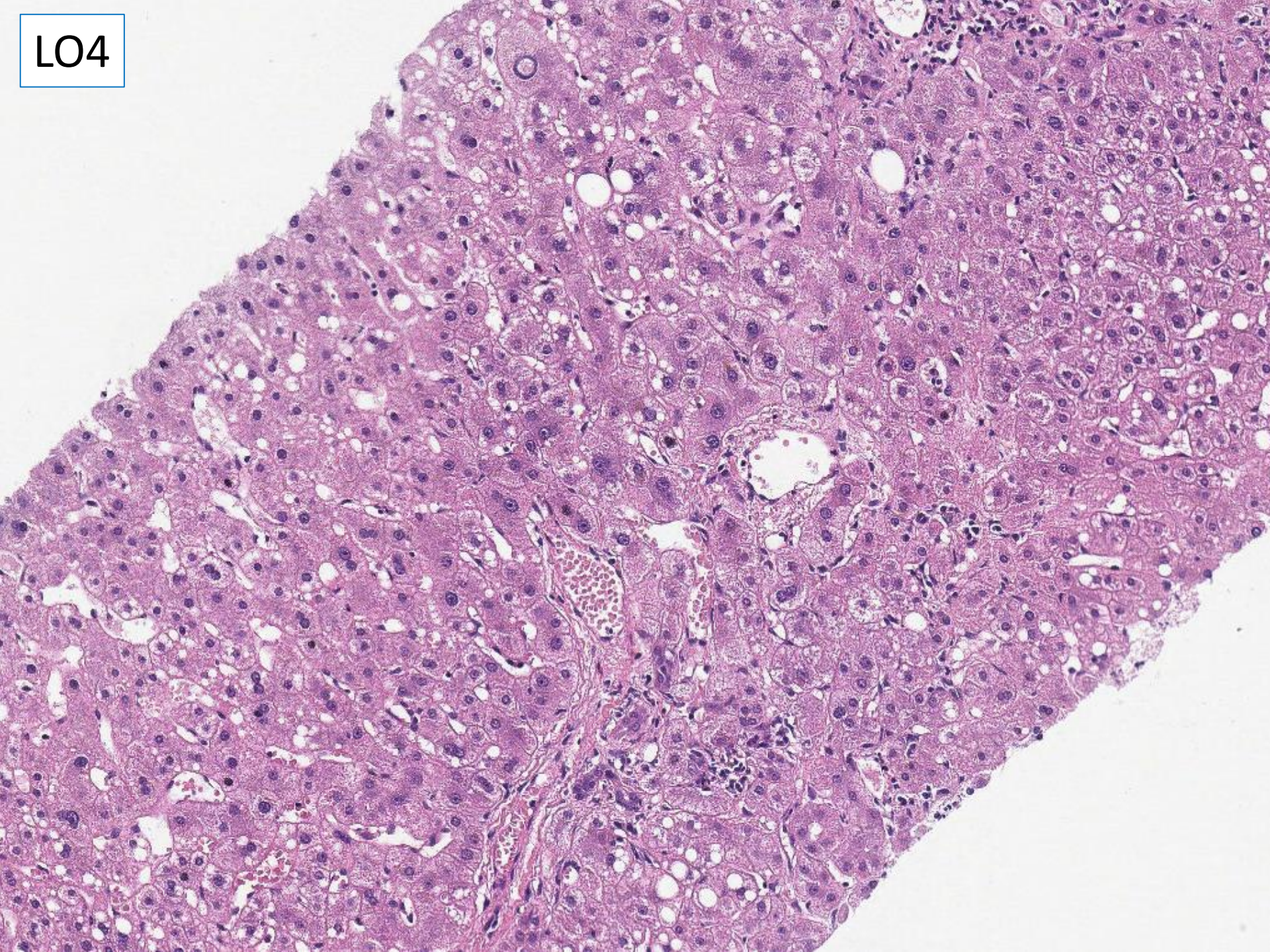
Two liver lesions - one malignant on MR, but not HCC on EASL. ? nature.
Ablation pre-treatment biopsy (targeted liver biopsy)



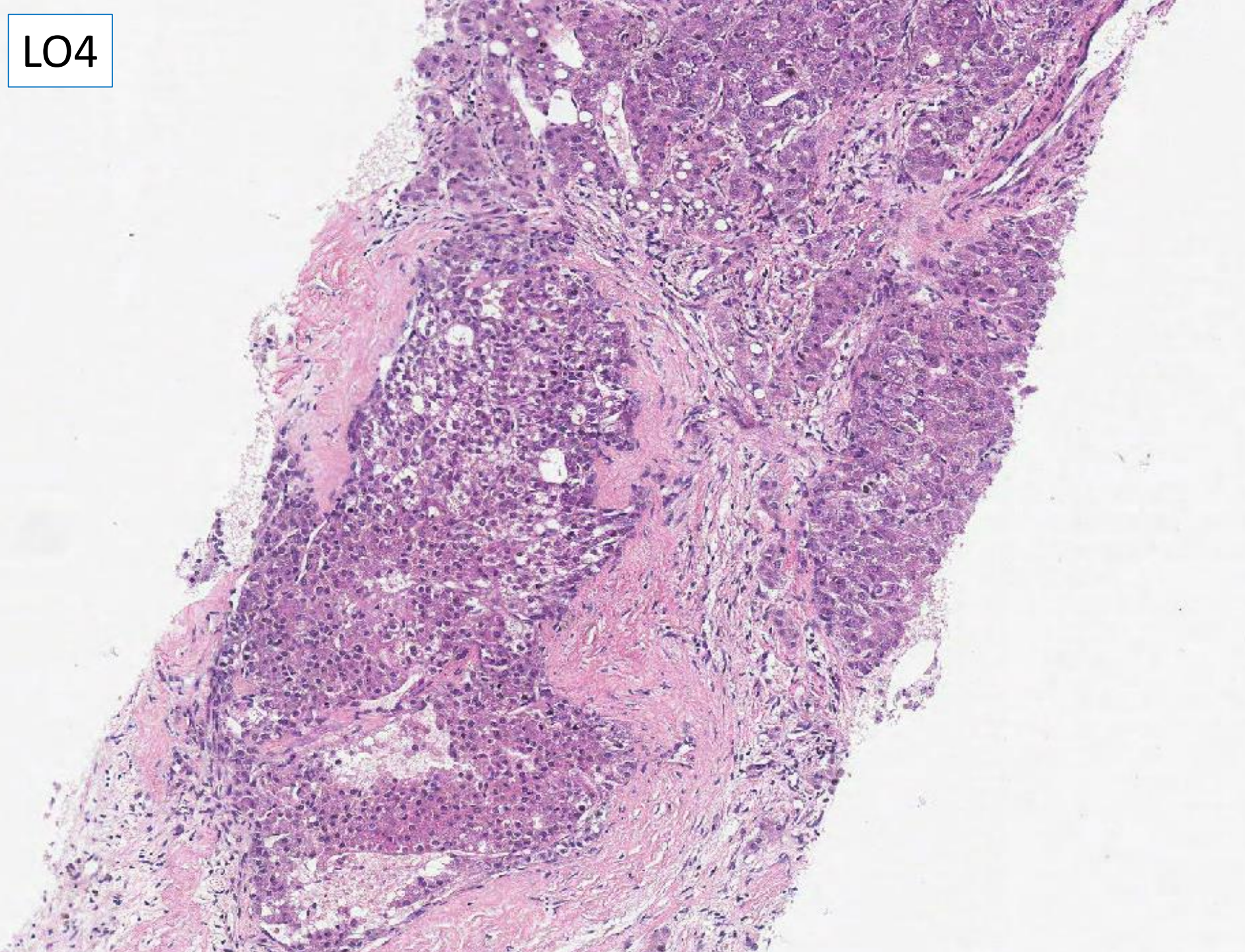
LO4



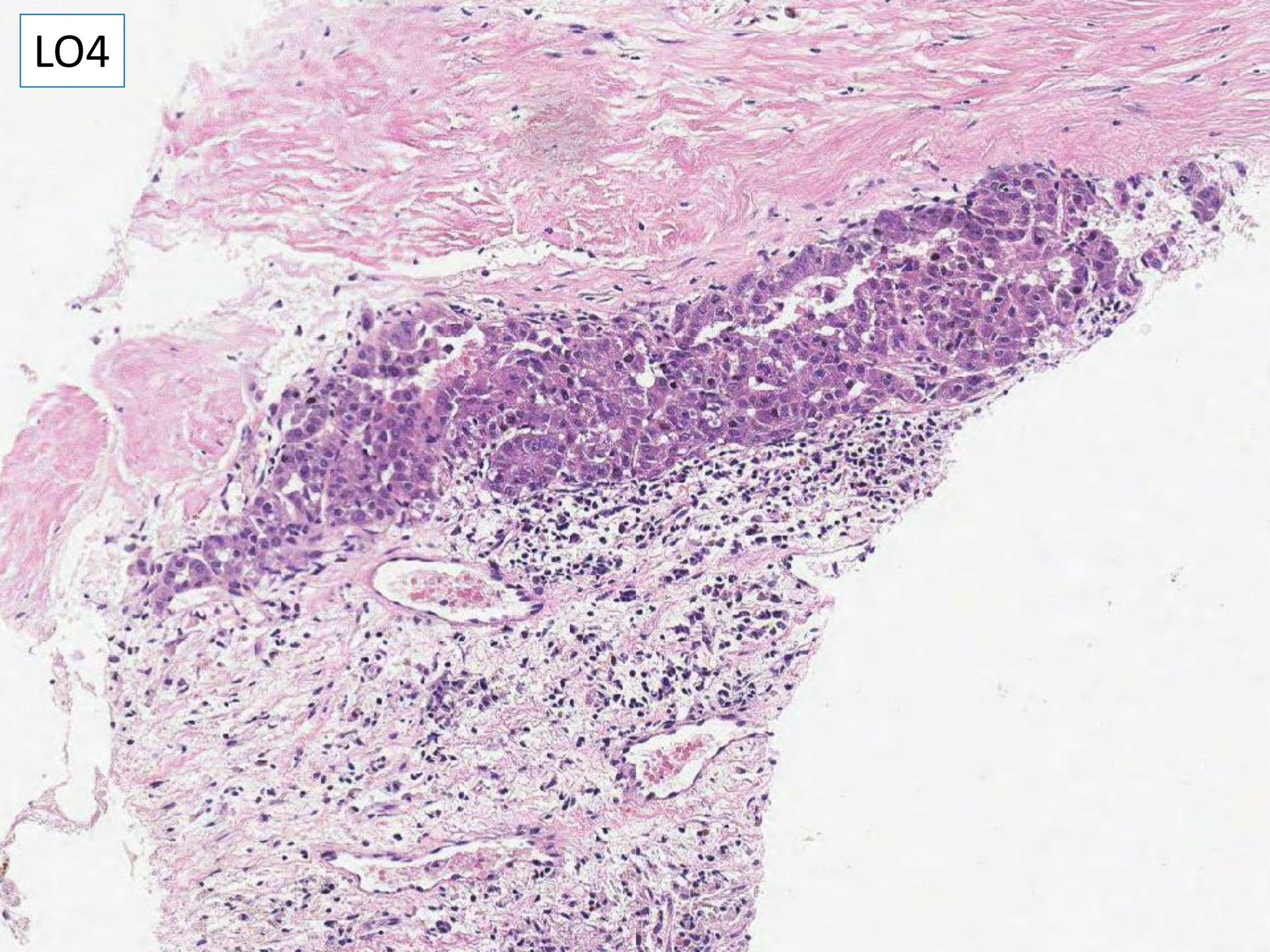
LO4



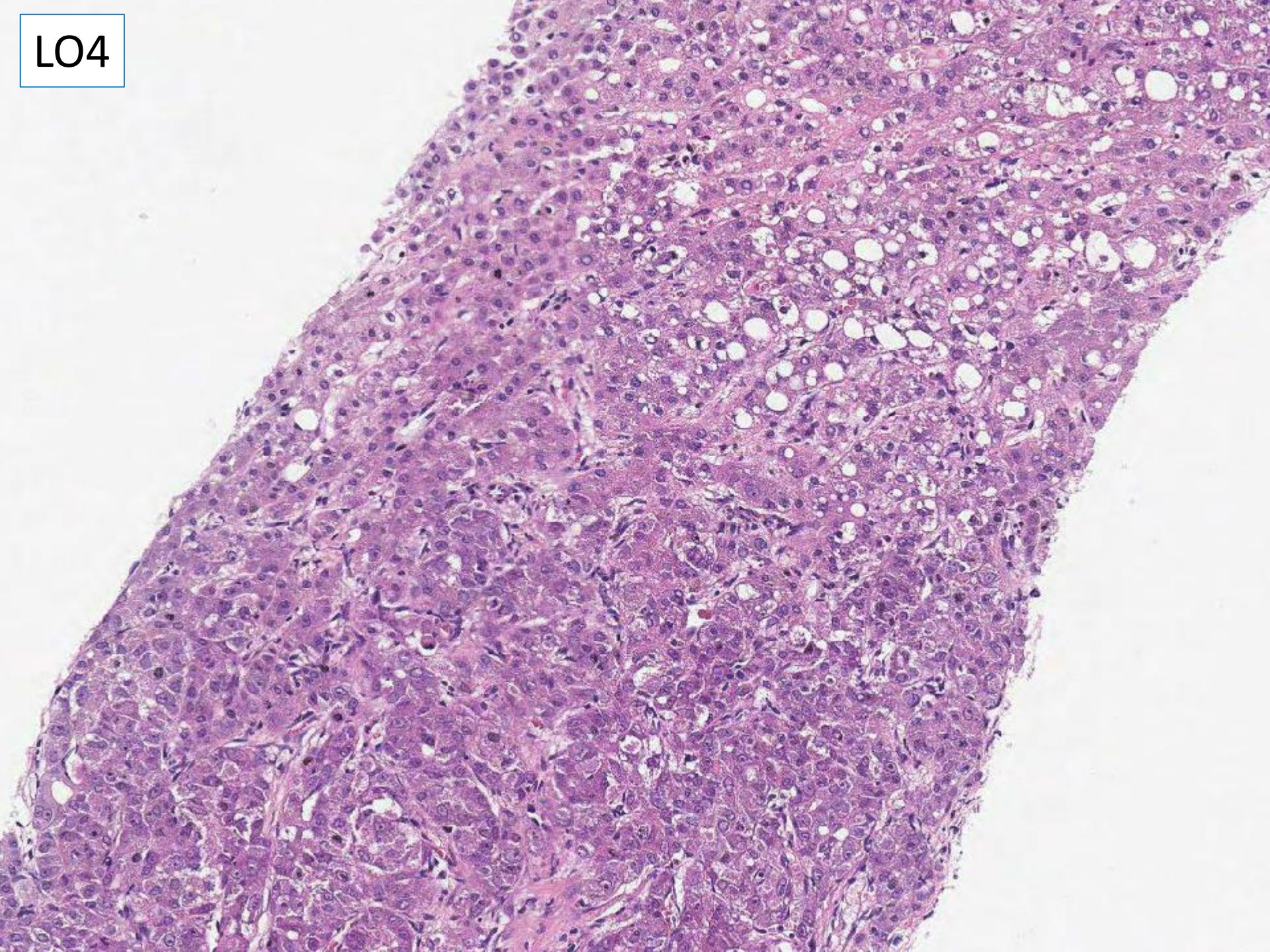
LO4



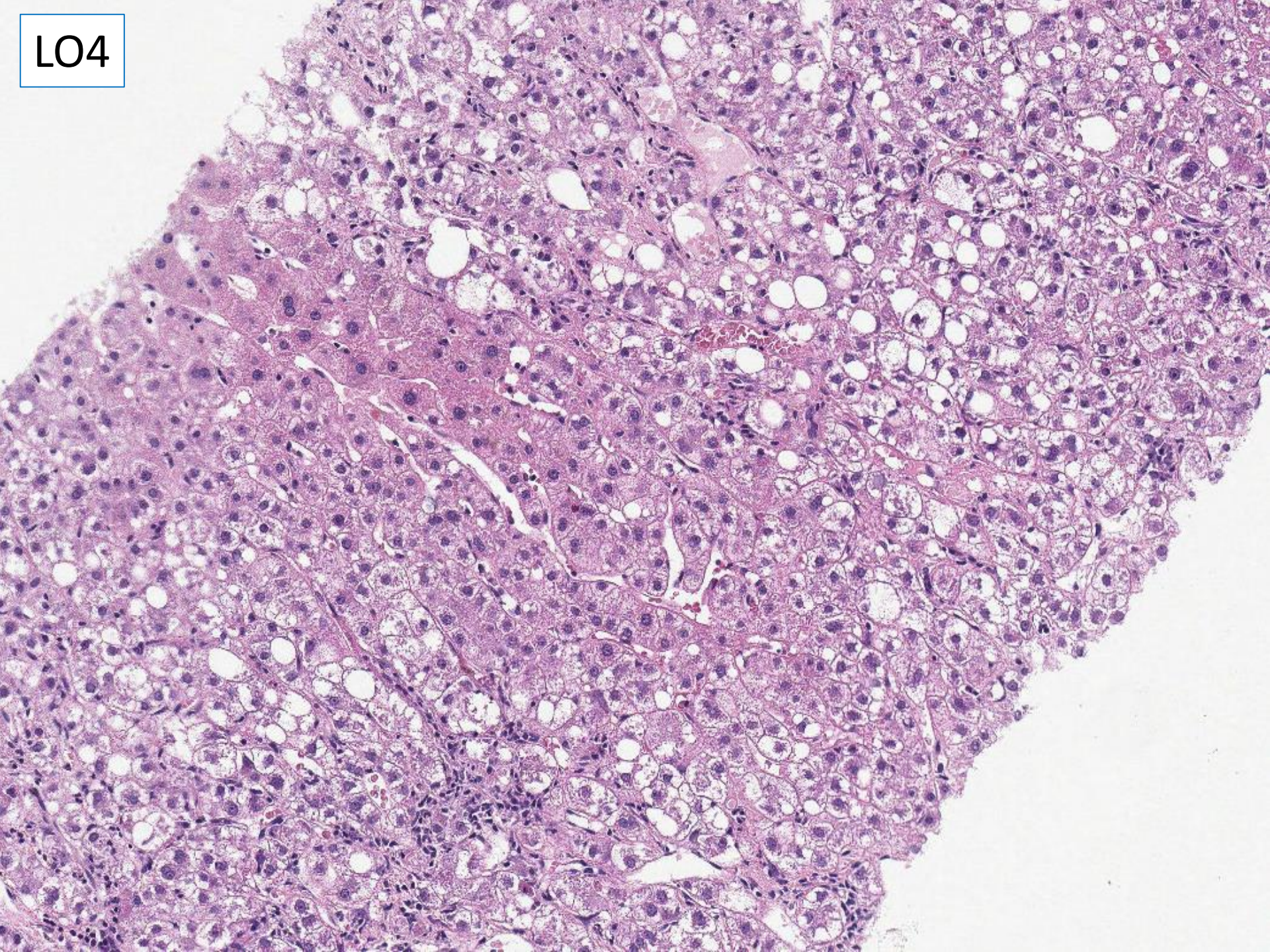
LO4



LO4



LO4



Case LO4 Age 79, Male

Two liver lesions - one malignant on MR, but not HCC on EASL. ? nature.
 Ablation pre-treatment biopsy (targeted liver biopsy)

Hepatocellular carcinoma	54
Consistent with HCC, needs stains (retic and/or IHC)	24
Favour metastasis over HCC, needs IHC	2
Wide differential, needs IHC	1
Hepatocellular dysplasia progressing to HCC	1
High grade dysplastic nodule at least	1
High grade dysplastic nodule	1
Dysplastic nodule	1
Inflammatory adenoma	1
Background liver: not mentioned	18
Steatosis +/- steatohepatitis	36
Cirrhosis	25
Fibrosis	14
Reaction to focal lesion	1
Relatively normal	1
Other CLD	3

Half marks

Suggested scoring: For full marks – diagnosis of HCC +/- confirmation by additional stains. Half marks if would get to diagnosis with IHC but HCC was not the most likely. **How should we score dysplastic nodule?**

There should be some comment on background liver, but insufficient consensus to include this in scoring.

Case LO4 Age 79, Male

Two liver lesions - one malignant on MR, but not HCC on EASL. ? nature.
Ablation pre-treatment biopsy (targeted liver biopsy)

Hepatocellular carcinoma	54
Consistent with HCC, needs stains (retic and/or IHC)	24
Favour metastasis over HCC, needs IHC	2
Wide differential, needs IHC	1
Hepatocellular dysplasia progressing to HCC	1
High grade dysplastic nodule at least	1
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Dysplastic nodule	1
Inflammatory adenoma	1
Background liver: not mentioned	18
Steatosis +/- steatohepatitis	36
Cirrhosis	25
Fibrosis	14
Reaction to focal lesion	1
Relatively normal	1
Other CLD	3

LO4: Final scoring agreed at meeting:

For full marks, need a diagnosis or HCC +/- confirmation by additional stains.

Half marks if would get to diagnosis with IHC but not the most likely.

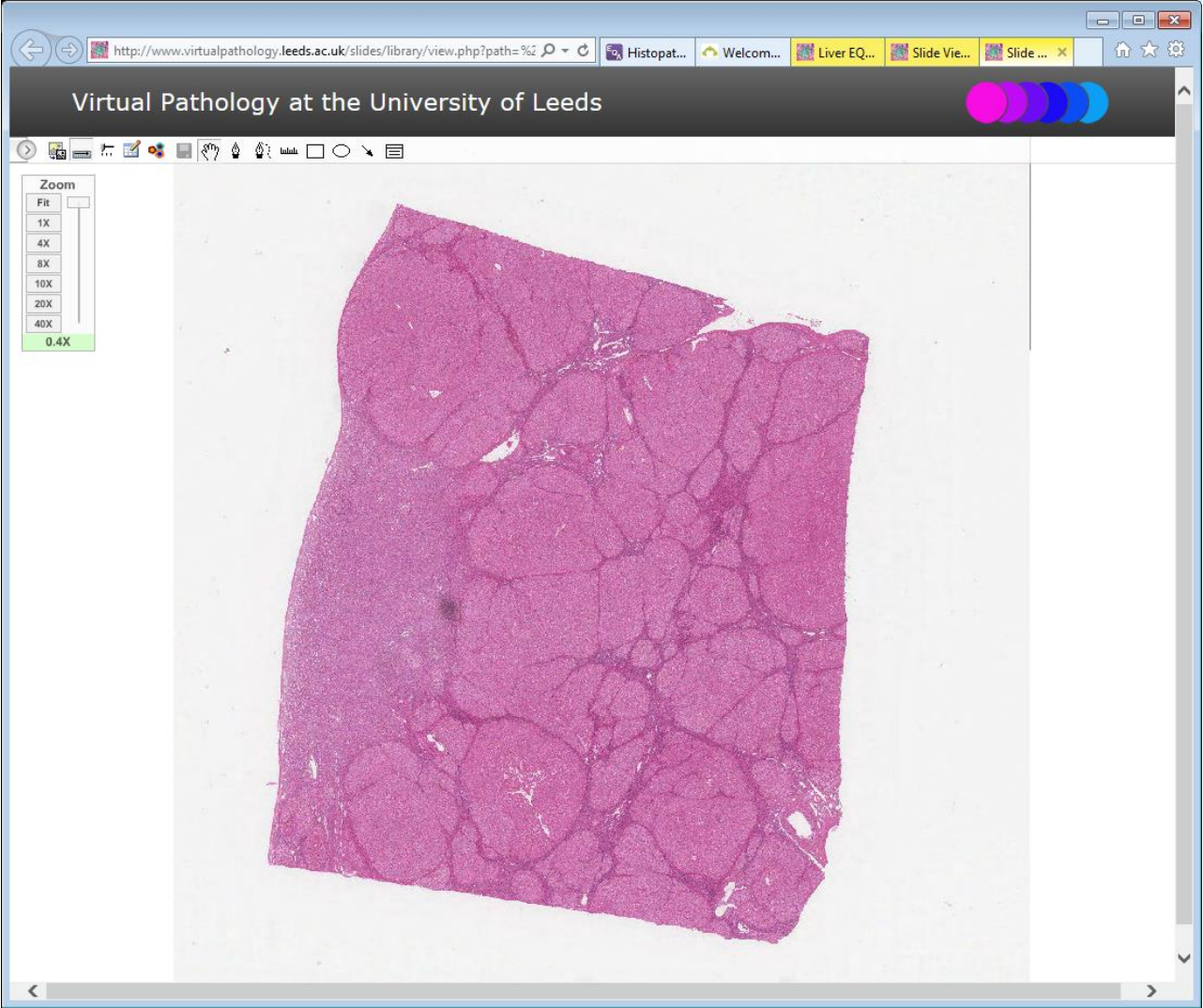
Half marks for dysplastic nodule without possibility of HCC.

No marks for adenoma.

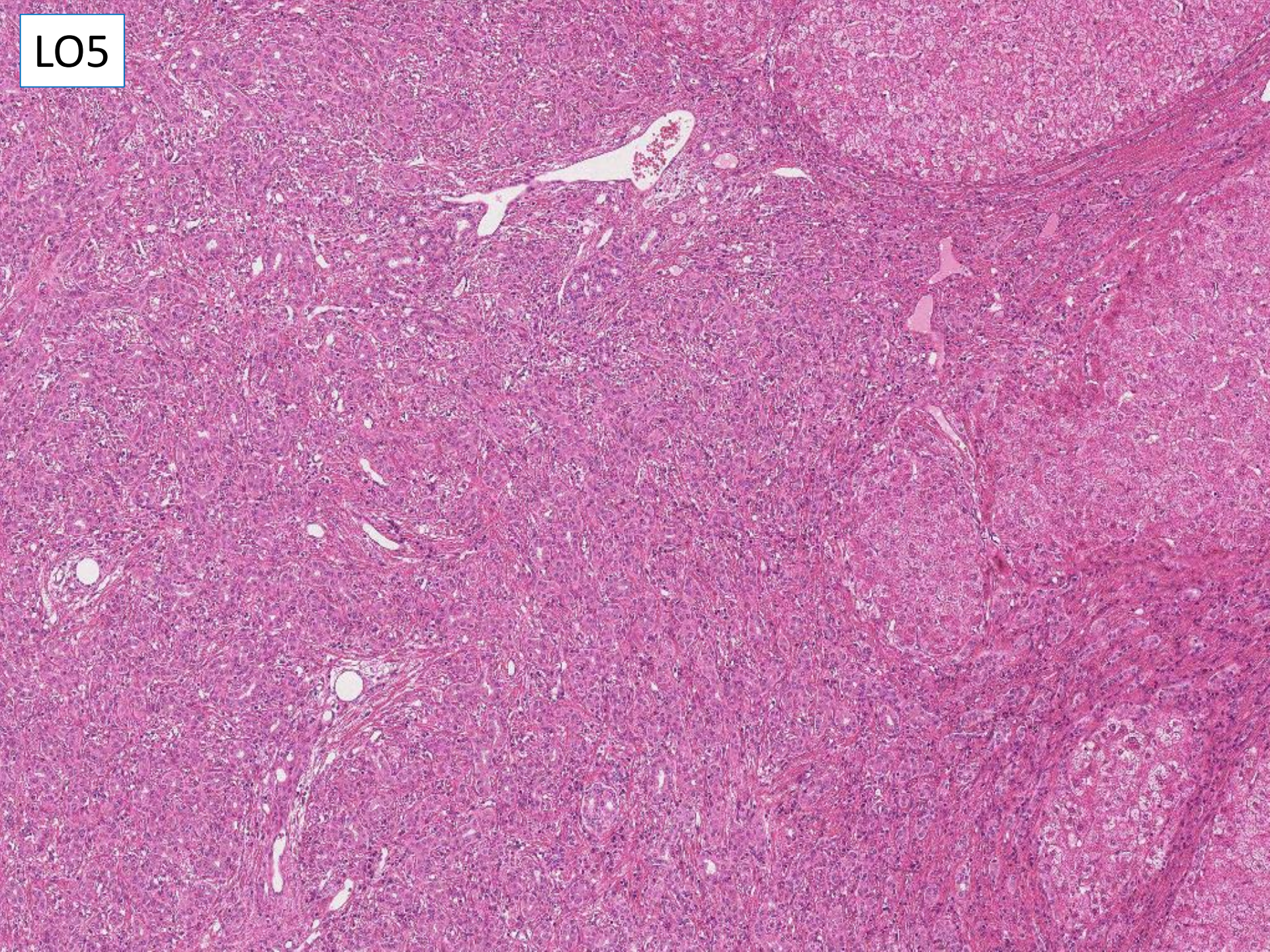
Case LO5 Age 49, Male

Liver transplant for alcoholic liver disease.

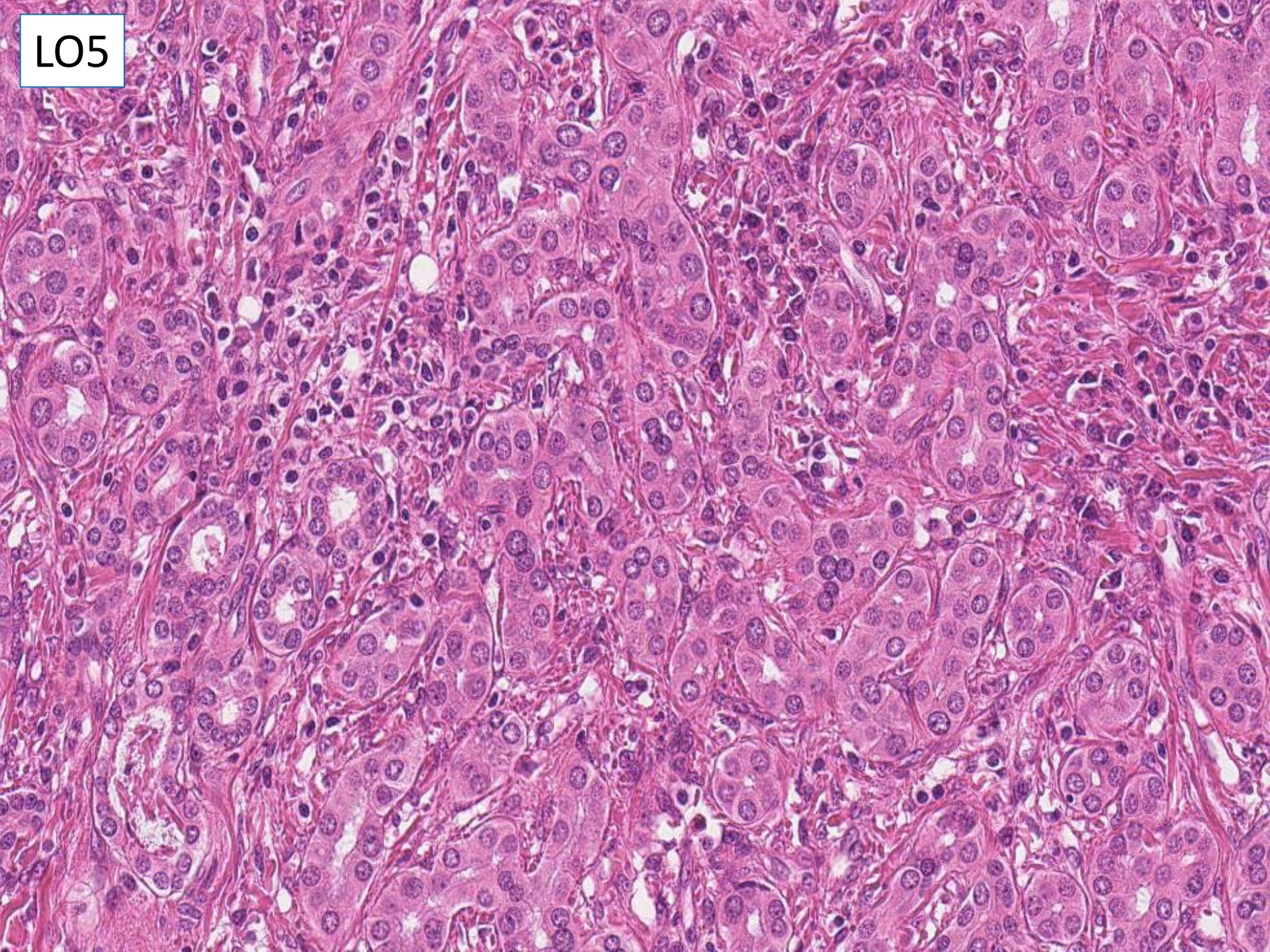
Liver explant - Cirrhotic liver with 5mm grey/white lesion visible at capsular surface right lobe liver



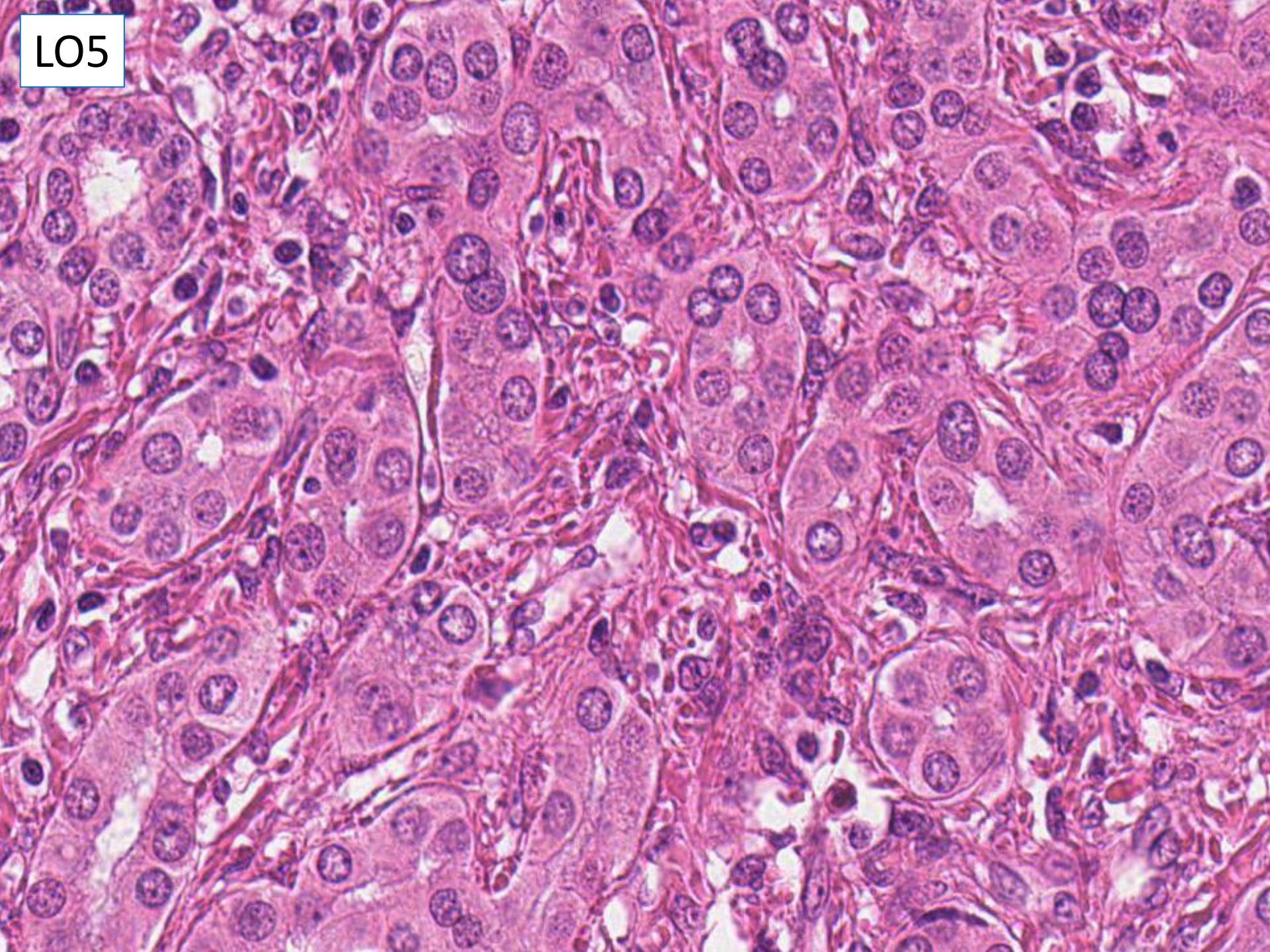
LO5



LO5



LO5



Case LO5 Age 49, Male

Liver transplant for alcoholic liver disease. Liver explant - Cirrhotic liver with 5mm grey/white lesion visible at capsular surface right lobe liver

Bile duct adenoma		55
Peribiliary gland hamartoma		5
Both BDA and PBG hamartoma		22
BDA with differential diagnosis of cholangiocarcinoma		1
Small cholangiocarcinoma		1
Focal nodular hyperplasia		1
Macroregenerative nodule v adenoma/adenomatosis		1
Hepatocellular carcinoma, IHC to confirm		1
“lesion of closely packed regular ducts”		1
Background liver – not mentioned	Half marks	14
Cirrhosis		53
Consistent with ALD history/abstinence		16

Suggested scoring: for full marks either bile duct adenoma/peribiliary gland hamartoma. No marks for cholangiocarcinoma, HCC, FNH or macroregenerative nodule v adenoma, half marks for responses in blue.

How to score background liver – lose half marks if not comment made at all, just a diagnosis of the lesion? It was clearly in a liver with cirrhosis.

Case LO5 Age 49, Male

Liver transplant for alcoholic liver disease. Liver explant - Cirrhotic liver with 5mm grey/white lesion visible at capsular surface right lobe liver

Bile duct adenoma	55
Peribiliary gland hamartoma	5
Both BDA and PBG hamartoma	22
BDA with differential diagnosis of cholangiocarcinoma	1
Small cholangiocarcinoma	1
Focal nodular hyperplasia	1
Macroregenerative nodule v adenoma/adenomatosis	1
Hepatocellular carcinoma, IHC to confirm	1
“lesion of closely packed regular ducts”	1
Background liver – not mentioned	14
Cirrhosis	53
Consistent with ALD history/abstinence	16

LO5 Final scoring agreed at meeting:

For full marks – either bile duct adenoma or peribiliary gland hamartoma.

No marks for cholangiocarcinoma, HCC, FNH or macroregenerative nodule v adenoma.

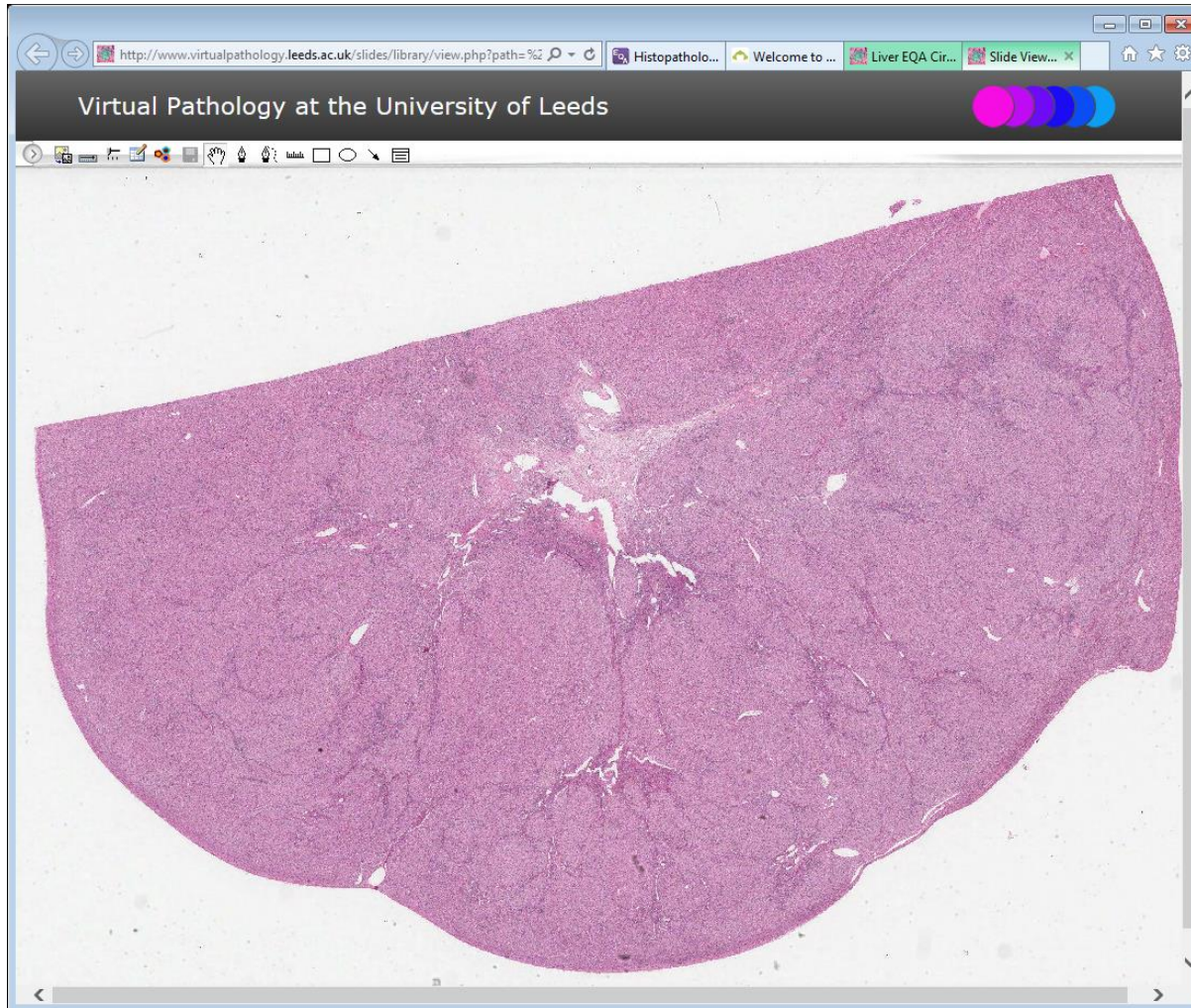
Half marks for differential diagnosis of cholangiocarcinoma.

No marks for ‘lesion of closely packed regular ducts’.

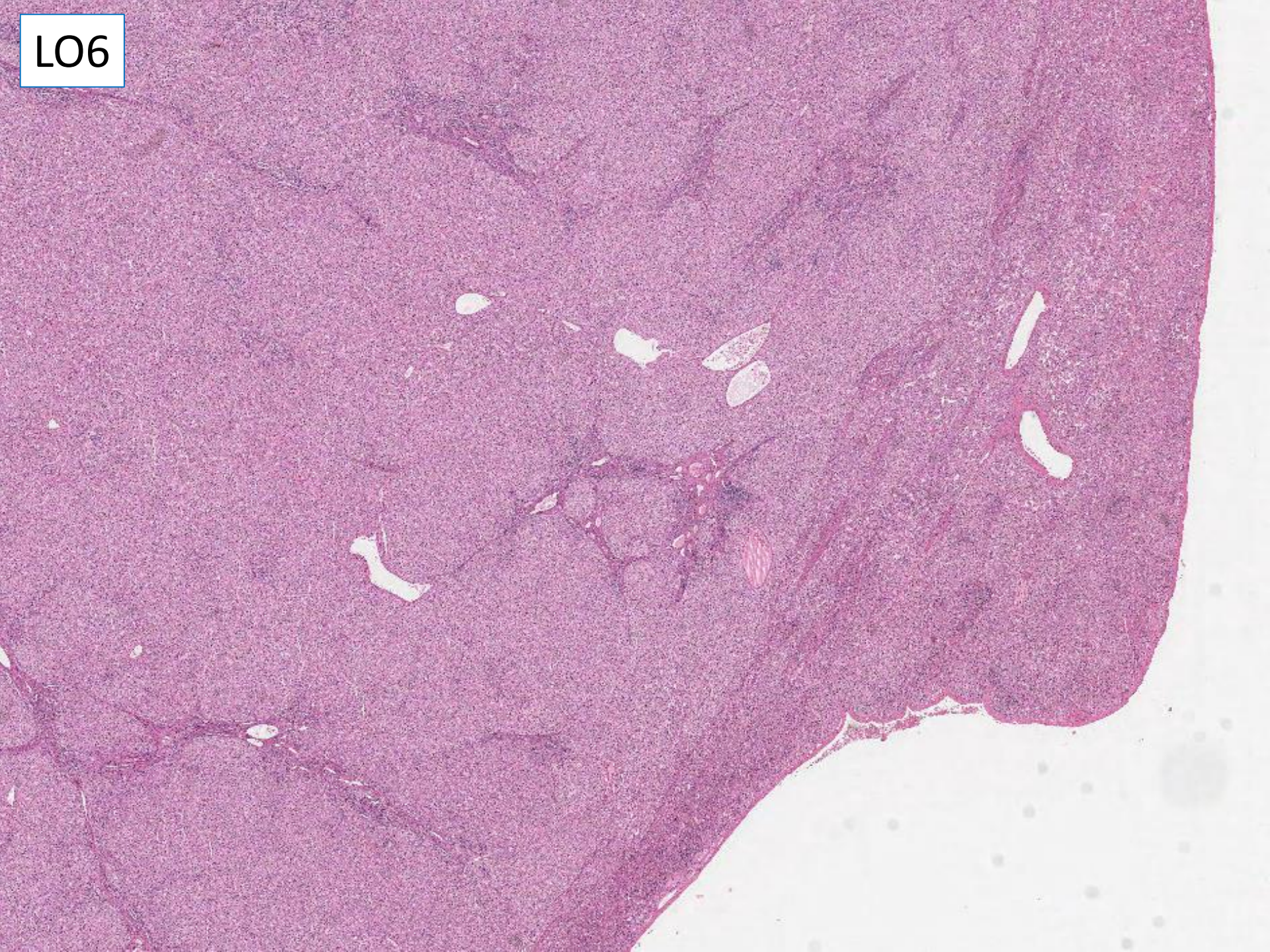
Half marks if there is no comment at all about the background liver – 14 participants will lose marks because of this; the view of 7/10 sending comments that this should score half marks.

Case LO6 Age 30, Female

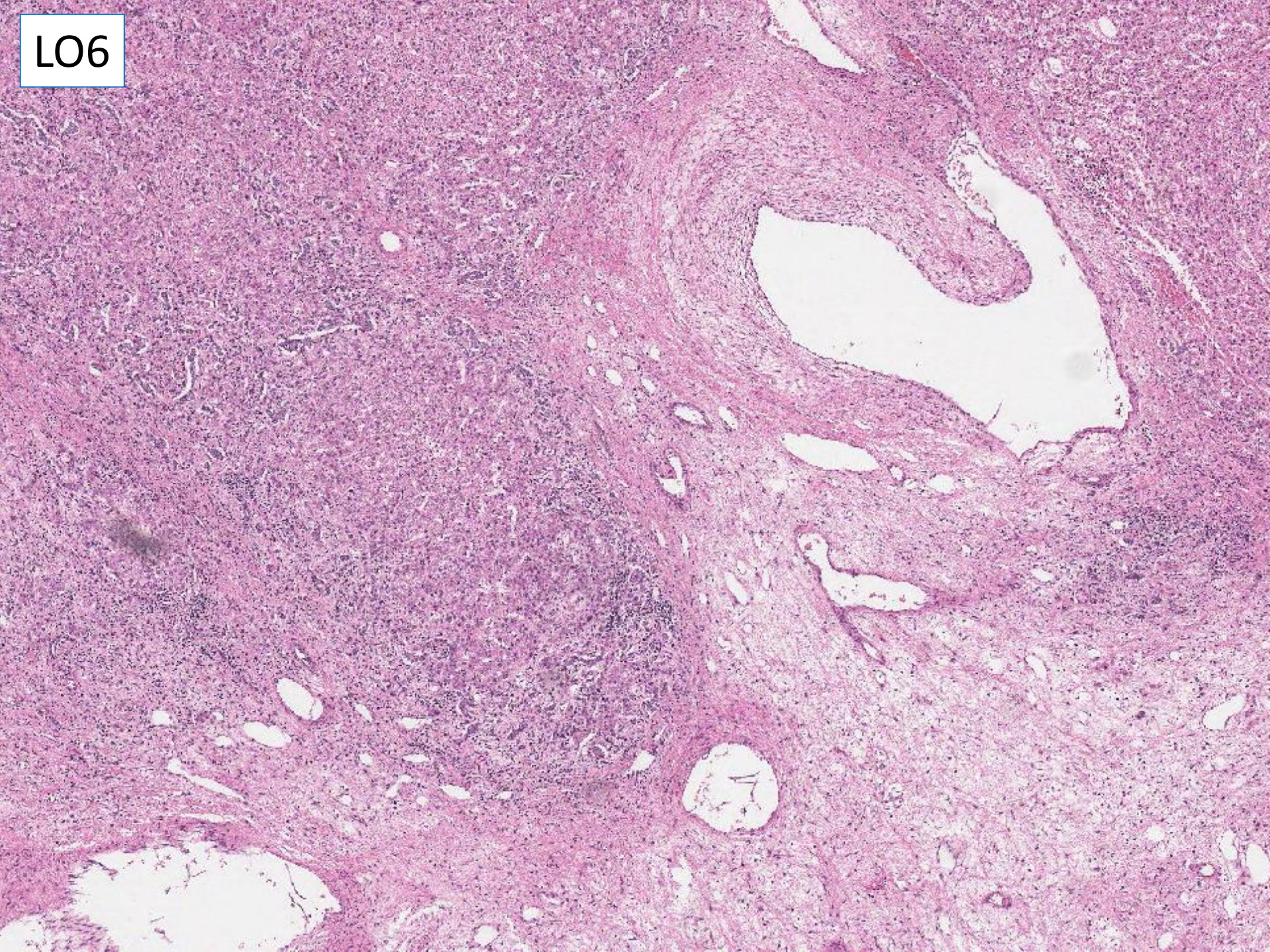
A segment of liver measuring 60 x 38 x 32mm. Single pale circumscribed lobulated lesion 35 x 32 x 27mm. 3mm from surgical margin.



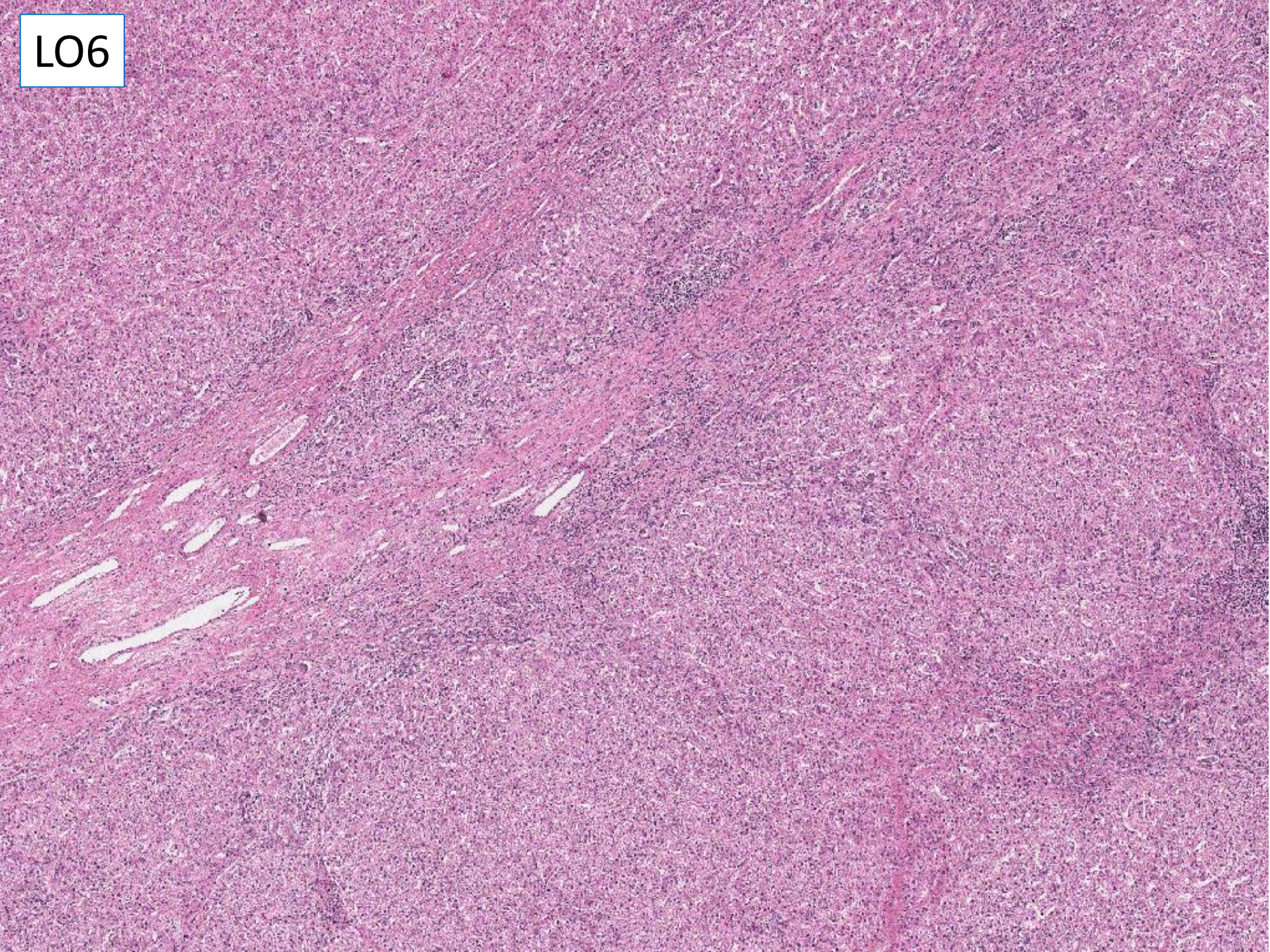
LO6



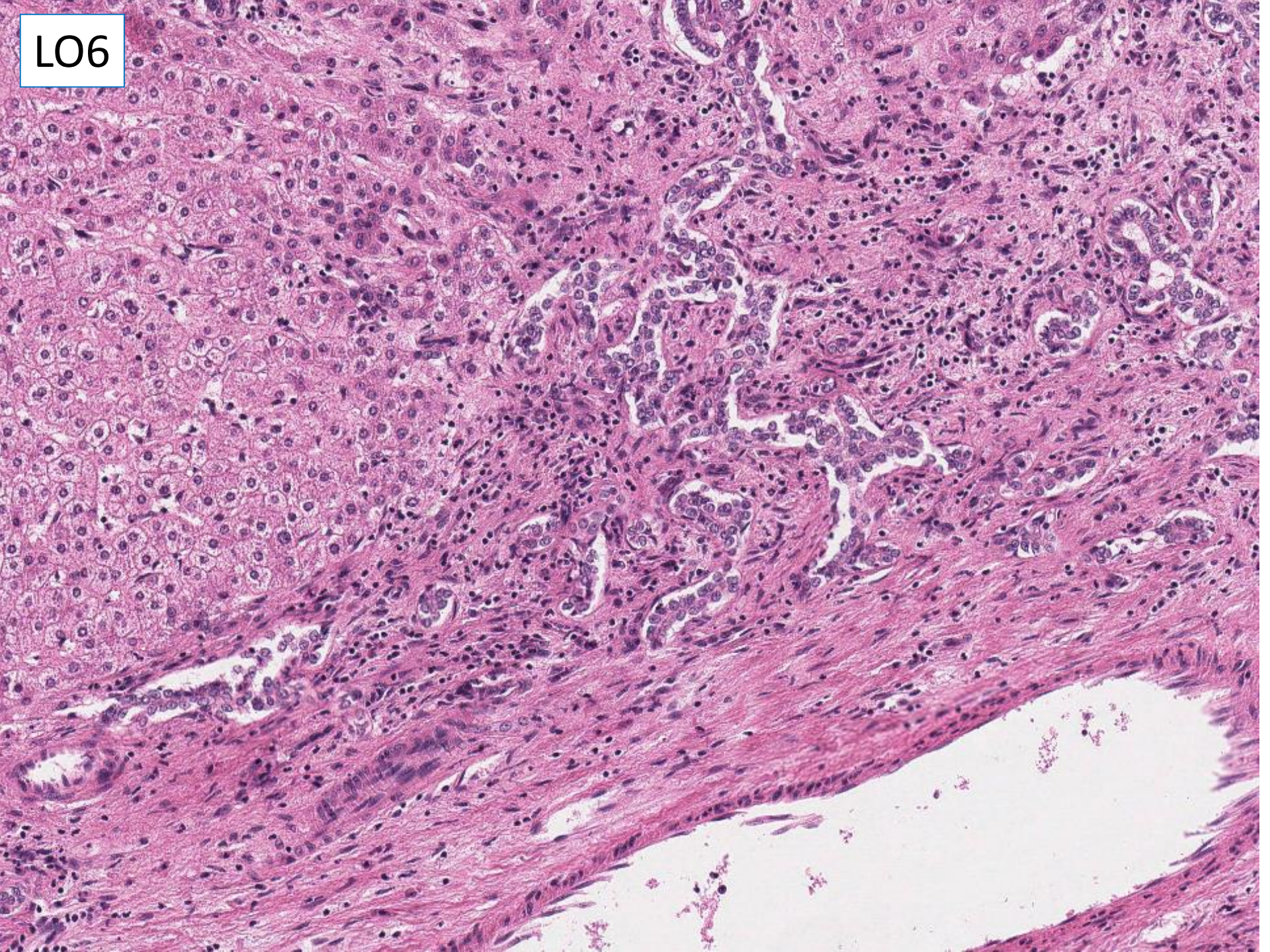
LO6



LO6



LO6



Case LO6 Age 30, Female

A segment of liver measuring 60 x 38 x 32mm. Single pale circumscribed lobulated lesion 35 x 32 x 27mm.

Focal nodular hyperplasia	81
Consistent with FNH, do extra stains (retic or IHC)	6

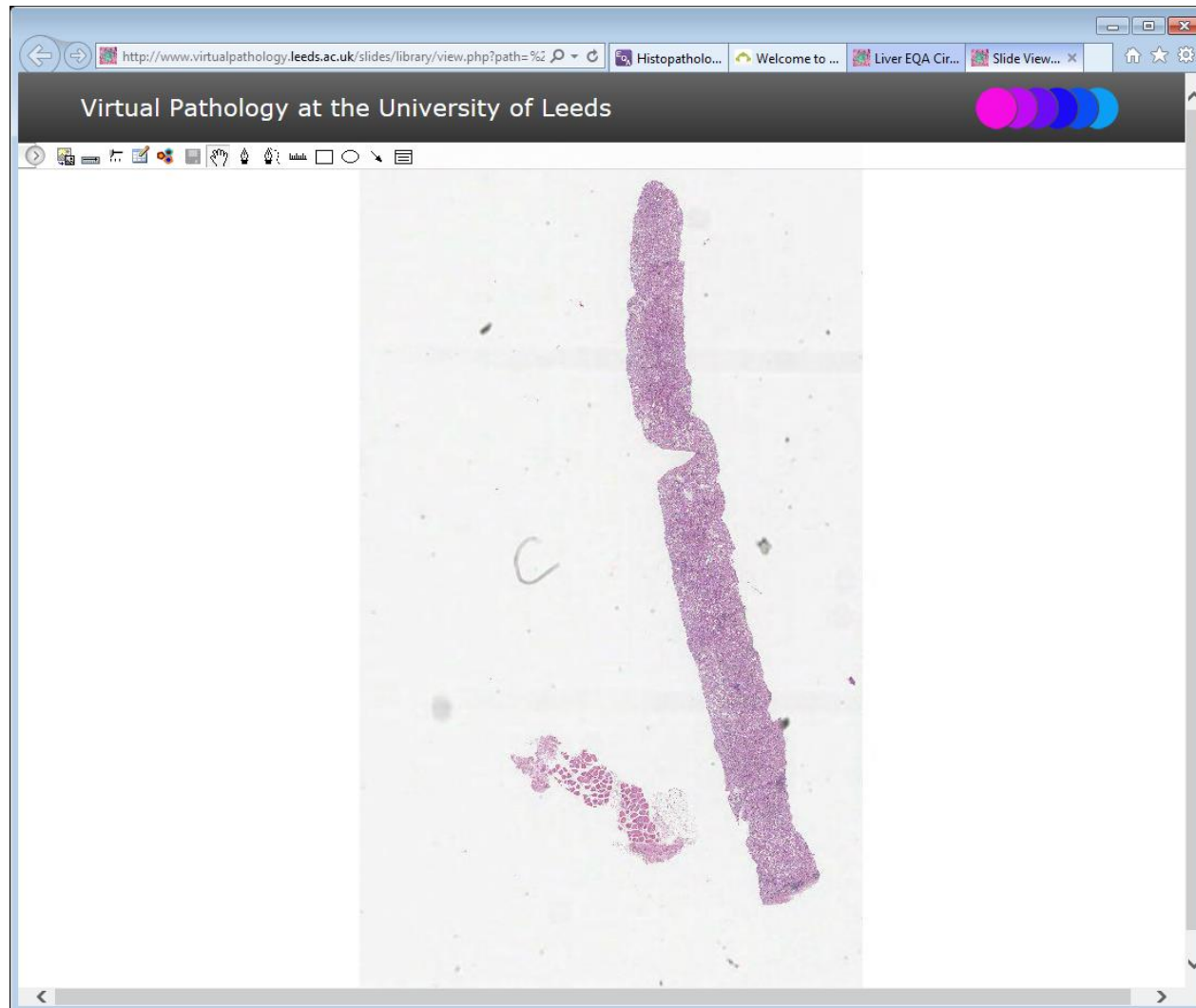
Suggested scoring: all score full marks.

LO6 Final scoring agreed at meeting:

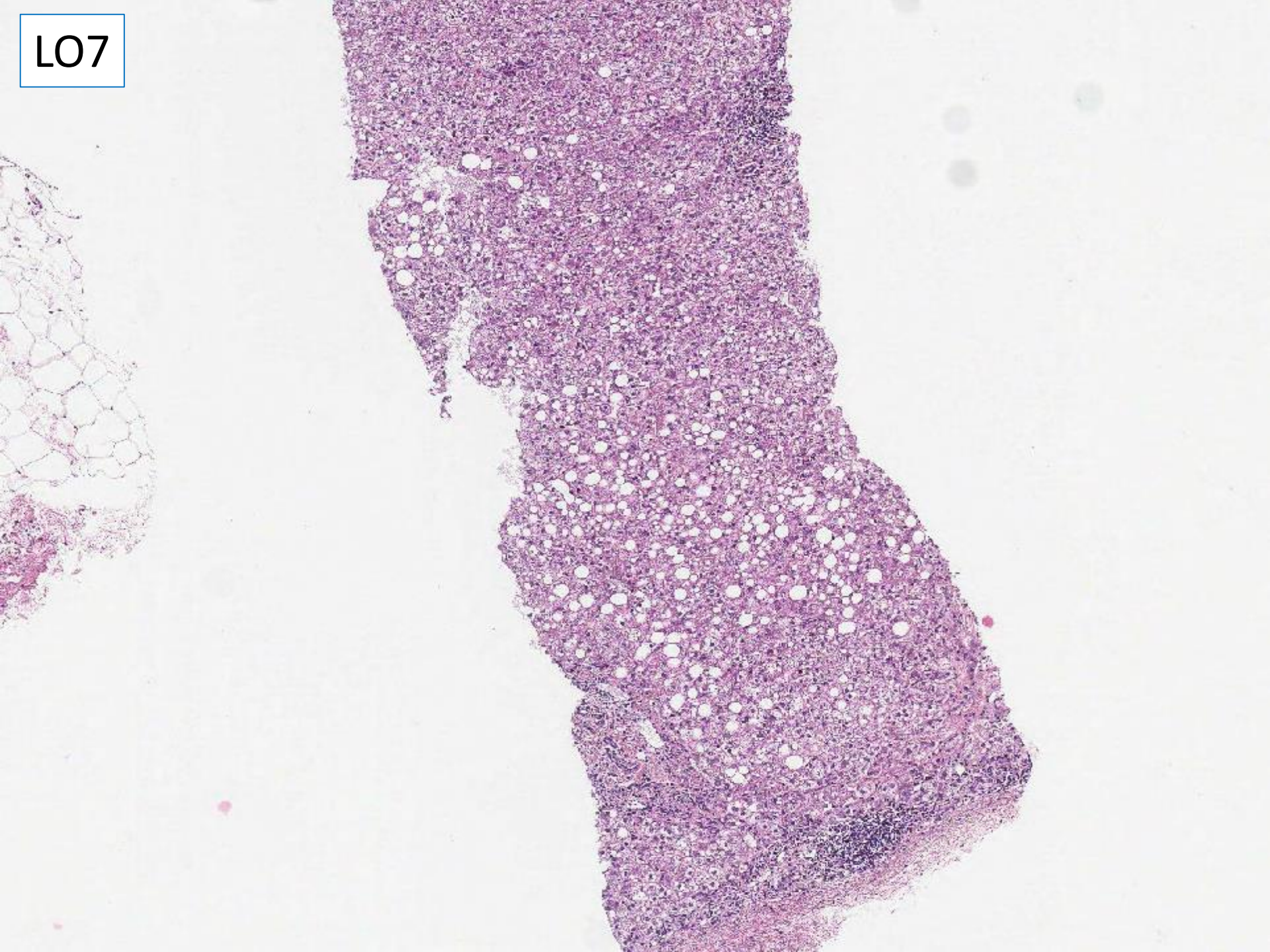
for full marks – diagnosis of focal nodular hyperplasia;
all score full marks.

Case LO7 Age 72, Female

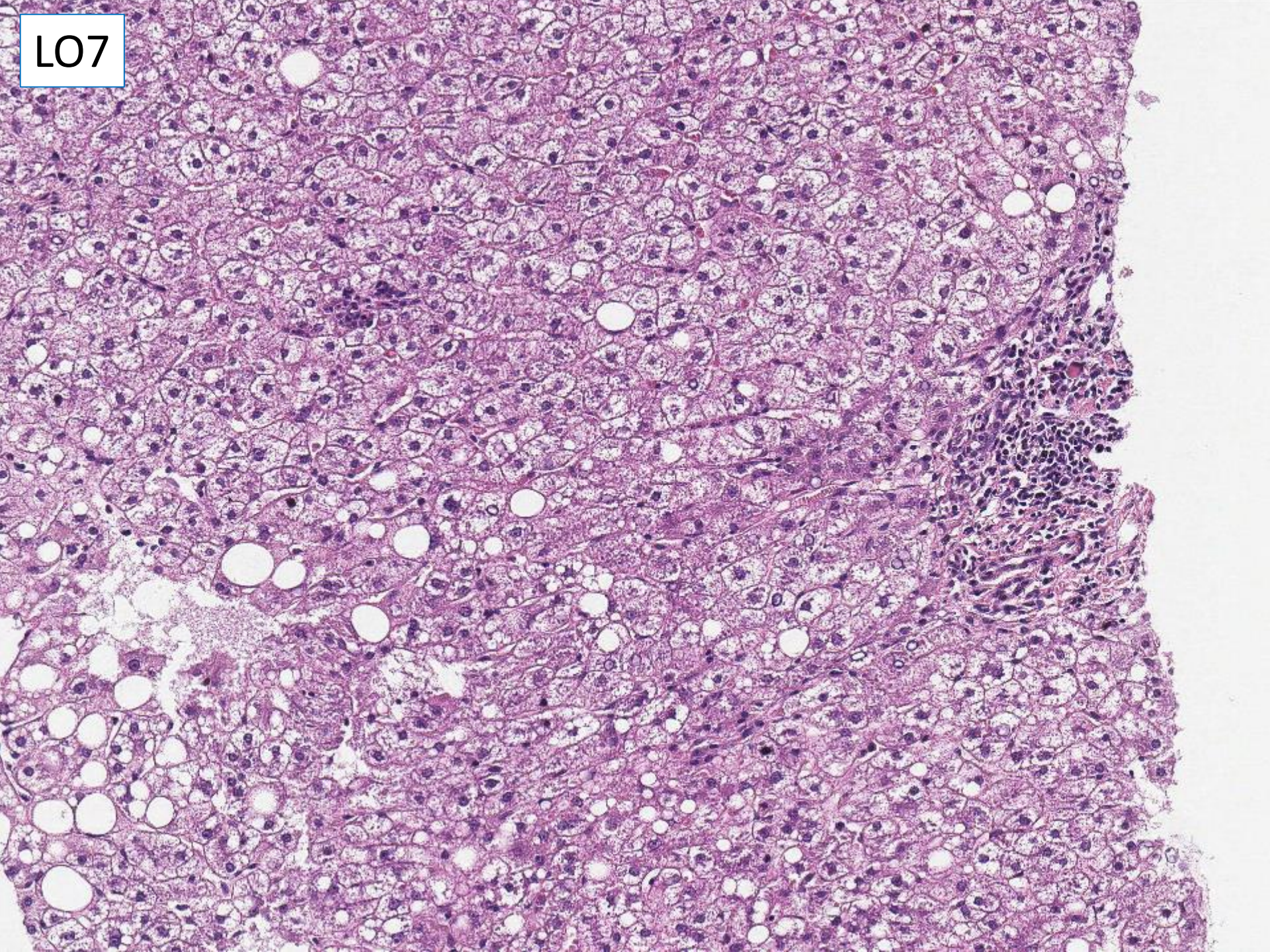
Liver transplant for hepatitis C and HCC 11 years ago. Post transplant hepatitis C PCR positive, genotype not known. Type II diabetes High ALT.
Biopsy for stage of fibrosis and ? cause of high ALT.



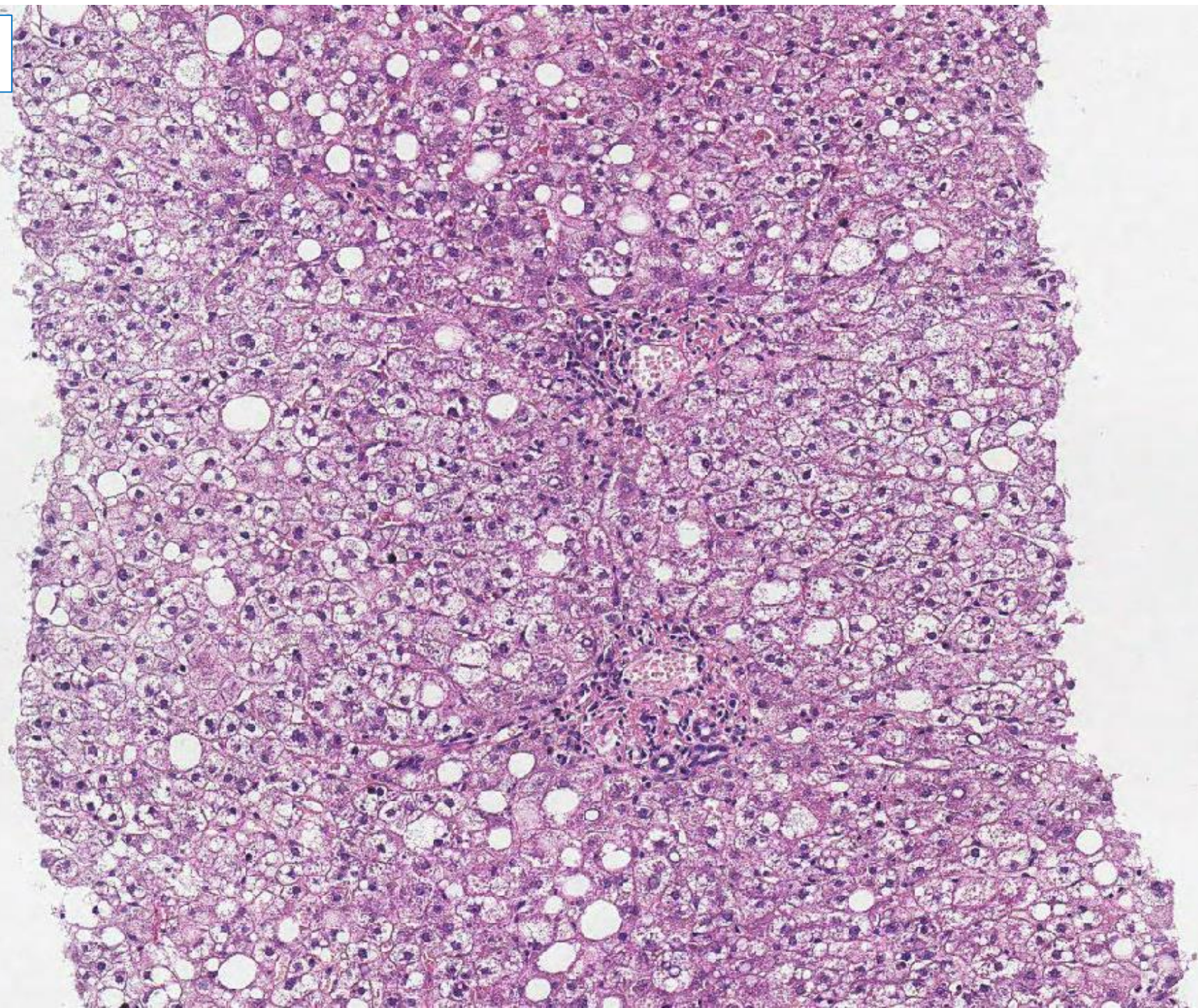
LO7



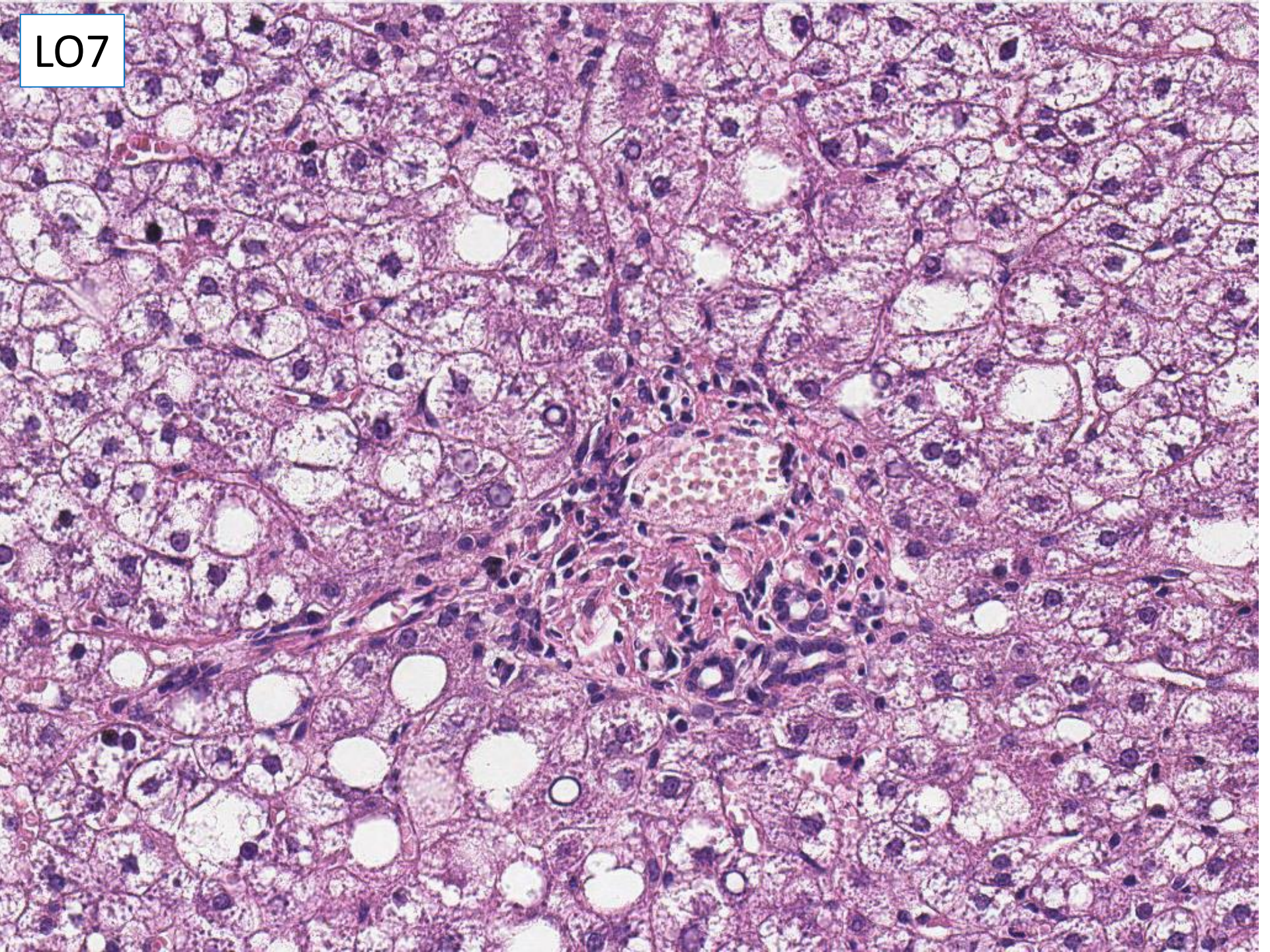
L07



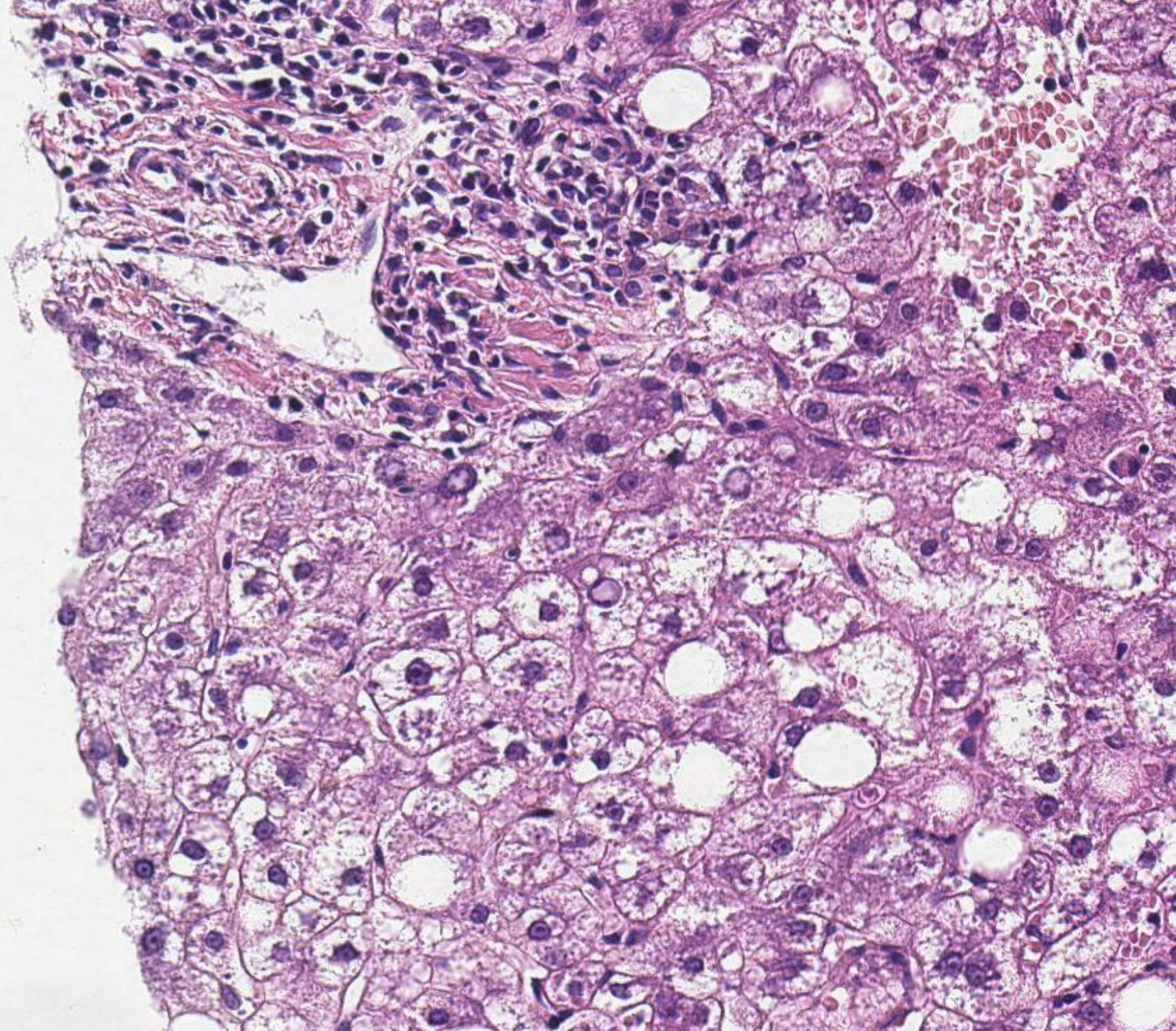
L07



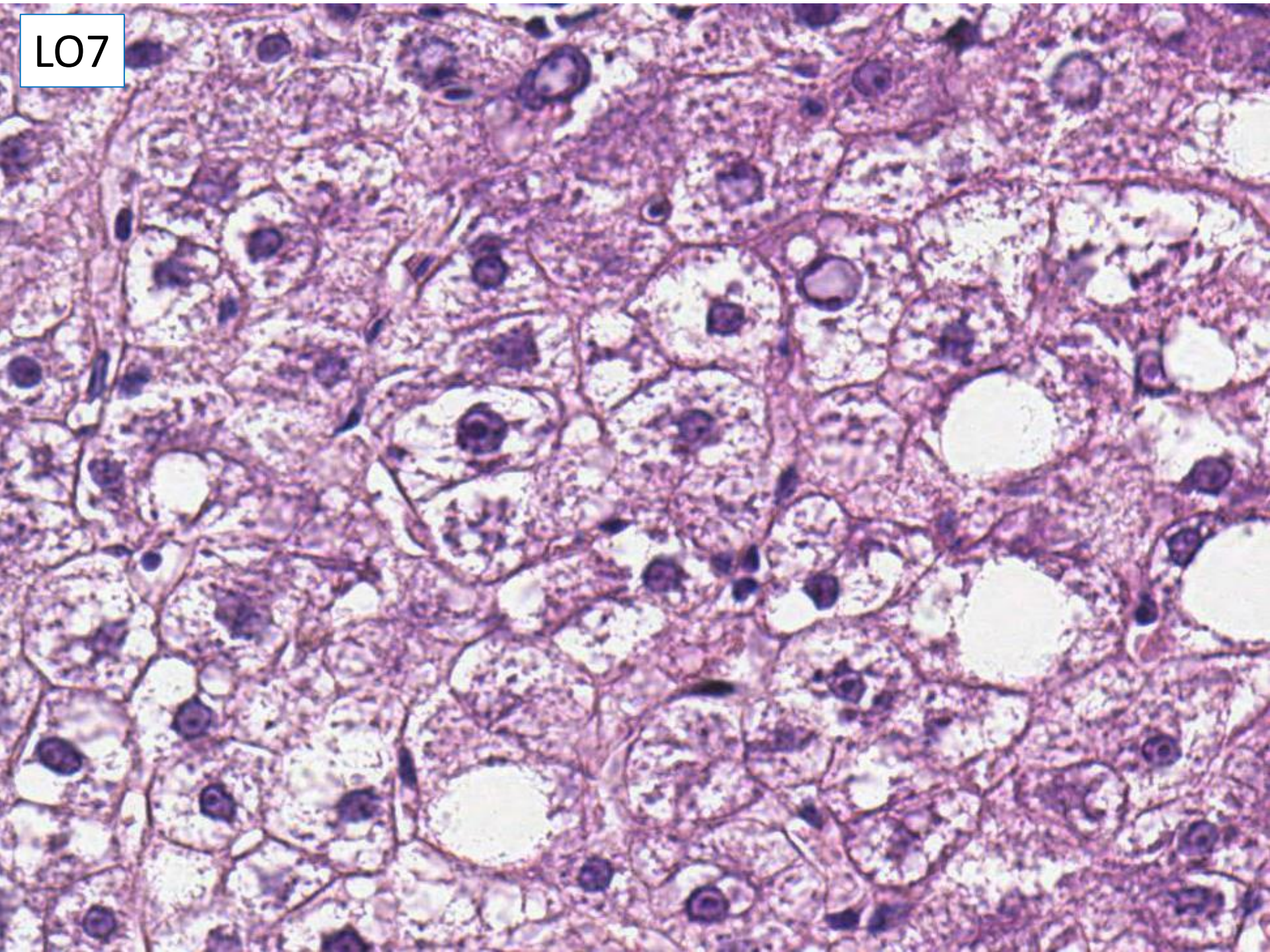
L07



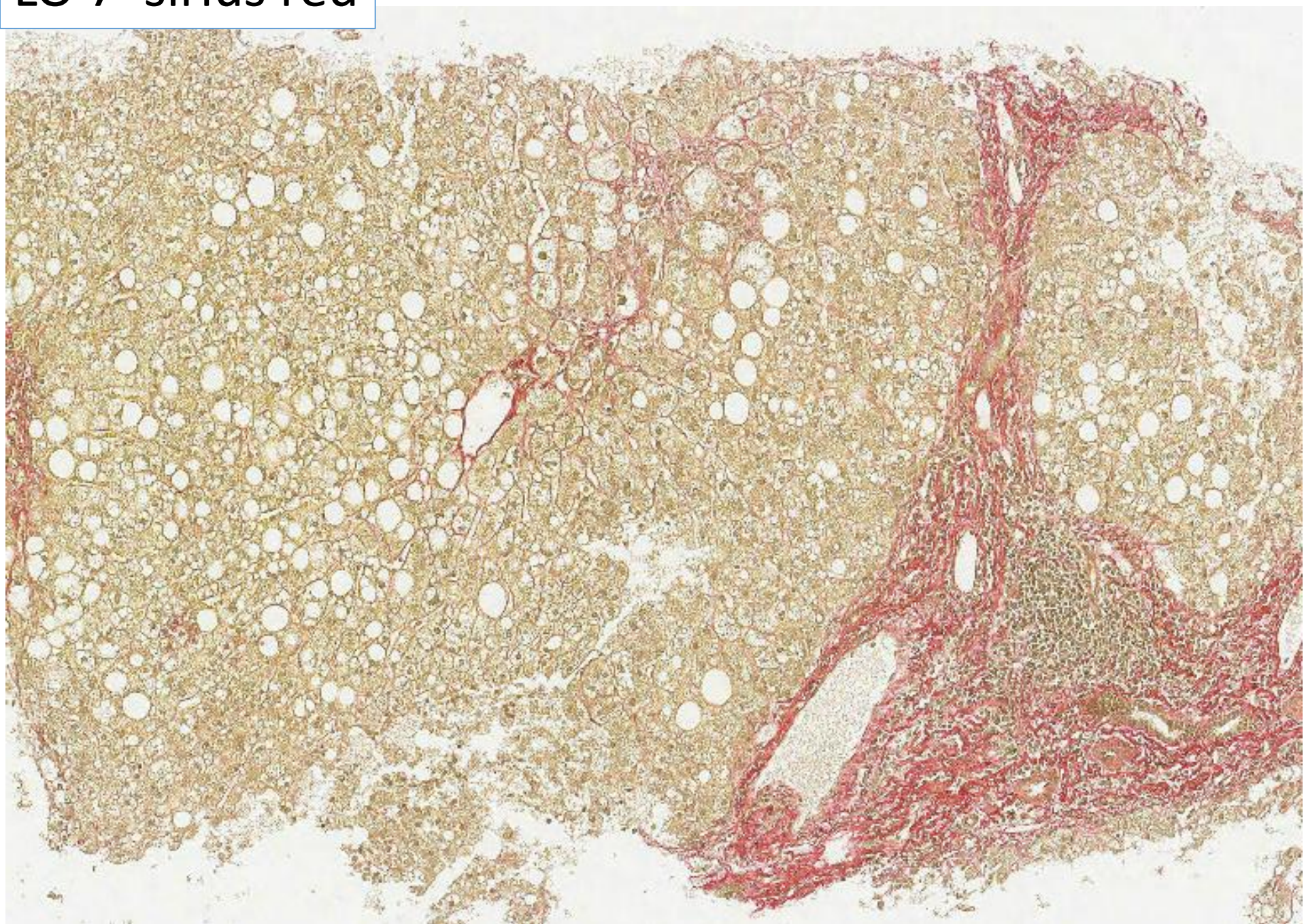
LO7



L07



LO 7 sirius red



LO 7 reticulin



Case LO7 Age 72, Female

Liver transplant for hepatitis C and HCC 11 years ago.

Post transplant hepatitis C PCR positive, genotype not known. Type II diabetes High ALT. Biopsy for stage of fibrosis and ? cause of high ALT.

Consistent with recurrent hepatitis C		65	
Hepatitis C not mentioned	no marks	16	
“chronic viral hepatitis” only diagnosis, neither C nor fat mentioned		1	Half marks
Steatohepatitis		60	
Steatosis (included in description, not necessarily in diagnosis)		23	
Chronic viral hepatitis, no mention of fat		1	Half marks
Both hepatitis C and fatty liver disease potentially contributing to liver dysfunction.		60	
Additional comments/diagnoses:			
No rejection		13	
Mild rejection		1	
Ductopenia (implies chronic rejection)		2	
Attenuated portal veins		1	
Hepatitis C genotype? If type 3 could explain the steatosis		16	

Suggested scoring: For full marks need both a mention of hepatitis C and a mention of fatty change – which is the dominant is a matter of opinion.

Information on the genotype of hepatitis C is important, and is not provided. Some comment on absence of rejection would be important in practice, but rarely included.

? suitable for scoring – we rarely have post-transplant biopsies but these are not excluded by the EQA SOPs and late post-transplant biopsies can be seen in any department.

Yes 8/10

Case LO7 Age 72, Female

Liver transplant for hepatitis C and HCC 11 years ago.

Post transplant hepatitis C PCR positive, genotype not known. Type II diabetes High ALT. Biopsy for stage of fibrosis and ? cause of high ALT.

Consistent with recurrent hepatitis C	65
Hepatitis C not mentioned	16
“chronic viral hepatitis” only diagnosis, neither C nor fat mentioned	1
Steatohepatitis	60
Steatosis (included in description, not necessarily in diagnosis)	23
Chronic viral hepatitis, no mention of fat	1
Both hepatitis C and fatty liver disease potentially contributing to liver dysfunction.	60
Additional comments/diagnoses:	
No rejection	13
Mild rejection	1
Ductopenia (implies chronic rejection)	2
Attenuated portal veins	1
Hepatitis C genotype? If type 3 could explain the steatosis	16

LO7: Final scoring agreed at meeting:

for full marks – need both a mention of hepatitis C and of fatty change.

A full report would include a comment on stage and absence of rejection – but insufficient comment/consensus to include these as scoring criteria.

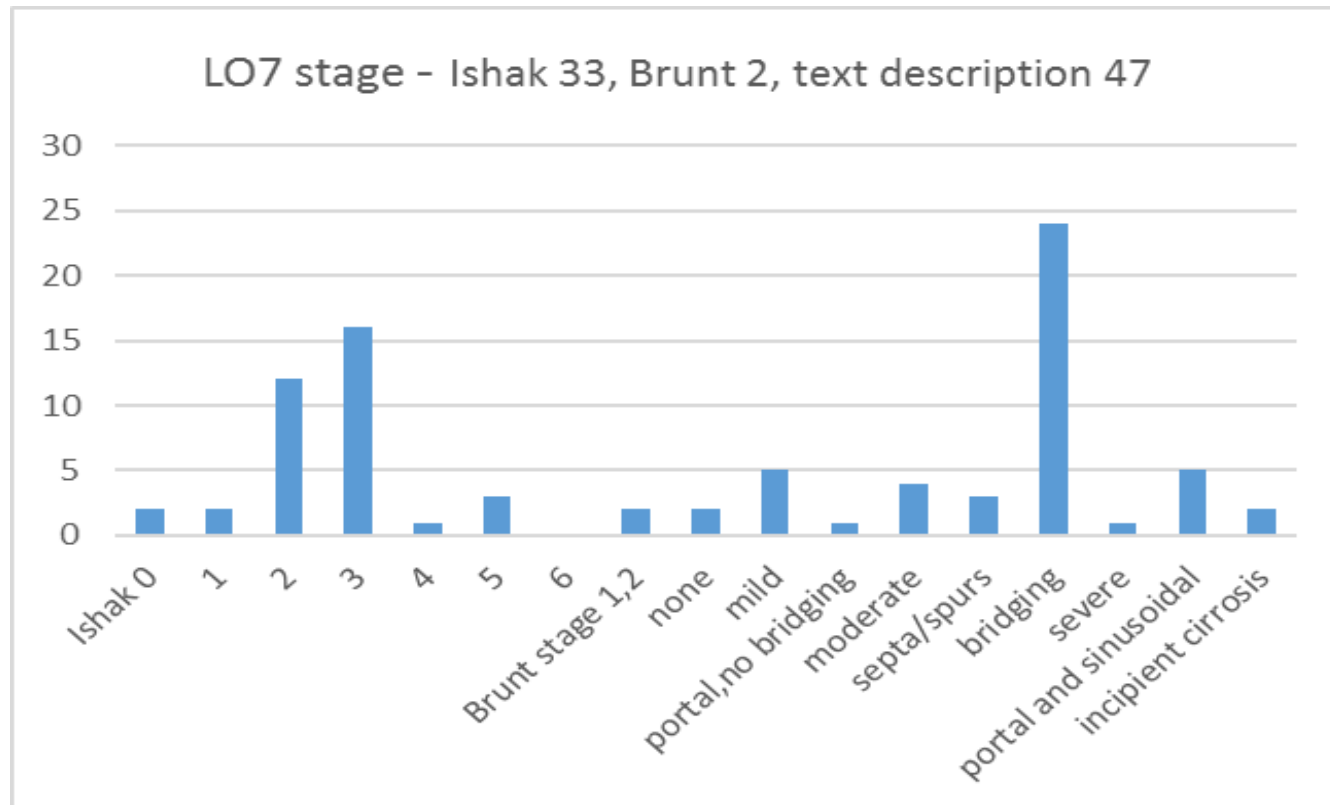
Lose half marks if omitted fatty liver disease. Score 0 if no mention of possible contribution of hepatitis C.

Case LO7 Age 72, Female

Liver transplant for hepatitis C and HCC 11 years ago.

Post transplant hepatitis C PCR positive, genotype not known. Type II diabetes High ALT. Biopsy for stage of fibrosis and ? cause of high ALT.

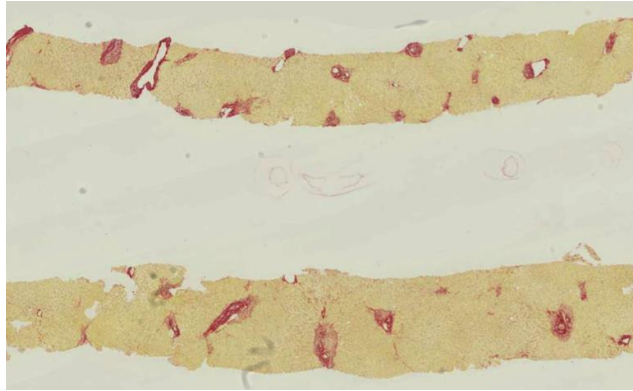
Data on staging etc. included for information, not scored.



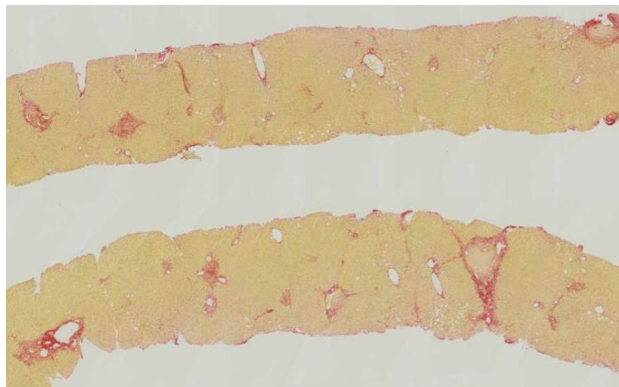
Grading – various, 21 used Ishak grade, individual responses not collated

Can the Inter-Observer Agreement of Reporting Fibrosis in Medical Liver Core Biopsies be Improved with the Use of Reference Images?

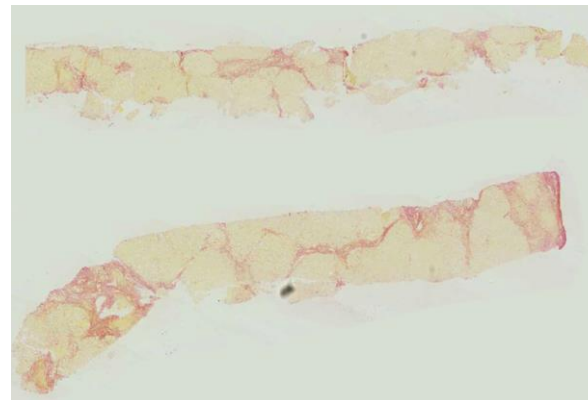
A Study Comparing Liver Subspecialists and General Histopathologists.



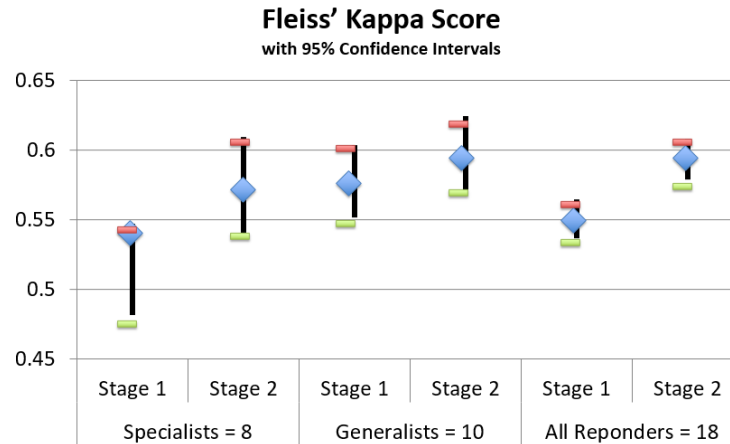
early



Early - bridging



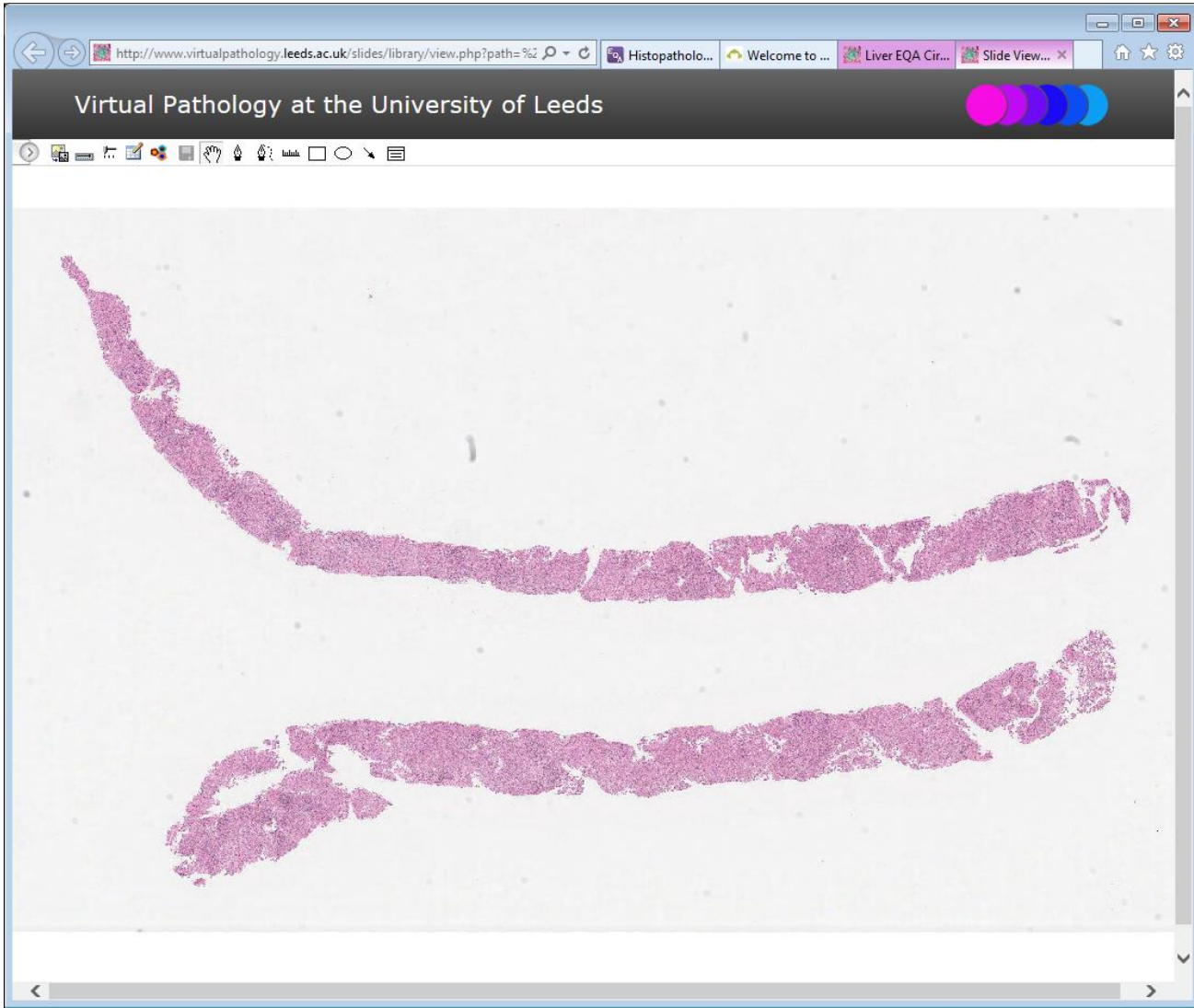
Bridging - late



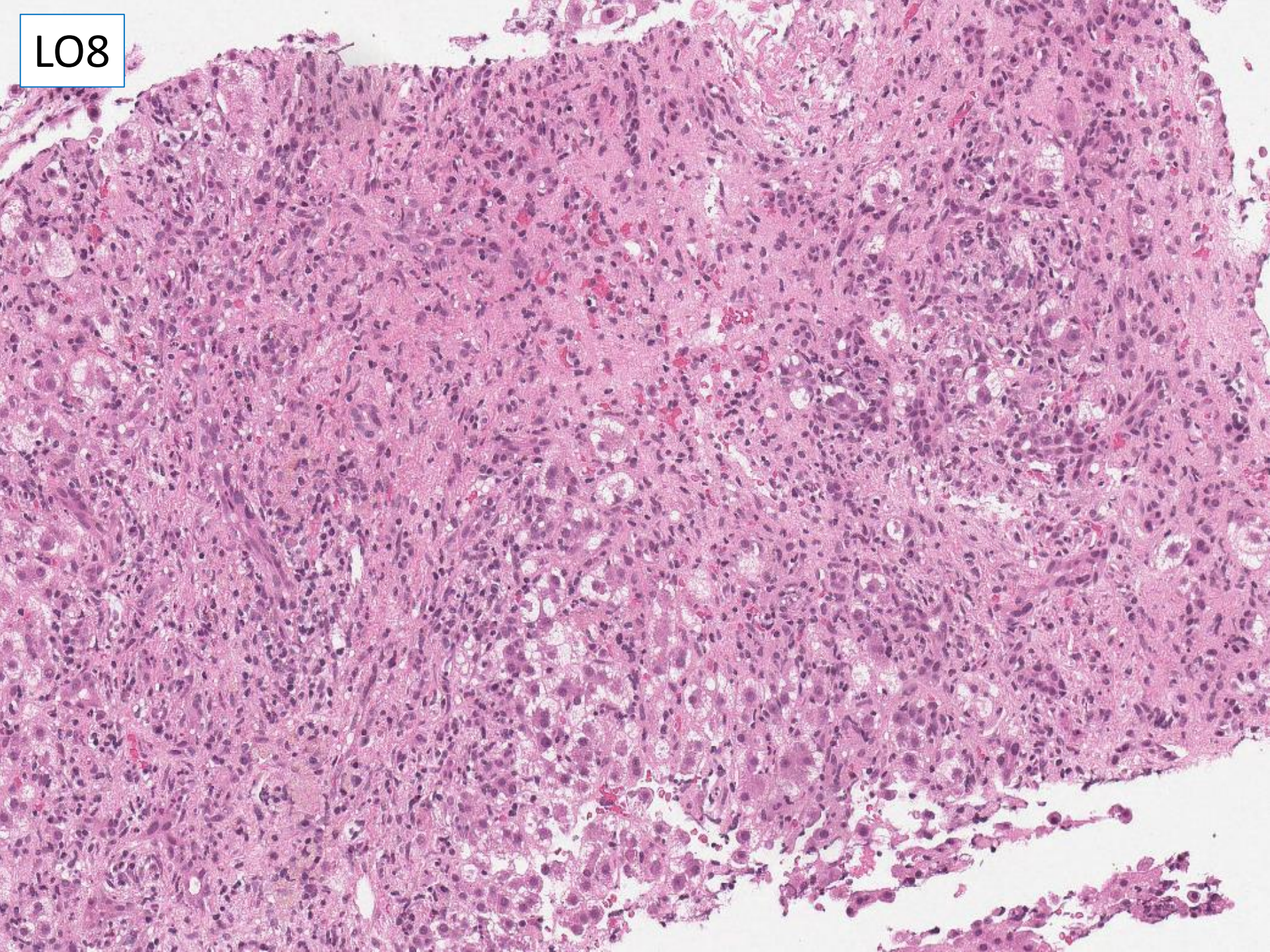
These images are available on the UKLPG section of the virtualpathology website

Case LO8 Age 55, Female

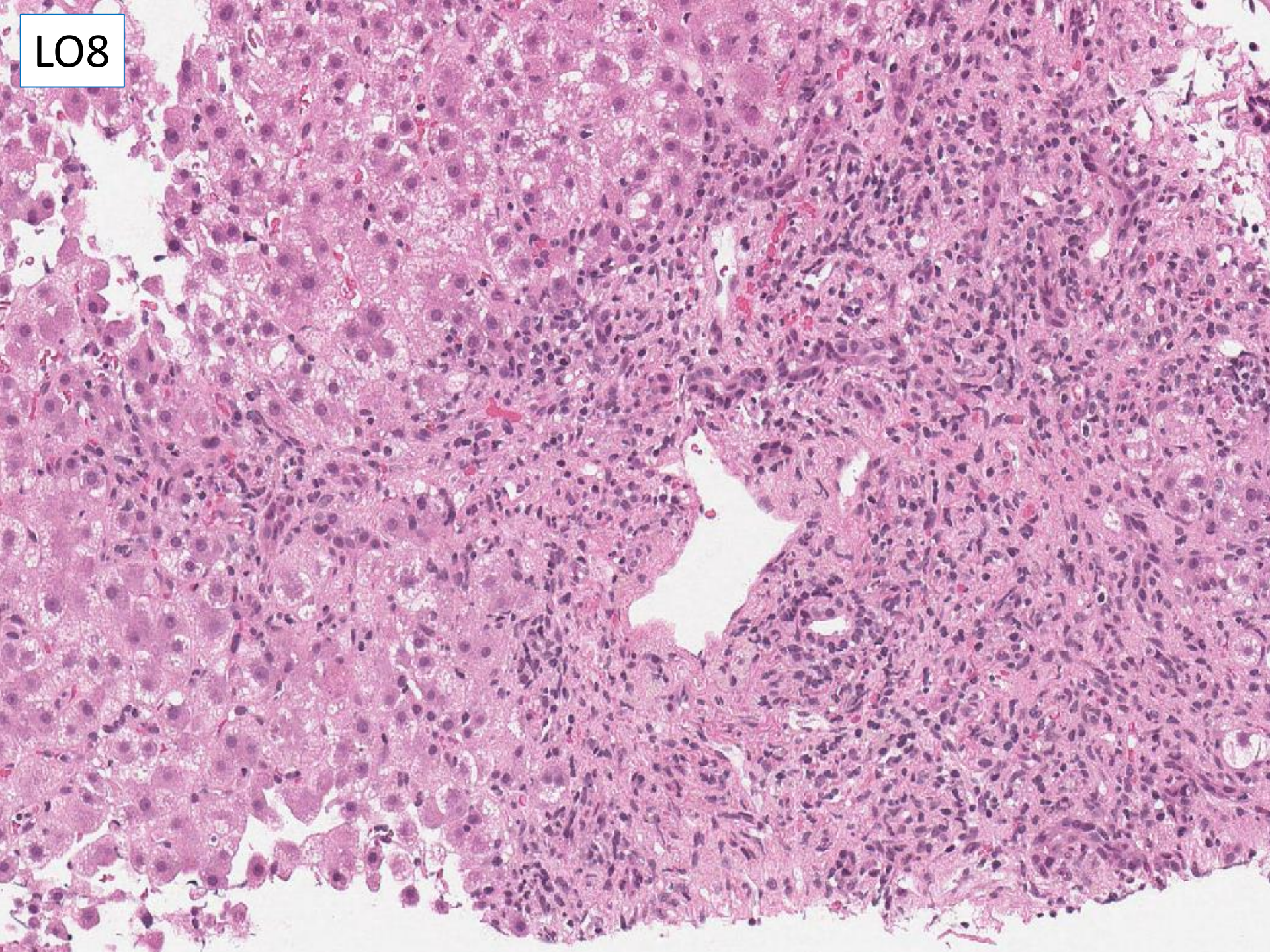
Marked derangement of LFTs. Atypical Hx. Progressive jaundice. SMA positive, Hep E -ve.



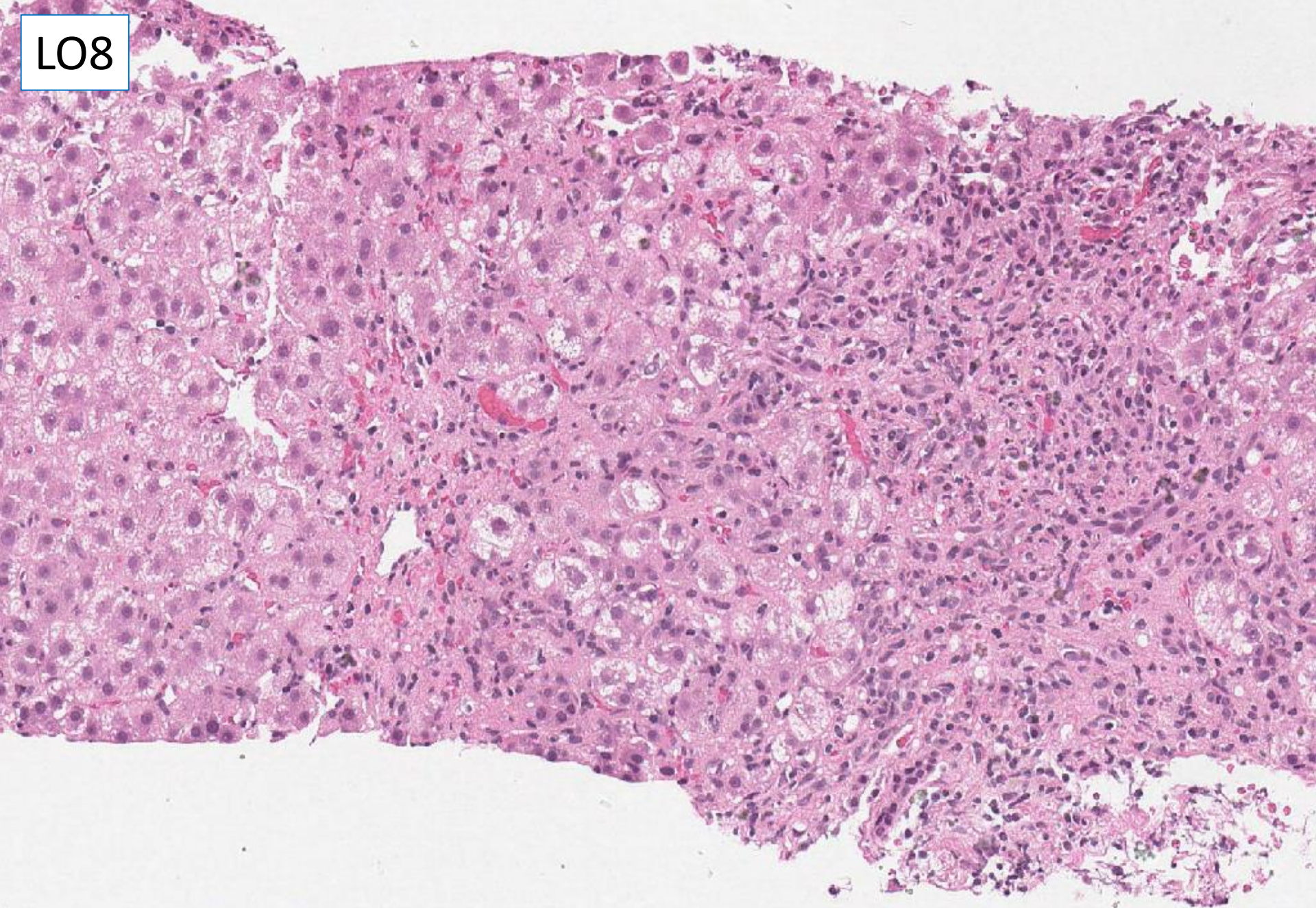
LO8



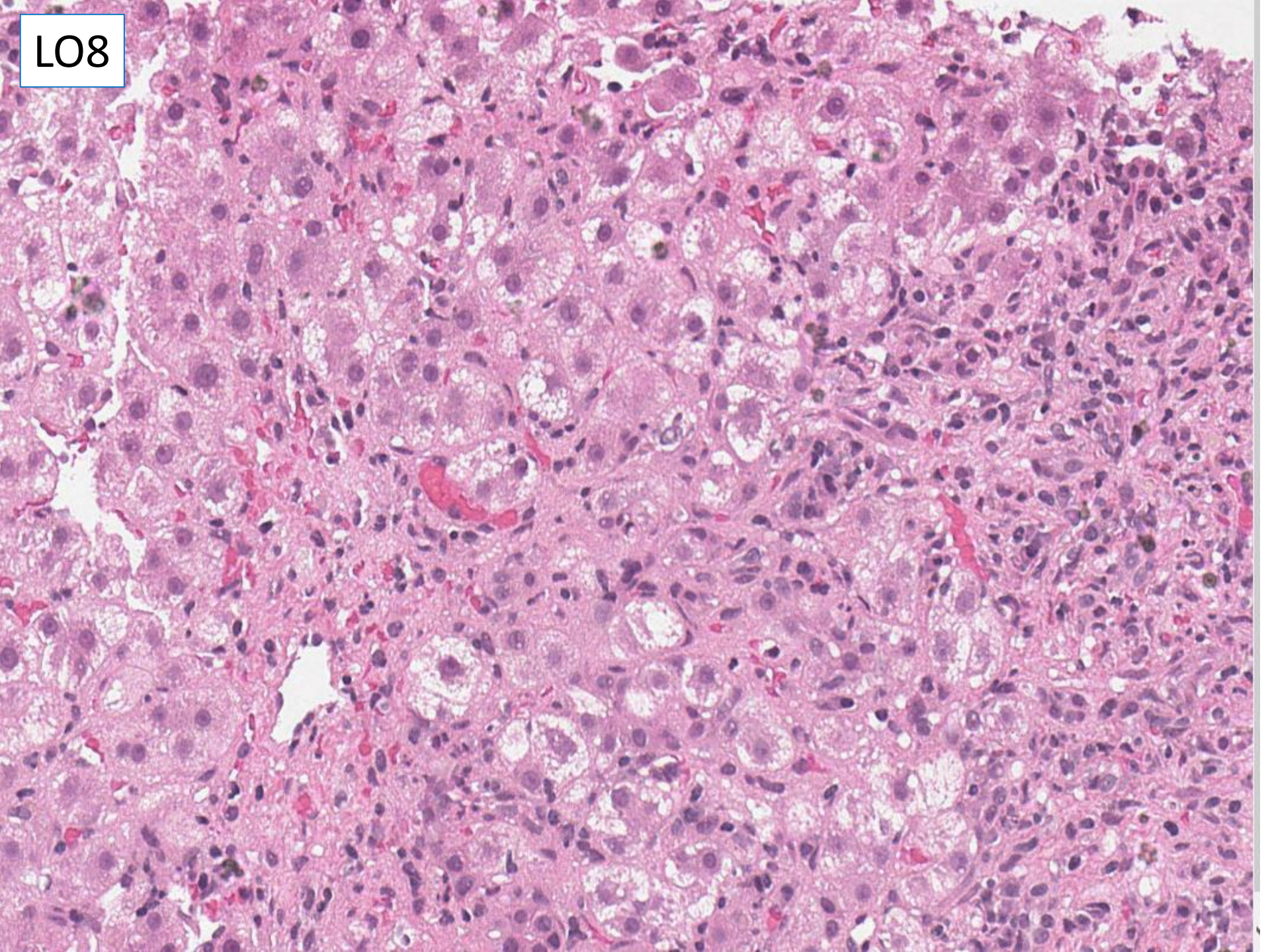
LO8



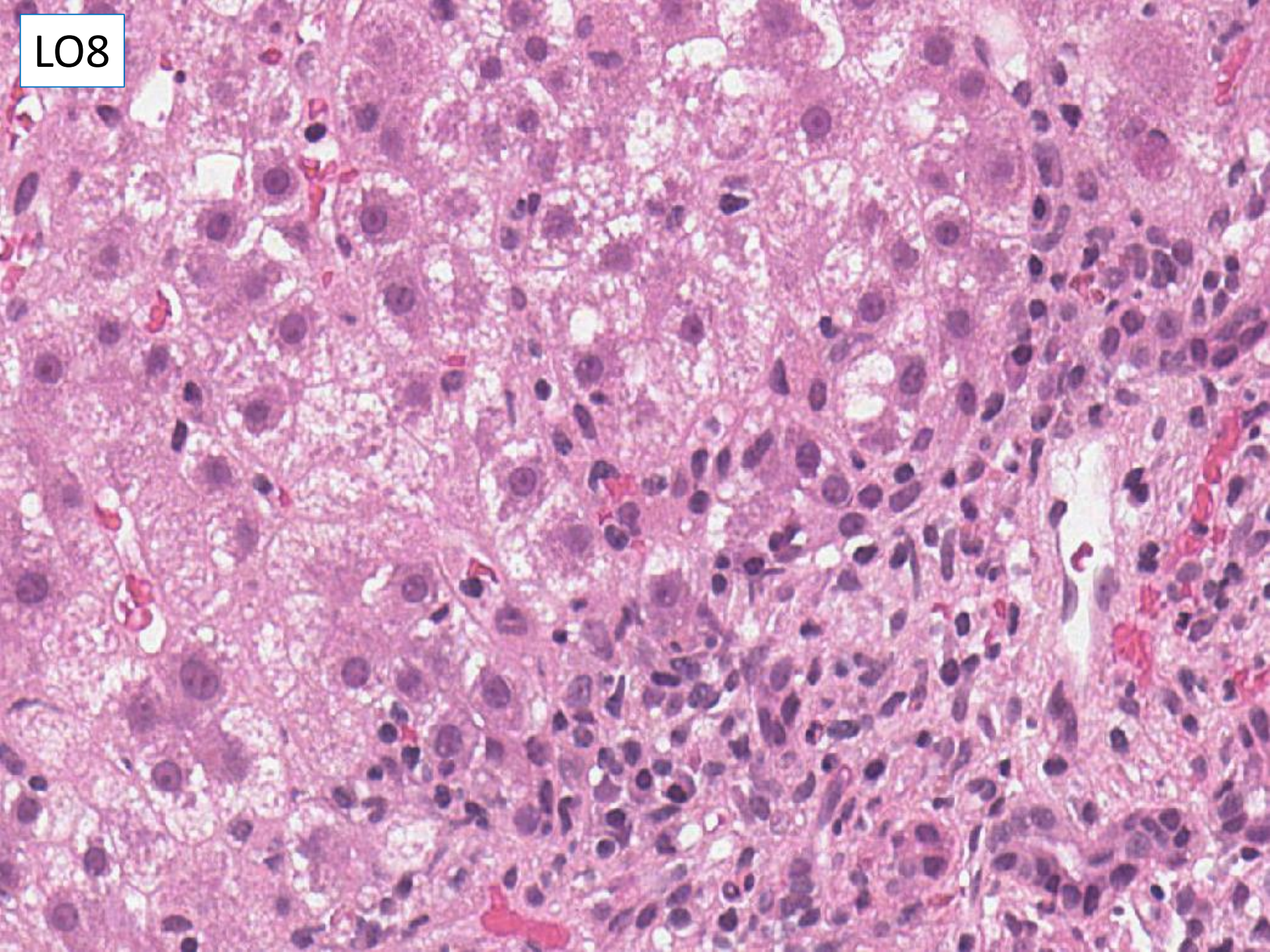
LO8



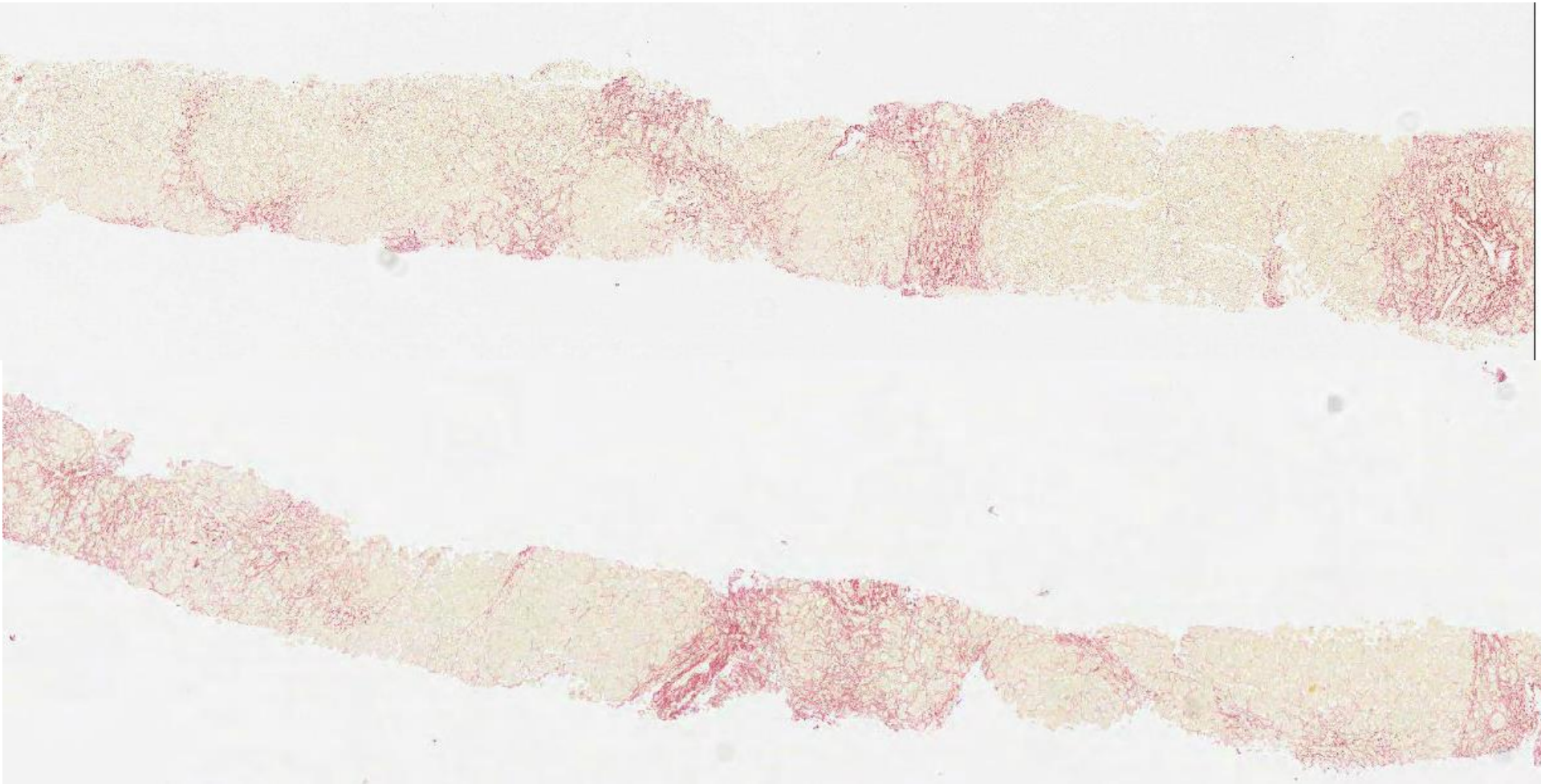
LO8



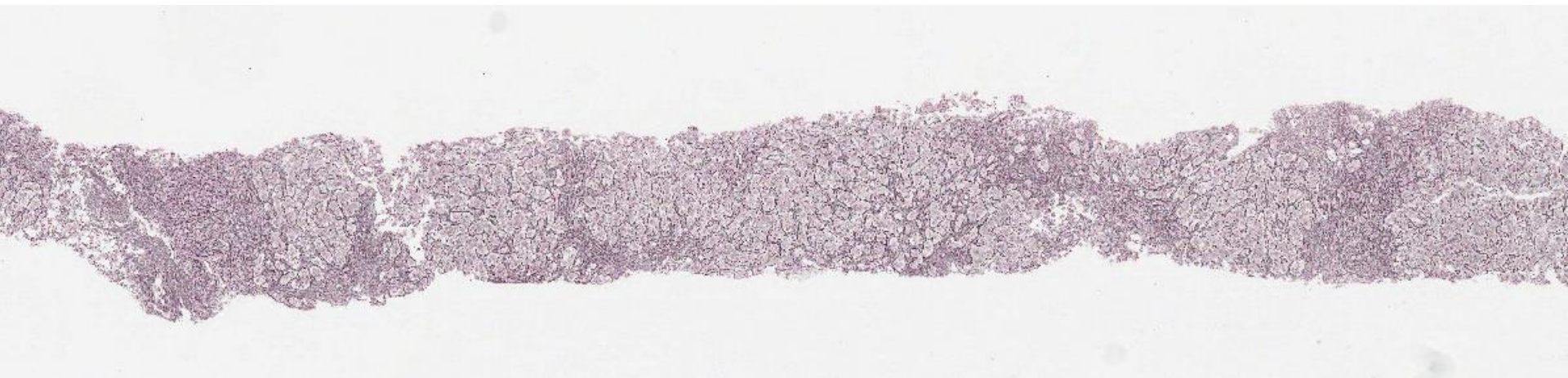
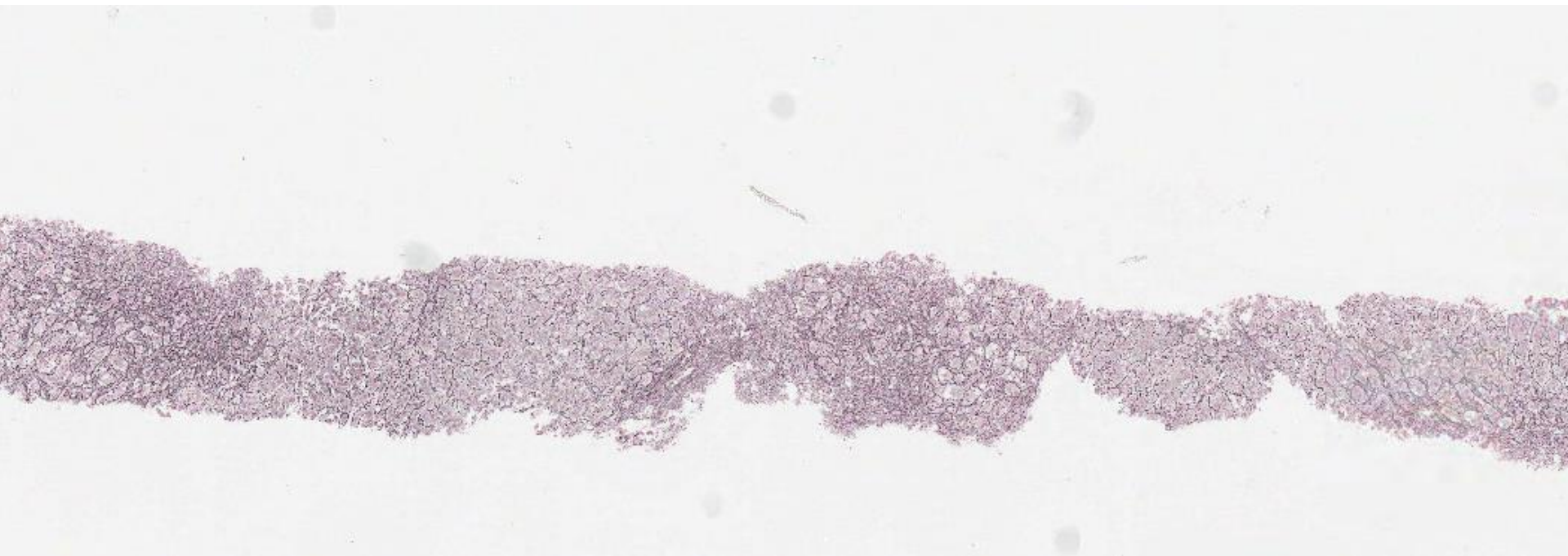
LO8



LO 8 sirius red



LO 8 reticulin



Case L08 Age 55, Female

Marked derangement of LFTs. Atypical Hx. Progressive jaundice. SMA +ve, Hep E -ve.

Hepatitis – acute or chronic not indicated, or opinion not clear from report	16
Acute hepatitis	18
Subacute hepatitis	2
Chronic hepatitis with activity / acute on chronic hepatitis	42
Chronic hepatitis	6
Stage - Cirrhosis	10
Developing cirrhosis	10
Portal-portal bridging fibrosis	6
“chronic active hepatitis”	2
“cholangiopathy with liver cell necrosis and fibrosis”	1
Cause:	
Autoimmune hepatitis as only diagnosis	33
Most likely AIH with differential diagnosis other causes of hepatitis	28
A differential diagnosis that includes AIH but not specifically favoured	16
Most likely drug induced hepatitis, AIH in differential	2
AIH and biliary disease overlap	4
AIH not mentioned (no aetiology mentioned, or drug induced)	3
AIH and ? also ALD/NAFLD (Sirius red difficult ? sinusoidal fibrosis)	3

Suggested scoring: ? suitable for scoring. Insufficient consensus on duration of hepatitis. Could achieve sufficient consensus for aetiology by including all responses where AIH is mentioned as only, favoured or equal aetiology.

How to score when AIH is included but less likely, or cases with biliary overlap?

Given hepatitis histology and SMA in clinical information, score no marks if AIH is not mentioned.

Case LO8 Age 55, Female

Marked derangement of LFTs. Atypical Hx. Progressive jaundice. SMA +ve, Hep E -ve.

Hepatitis – acute or chronic not indicated, or opinion not clear from report	16
Acute hepatitis	18
Subacute hepatitis	2
Chronic hepatitis with activity / acute on chronic hepatitis	42
Chronic hepatitis	6
Stage - Cirrhosis	10
Developing cirrhosis	10
Portal-portal bridging fibrosis	6
“chronic active hepatitis”	2
“cholangiopathy with liver cell necrosis and fibrosis”	1
Cause:	
Autoimmune hepatitis as only diagnosis	33
Most likely AIH with differential diagnosis other causes of hepatitis	28
A differential diagnosis that includes AIH but not specifically favoured	16
Most likely drug induced hepatitis, AIH in differential	2
AIH and biliary disease overlap	4
AIH not mentioned (no aetiology mentioned, or drug induced)	3
AIH and ? also ALD/NAFLD (Sirius red difficult ? sinusoidal fibrosis)	3

LO8: Final scoring after meeting discussion:

For full marks, need to include autoimmune hepatitis as only, favoured or equal diagnosis.

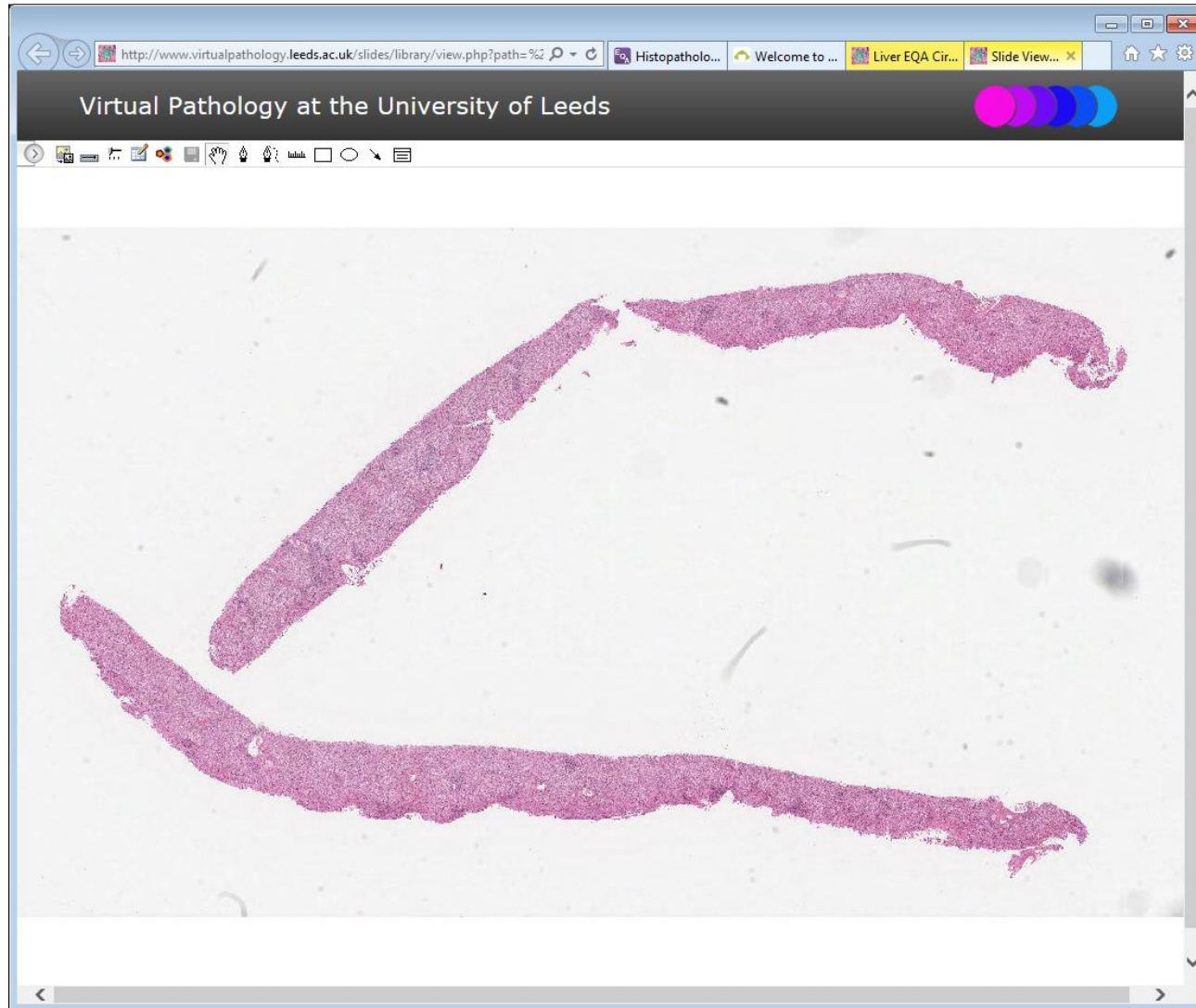
Half marks if AIH is included but not most likely, or for overlap with biliary disease.

No marks if autoimmune hepatitis is not mentioned.

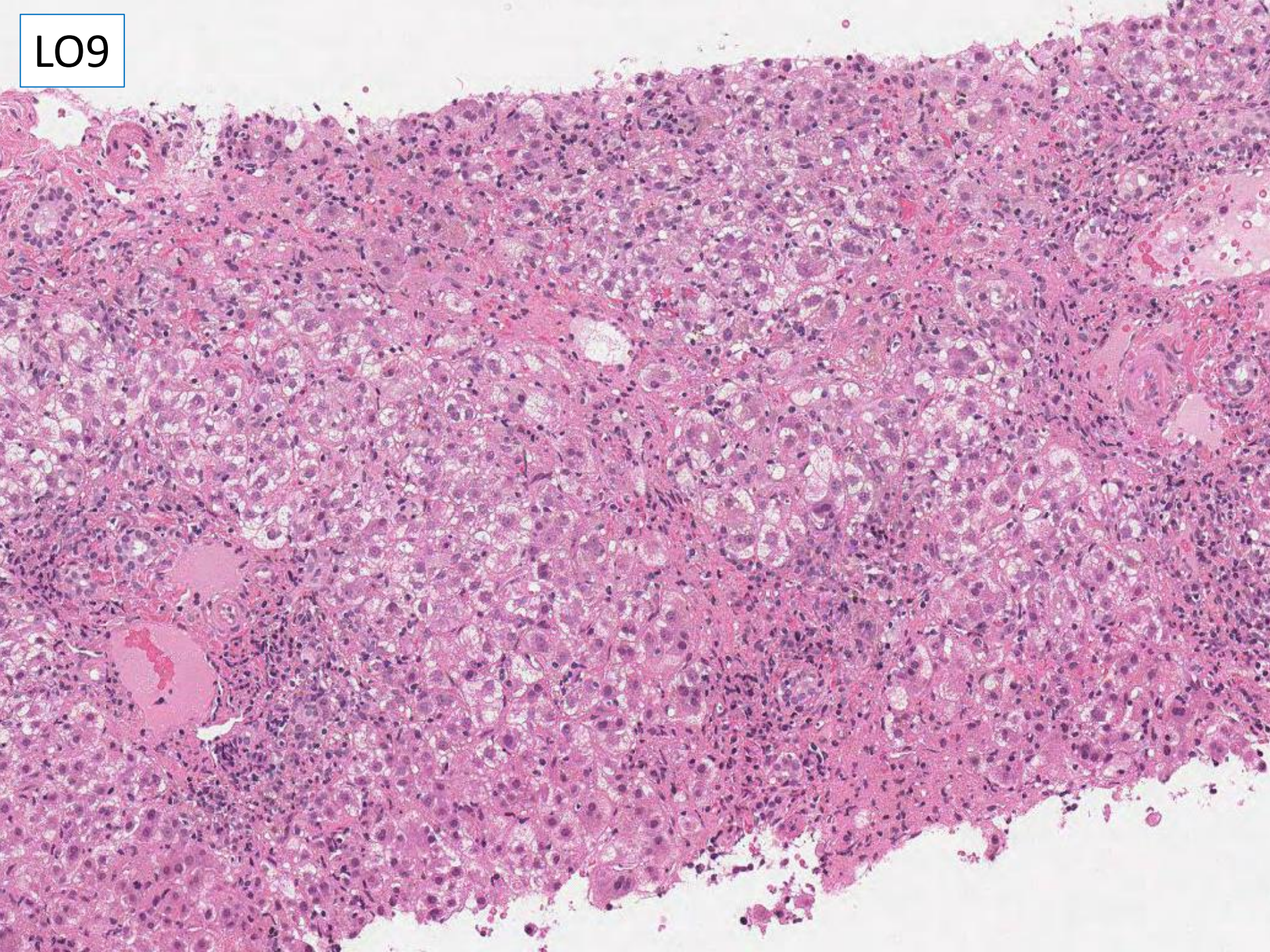
Insufficient consensus on acute v chronic to include in scoring.

Case L09 Age 54, Female

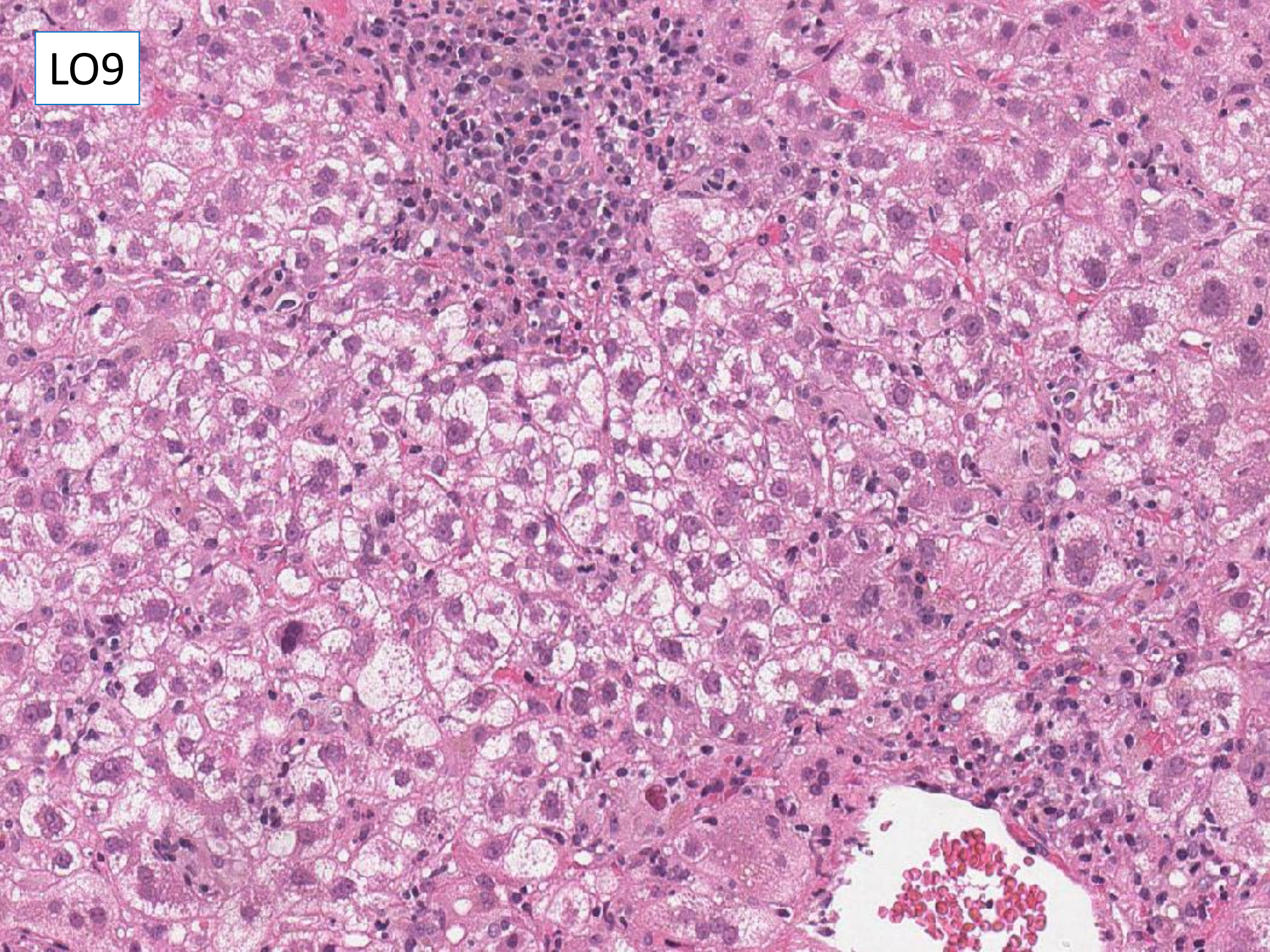
RUQ pain, vomiting and jaundice. Partially resolved with recurrence of jaundice and deranged LFTs. ?autoimmune hepatitis. ANA and SMA positive, Hep E negative.



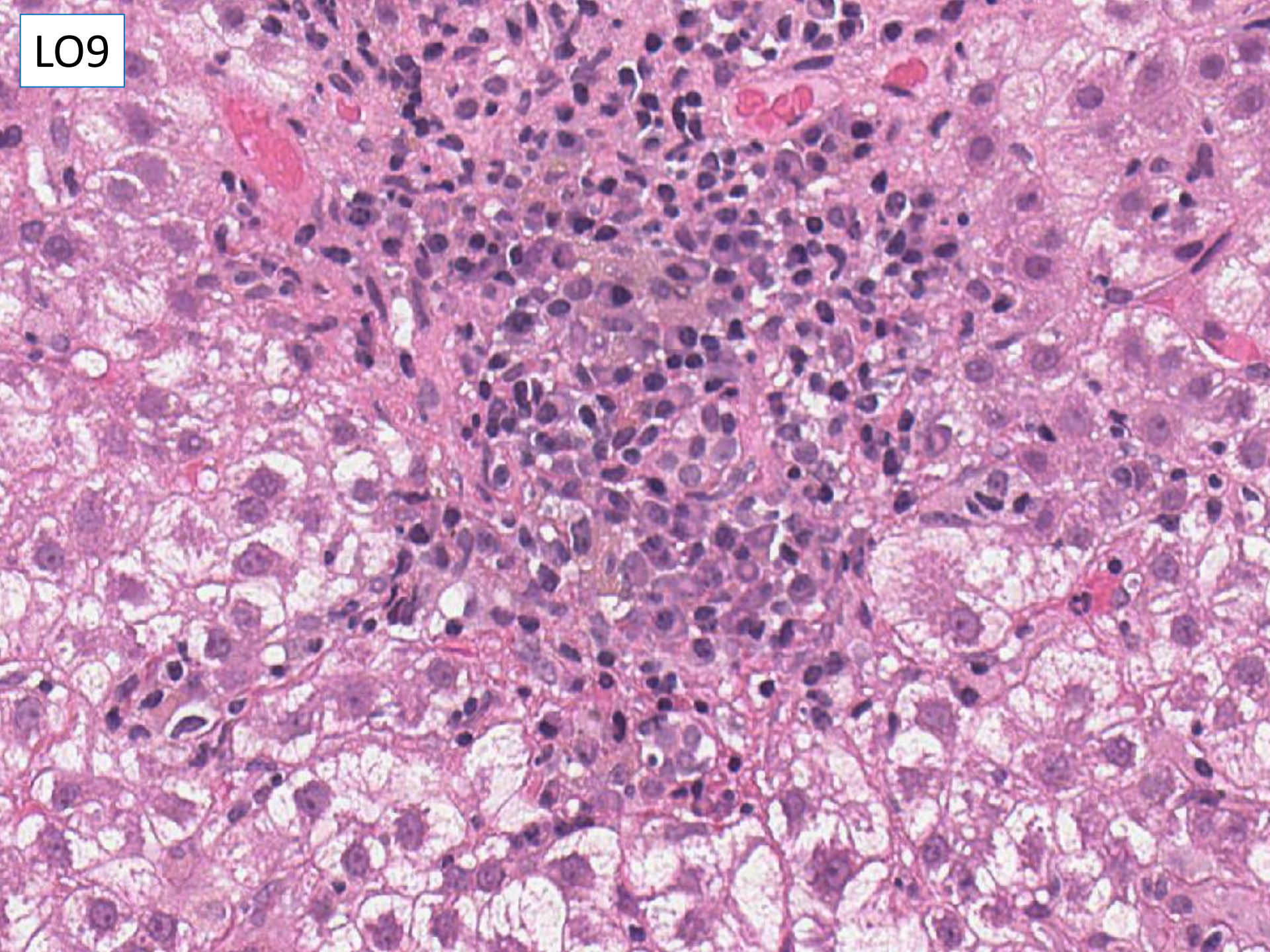
LO9



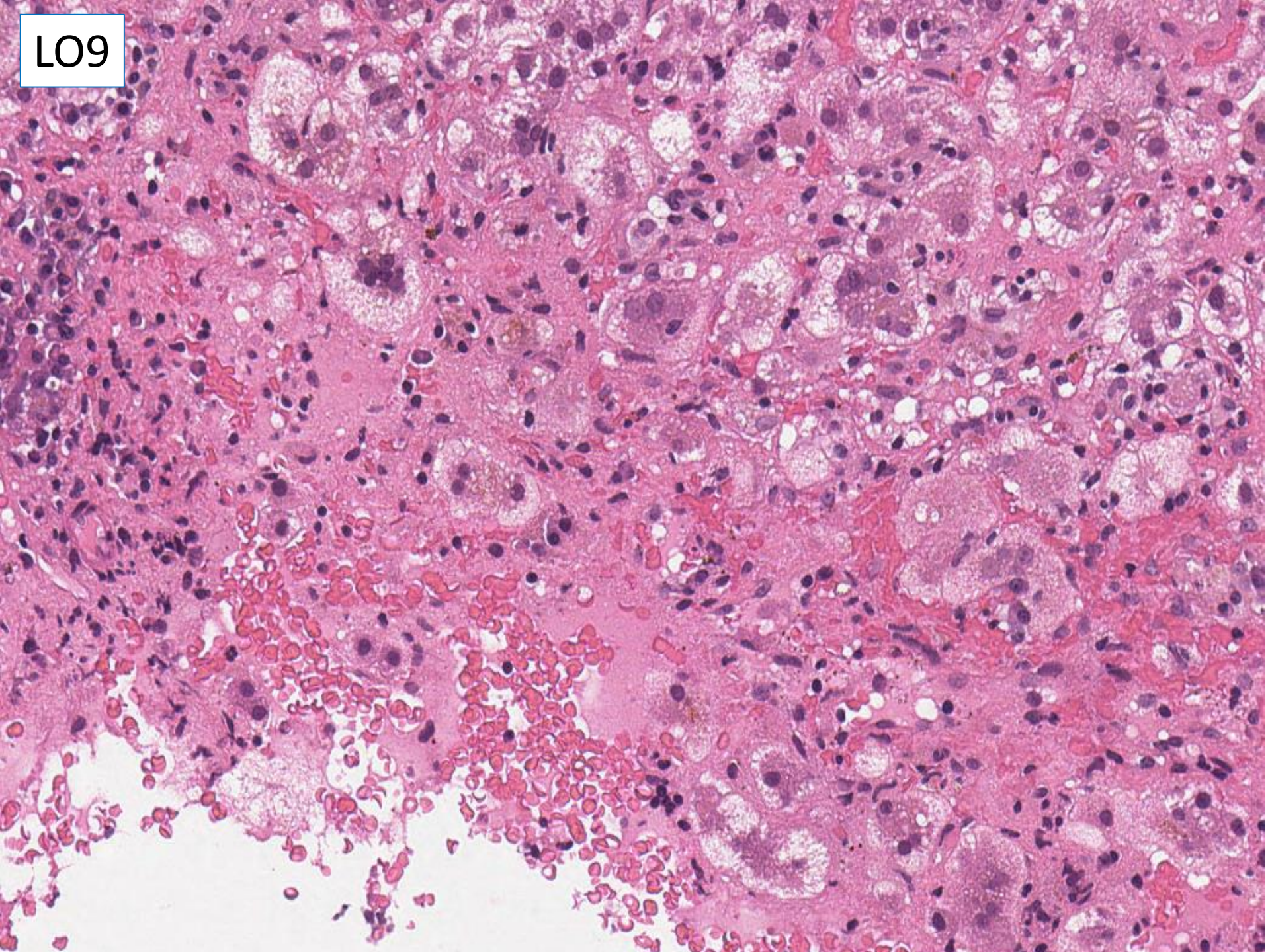
L09



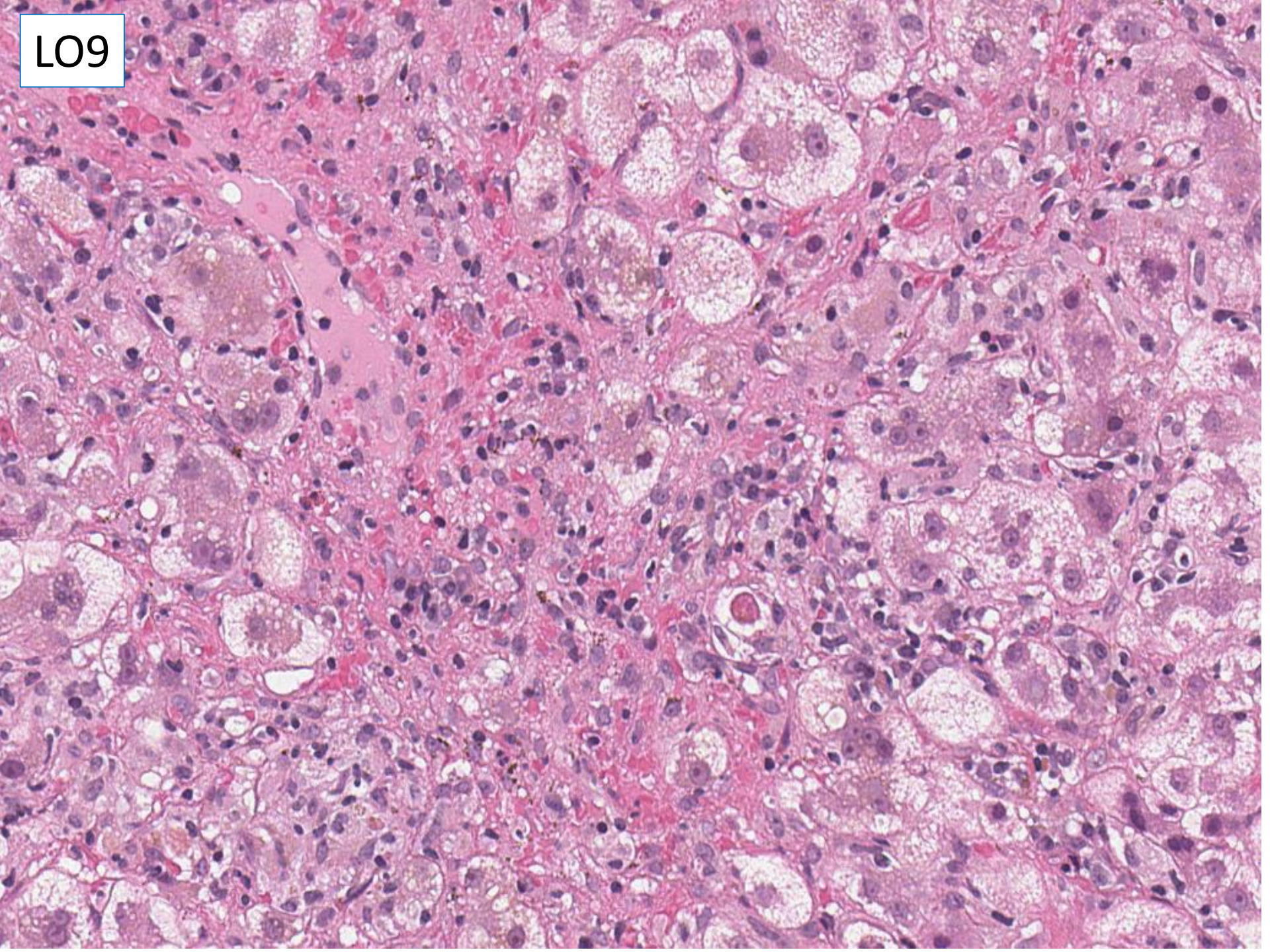
L09



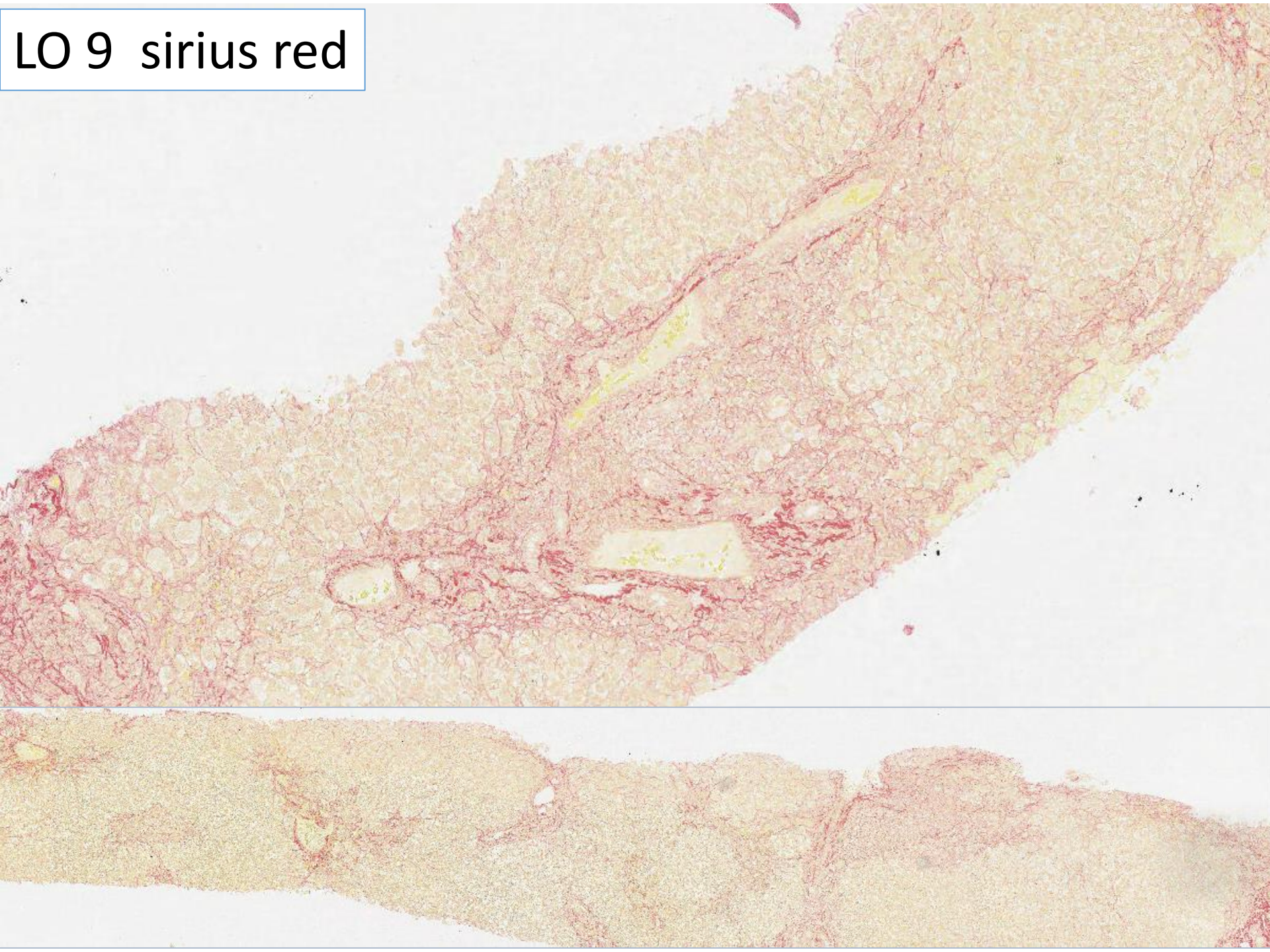
L09



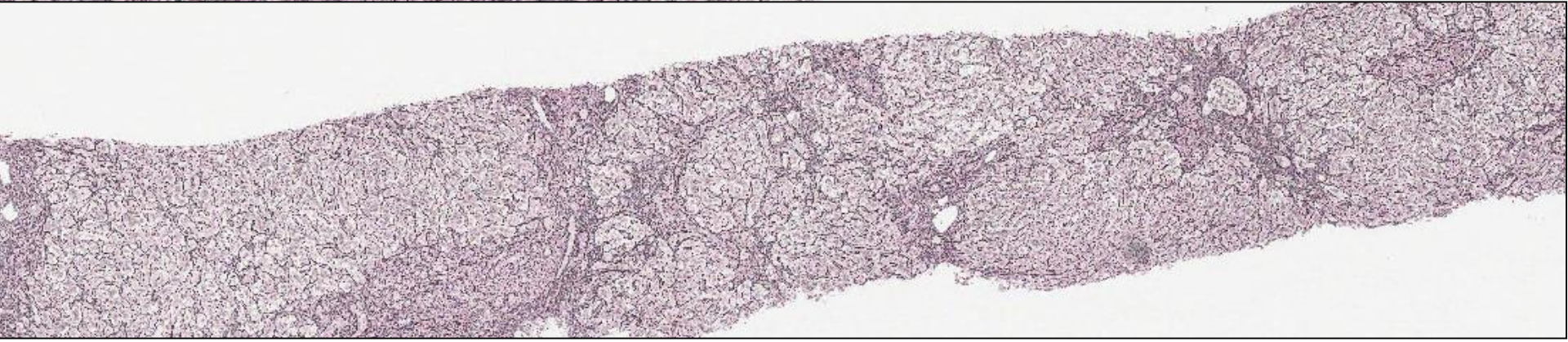
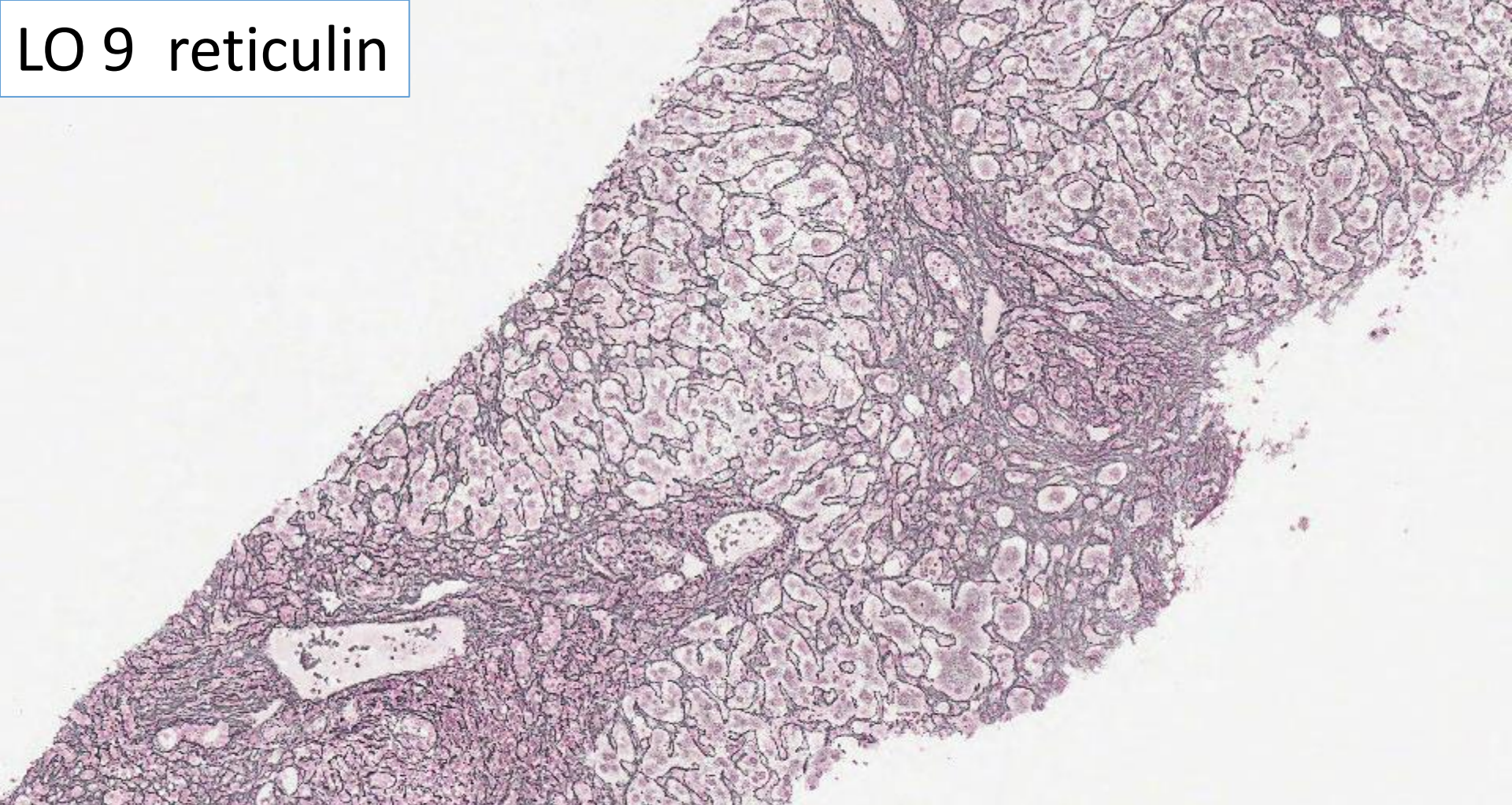
L09



LO 9 sirius red



LO 9 reticulin



Case LO9 Age 54, Female

RUQ pain, vomiting and jaundice. Partially resolved with recurrence of jaundice and deranged LFTs. ?autoimmune hepatitis. ANA and SMA +ve, Hep E -ve.

Hepatitis – not clear whether acute or chronic	21
Acute hepatitis	25
Subacute hepatitis	3
Chronic hepatitis with activity / acute on chronic hepatitis	31
Chronic hepatitis	2
“chronic active hepatitis with scarring”	1
Stage - Cirrhosis	2
Developing cirrhosis	3
Bridging fibrosis	23
Autoimmune hepatitis as only diagnosis	65
Autoimmune hepatitis as most likely, with differential	17
Differential diagnosis that includes AIH, not most likely	4
AIH with overlap with PSC	1
“acute hepatitic picture with interface hepatitis, cirrhosis, stage 6 ?drug, viral, ?? AIH”	1
Cholangiopathy with cholestasis and liver cell necrosis – AIH, is AMA	1

Half marks

no marks

Suggested scoring: Again insufficient consensus on acute v chronic hepatitis.

AIH was included in all responses in some way.

Score? Yes 8/10

? how to score responses where AIH was not the main or most likely diagnosis, diagnosis with biliary disease overlap, or two responses with unclear terminology.

Case LO9 Age 54, Female

RUQ pain, vomiting and jaundice. Partially resolved with recurrence of jaundice and deranged LFTs. ?autoimmune hepatitis. ANA and SMA +ve, Hep E -ve.

Hepatitis – not clear whether acute or chronic	21
Acute hepatitis	25
Subacute hepatitis	3
Chronic hepatitis with activity / acute on chronic hepatitis	31
Chronic hepatitis	2
“chronic active hepatitis with scarring”	1
Stage - Cirrhosis	2
Developing cirrhosis	3
Bridging fibrosis	23
Autoimmune hepatitis as only diagnosis	65
Autoimmune hepatitis as most likely, with differential	17
Differential diagnosis that includes AIH, not most likely	4
AIH with overlap with PSC	1
“acute hepatic picture with interface hepatitis, cirrhosis, stage 6 ?drug, viral, ?? AIH”	1
Cholangiopathy with cholestasis and liver cell necrosis – AIH, is AMA elevated?”	1

LO9: Final scoring agreed at meeting:

For full marks, need to include autoimmune hepatitis as only, favoured or equal diagnoses.

Half marks if AIH is included but not most likely, or for overlap with biliary disease.

No marks if autoimmune hepatitis is not mentioned. No marks for diagnoses of

“cholangiopathy with cholestasis and liver cell necrosis”. Insufficient consensus on acute v

chronic to include in scoring.

Asha Dube: Masterclass

Diagnosing autoimmune hepatitis –

LO8 and LO9:

- Similar cases.
- Lot of inflammation with cellular ballooning – appearance of an acute hepatitis.
- Lots of cell loss with collagen deposited on the Sirius Red stain.

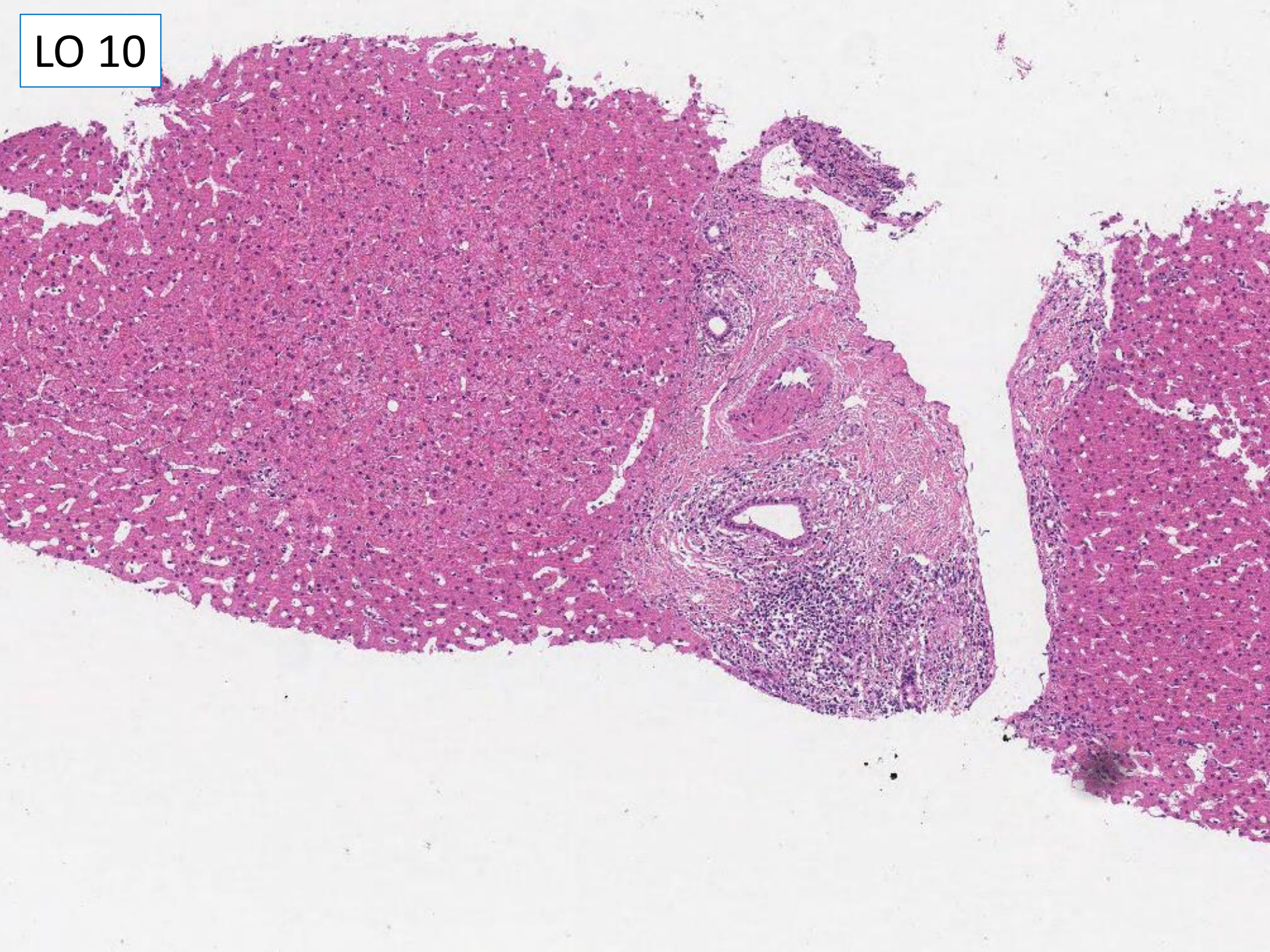
The PowerPoint and video presentation are on the CPD page, 2016 update meeting, Cheltenham

Case LO10 Age 51, Female

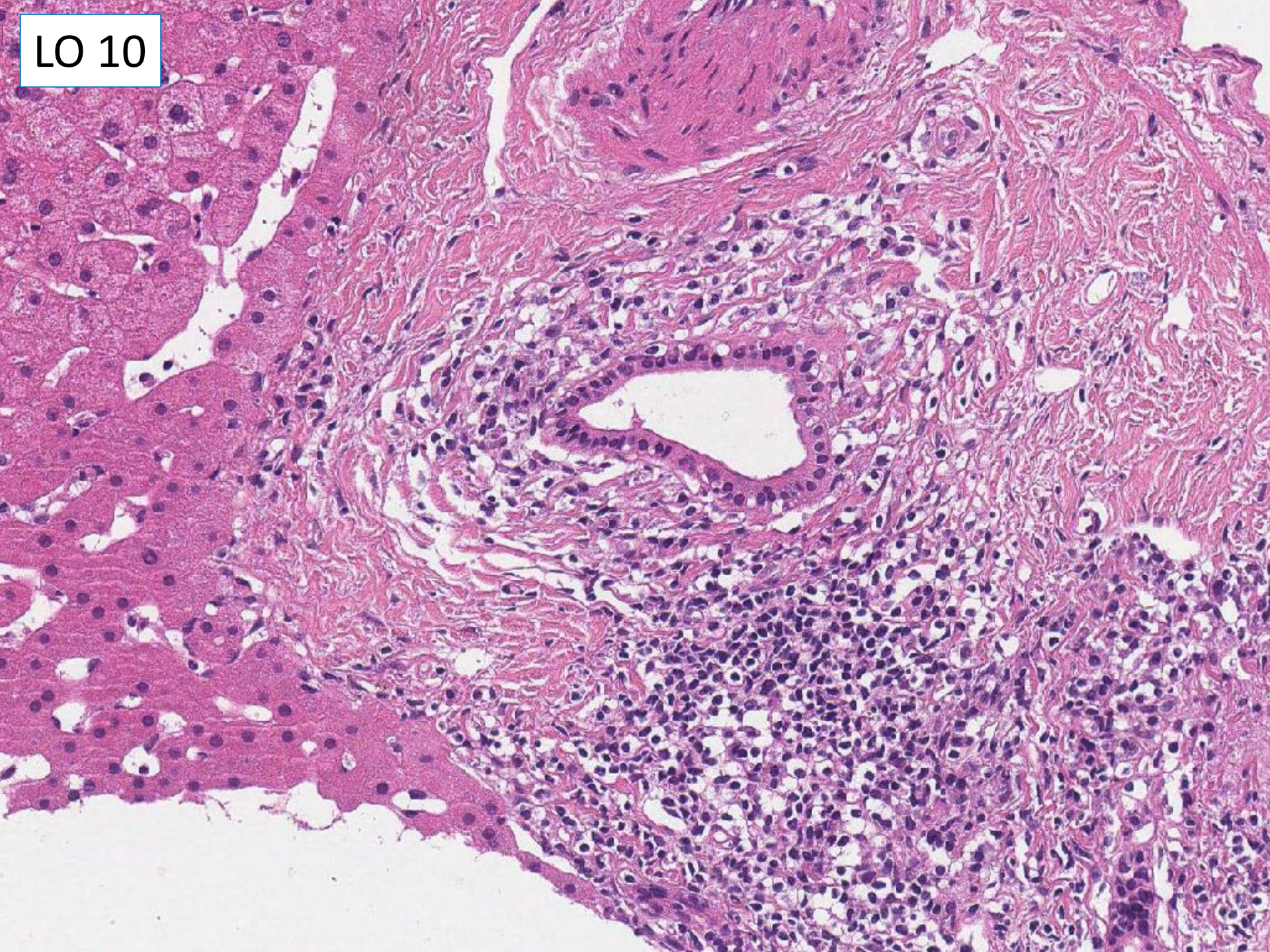
abnormal liver function tests. elevated alk p'ase. positive AMA; elevated IgM IgG normal.



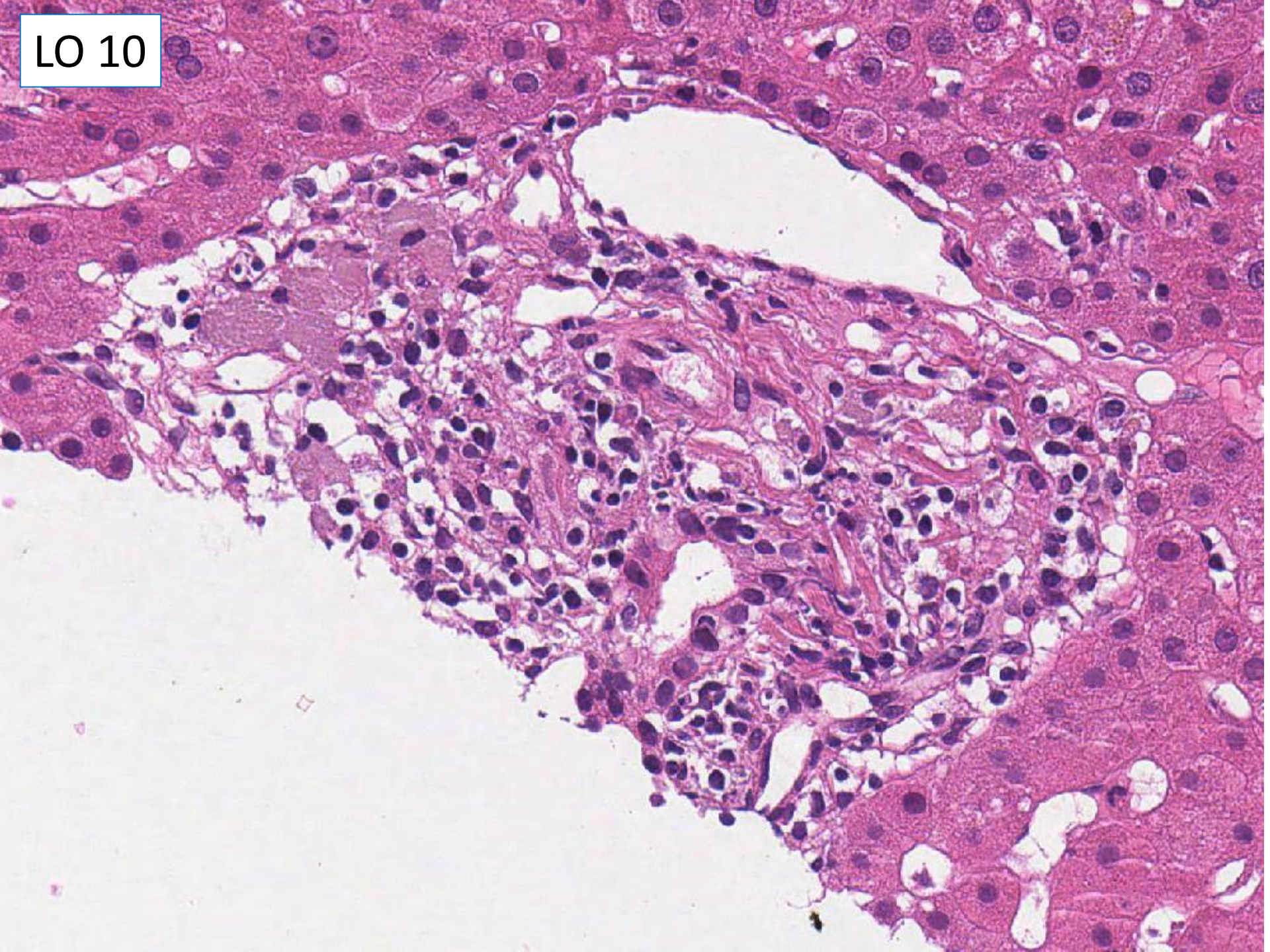
LO 10



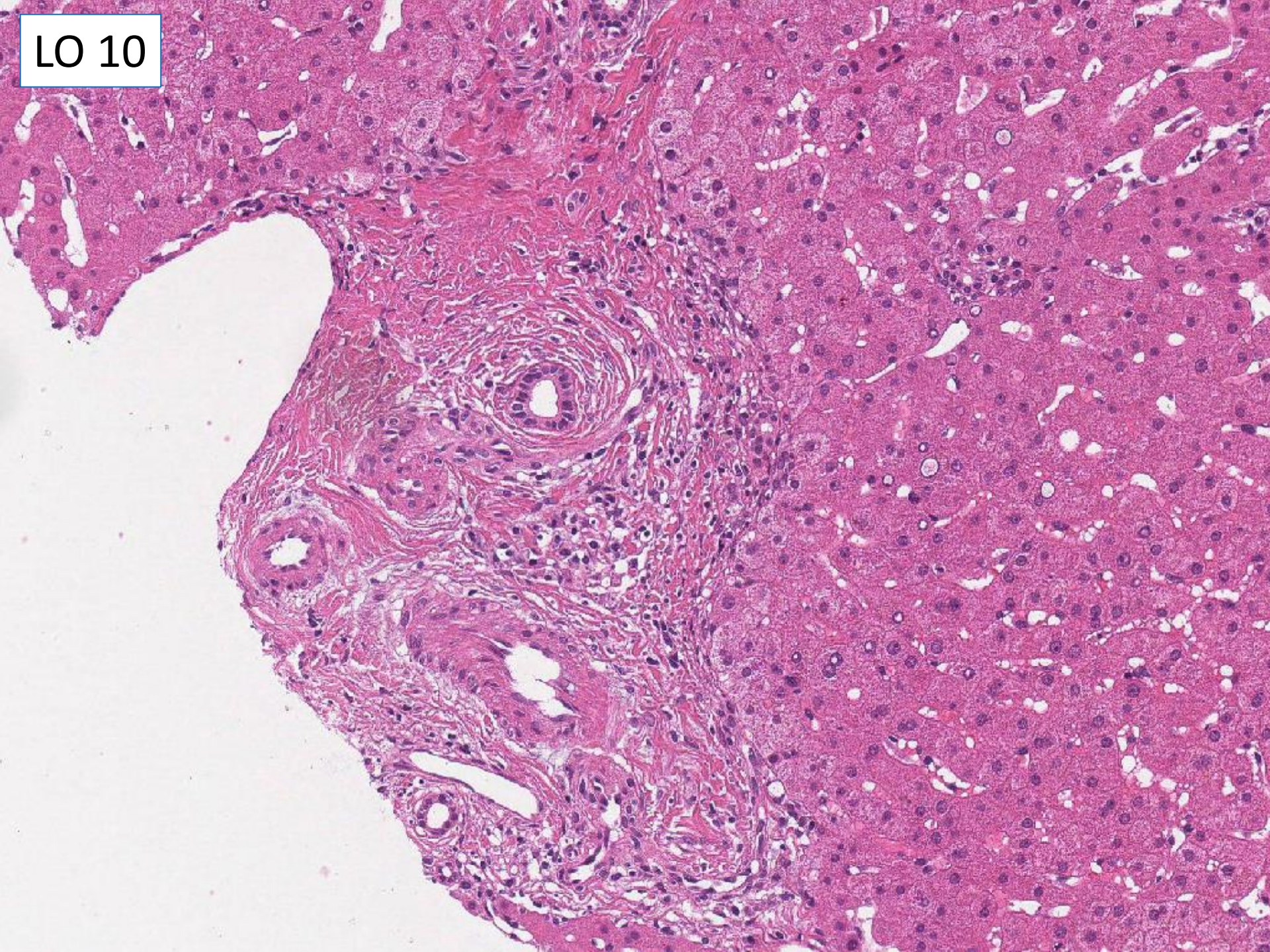
LO 10



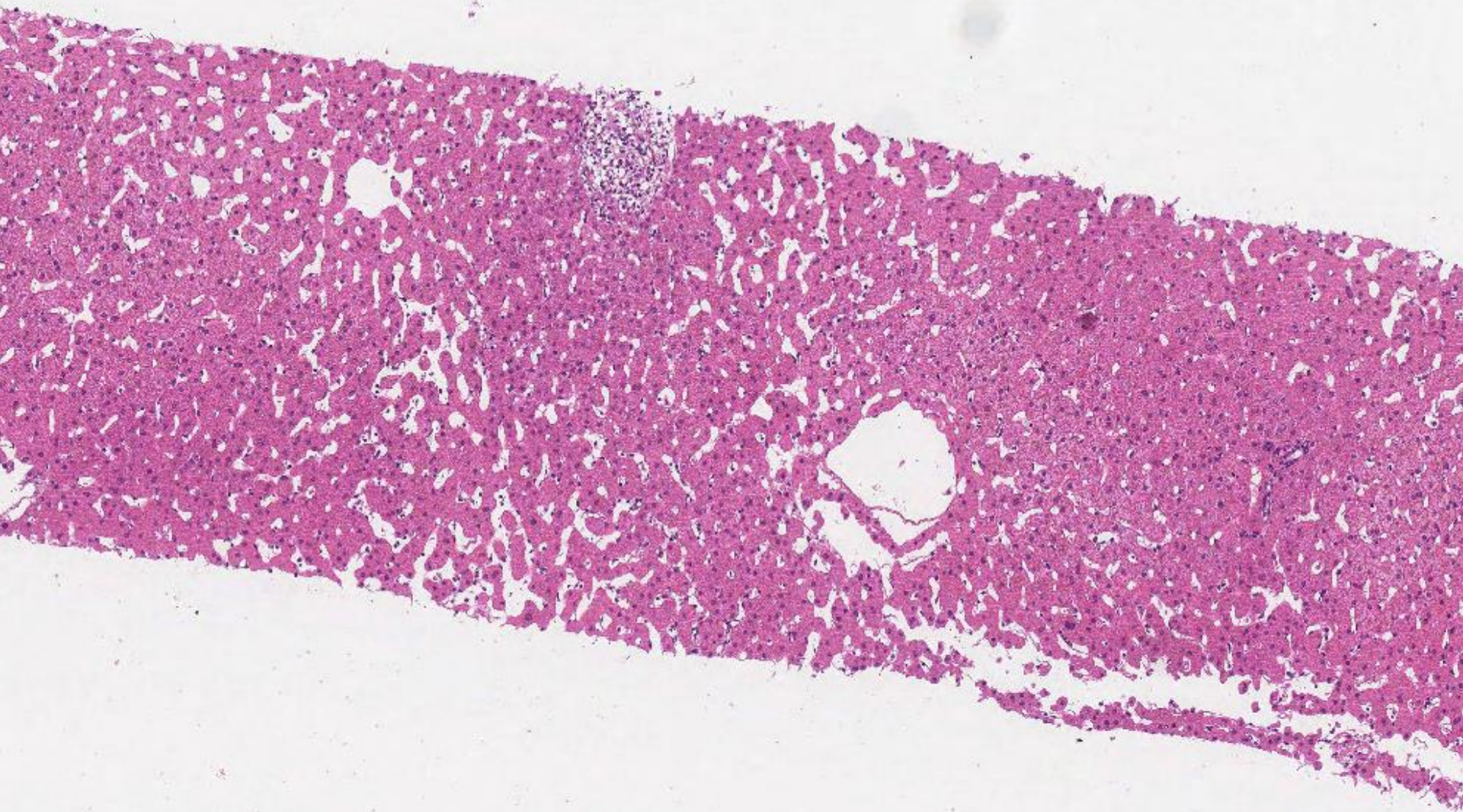
LO 10



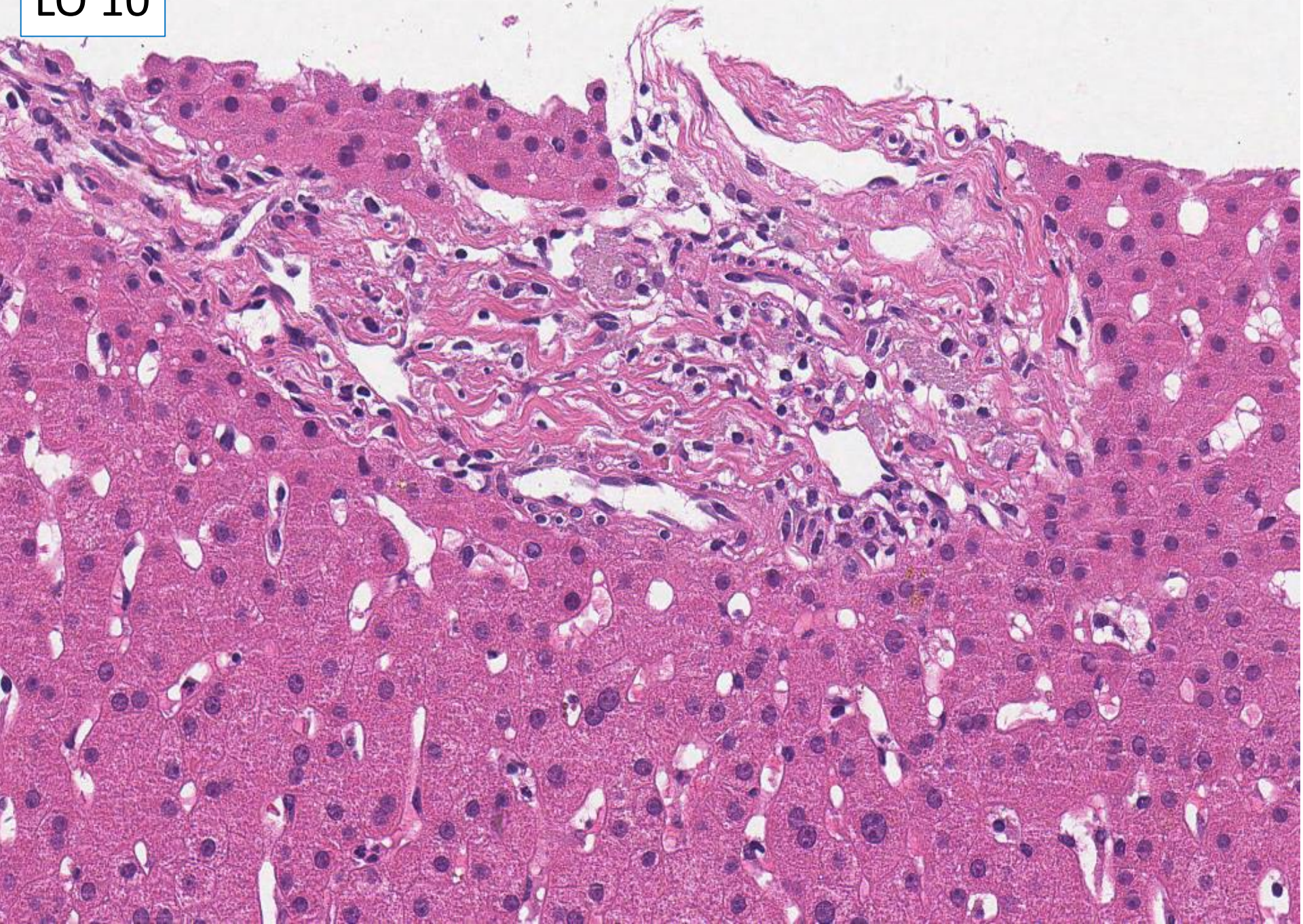
LO 10



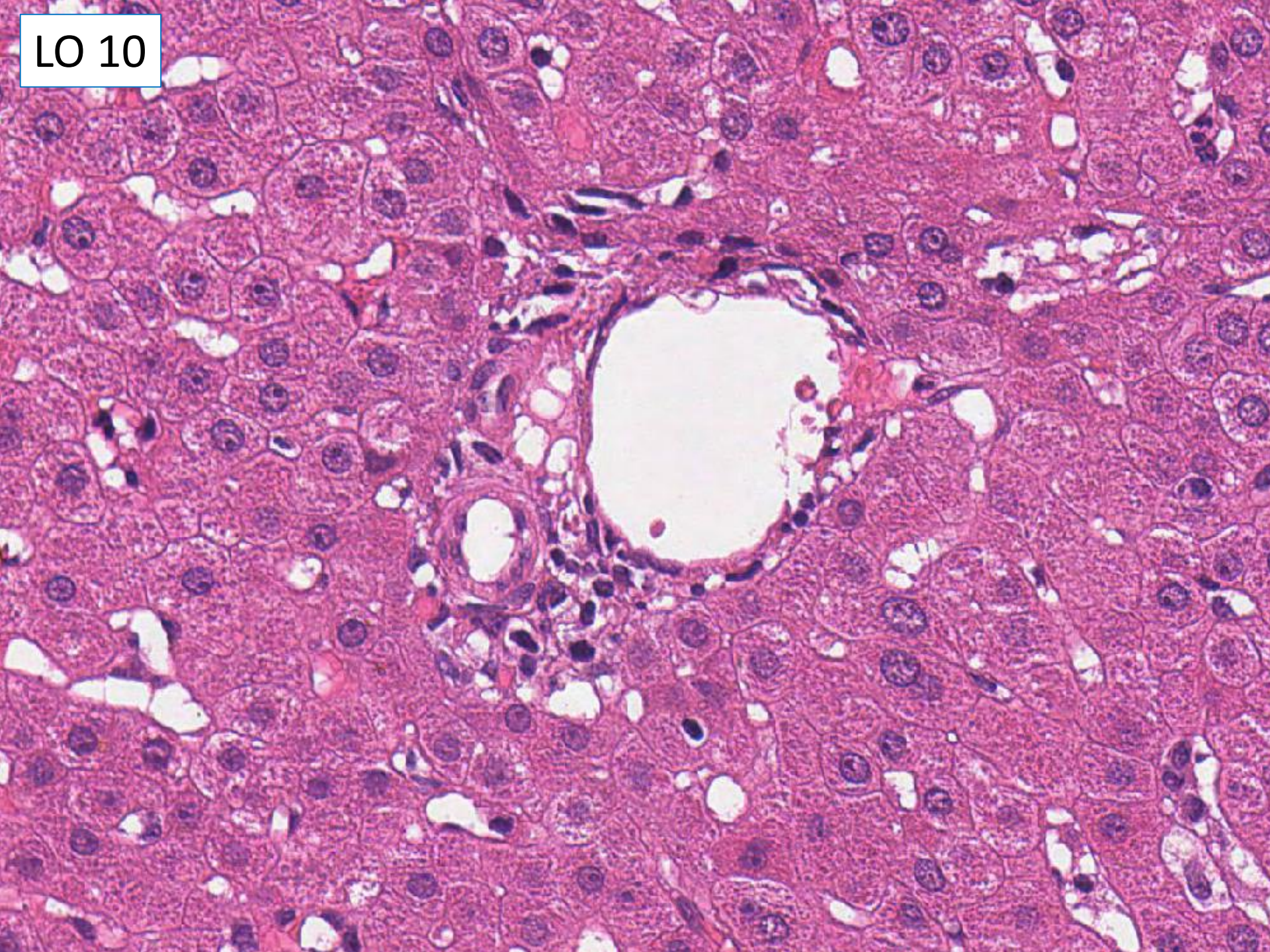
LO 10



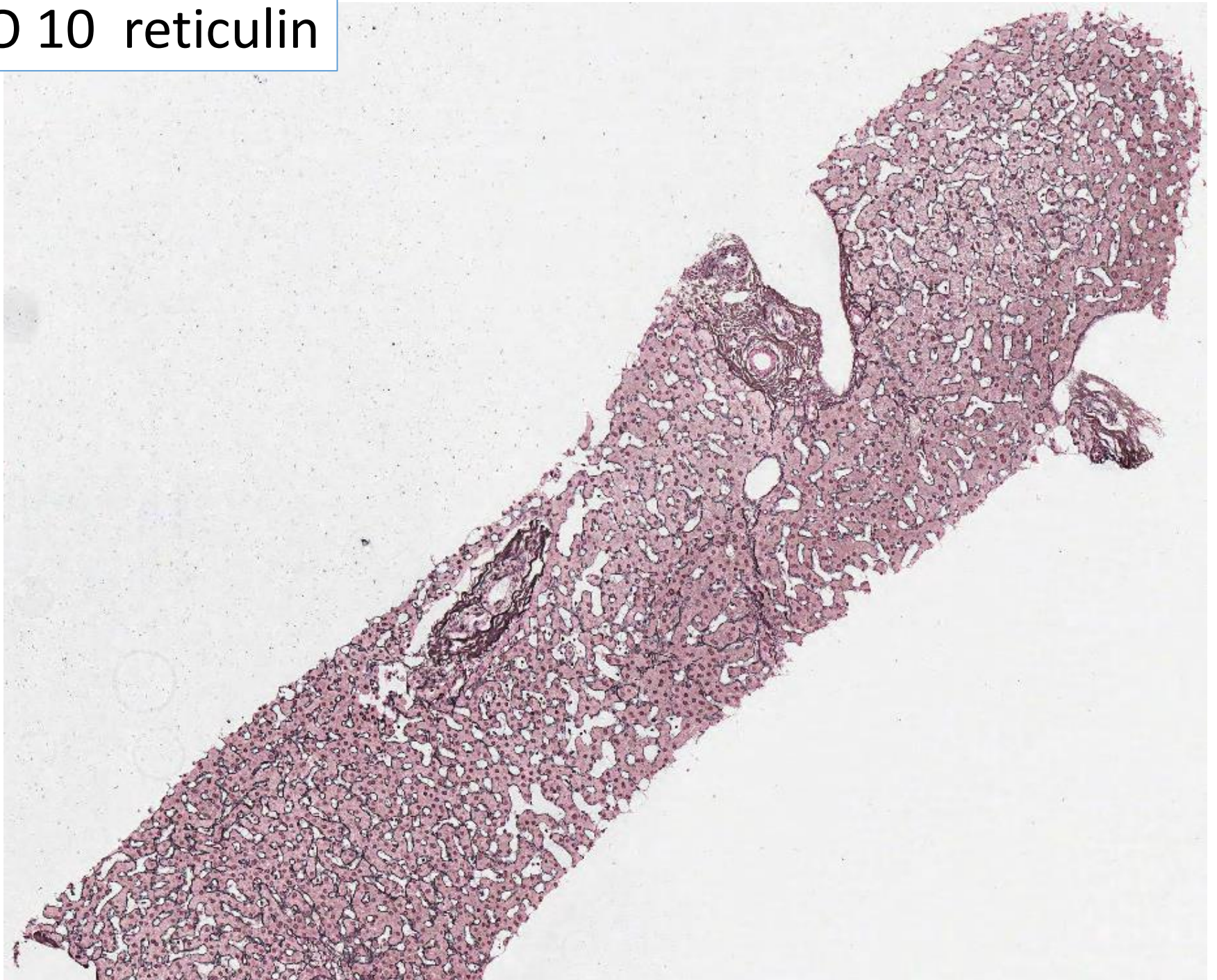
LO 10



LO 10



LO 10 reticulin



LO 10 Masson trichrome



Case LO10 Age 51, Female

abnormal liver function tests. elevated alk p'ase. +ve AMA;
elevated IgM IgG normal.

PBC using any terminology	79
Of which primary biliary cirrhosis	32
primary biliary cholangitis	23
primary biliary cholangiopathy	1
Non-specific, consistent with primary biliary cirrhosis	1
Possible PBC not classical	1
Chronic hepatitis, exclude chronic biliary disease, PSC, PBC	1
Primary sclerosing cholangitis	5
Comments:	
Do CK7	10
Do orcein	19
Stage not mentioned	Half marks 13
Stage – early/no or focal portal fibrosis/Scheuer or Ludwig stage given	58
Portal fibrosis	15

Suggested scoring: For full marks, a clear diagnosis of PBC.

? Lose marks if no comment on the stage

The reason for taking the biopsy is not stated – raised alk phos and AMA are sufficient for diagnosis of PBC, unless there are confounding factors. Perhaps done for staging, which should be included in any chronic liver disease. However there are various staging systems for PBC which include features beyond just fibrosis.

Case LO10 Age 51, Female

abnormal liver function tests. elevated alk p'ase. +ve AMA;
elevated IgM IgG normal.

PBC using any terminology	79
Of which primary biliary cirrhosis	32
primary biliary cholangitis	23
primary biliary cholangiopathy	1
Non-specific, consistent with primary biliary cirrhosis	1
Possible PBC not classical	1
Chronic hepatitis, exclude chronic biliary disease, PSC, PBC	1
Primary sclerosing cholangitis	5
Comments:	
Do CK7	10
Do orcein	19
Stage not mentioned	13
Stage – early/no or focal portal fibrosis/Scheuer or Ludwig stage given	58
Portal fibrosis	15

LO10: Final scoring agreed at meeting:

For full marks, need a clear diagnosis of PBC and some comment on stage.

Half marks if uncertainty about diagnosis, not typical of PBC.

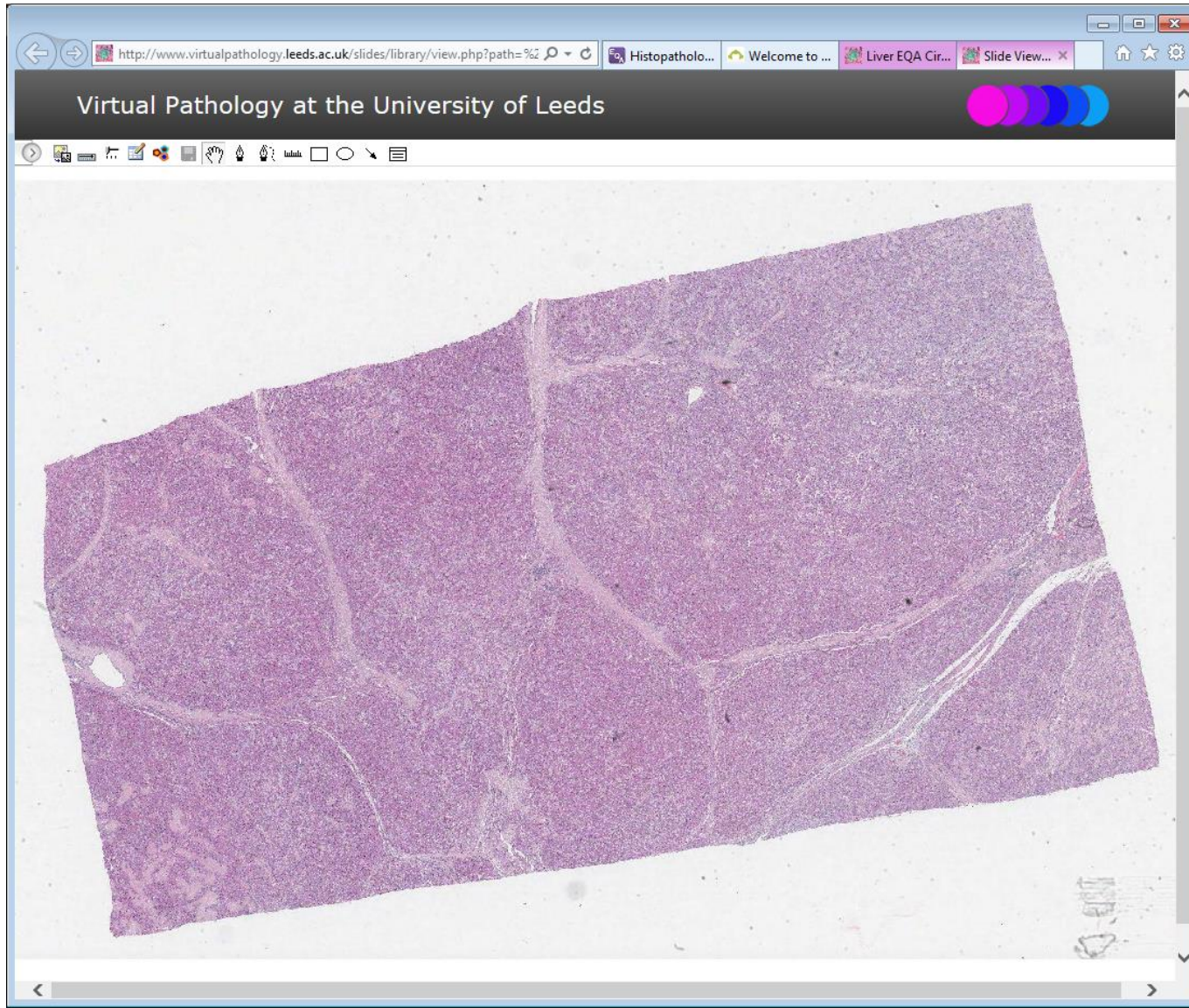
No marks if no mention of PBC but diagnosis is PSC.

Half marks if no indication of disease stage.

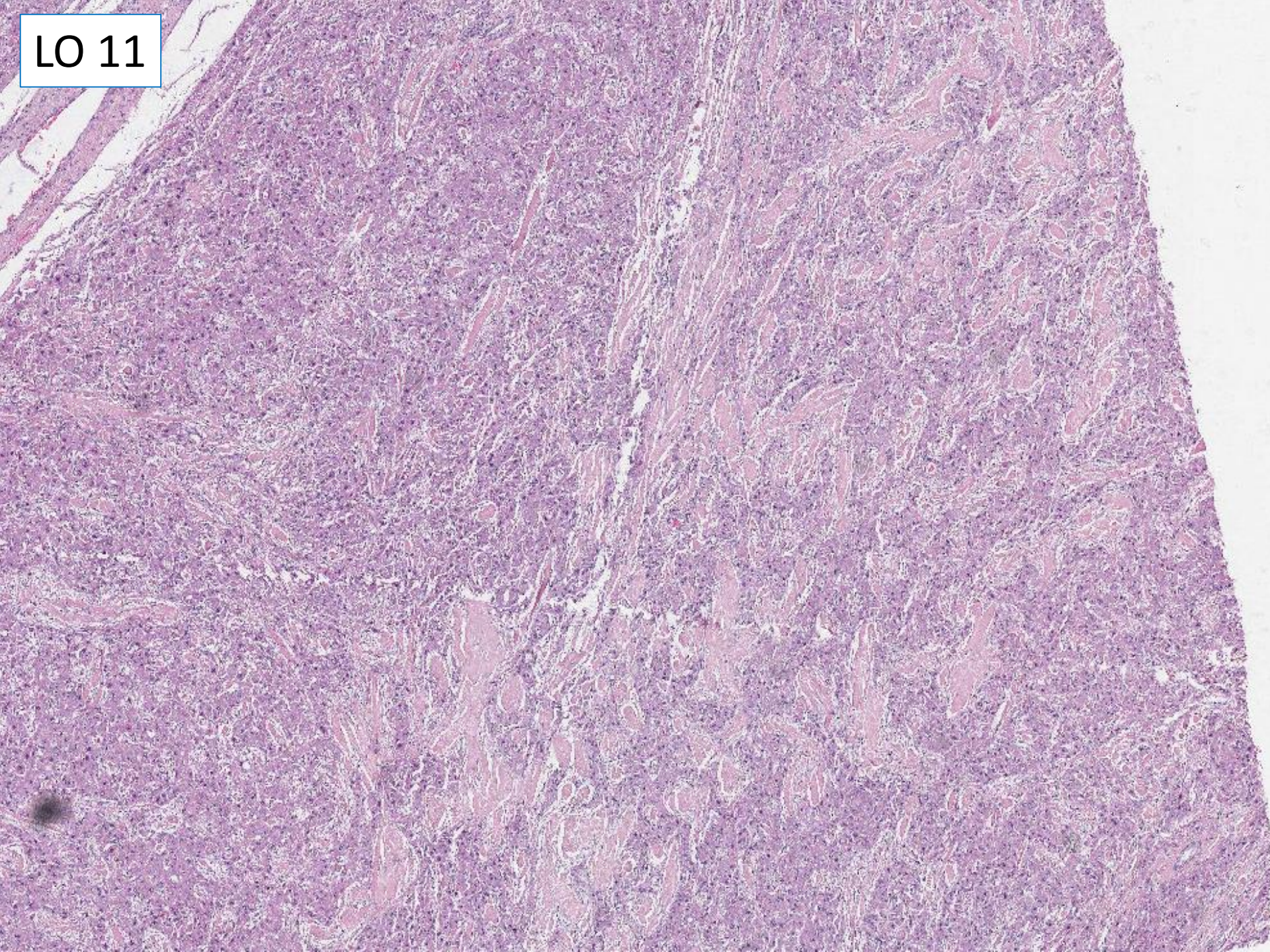
Case LO11

Age 21, Male

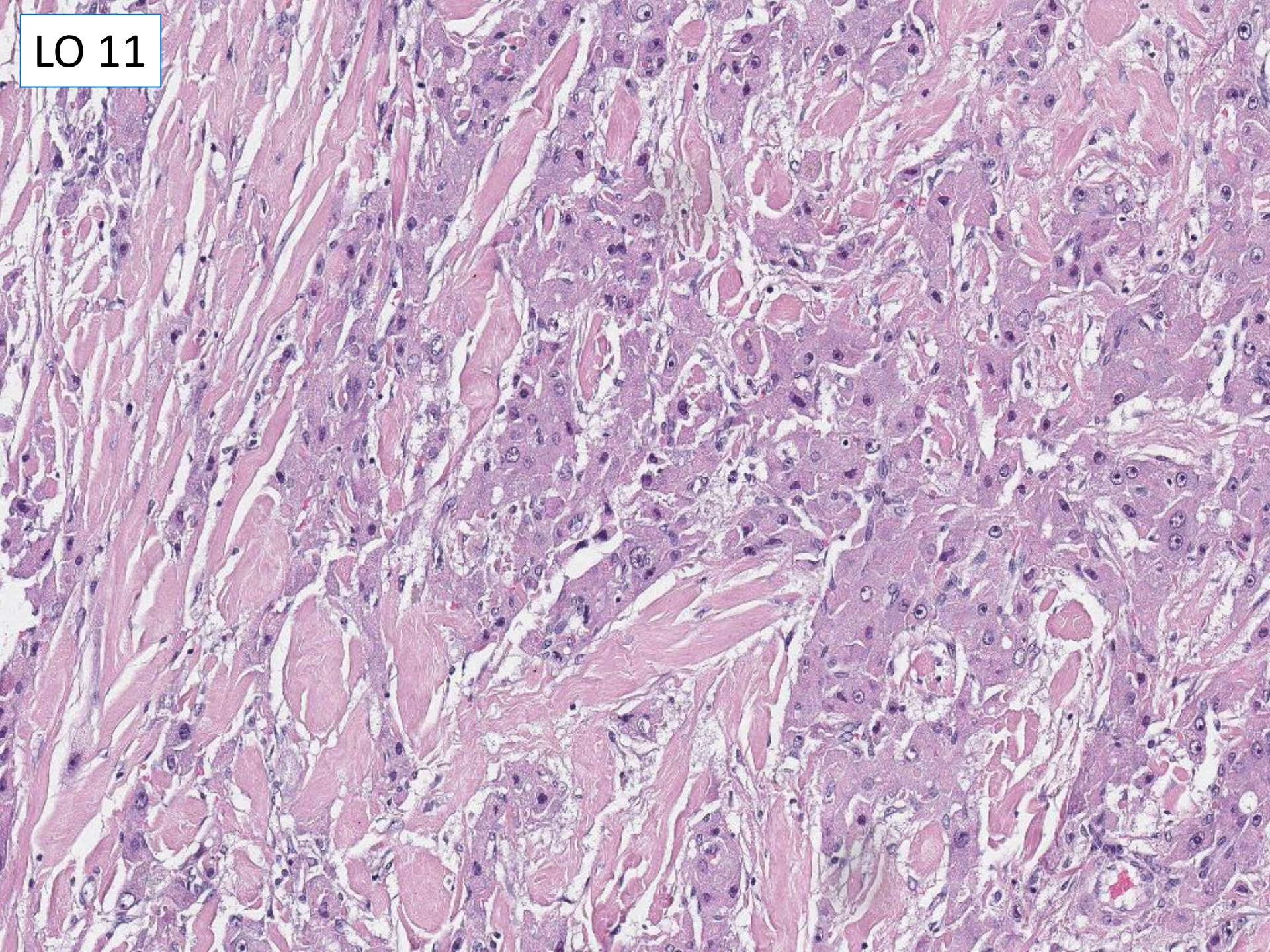
Right hemihepatectomy. 1281g hemi-hepatectomy specimen containing two tumours with variable fibrosis/ calcification, 129mm in maximum dimension. No macroscopic involvement of vessels. 5mm from resection margin. One uninvolved cystic duct node.



LO 11



LO 11



Case LO11 Age 21, Male

Right hemihepatectomy. 1281g hemi-hepatectomy specimen.
Two tumours with variable fibrosis/ calcification, 129mm diam.

Hepatocellular carcinoma, fibrolamellar type	86
HCC ? fibrolamellar type	1
<i>Mention of IHC including CD68</i>	2

Suggested scoring: all score full marks

LH11: Final scoring agreed at meeting:

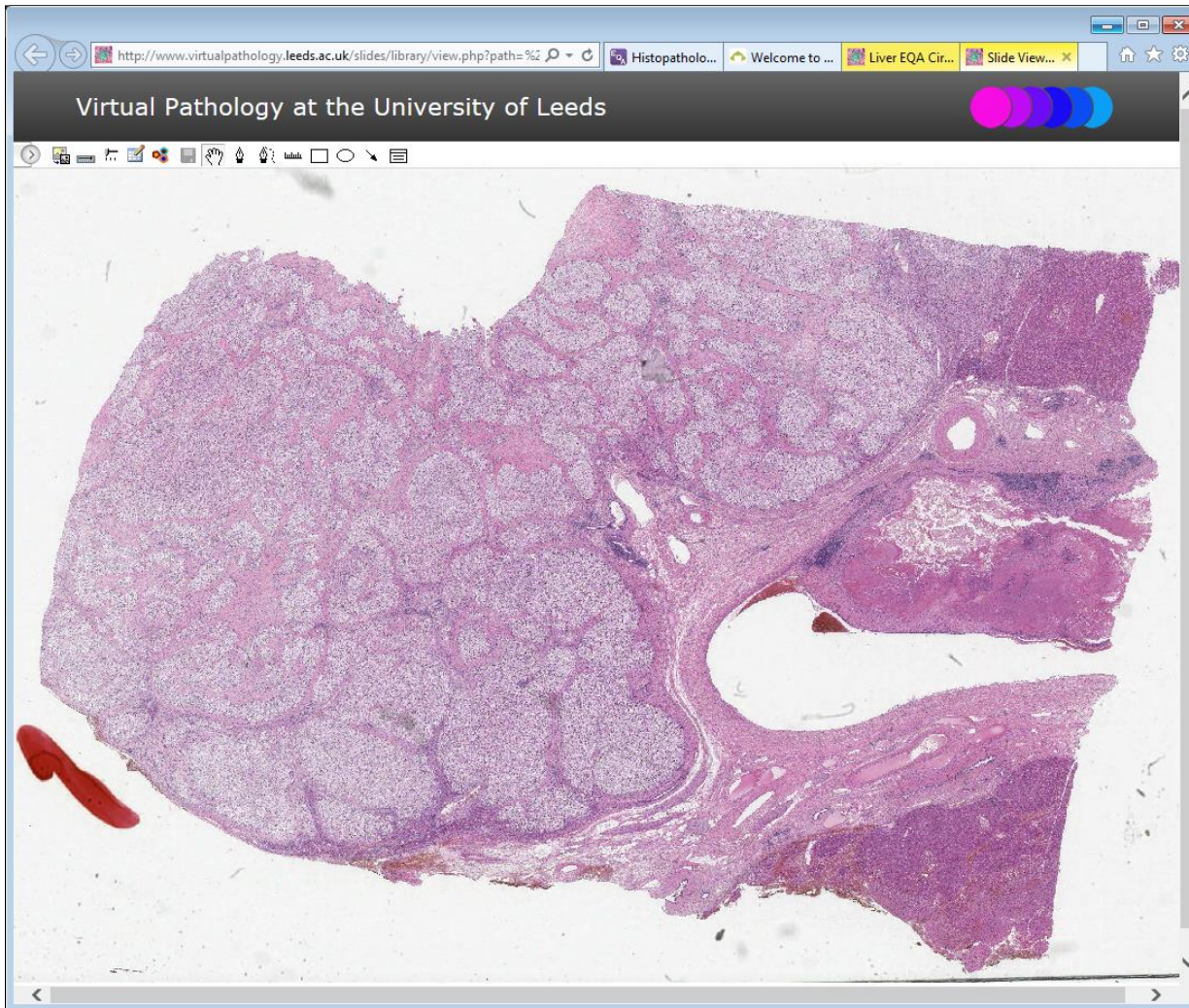
for full marks: diagnosis of fibrolamellar
hepatocellular carcinoma.

All score full marks.

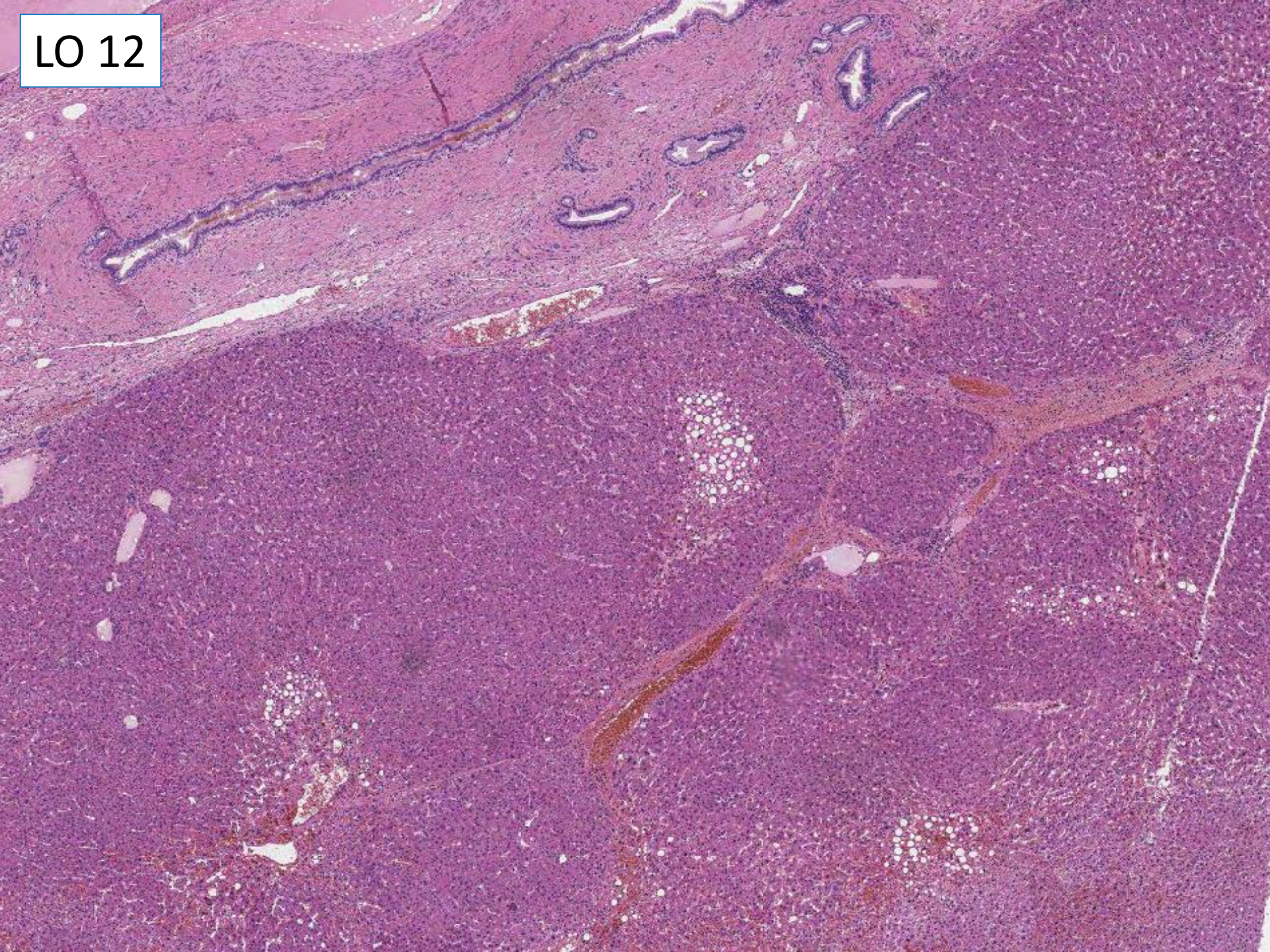
Case LO12

Age 76, Male

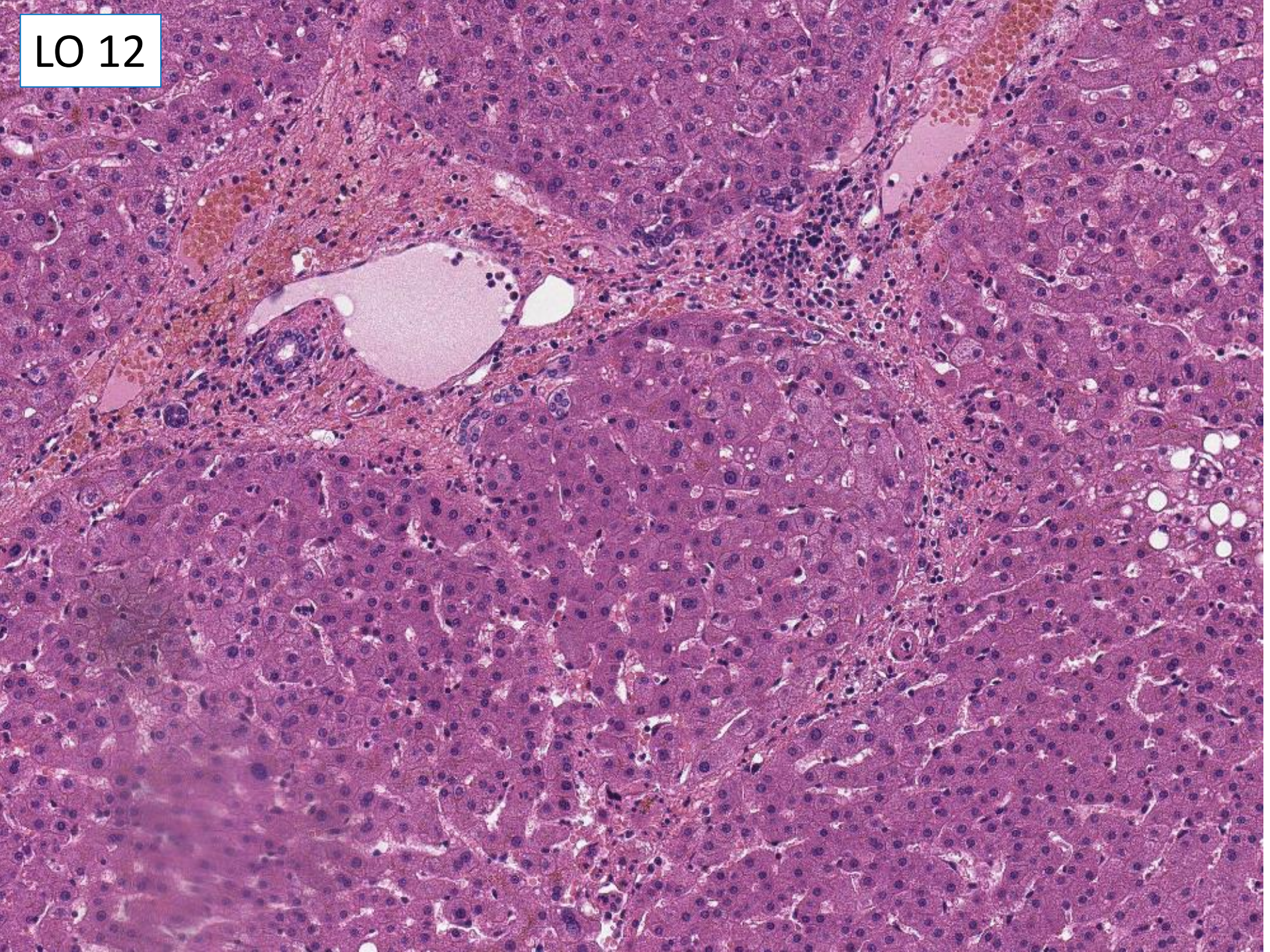
hepatitis B, not known to be cirrhotic, but on HCC surveillance due to age and viral load. USS showed 4cm lesion. AFP is 7. Right hepatectomy 637g, containing 50mm subcapsular white solid tumour adjacent to surgical margin. Solid material in portal vein. Meets EASL criteria for HCC.



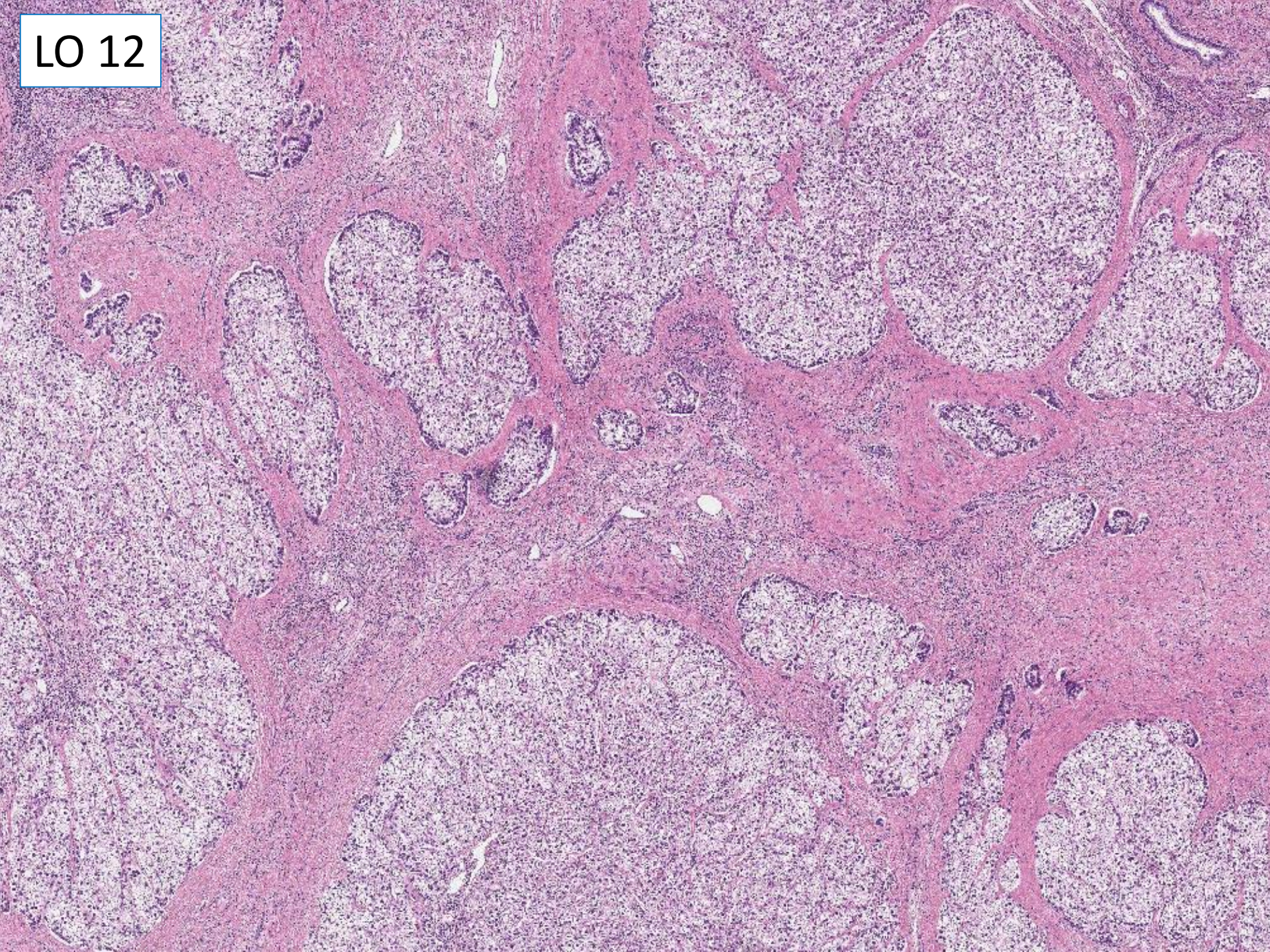
LO 12



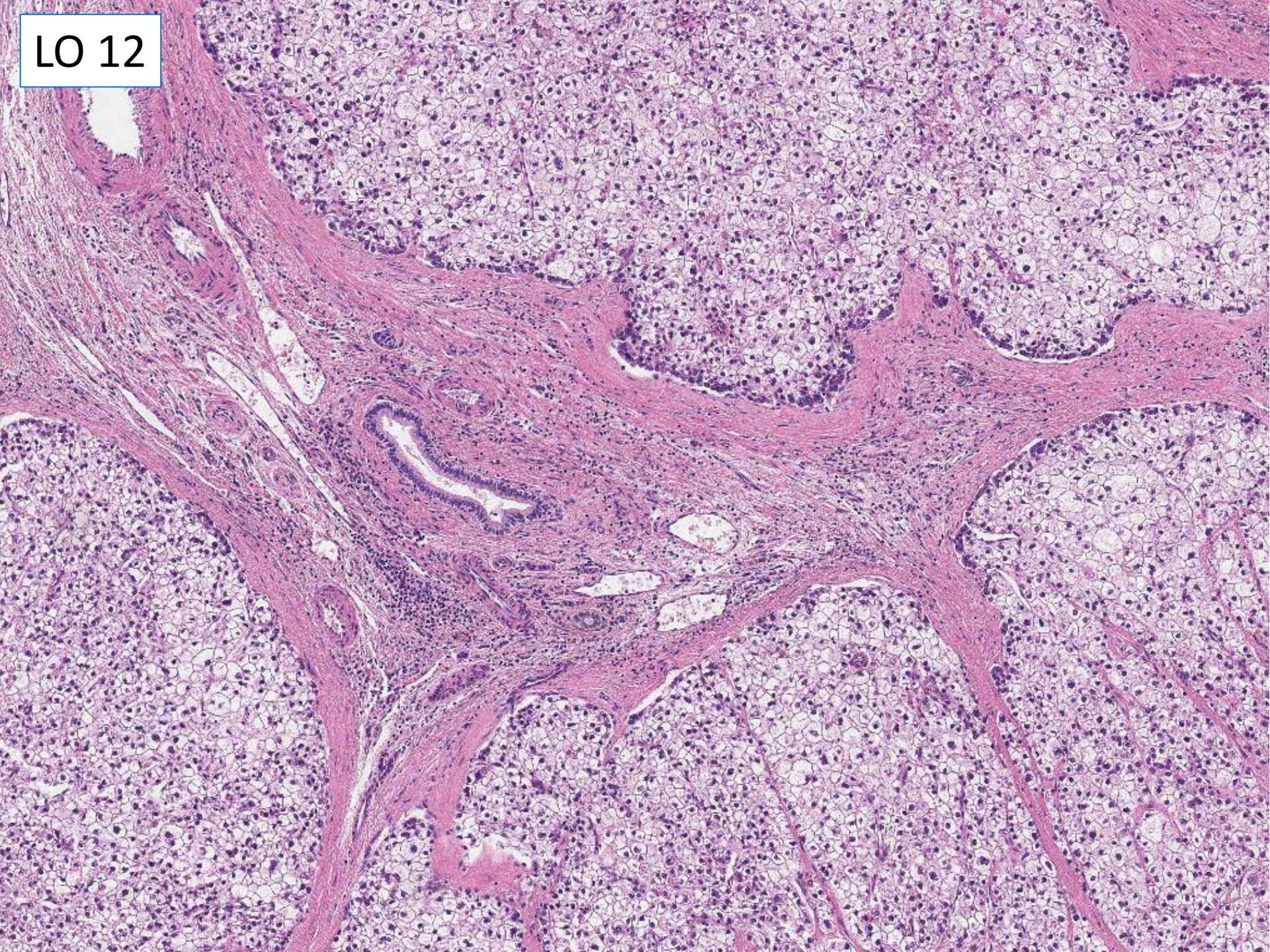
LO 12



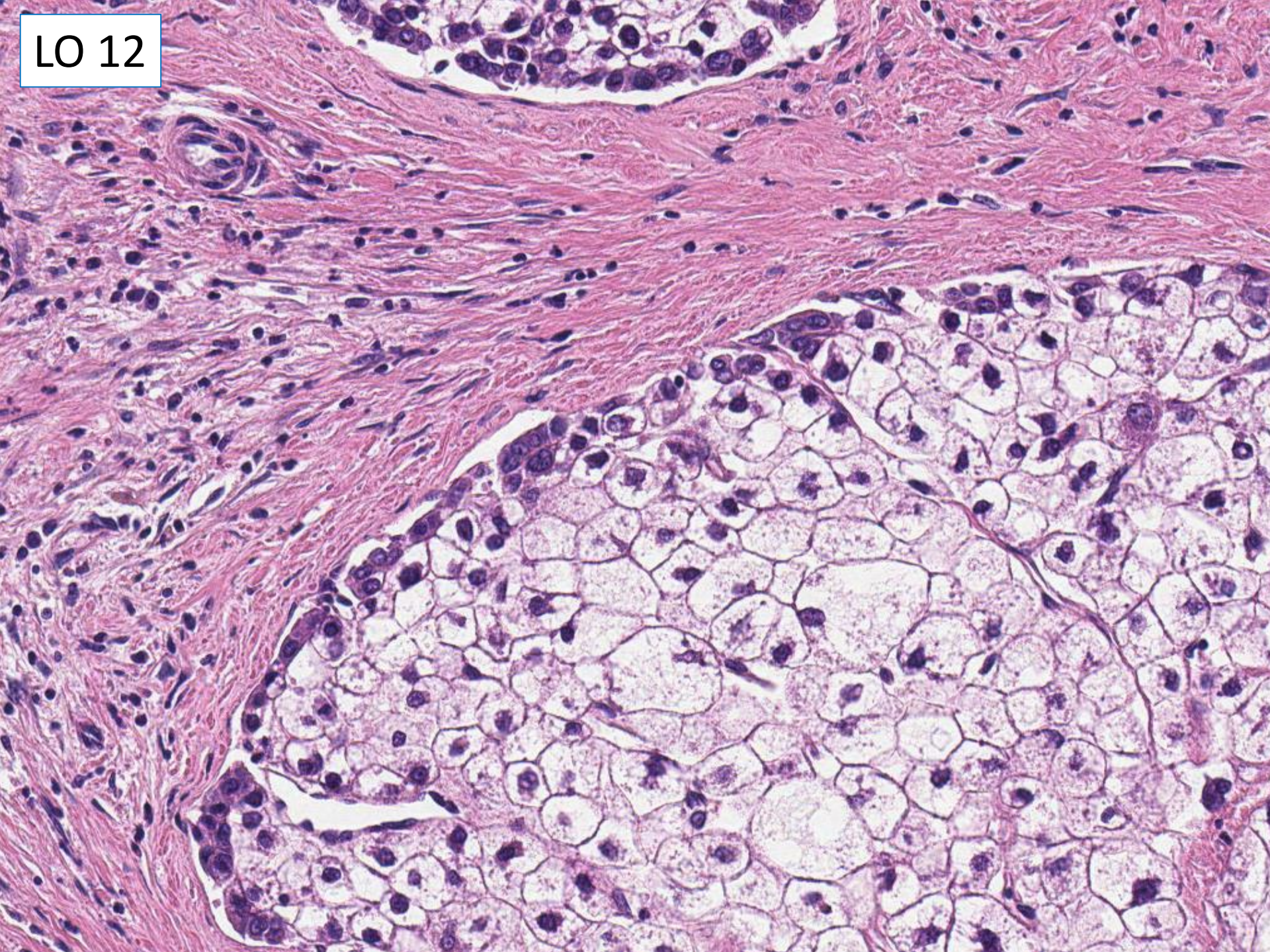
LO 12



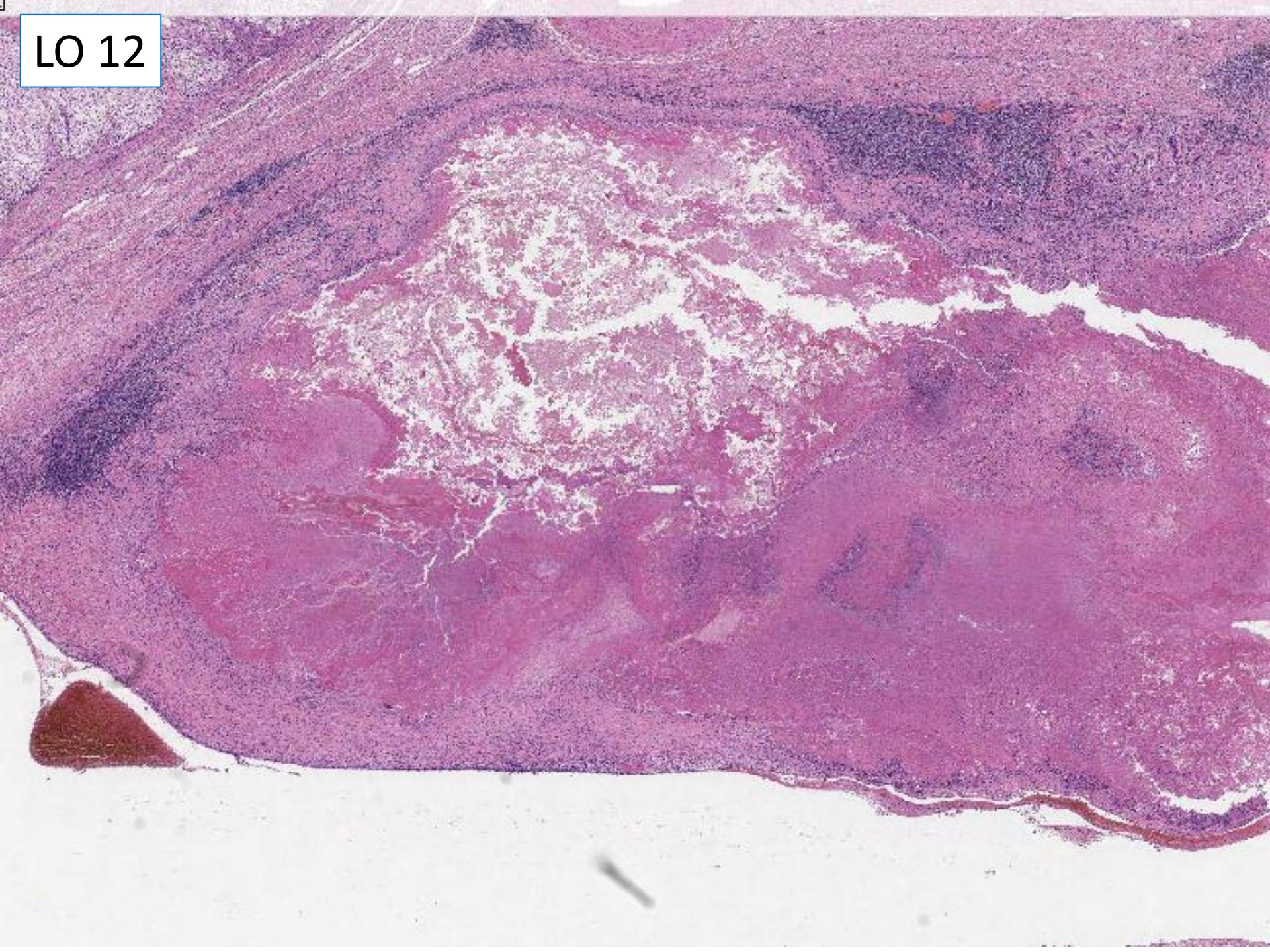
LO 12



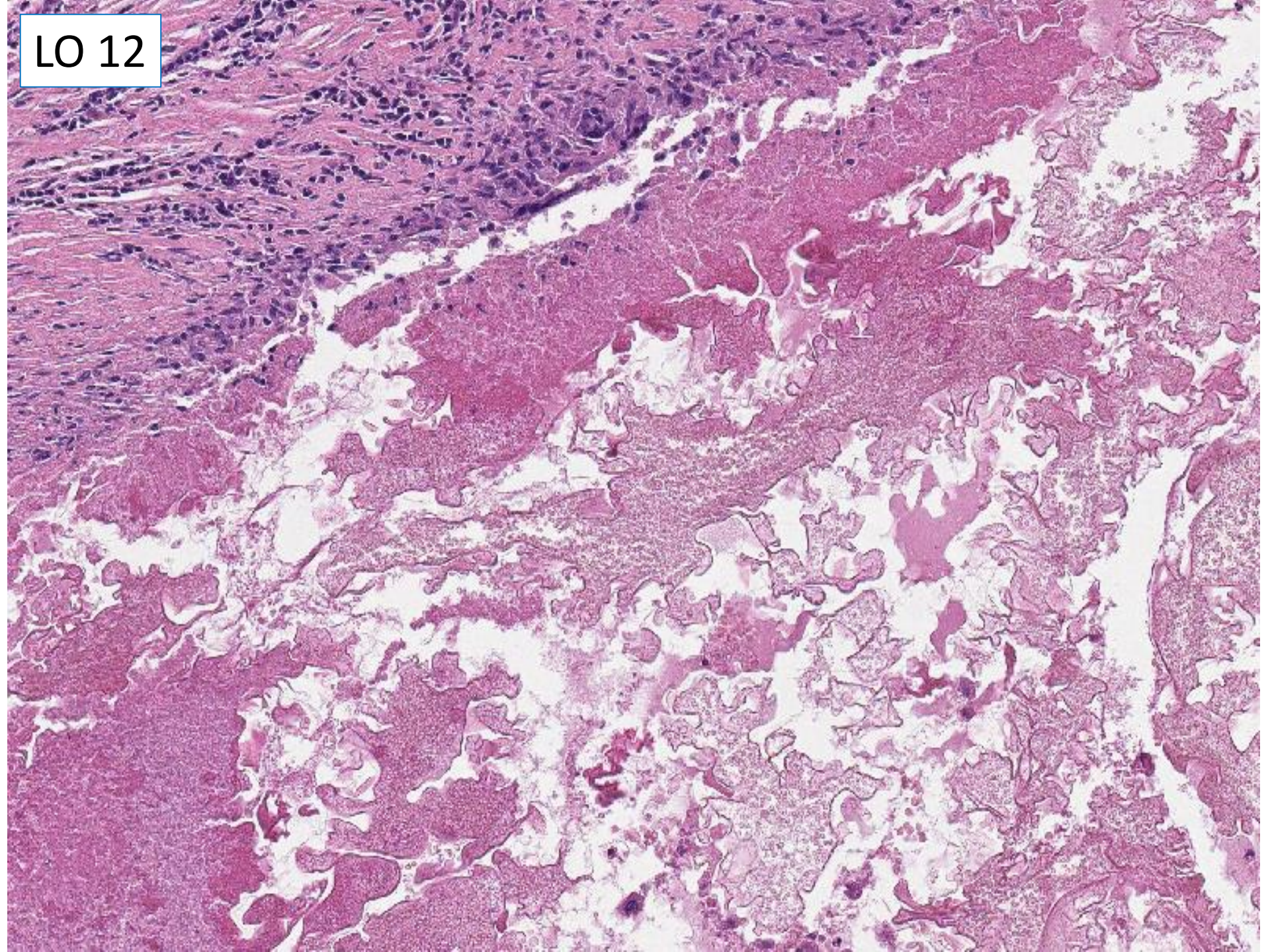
LO 12



LO 12



LO 12



Case LO12 Age 76, Male

hepatitis B, HCC surveillance USS showed 4cm lesion. AFP is 7. Solid material in portal vein. Meets EASL criteria for HCC.

Hepatocellular carcinoma, clear cell type, needs IHC to confirm	61
Clear cell carcinoma, either primary or secondary, needs IHC	5
Hepatocellular carcinoma – definite diagnosis, doesn't mention IHC	15
Favour renal cell over HCC, needs IHC	3
Ischaemic change in focal nodular hyperplasia rather than HCC	1
Metastatic clear cell carcinoma ? renal – HCC not mentioned	1
Metastatic clear cell carcinoma ? renal needs IHC but HCC not mentioned	1
Clear cell hepatocellular adenoma and ? parasitic infection hydatid	1
<i>Of HCC ? stem cell, would do CK19</i>	6
Background not mentioned	35
Background insufficient for assessment	1
Background steatosis and/or fibrosis	20
Non-cirrhotic	8
Cirrhosis, probable, early	7
Portal vein embolization	21
Granulomatous reaction to necrotic material in vein	9
Necrotic tumour in portal vein	2
Portal vein thrombosis	1

Half marks

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Suggested scoring:

for full marks – hepatocellular carcinoma, +/- IHC to confirm the diagnosis.

Lose half marks if HCC is not most likely, but IHC is included.

No marks if other diagnosis, HCC not included and no IHC mentioned.

We normally look for a comment on the background liver, but there was little present in this case, and insufficient comment to use this for scoring. Most thought there wasn't cirrhosis.

Very few commented on features of hepatitis B (given in clinical details – explains why this patient is having surveillance for HCC).

There was evidence of prior portal vein embolization.

The portal vein was clearly commented on by 33, of which 2 considered this was necrotic tumour in the portal vein. **This could affect the staging (if large portal vein) – should marks be deducted**

LH12; Final scoring agreed at meeting:

For full marks: hepatocellular carcinoma +/- IHC to confirm.

Half marks if HCC included in differential diagnosis but not favoured.

No marks if no mention of HCC.

Portal vein embolization included by some, but insufficient for scoring – however if stated 'necrotic tumour in portal vein' this is a misdiagnosis and lose half marks.

Insufficient comment on background liver for this to be scored.

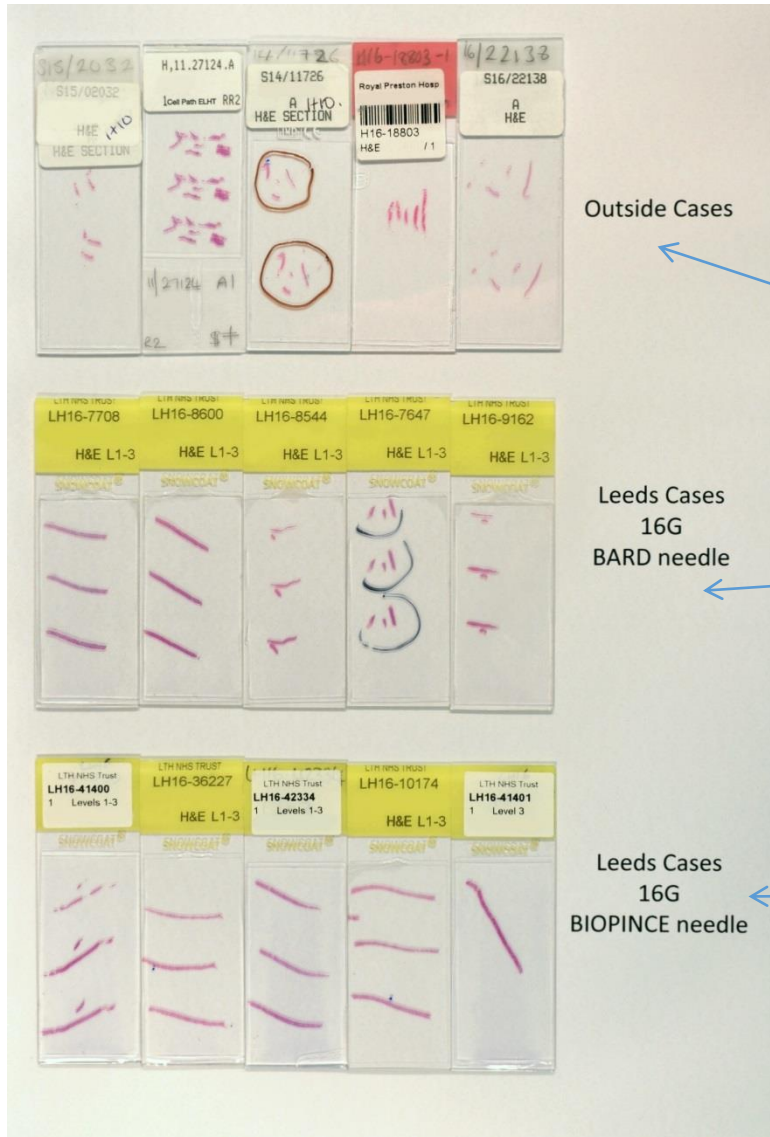
Making biopsies better

Need >16mm of 16G needle to get sufficient tissue

Sent in from other hospitals
Often fragmented and small

Before April 2016 in Leeds
16G, but sometimes not enough

Since April 2016
– good sample every time



The end