

EQA LX

Cases 1 to 3. For UKLPG update
meeting 9.12.21

EQA steering committee

- Quality subcommittee of UKLPG, Rachel Brown, Paul Kelly, Adrian Bateman, Rosa Miquel, Judy Wyatt, Sue Davies, Anshu Awasthi. Welcoming new members.
- Meet to analyse responses to find points of consensus (80%), propose scoring criteria. Present cases to members.

Introduction

Thanks! 86 out of 116 participated, slightly down on previous (non ranking) circulation.

New things:

1. One virtual meeting per year and one as part of the annual November/December update day.
2. Digital slides.
3. Dropdown menus for responses.

EQA aims

- Artificial exercise
- Good for ticking appraisal/revalidation boxes!
- Self reflection
- Educational, pattern, severity (stage), aetiology approach referencing RCPATH Tissue Pathways (section 8.1 appendix C)
- Report, not harmful, and ideally useful ! to the patient that any hepatologist anywhere in the country understands

- **Please send cases! 3 x H&E plus relevant specials**
- No need to use all the boxes!

Your Diagnosis

1. Please select either 'No tumour/lesion present' or choose the best option for the lesion you think is present. You can add a second option if two lesions are present (BOTH need to be present this is NOT to give a differential diagnosis) - otherwise leave the second box blank.

- No tumour/lesion present

*** Please Select ***

2. Non-lesional assessment (includes background liver, if sufficiently represented, in a section of a lesion). Please select the best option for the pattern of injury (see RCPATH tissue pathways appendix C). Use any available special stains. You can add a second option if two patterns are present (BOTH need to be present this is NOT to give a differential diagnosis) - otherwise leave the second box blank.

steatohepatitis

*** Please Select ***

3. **Architecture/Stage** as RCPATH tissue pathway. If there is a connective tissue stain this is expected to be completed. You may still offer a stage on an H&E if you wish/feel it is appropriate. Include background liver if sufficient, in a section with a lesion.

advanced fibrosis with bridging and nodularity/cirrhosis

4. **Favoured diagnosis** take account of available clinical information. Tumour diagnosis will have been given in section 1, if applicable use this for background diagnosis. You can add a second option if two diagnoses are suggested (BOTH need to be present this is NOT to give a differential diagnosis) - otherwise leave the second box blank.

fatty liver disease - alcohol related liver disease

*** Please Select ***

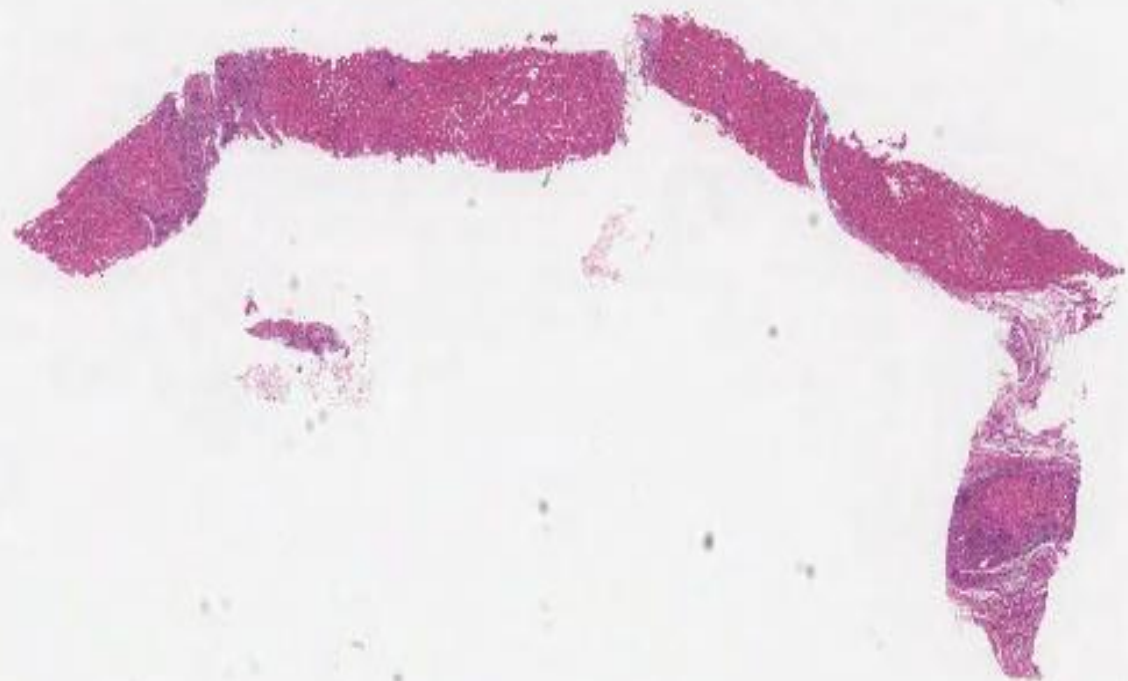
Comments (maximum 200 characters) relevant to the diagnosis that will be read by the collators and **can be used in the scoring**. Use this every time you select 'other' from any of the four lists, or an option with 'please specify'. Also if you need to qualify the description/diagnosis terminology in the drop down list.

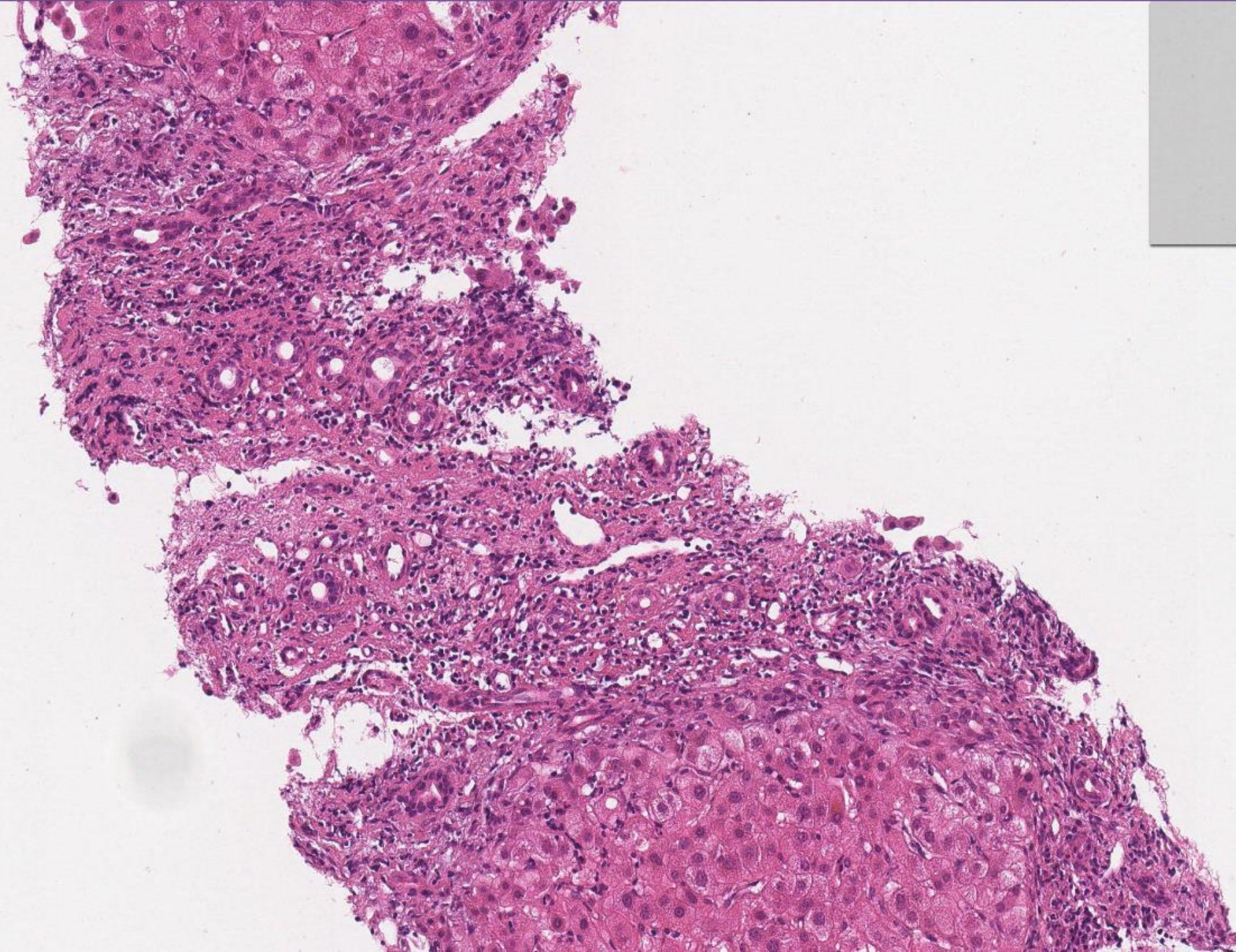
only very mild steatosis and ballooning only adjacent to septa but pericellular pattern fibrosis focally.

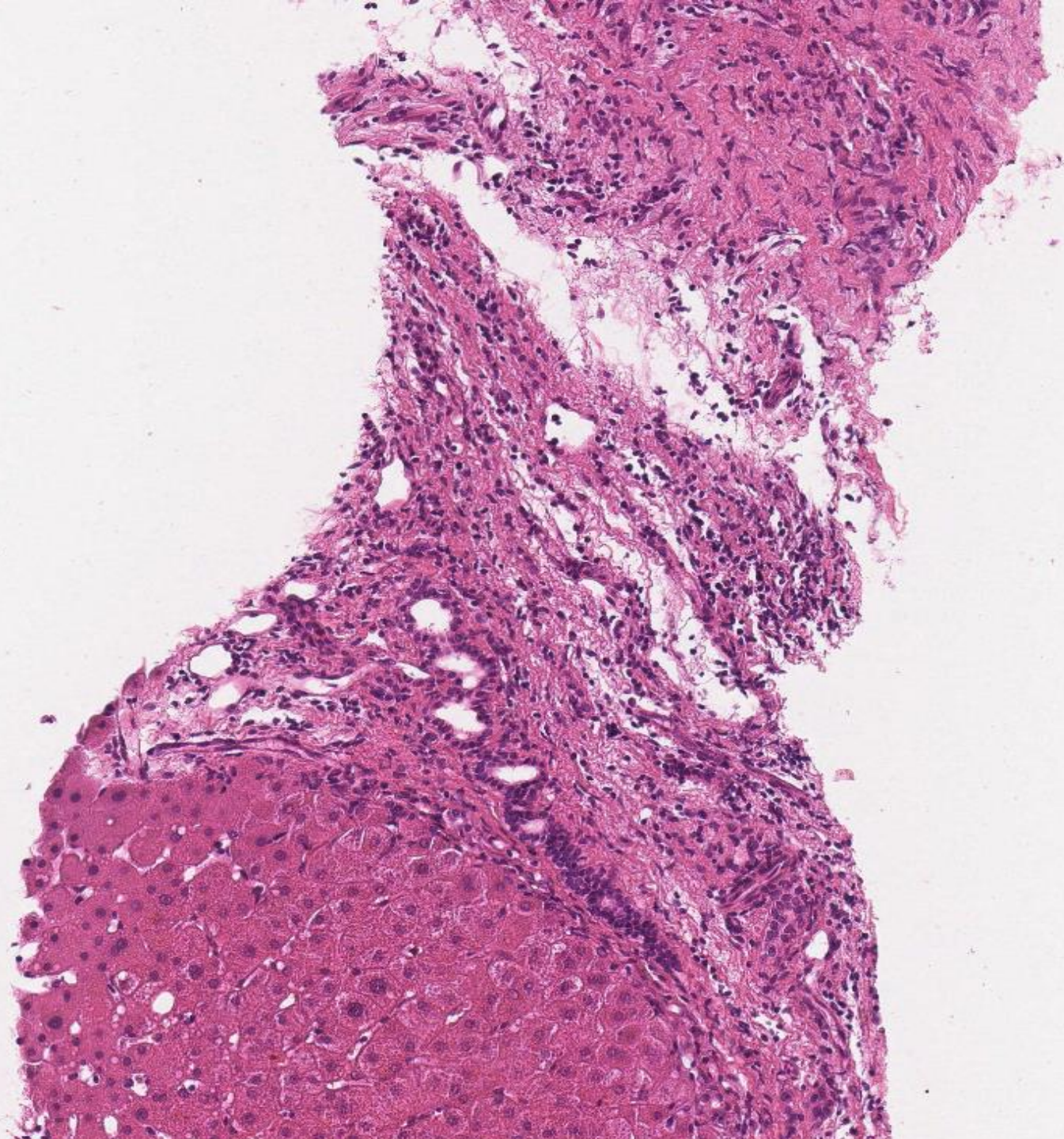
Personal notes - to use as your own aide memoire - **the contents of this will not be used for scoring**

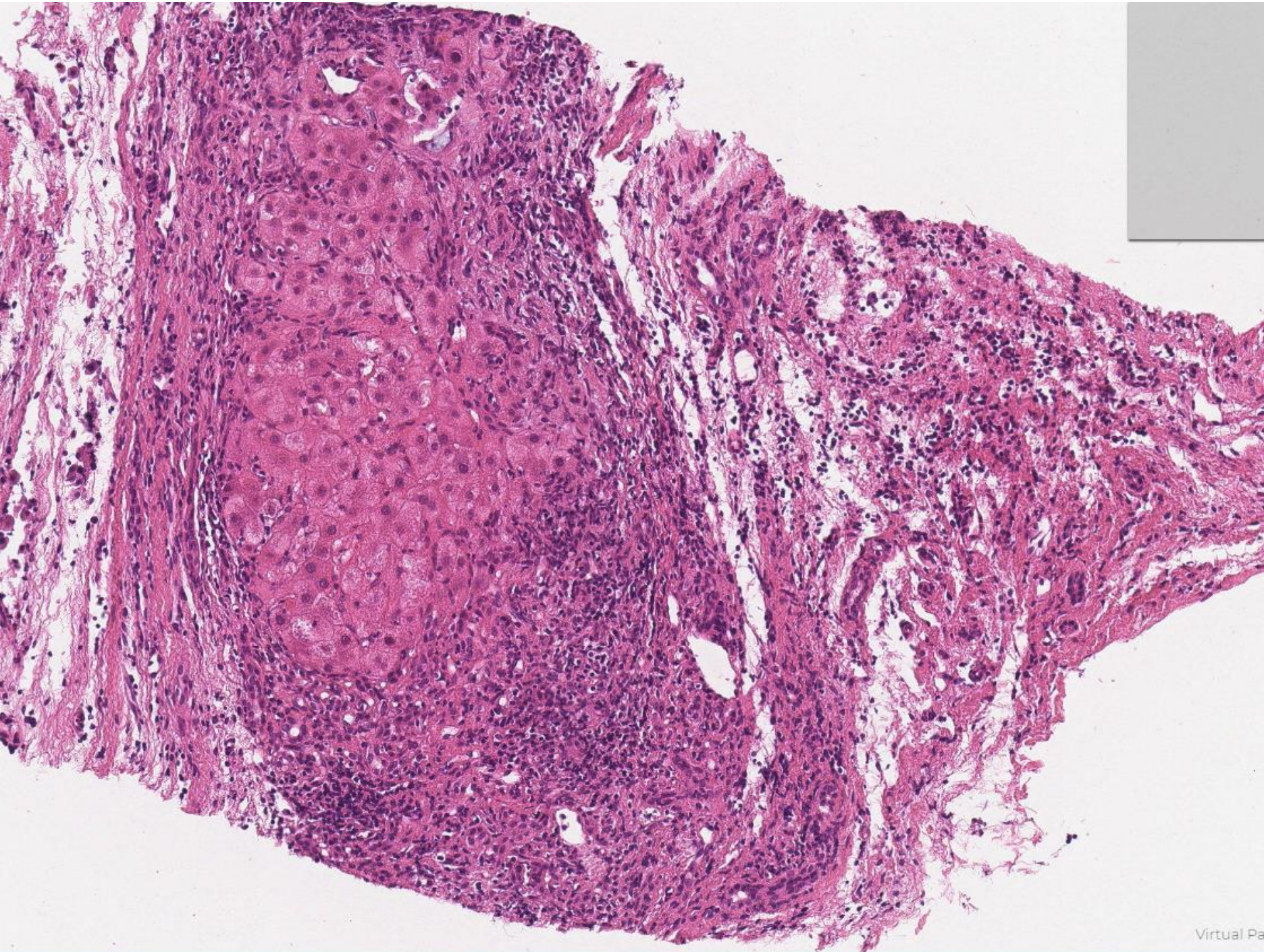
LX1

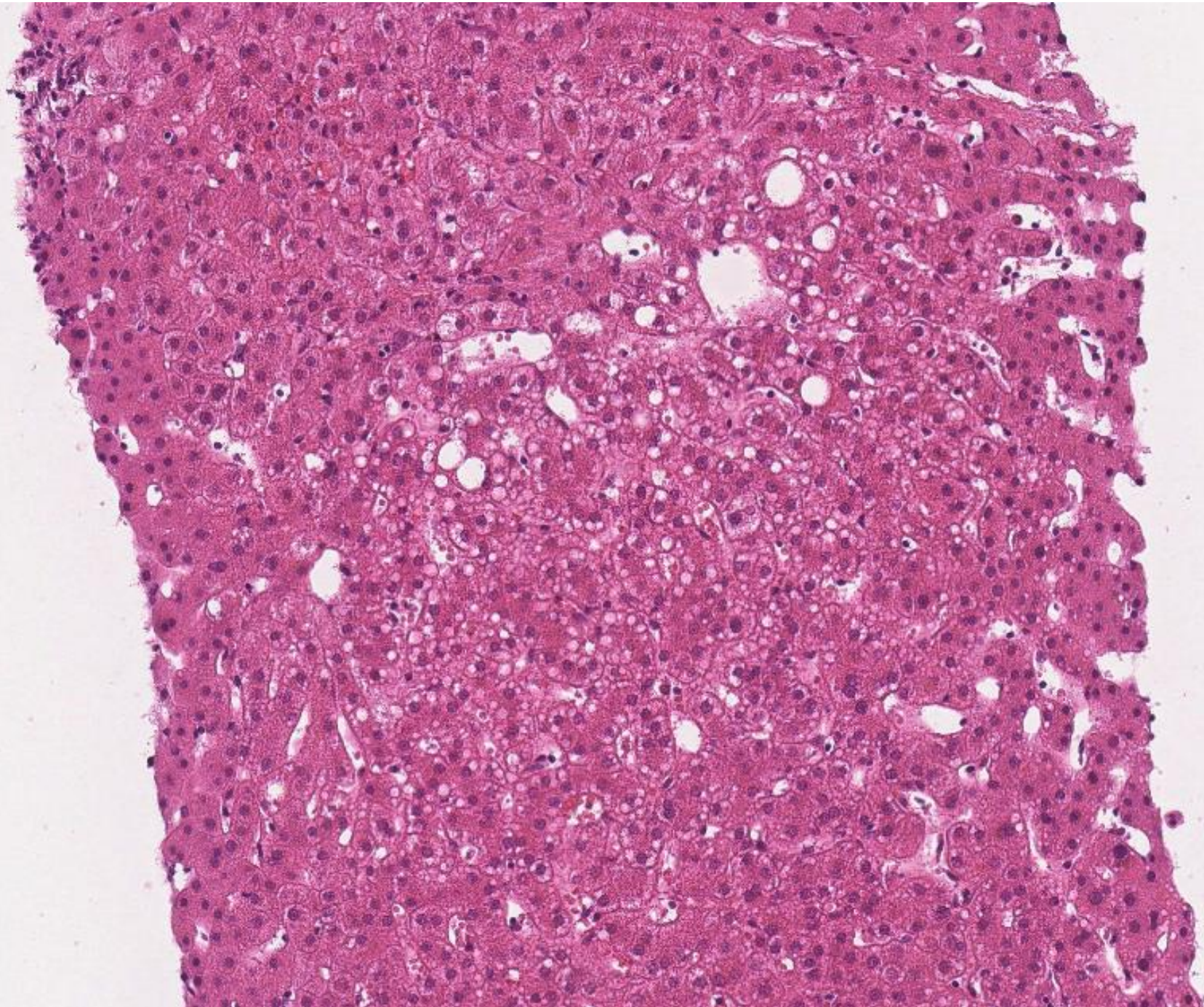
- **Case Number: LX1**
- Number of responses: 86. Date of analysis: 31 Oct 2021
- **Clinical:** Male 61. heterogenous pattern liver; known significant alcohol intake. elevated ALT/AST/ gamma GT; viral screen negative. Auto-antibodies negative
- **Specimen:** Liver biopsy
- **Macroscopic:** 2 cores of liver combined length 18mm
- **Immunohistochemistry:** Retic and Masson trichrome provided

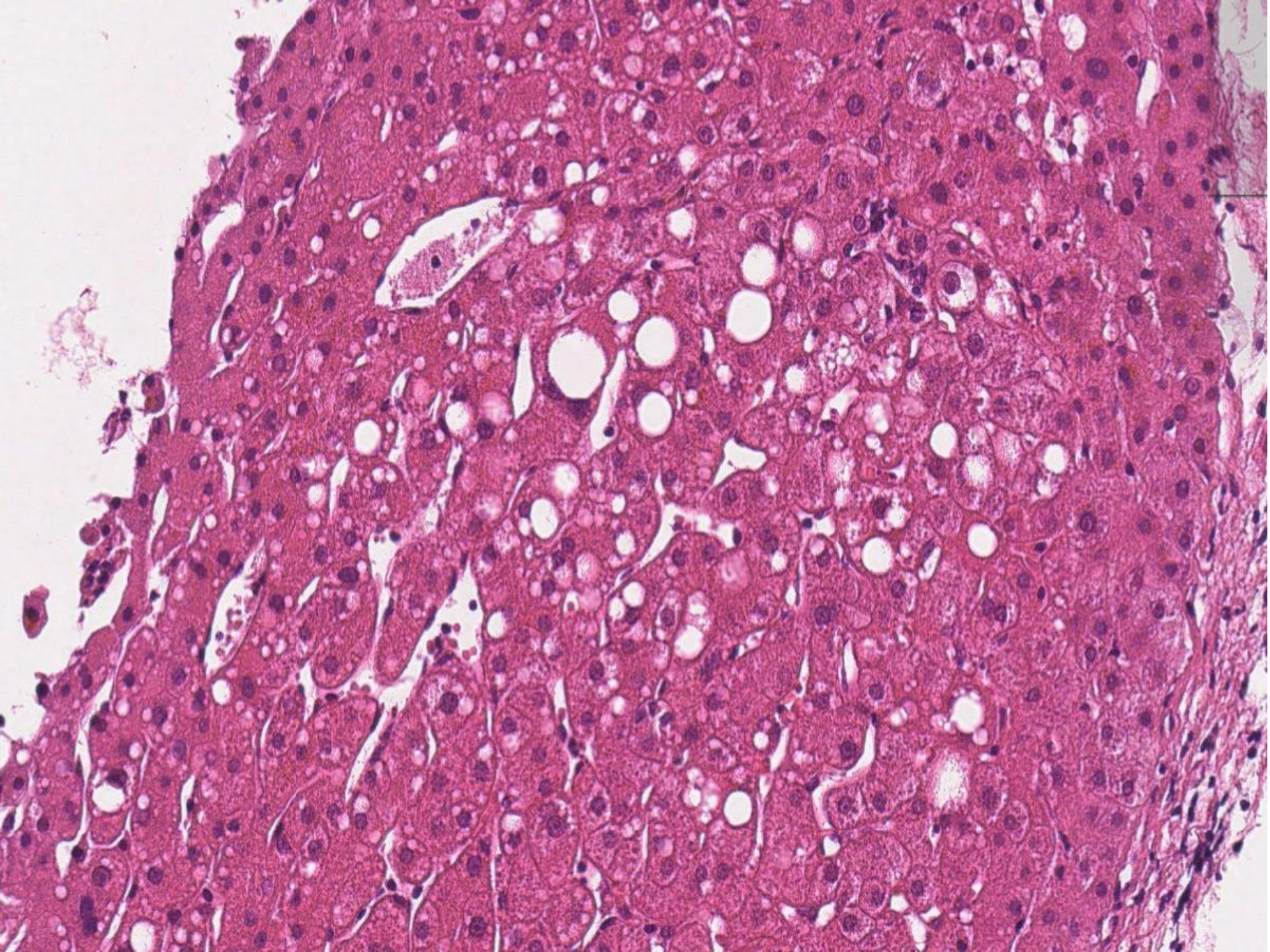


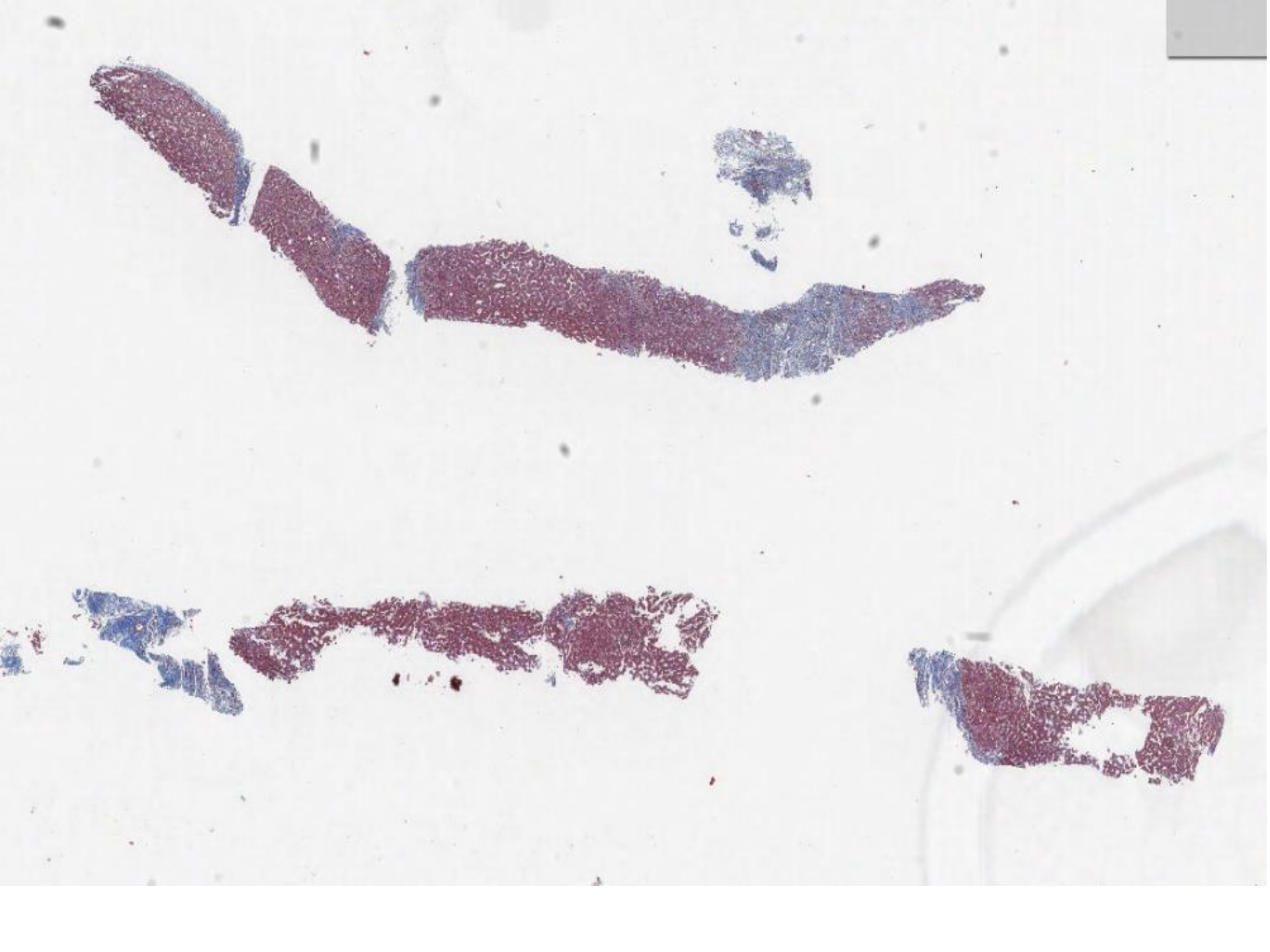


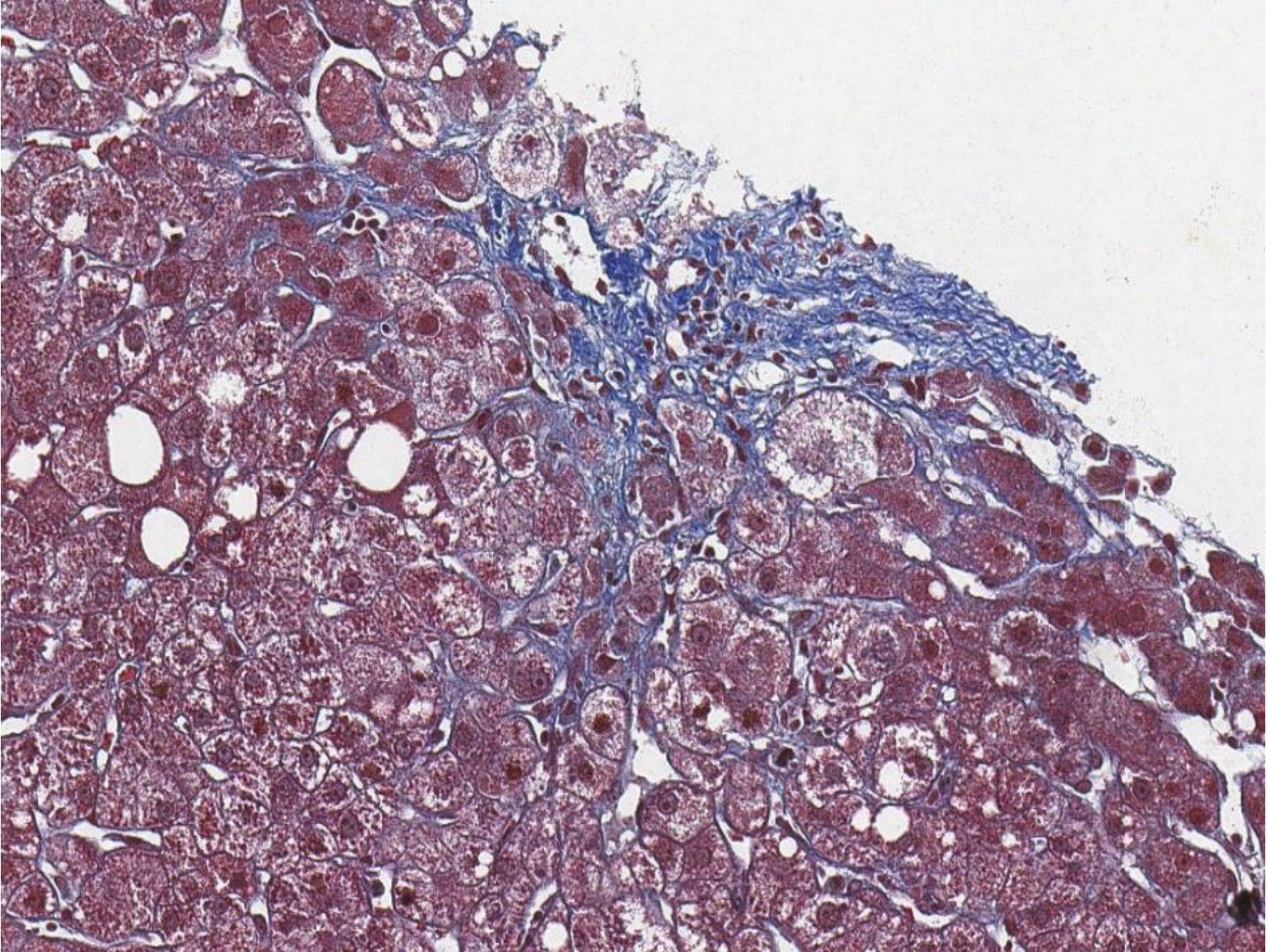












Pattern 1:	Pattern 2:	Count:
steatohepatitis		28
steatosis		20
Other (please specify in Comments) all mention min or trivial fat and don't suggest another pattern		6
chronic hepatitis		4
chronic hepatitis	steatosis	3
steatosis	steatohepatitis	2
Both have other as diagnosis, both mention ArLD in comments, 1 considered Fe, the other slightly wider DD		2
abnormal, no pattern discernible all have FLD variants as diagnostic choice or in comment		2
steatosis	abnormal, no pattern discernible	2
steatohepatitis	cholestasis, bilirubinostasis	2
steatohepatitis	steatosis	2
steatohepatitis	vascular disease	1
chronic hepatitis	chronic hepatitis	1
steatohepatitis	chronic hepatitis	1
steatosis	lobular hepatitis	1
steatohepatitis	not applicable	1
steatosis	not applicable	1
steatohepatitis	Other (please specify in Comments) no second pattern described	1
steatosis	Other (please specify in Comments) inflammation likely non specific	1
steatohepatitis	steatohepatitis	1
not applicable has FLD as diagnosis		1
abnormal, no pattern discernible	steatosis	1
cholestasis, bilirubinostasis	steatosis	1
Other (please specify in Comments) no second pattern described	steatosis	1

Combining steatosis and steatohepatitis with other and 'no pattern' and 'not applicable' =70 saying fat in some form.

9 thought fatty pattern and a second pattern

5 pattern other than fatty

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	91.9%
fibrosis with bridging between vascular structures	5.8%
mild/early fibrosis without bridging	1.2%
Other (please specify in Comments)	1.2%

5 bridging

1 mild

1 other advanced fibrosis cannot be excluded

Male 61. heterogenous pattern liver; known significant alcohol intake. elevated ALT/AST/ gamma GT; viral screen negative. Auto-antibodies negative

Diagnosis Combination:	Count:
fatty liver disease - alcohol related liver disease	45
fatty liver disease - either alcohol or non-alcohol	15
- histologically indeterminate for cause, 10 of these have possible <u>ArLD</u> in comment the other 2 think not <u>Arld</u>	10 2
Other (please enter alternative diagnosis in comments box) 6 have possible <u>ArLD</u> in comment	6
- histologically indeterminate for cause, fatty liver disease - alcohol related liver disease	2
- histologically indeterminate for cause, fatty liver disease - either alcohol or non-alcohol	2
acute / subacute hepatitis - autoimmune / drug / viral	1
acute / subacute hepatitis - autoimmune / drug / viral, autoimmune hepatitis	1
autoimmune hepatitis, fatty liver disease - alcohol related liver disease	1
ductal plate malformation/polycystic liver disease/congenital hepatic fibrosis	1

80 consider ArLD as main or likely diagnosis
 1 considering an additional/second diagnosis
 5 making another diagnosis or saying not ArLD

Proposal for scoring

- Consensus therefore full marks: Advanced fibrosis. Fatty liver diagnosis including ArLD.
- Lose 5 if less than advanced fibrosis
- Lose 5 for suggesting a second disease (giving a second pattern won't by itself lose 5 unless that lead to suggesting a second diagnosis)
- Lose 10 if no consideration of ArLD and/or making another diagnosis.
- **Original report and further information (if any):** cirrhosis with steatohepatitis consistent with alcohol, anything to add from submitter?

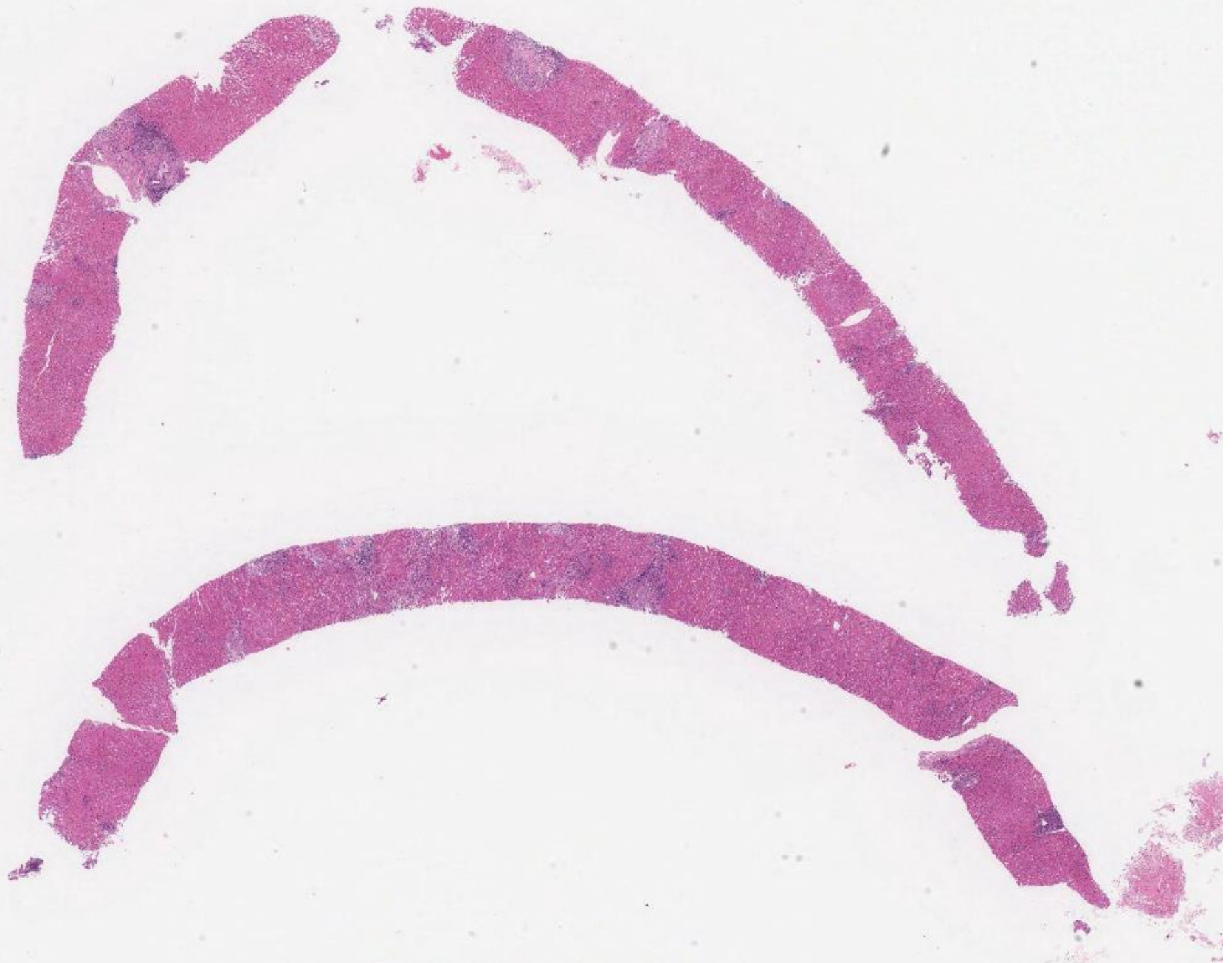
Notes LX1

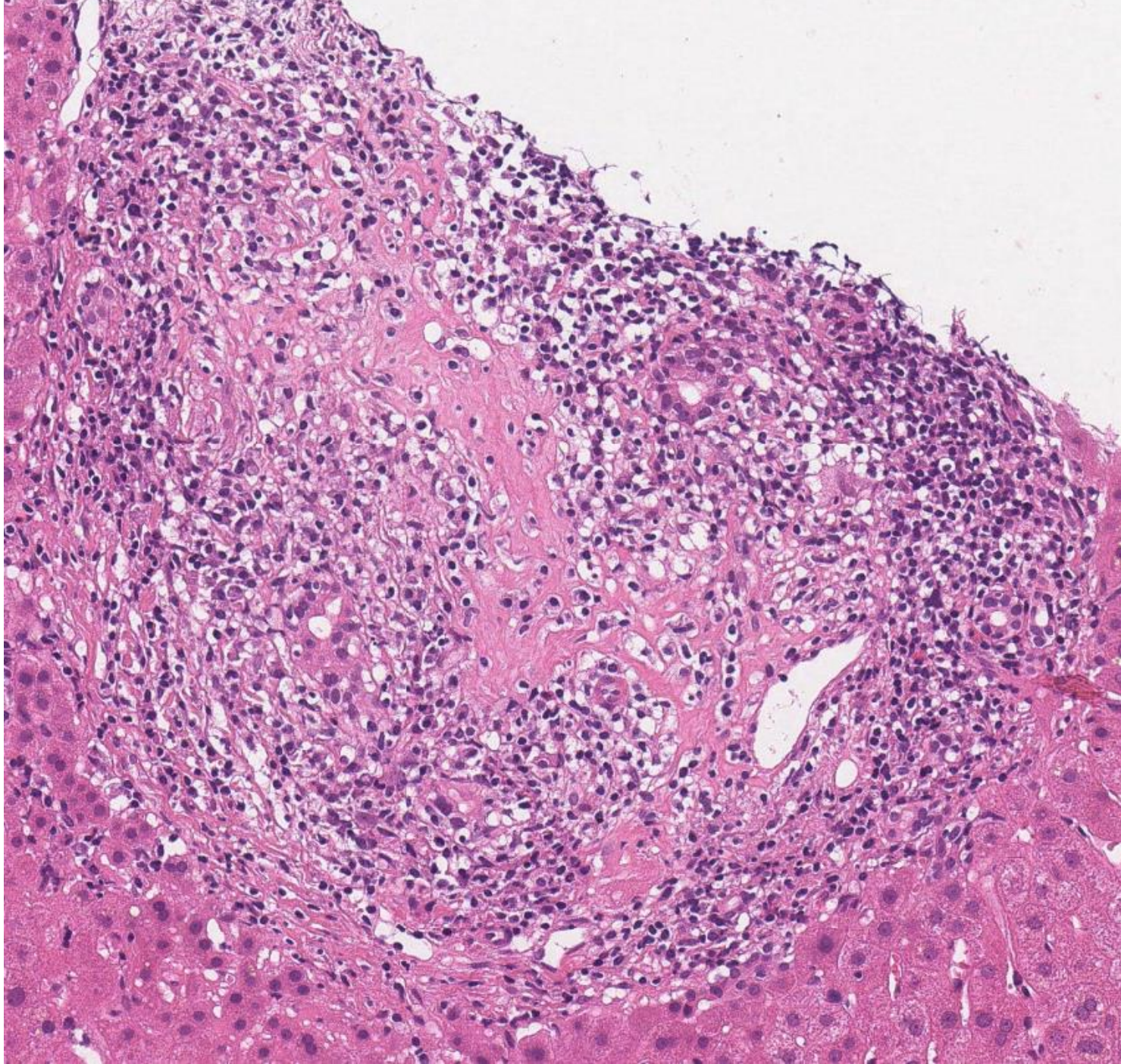
- Non specific inflammation in any cause of cirrhosis not 'chronic hepatitis'
- Often difficult to see patterns of damage in end stage liver
- Fat diminishes as fibrosis advances (and with abstinence)

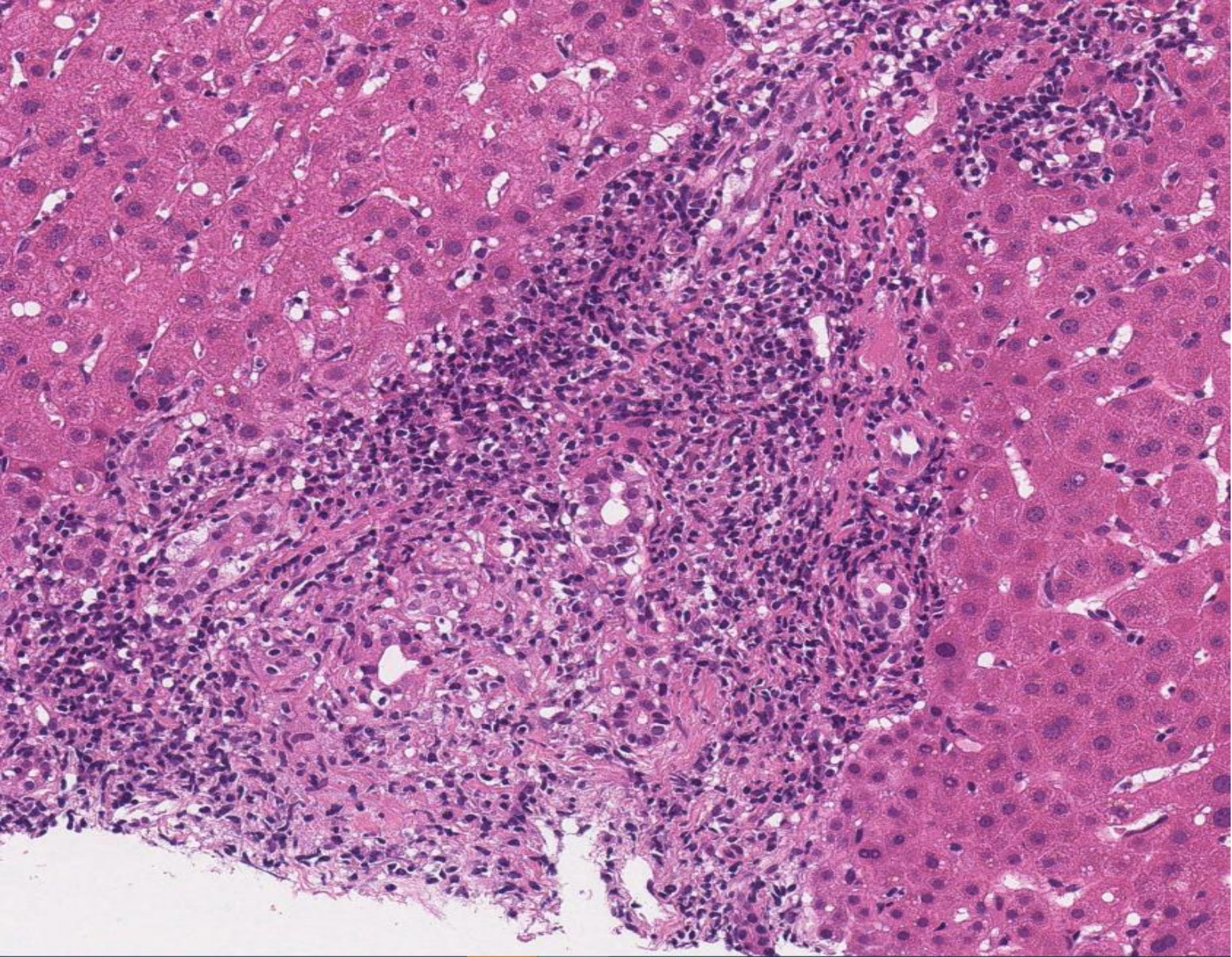
From tissue pathways Note: the unqualified diagnosis 'chronic hepatitis' as a morphological description for any biopsy with unexplained portal inflammation should be avoided, as this may be interpreted clinically as a specific disease (i.e. implying chronic autoimmune or viral hepatitis).

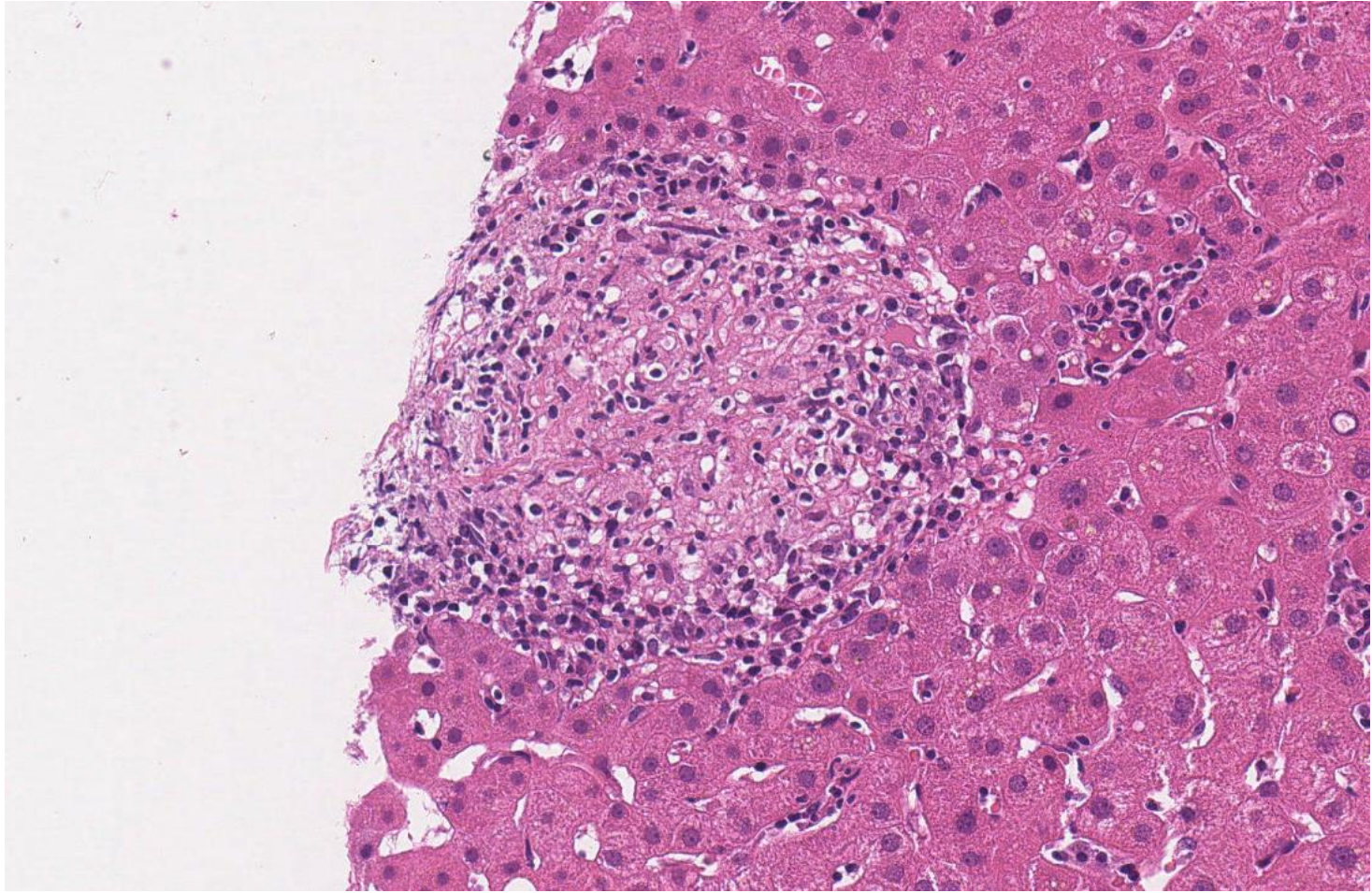
LX2

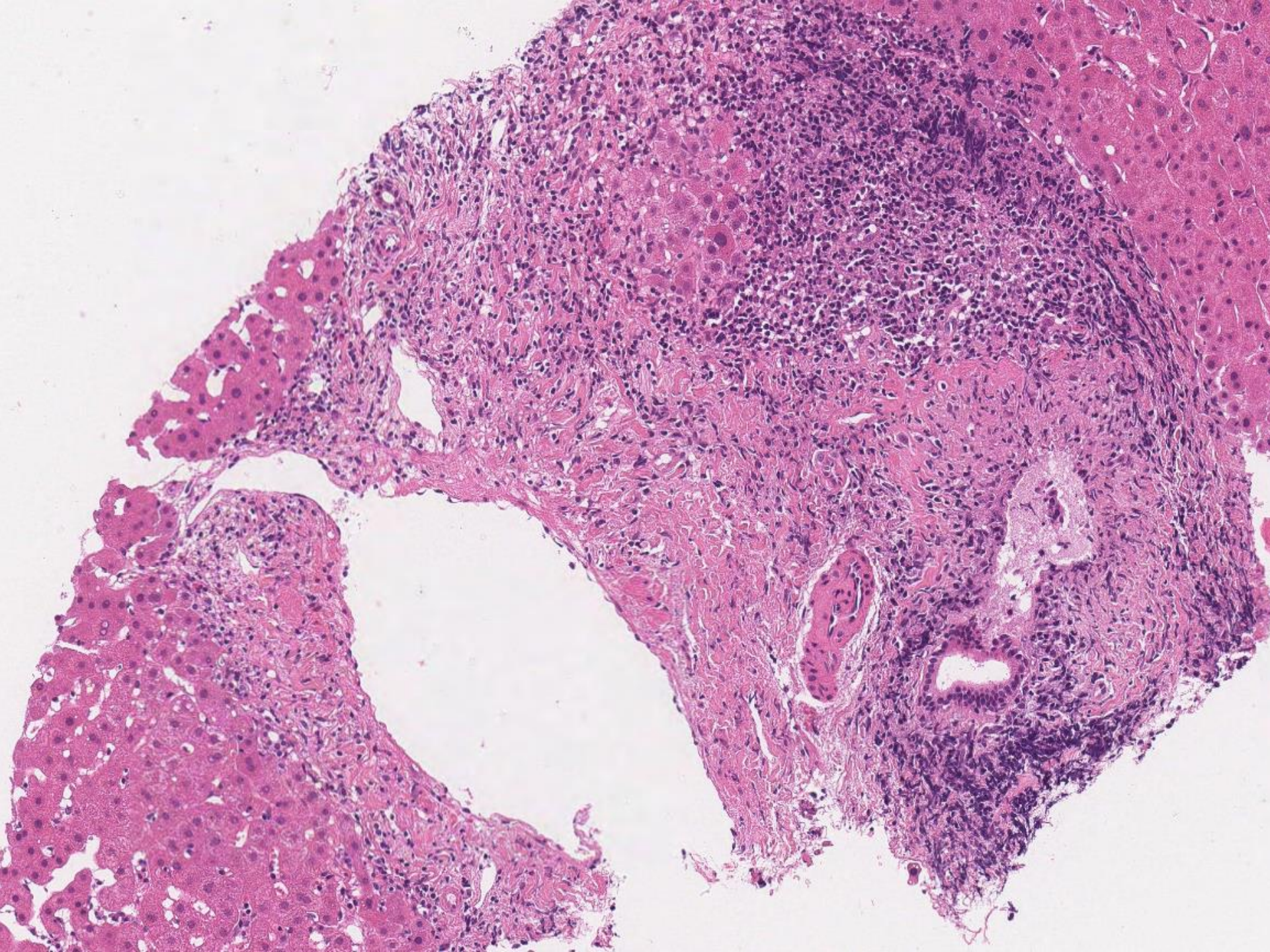
- **Case Number: LX2**
- Number of responses: 86. Date of analysis: 31 Oct 2021
- **Clinical:** Male 62. Abnormal liver function tests; positive AMA; elevated IgM; Elevated Alkaline phosphatase; elevated Gamma GT; positive ANA; NEGATIVE for anti-smooth muscle; LKM1;
- **Specimen:** Liver biopsy
- **Macroscopic:** 2 cores liver combined length 20m
- **Immunohistochemistry:** retic and HVG provided

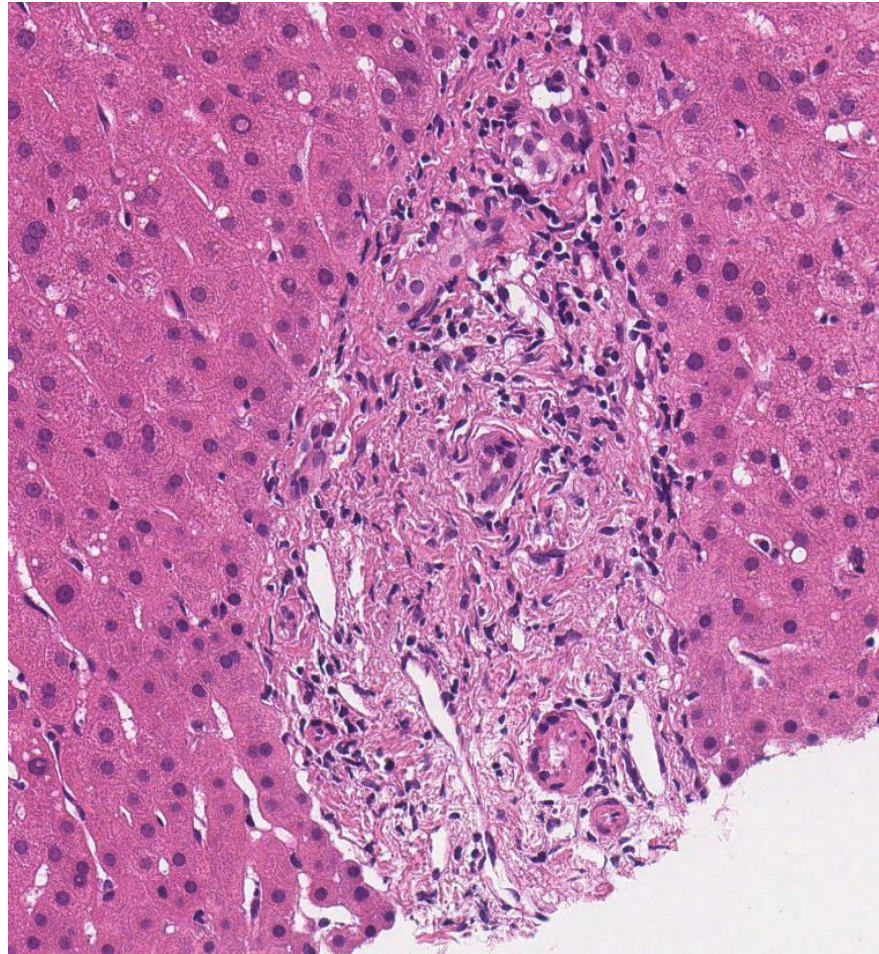


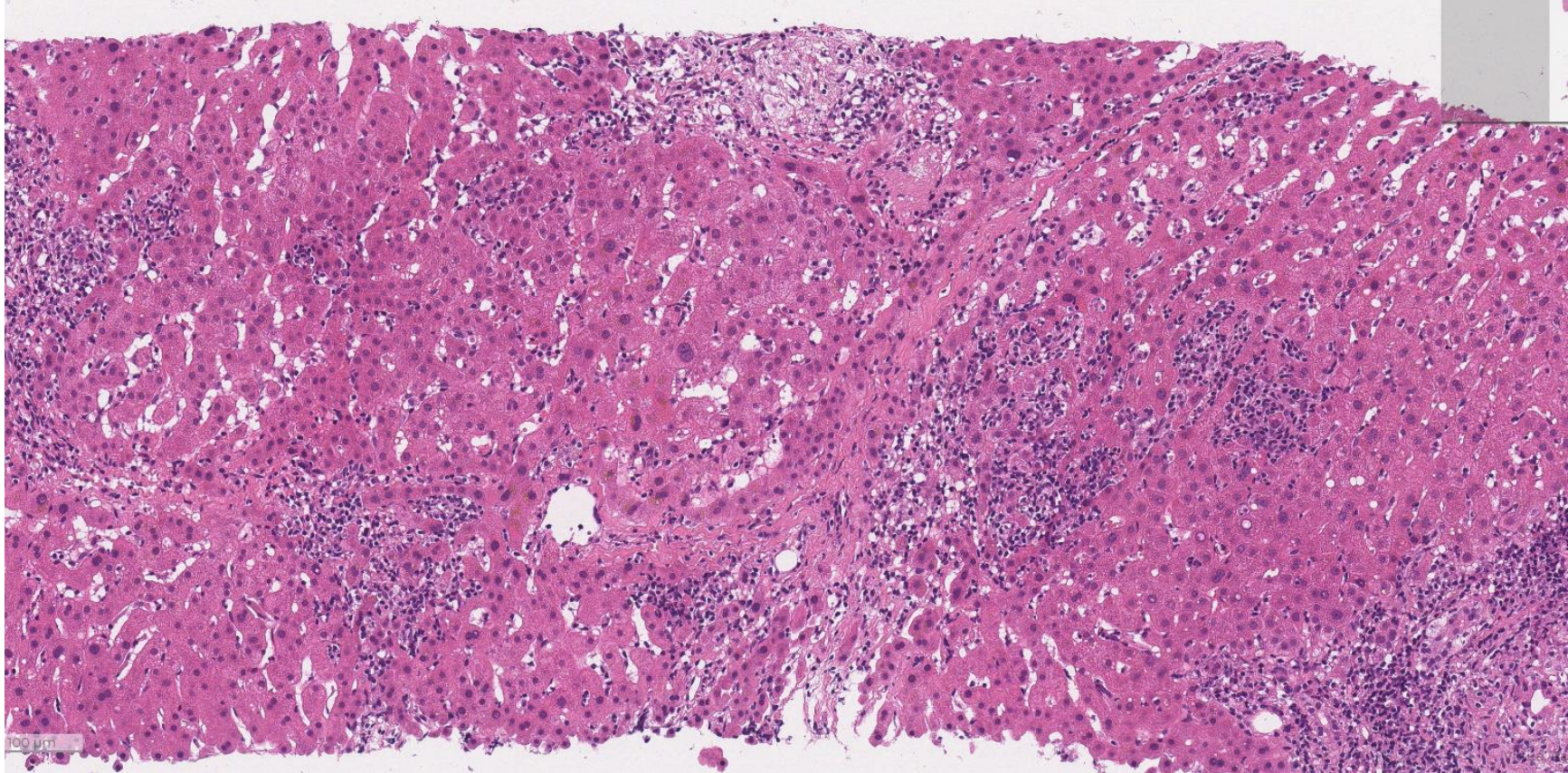


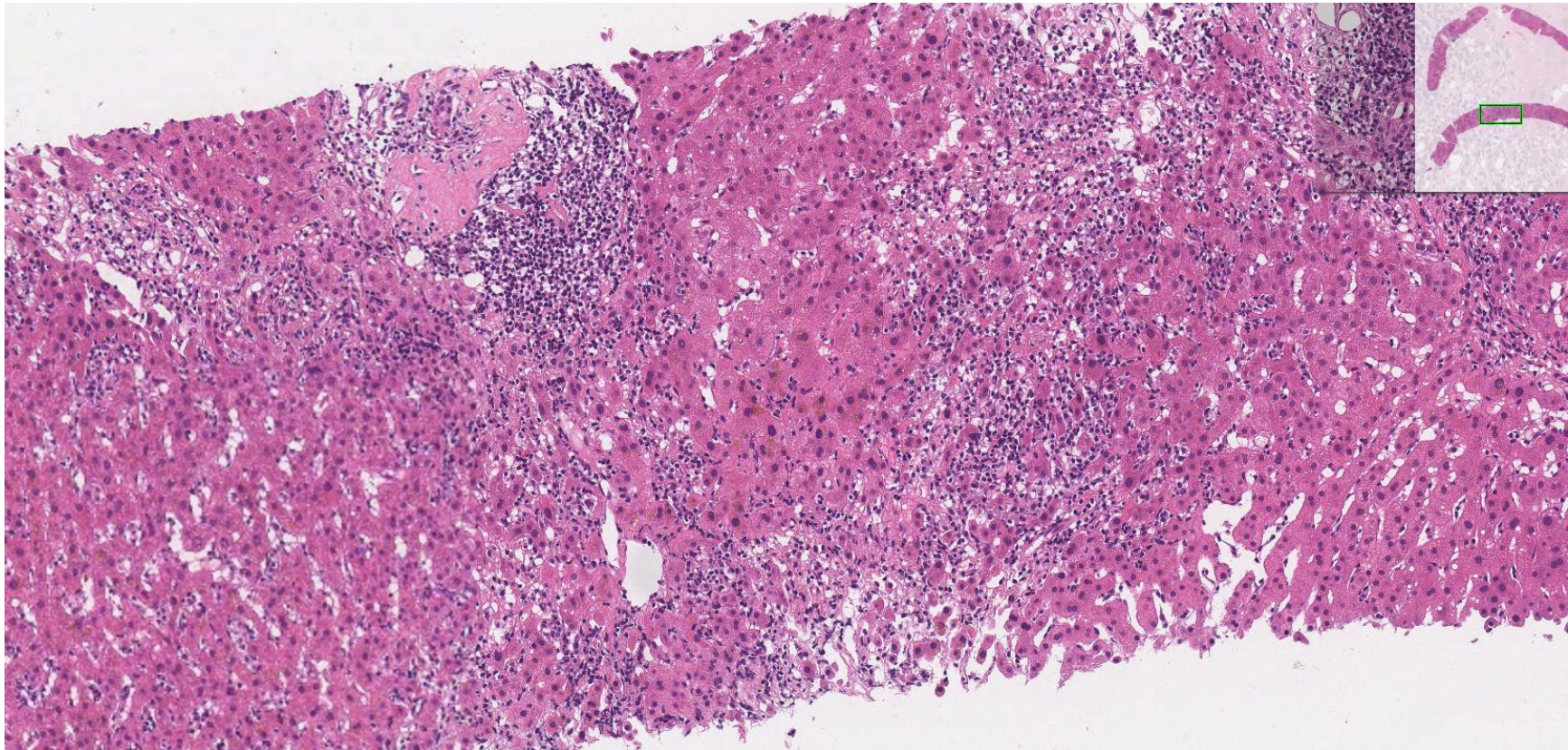


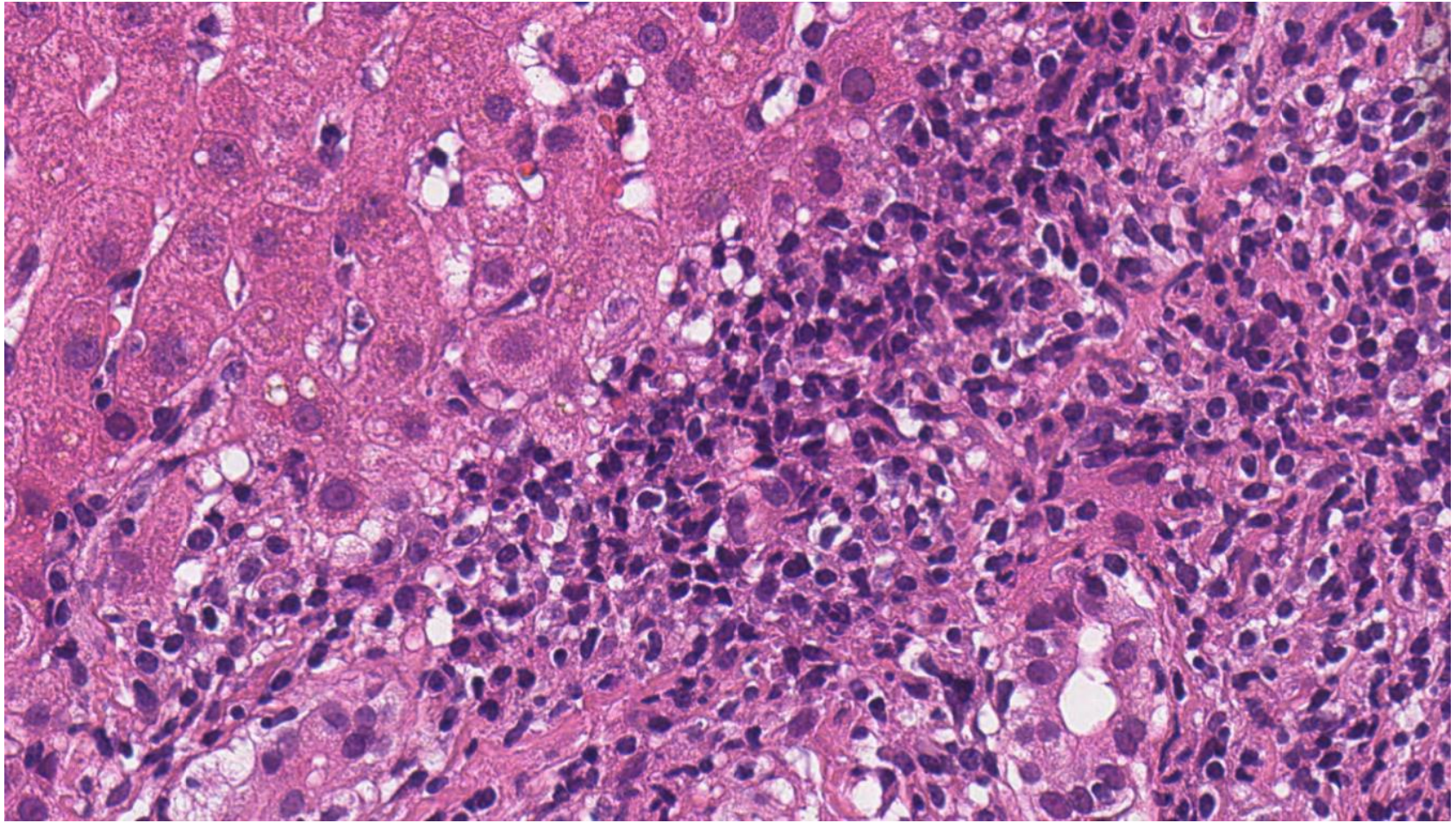
















Pattern 1:	Pattern 2:	Count:
chronic biliary disease		25
chronic biliary disease	lobular hepatitis	17
chronic biliary disease	chronic hepatitis	11
chronic biliary disease	granulomatous	9
chronic hepatitis	chronic biliary disease	4
chronic biliary disease	Other (please specify in Comments) <i>all 3 inflam prominent ?overlap,</i>	3
chronic biliary disease	not applicable	2
chronic hepatitis	<i>1 makes D of overlap, 1 makes D AIH 'no granuloma or ductopenia'</i>	1 1
not applicable	<i>Gives description of PBC and has PBC as D</i>	2
Other (please specify in Comments)	<i>Favoured D of PBC</i>	2
chronic biliary disease	cholestasis, bilirubinostasis	1
granulomatous	chronic biliary disease	1
lobular hepatitis	chronic biliary disease	1
granulomatous	chronic hepatitis PBC AIH crossover	1
lobular hepatitis	<i>chronic hepatitis makes D AIH considers healed granuloma but no mention PBC</i>	1
granulomatous	Other (please specify in Comments) <i>likely PBC consider overlap</i>	1
lobular hepatitis	Other (please specify in Comments) <i>favour PBC/overlap 'no granulomas</i>	1
chronic hepatitis	Granulomatous <i>histology would corroborate overlap</i>	1
chronic hepatitis	<i>lobular hepatitis makes D AIH</i>	1

Chronic biliary either alone or with granulomas or cholestasis (n=1) or NA or 'other' where biliary features described = 46

Chronic biliary and hepatitis either chronic or lobular = 33

Combining these = 78

Of those choosing patterns other than chronic biliary:

3 describe biliary/PBC +/- overlap

3 don't mention biliary, make D AIH

Stages:	Popularity:
mild/early fibrosis without bridging	58.1%
fibrosis with bridging between vascular structures	15.1%
hepatocyte loss or bridging - favour collapse not fibrosis	12.8%
no fibrosis/equivocal fibrosis	9.3%
Other (please specify in Comments)	2.3%
advanced fibrosis with bridging and nodularity/cirrhosis	2.3%

No consensus

Male 62. Abnormal liver function tests; positive AMA; elevated IgM; Elevated Alkaline phosphatase; elevated Gamma GT; positive ANA; NEGATIVE for anti-smooth muscle; LKM1;

Diagnosis Combination:	Count:
primary biliary cholangitis	44
overlap syndrome, primary biliary cholangitis	14
overlap syndrome	10
autoimmune hepatitis, primary biliary cholangitis	6
Other (please enter alternative diagnosis in comments box), primary biliary cholangitis <i>all consider overlap</i>	4
acute / subacute hepatitis - autoimmune / drug / viral, primary biliary cholangitis <i>both considering overlap</i>	2
autoimmune hepatitis <i>both no mention biliary</i>	2
acute / subacute hepatitis - autoimmune / drug / viral <i>in comments AIH</i>	1
chronic cholangiopathy NOS <i>highly suggestive PBC</i>	1
fatty liver disease - non-alcohol related fatty liver disease, primary biliary cholangitis <i>no comments</i>	1
Other (please enter alternative diagnosis in comments box) <i>favoured D PBC</i>	1

Proposed scoring

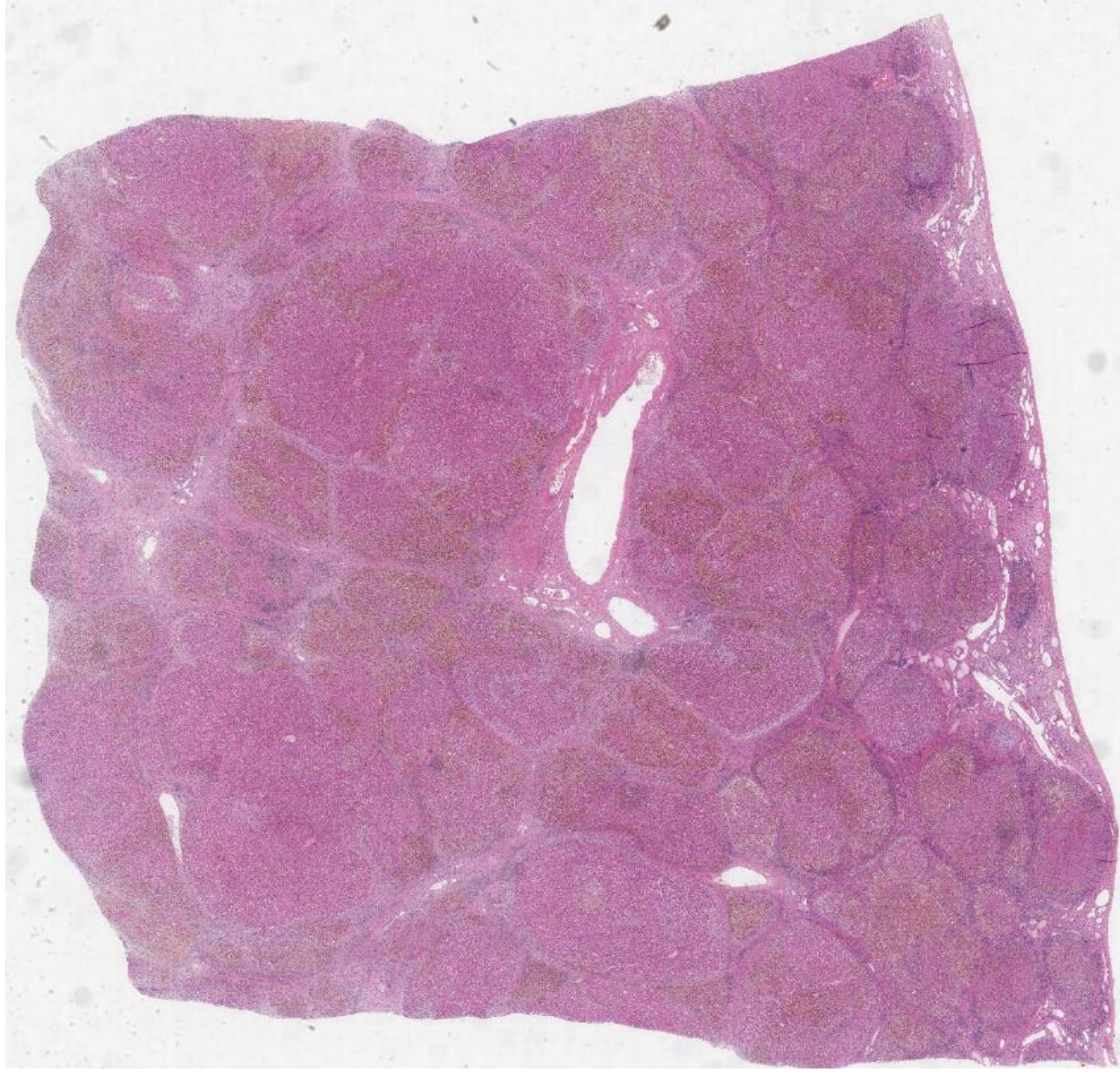
- Consensus for; chronic biliary pattern +/- either chronic or lobular hepatitis. For diagnosis PBC +/- overlap = 82
- Lose 10 if no biliary pattern recognised/no biliary diagnosis considered = 3
- 1 response fatty and PBC not further qualified? Score 5? Committee agreed
- **Original report and further information (if any):** primary biliary cholangitis. Anything to add from submitter?

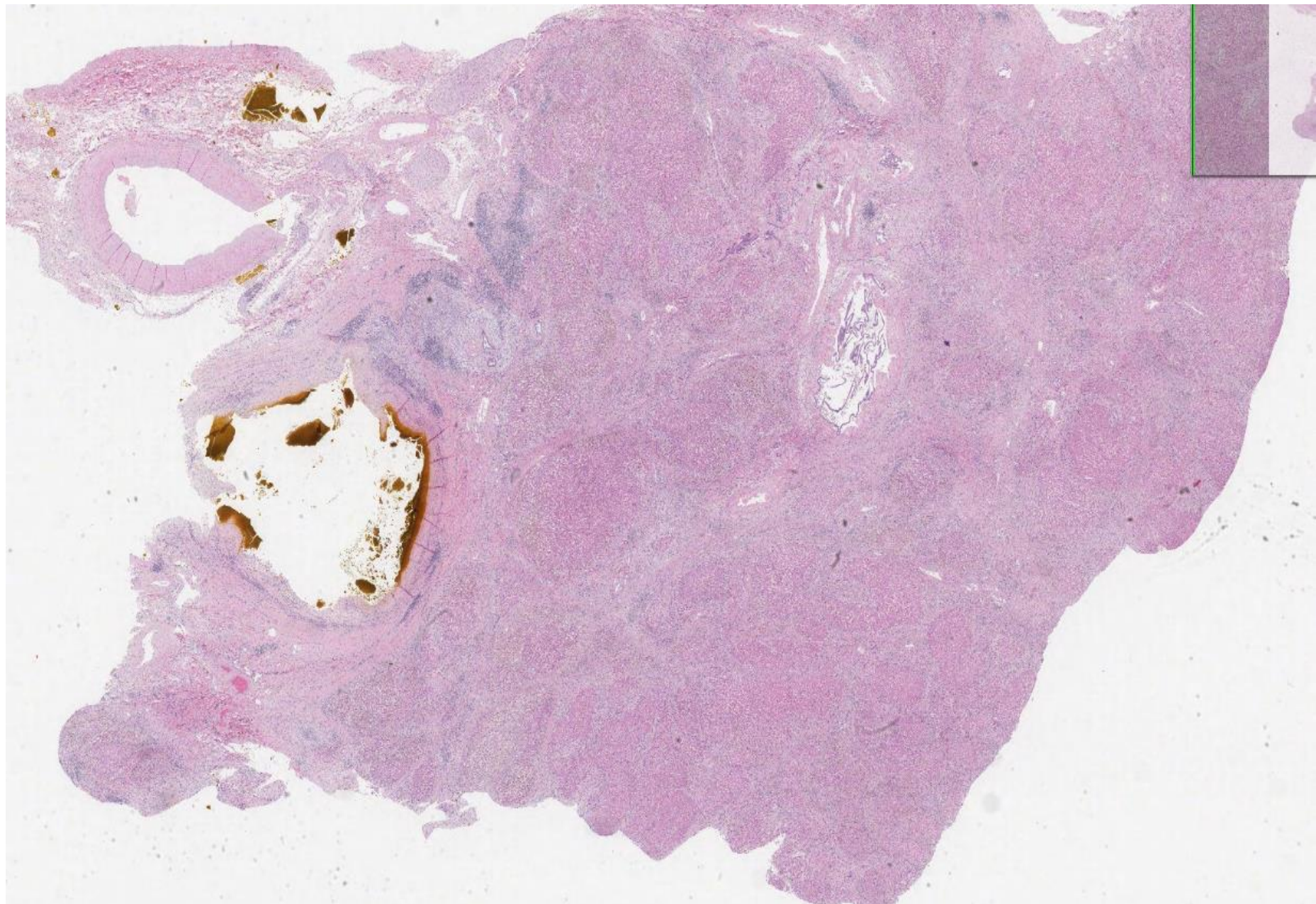
Comments LX2

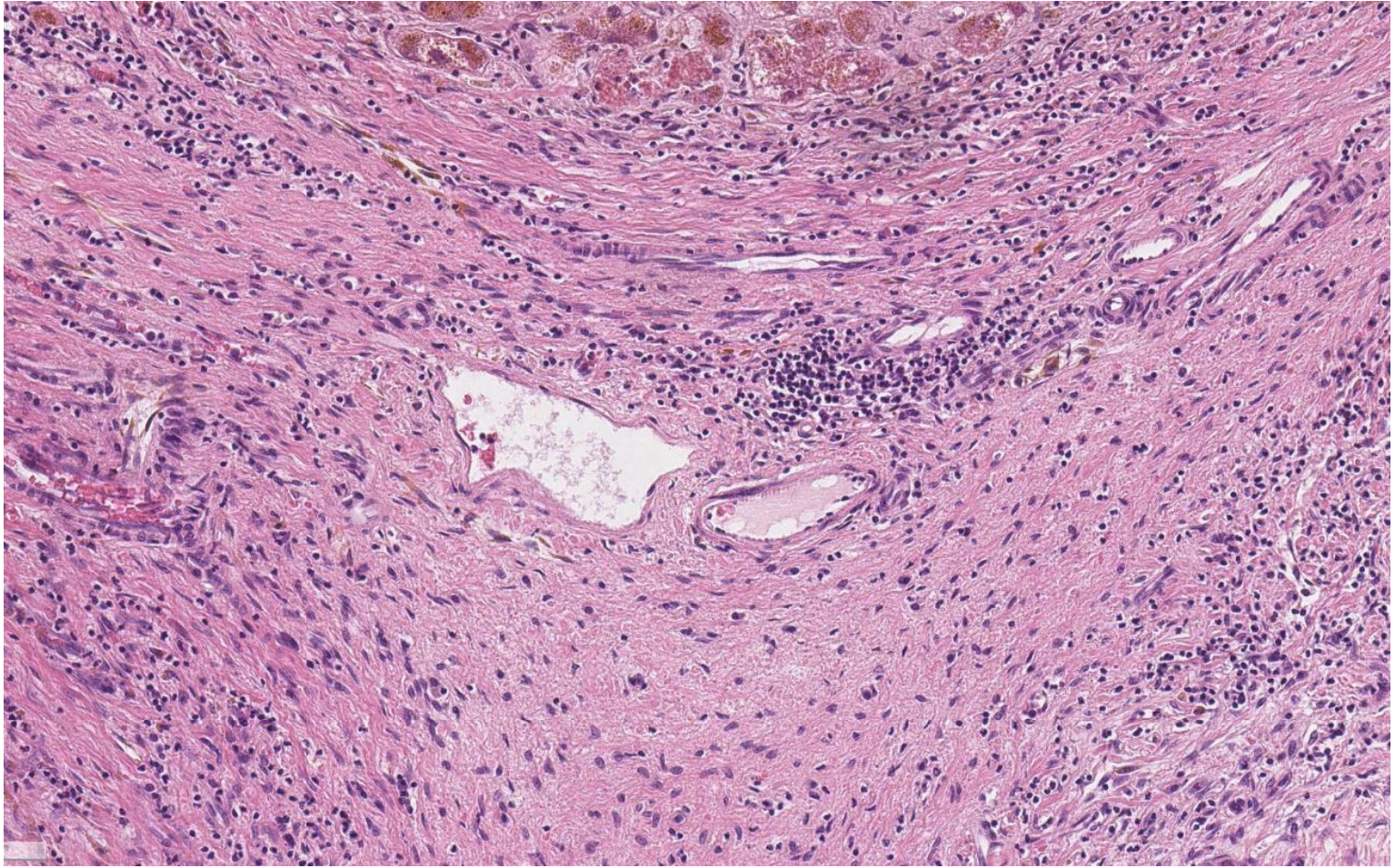
- 53% suggested overlap, this would be a good topic for a future annual update session.
- Some degree of inflammation is to be expected in PBC.
- Varying terminology between centres.
- Committee felt that any suggestion of overlap should be accompanied by a comment recognising incomplete clinical info and the need for an MDT discussion of these cases. Encourage members that whenever they are choosing two patterns or two diagnoses this should be supported by a comment re which is *dominant* and what further info might help to inform/resolve the issue.

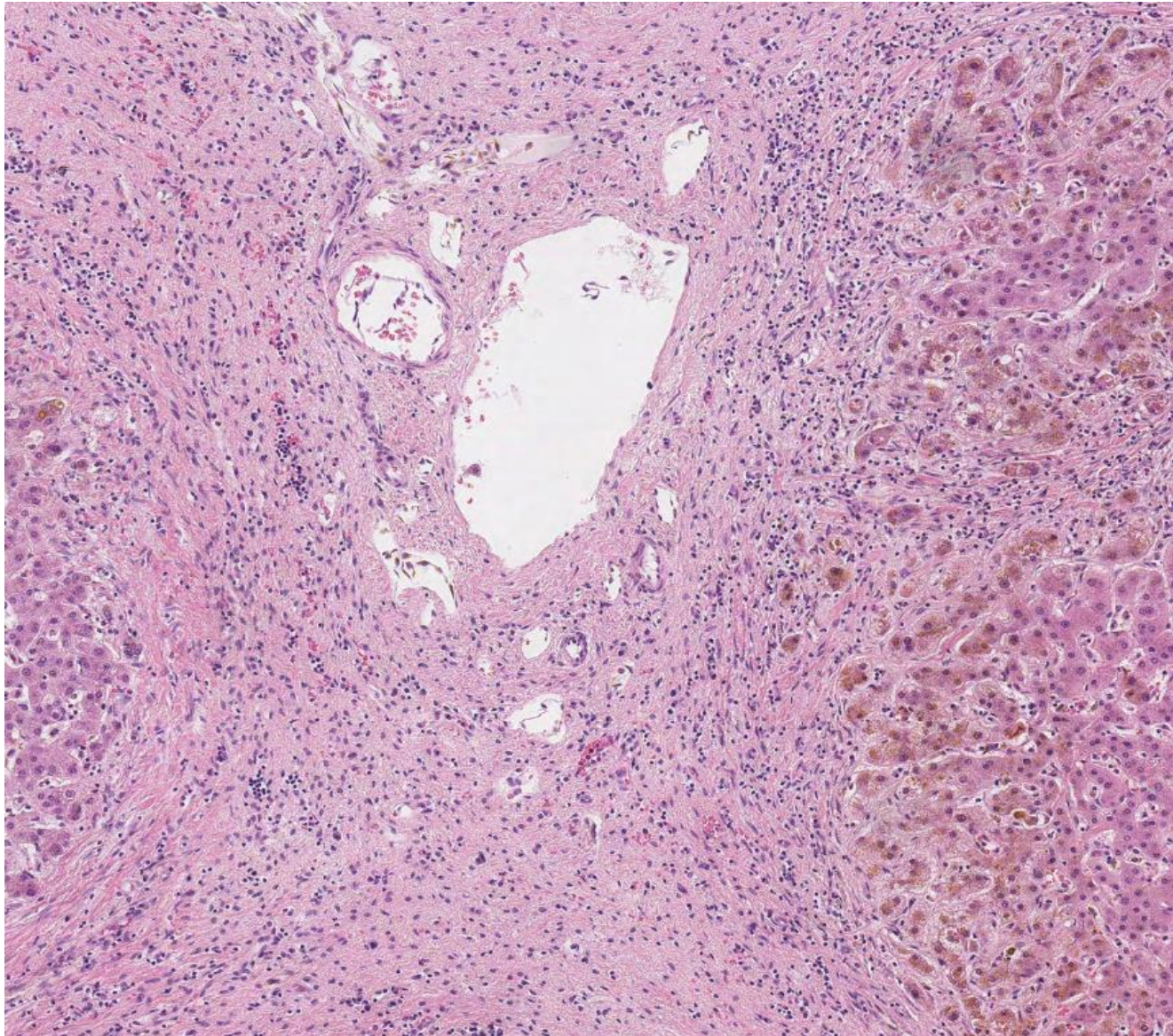
LX3

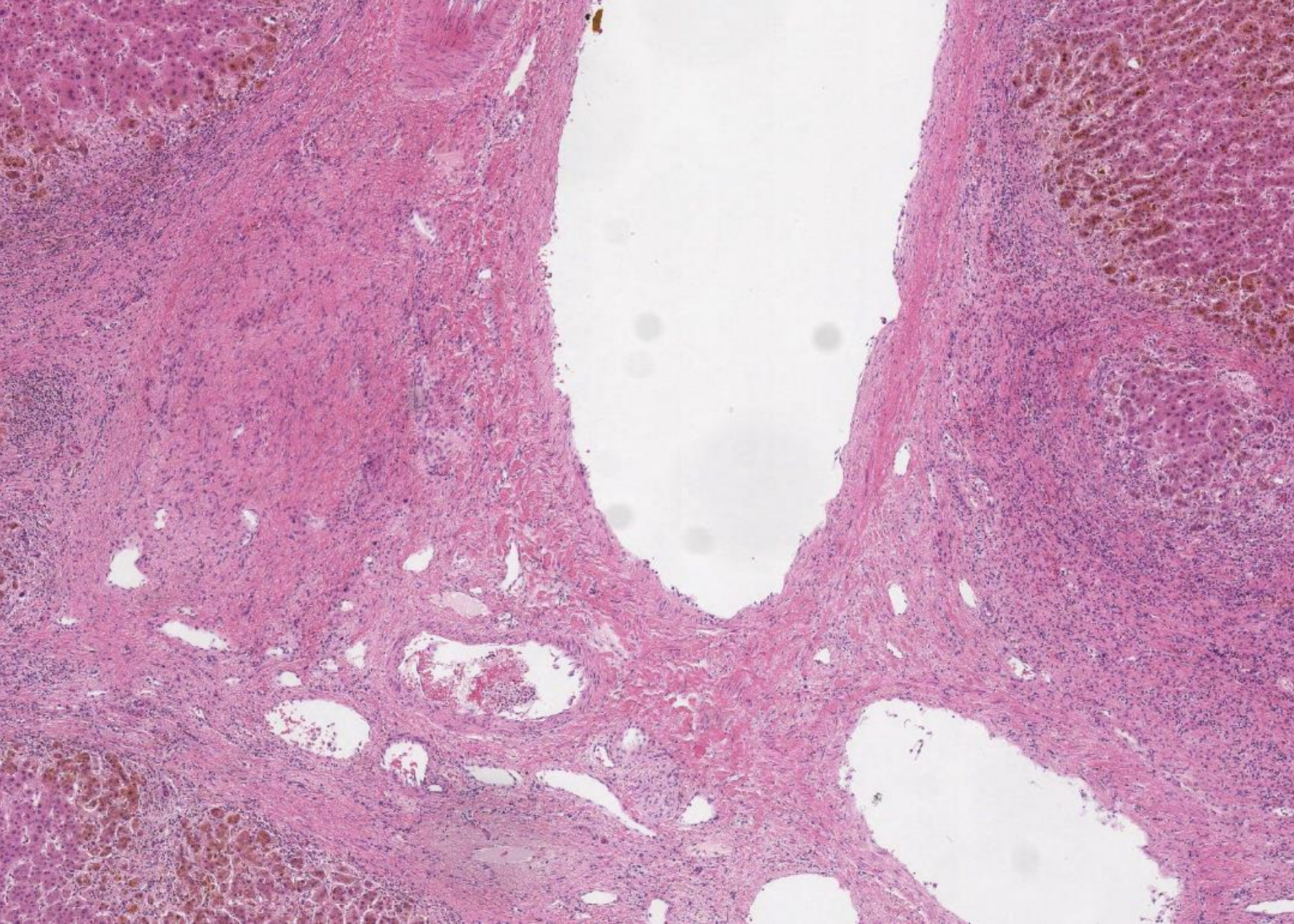
- **Case Number: LX3**
- Number of responses: 86. Date of analysis: 31 Oct 2021
- **Clinical:** Male 61M. PSC, recurrent cholangitis, intrahepatic duct stones. Liver Transplant
- **Specimen:** liver expant.
- **Macroscopic:** bile stained cirrhotic liver 2972g, with frequent intrahepatic calculi
- **Immunohistochemistry:** Two blocks, A1 and A2. A1 also Shikata, van Gieson, CK7

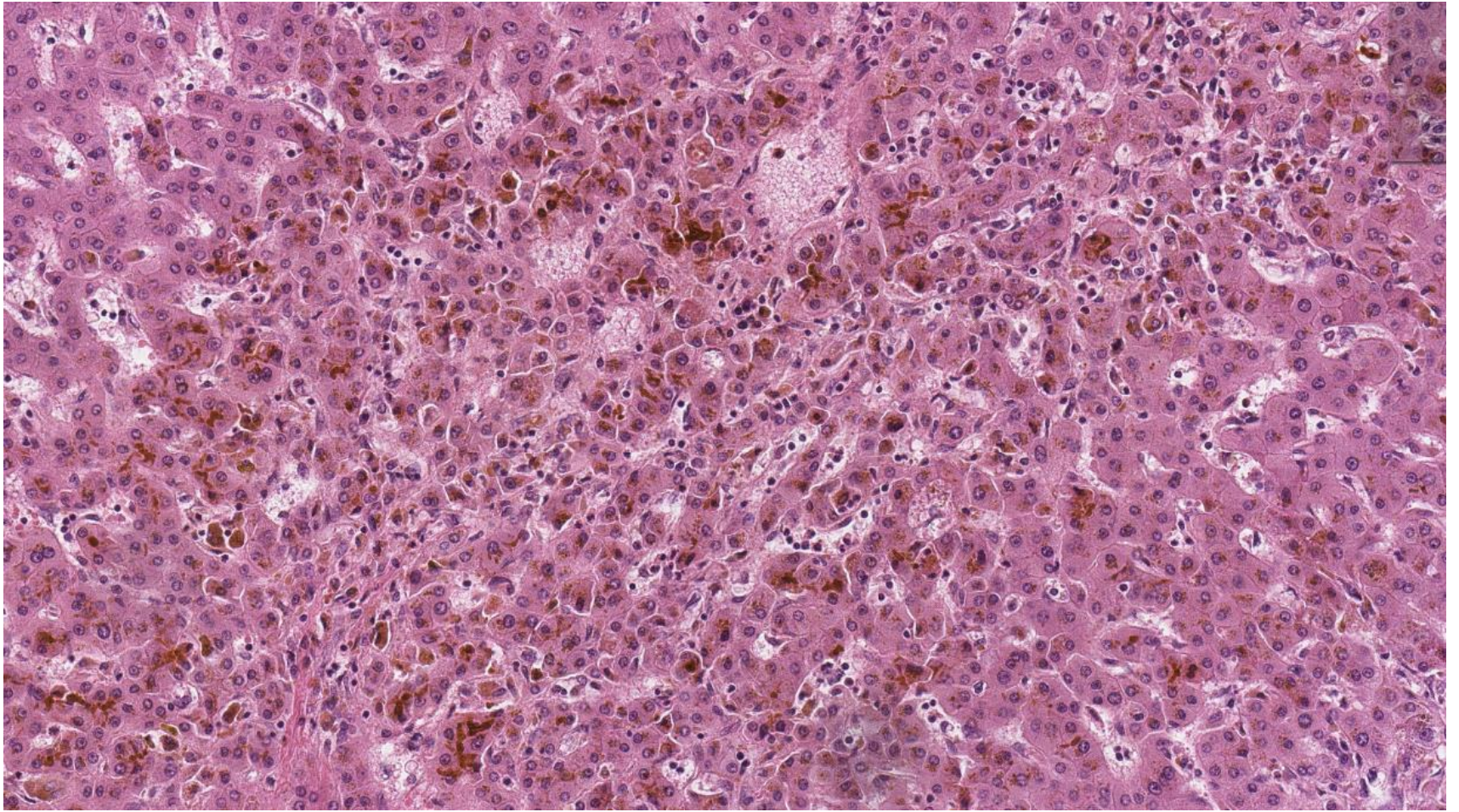


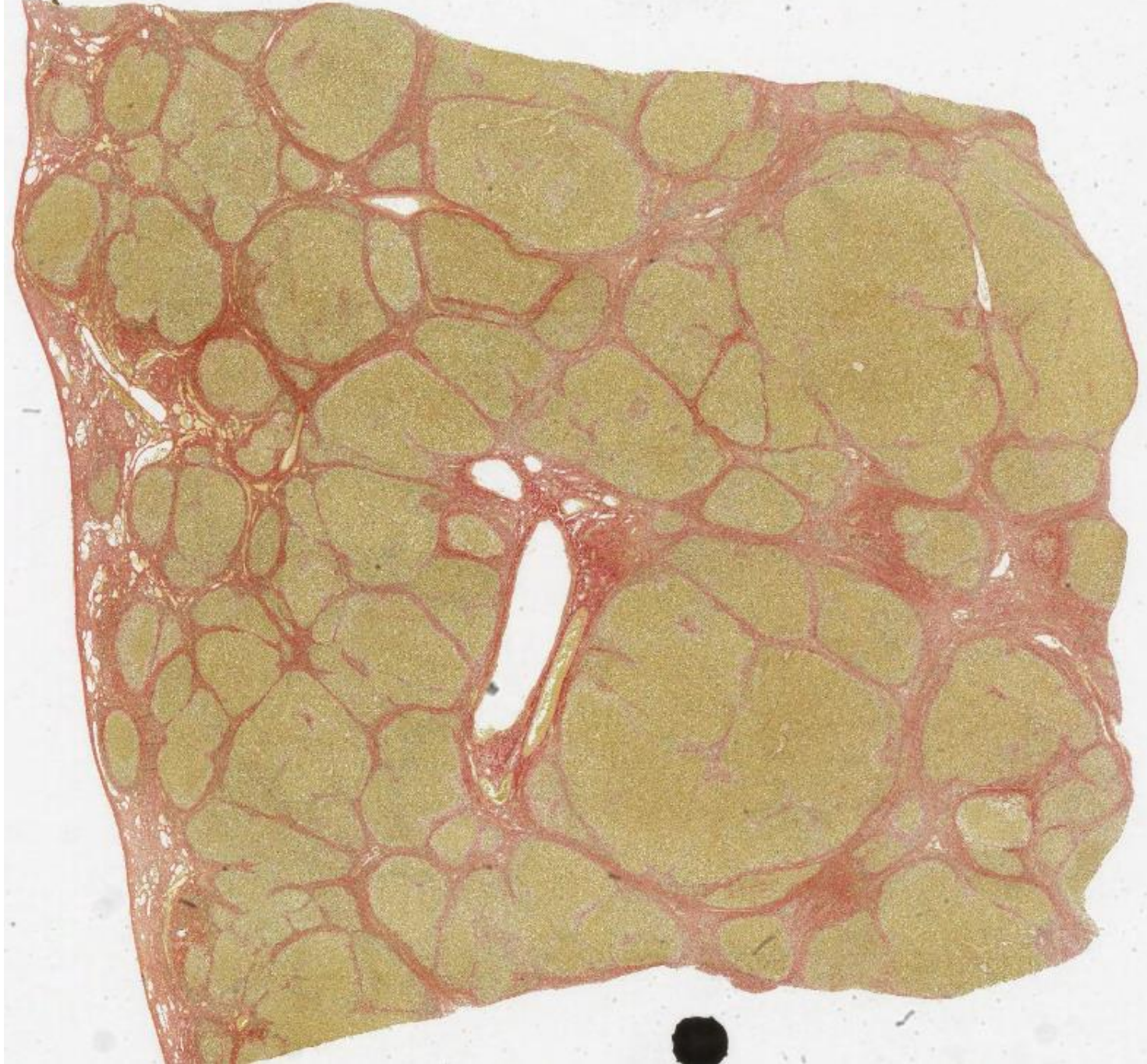


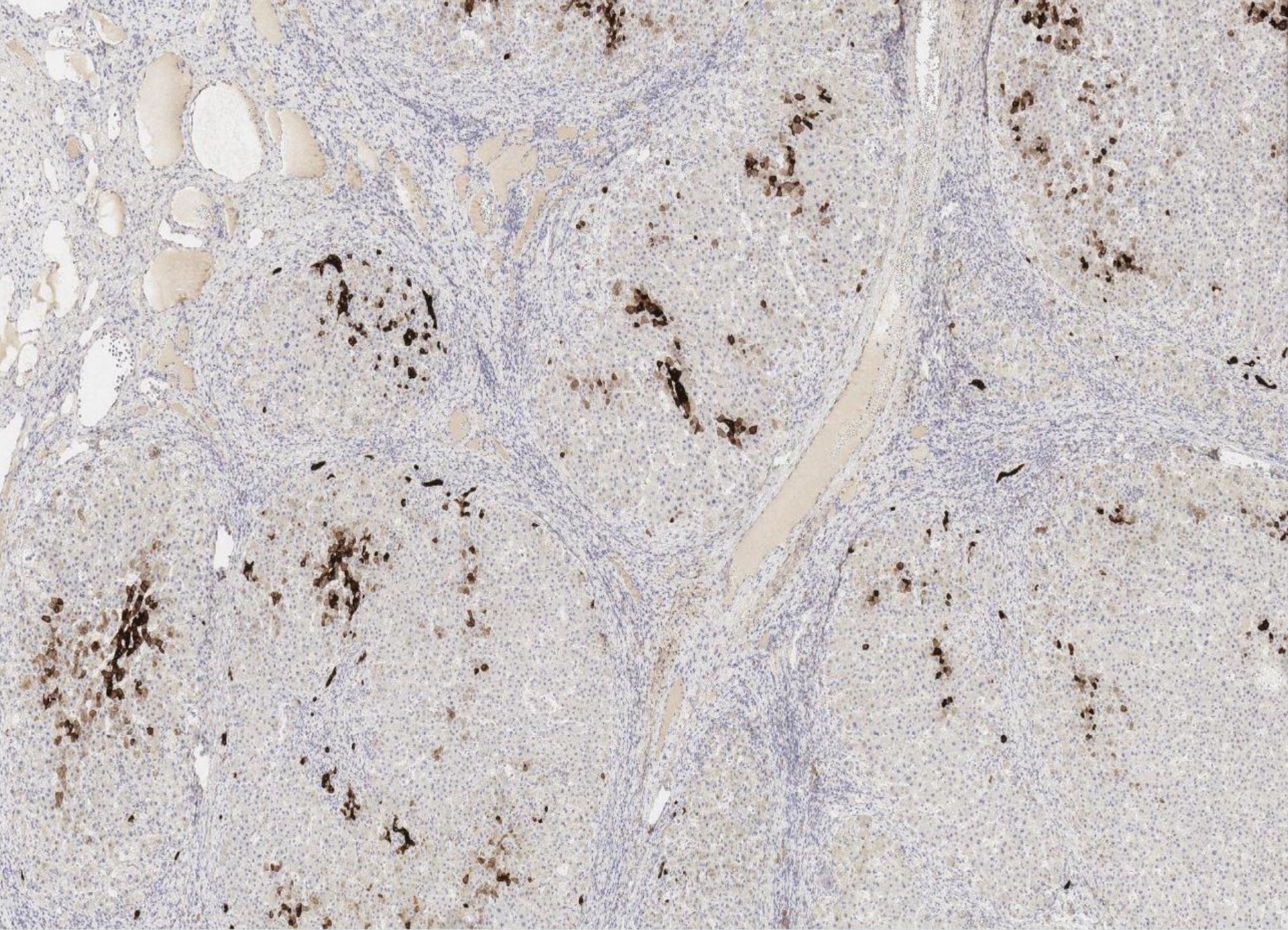


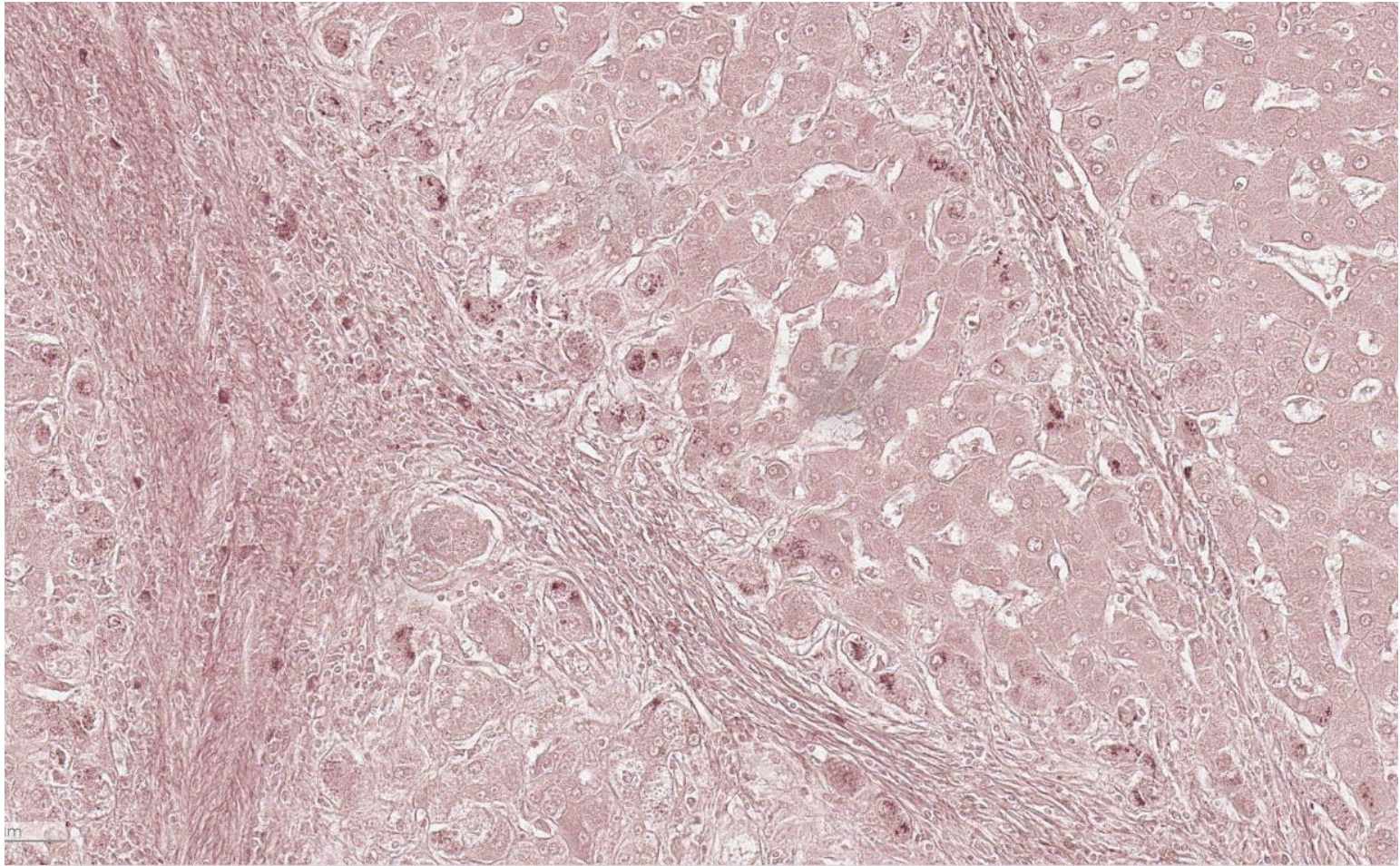












Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		77
- No tumour/lesion present	- No tumour/lesion present	7
		1
hepatocellular lesion, well differentiated NOS (please add comment)		1

1 macroregenerative nodule

Pattern 1:	Pattern 2:	Count:
chronic biliary disease		43
chronic biliary disease	cholestasis, bilirubinostasis	28
cholestasis, bilirubinostasis	chronic biliary disease	7
not applicable	<i>Both give D PSC one with biliary features in comment</i>	2
Other (please specify in Comments)	Makes D PSC	1
abnormal, no pattern discernible	Makes D PSC	1
cholestasis, bilirubinostasis	Makes D PSC and described <i>ductopenia</i>	1
chronic biliary disease	chronic biliary disease	1
chronic biliary disease	iron overload	1
chronic biliary disease	Other (please specify in Comments) <i>nothing written in comments!</i>	1

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	98.8%

Complete consensus

Male 61M. PSC, recurrent cholangitis, intrahepatic duct stones. Liver Transplant

Diagnosis Combination:	Count:
primary sclerosing cholangitis	48
hepatolithiasis, primary sclerosing cholangitis	25
large bile duct obstruction, primary sclerosing cholangitis	6
iron overload, hereditary, primary sclerosing cholangitis	2
chronic cholangiopathy NOS, large bile duct obstruction <i>It is possible that the diagnosis of PSC was erroneous review imaging</i>	1
granulomatous disease NOS (please specify in comments box), primary biliary cholangitis <i>describes granulomatous destruction of bile ducts in comment, chronic biliary disease pattern</i>	1
hepatolithiasis, vanishing bile duct syndrome <i>presumably due to PSC although diagnostic lesions not seen</i>	1
large bile duct obstruction <i>complication of PSC</i>	1
Other (please enter alternative diagnosis in comments box), primary sclerosing cholangitis <i>PSC and its complication</i>	1

Proposed scoring

- Consensus for:
- Biliary pattern and/or biliary diagnosis. Advanced fibrosis stage. Diagnosis – PSC +/- stones
- 1 macroregenerative nodule? – not to score down it's a cirrhotic section.
- 2 suggesting additional iron overload, no Perl stain, not to score down 2 slightly less firm diagnoses of PSC, not to score down
- 1 PBC score 5 as recognises chronic biliary disease pattern but then describes granulomas.
- 1 person no stage given score 5
- **Original report and further information (if any):** PSC good example. Comments from submitter?

Notes LX3

- End stage biliary disease, nice example.