

Liver EQA Scheme
Circulation LM

Autumn 2015

Collated responses and suggested scores
for meeting 10th December 2015, Harrogate.

For 2016:

BSG update meetings joint with Gloucester course in Cheltenham

Liver meeting will be on Thursday 6th October

Liver EQA will need to run earlier than usual –

circulation LN Jan-April

circulation LP May – August

Please send us EQA cases – need 20 H&E and single copy of special stains. Register them on EQA lite, under ‘cases’ and send the slides to Jassi

Circulation LM

Responses from 78 members,
for 80% consensus need 63 or more to agree

Comments on scoring from 7 members

Open meetings for LL and LM attended by about 40 members.

Liver EQA scheme: Circulation LM

- Responses collated and presented at open meeting on 10th December 2015 – 40 members present.
- Pre-meeting circulation with opportunity to comment – 7 members sent comments.
- Criteria for scoring agreed at meeting, and then applied to responses.
- Before deducting points, responses are re-read – including all text in both morphology and clinic-pathological components.
- The results and CPD certificates are sent to participants by EQAlite, once the annual subscription has been received.
- The individual's 'results' report is generated by EQAlite. Only the clinic-path text is shown in the report. For full responses, see excel spreadsheet.
- The EQAlite report also shows the individual participant's score, the agreed scoring criteria and the average score for all participants.

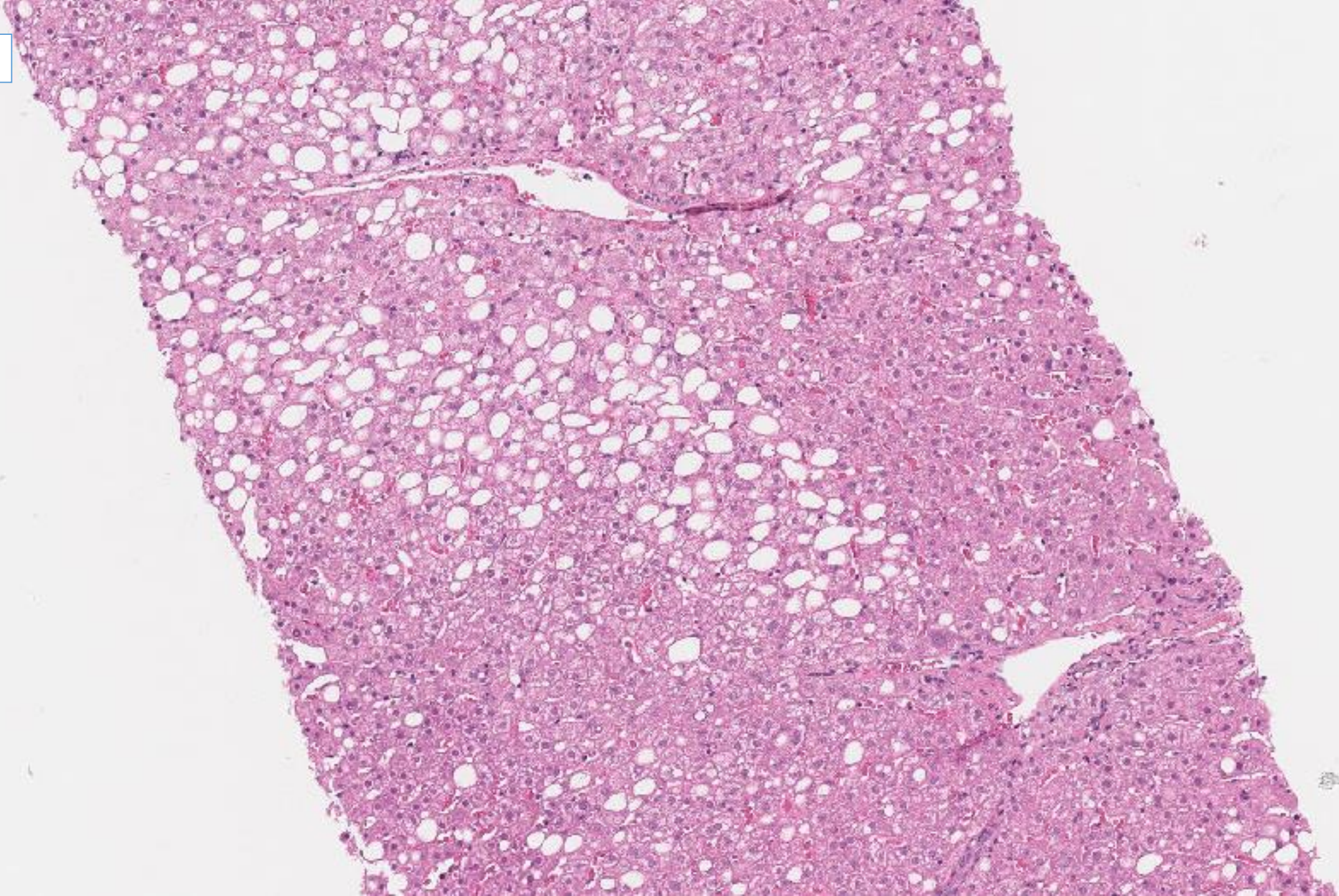
Case LM1 Age 46, Male

NAFLD BMI >32, DM on insulin AST 74, ALT 112, NASH? Degree of fibrosis.

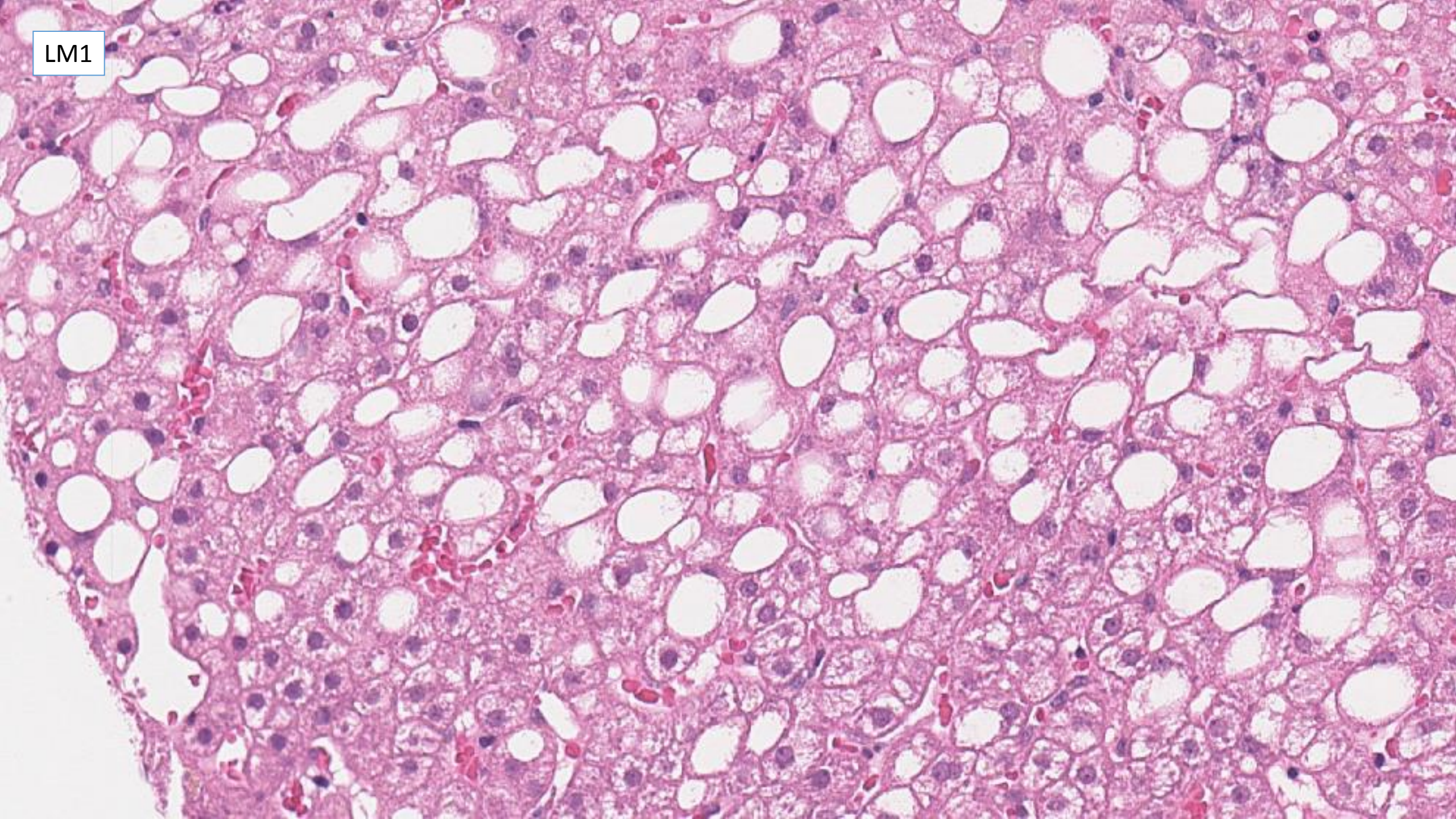
van Gieson. cytokeratin



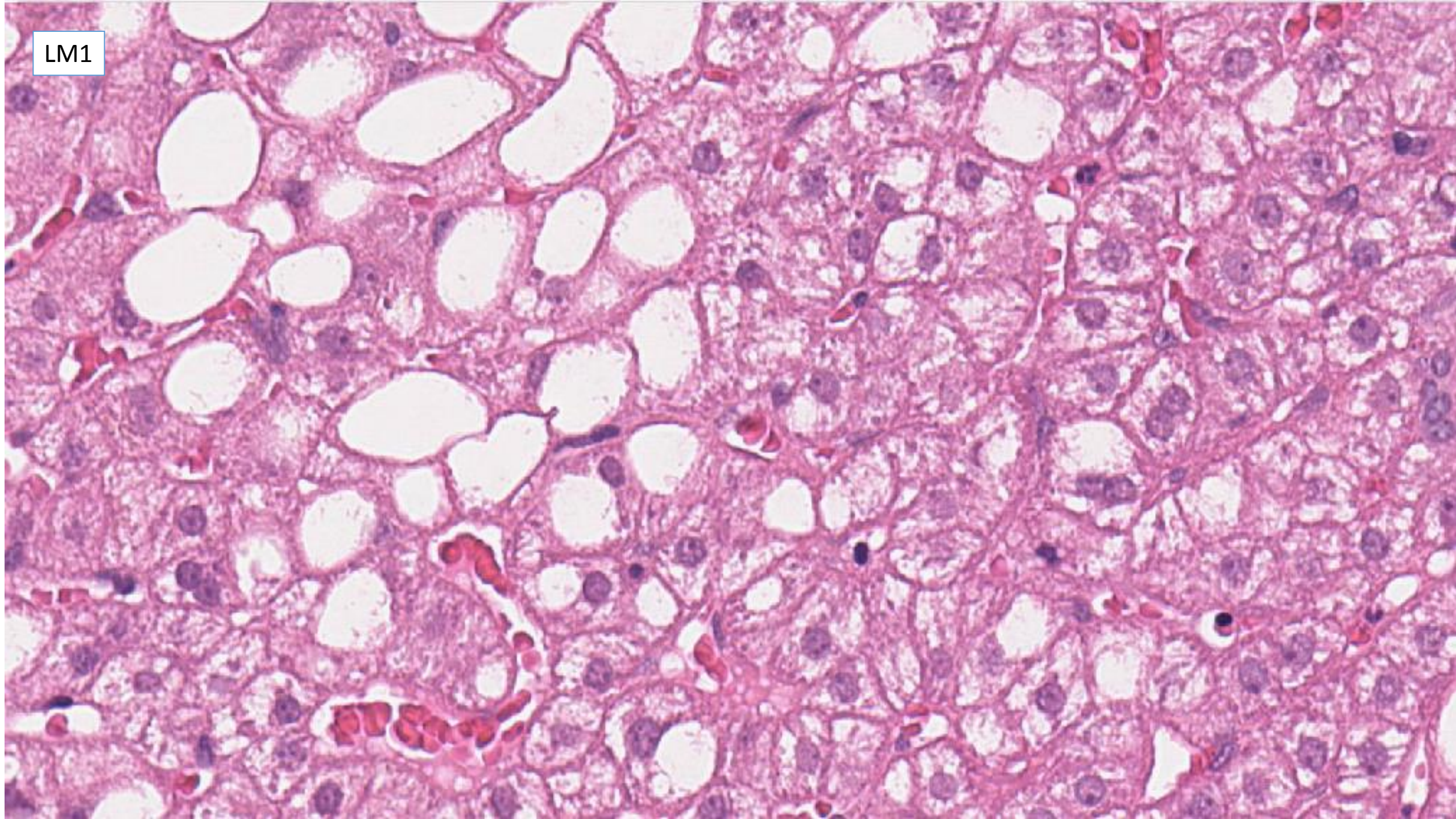
LM1



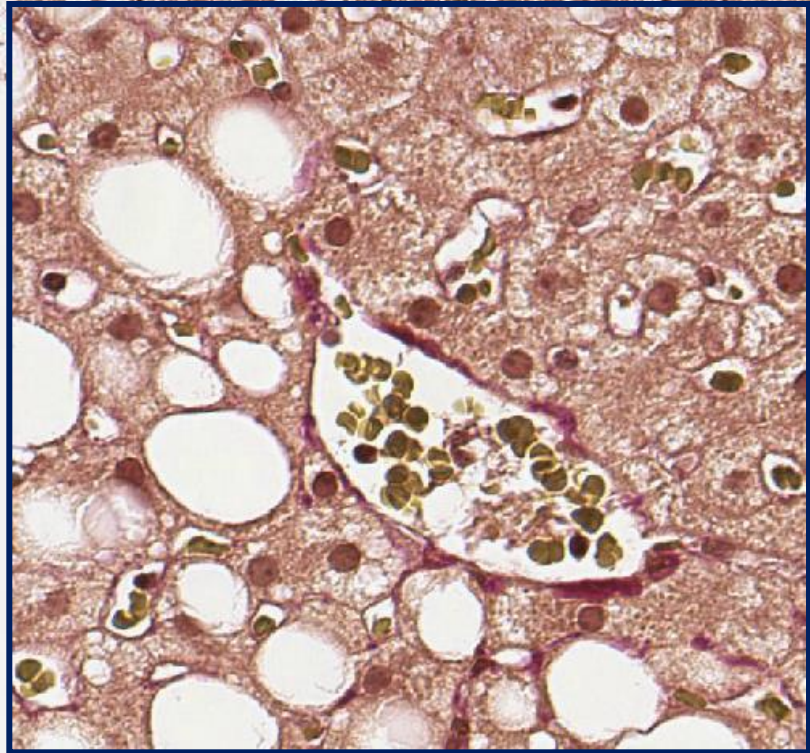
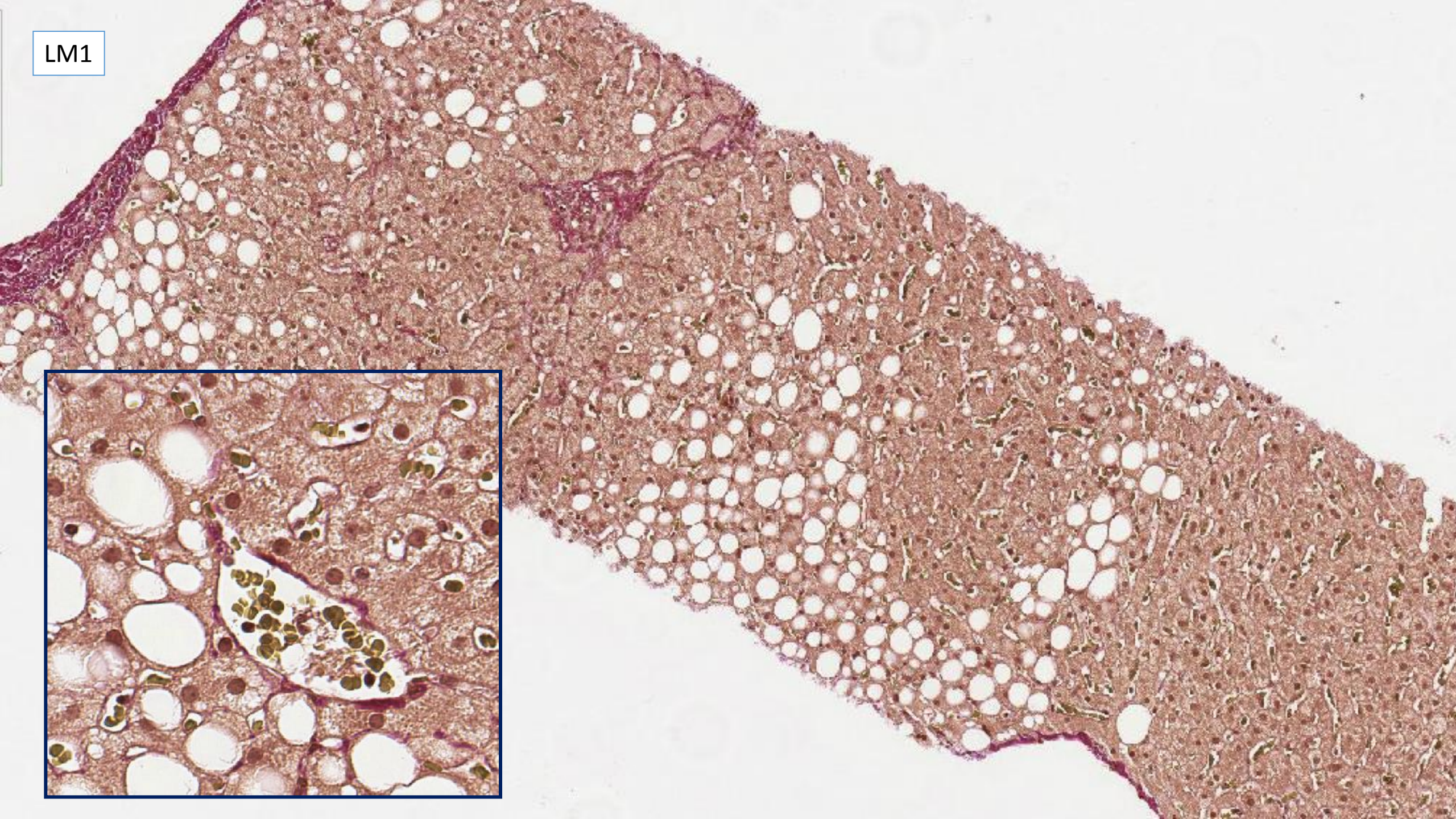
LM1



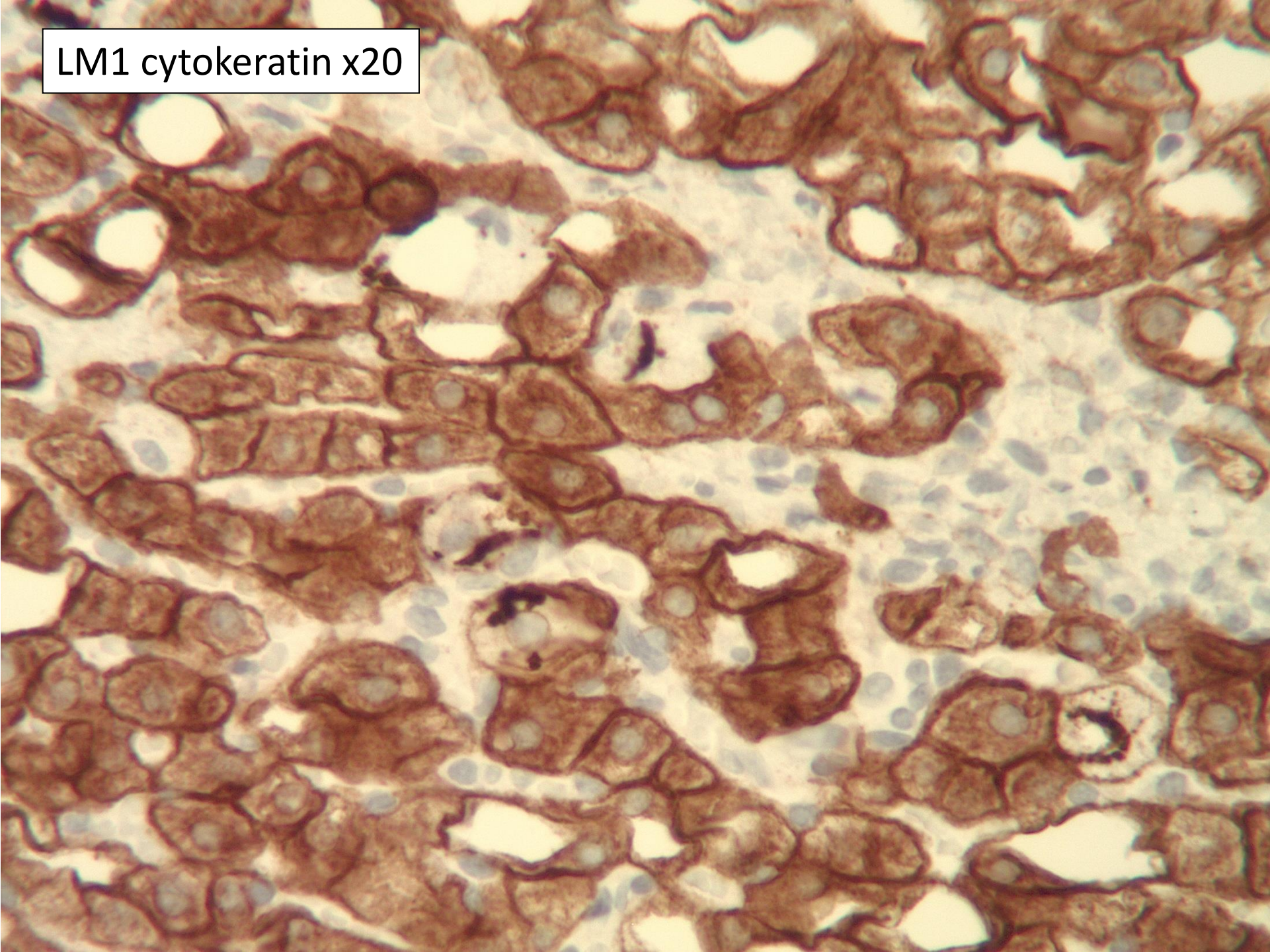
LM1



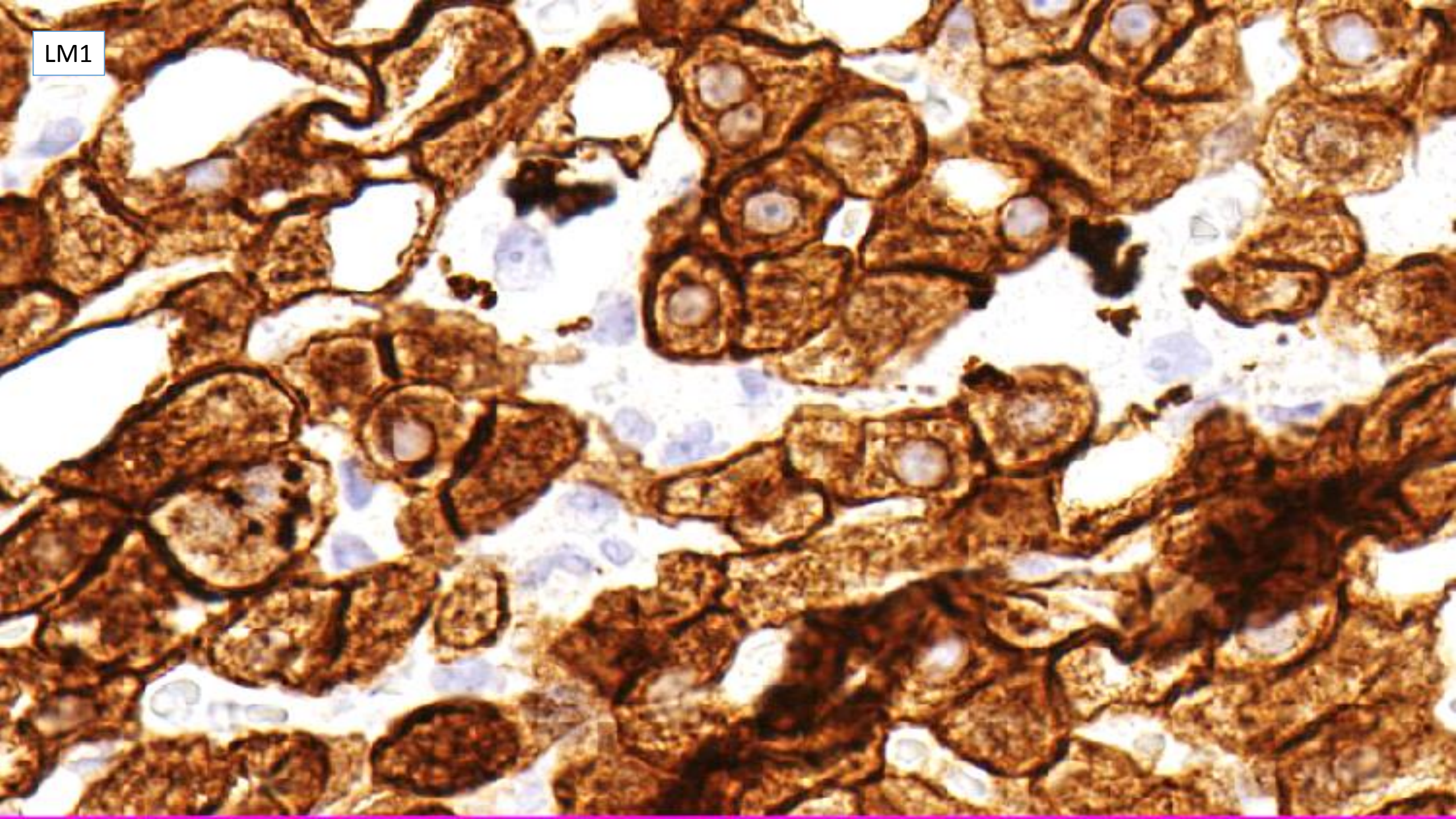
LM1



LM1 cytokeratin x20



LM1



Case LM1 Age 46, Male

NAFLD BMI >32, DM on insulin. NASH? Degree of fibrosis.

LM1	
Diagnosis:	
fatty liver disease	78
Of which:	
steatosis or NAFLD but steatohepatitis not stated	21
steatohepatitis	50
borderline steatohepatitis	4
steatosis and fibrosis	1
NAFLD + likely venous outflow obstruction	1
minimal chronic hepatitis, exclude hep C, c/w NAFLD	1
aetiology	
consistent with NASH, NAFLD, metabolic etc.	67
No comment relating fatty liver to metabolic syndrome	11
comments:	
MDB seen on CK stain	22
no MDB	7

fibrosis: comment and/or stage included in responses	78
none	5
minimal	16
mild	31
significant	1
moderate	2
portal and pericellular	6
focal bridges	2
Kleiner stage : used by 23 people: 1=11, 2=8, 3=1	
Kleiner grade: used by 15 people: 2=1, 3=2, 4=10, 5=2	
Ishak stage: used by 3 people, stage 1 or 2	

Scoring: Majority diagnosis was steatohepatitis, but 21 steatosis, so less than 80% consensus.

For full marks, need fatty liver disease, and some comment that this is consistent with the clinical history of metabolic syndrome.

Half marks if no comment on metabolic syndrome

Half marks for additional venous outflow obstruction and main diagnosis of chronic hepatitis.

Stefan Master class – cytokeratin stains in
fatty liver disease

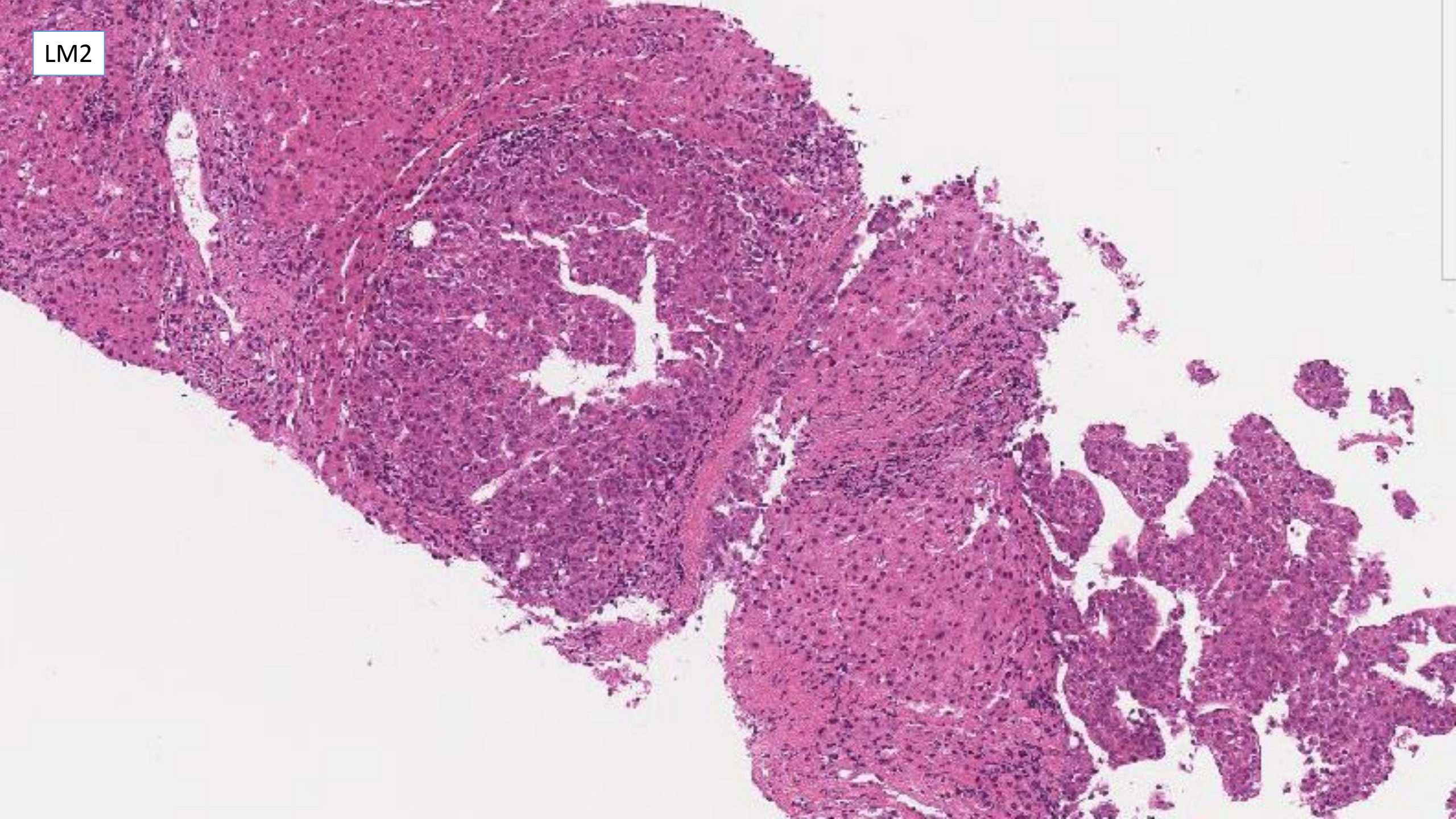
Case LM2 Age 68, Male

biopsy of liver mass. Large infiltrative liver mass, portal vein thrombosis;
? hepatocellular carcinoma

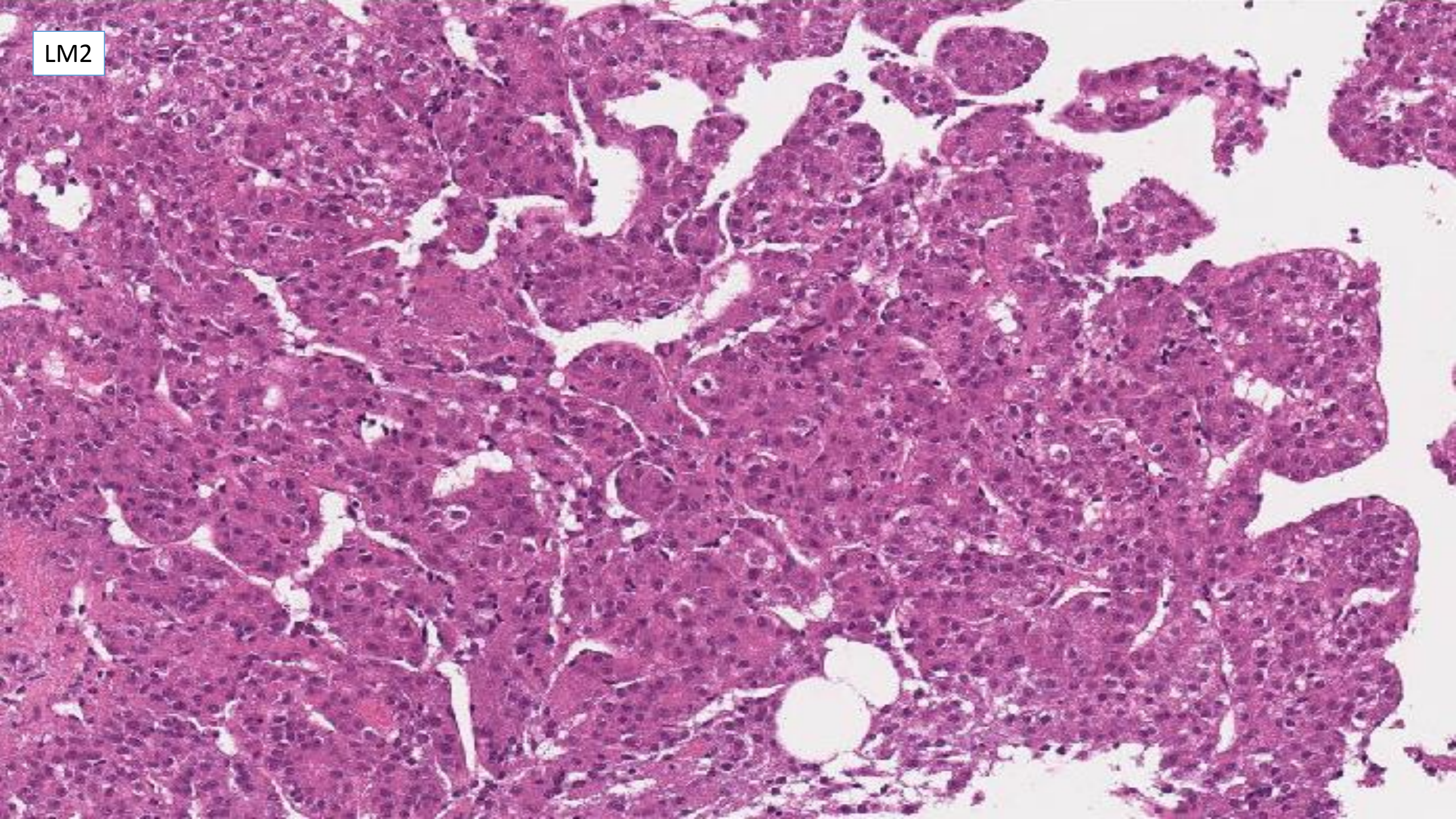
Retic, CD10



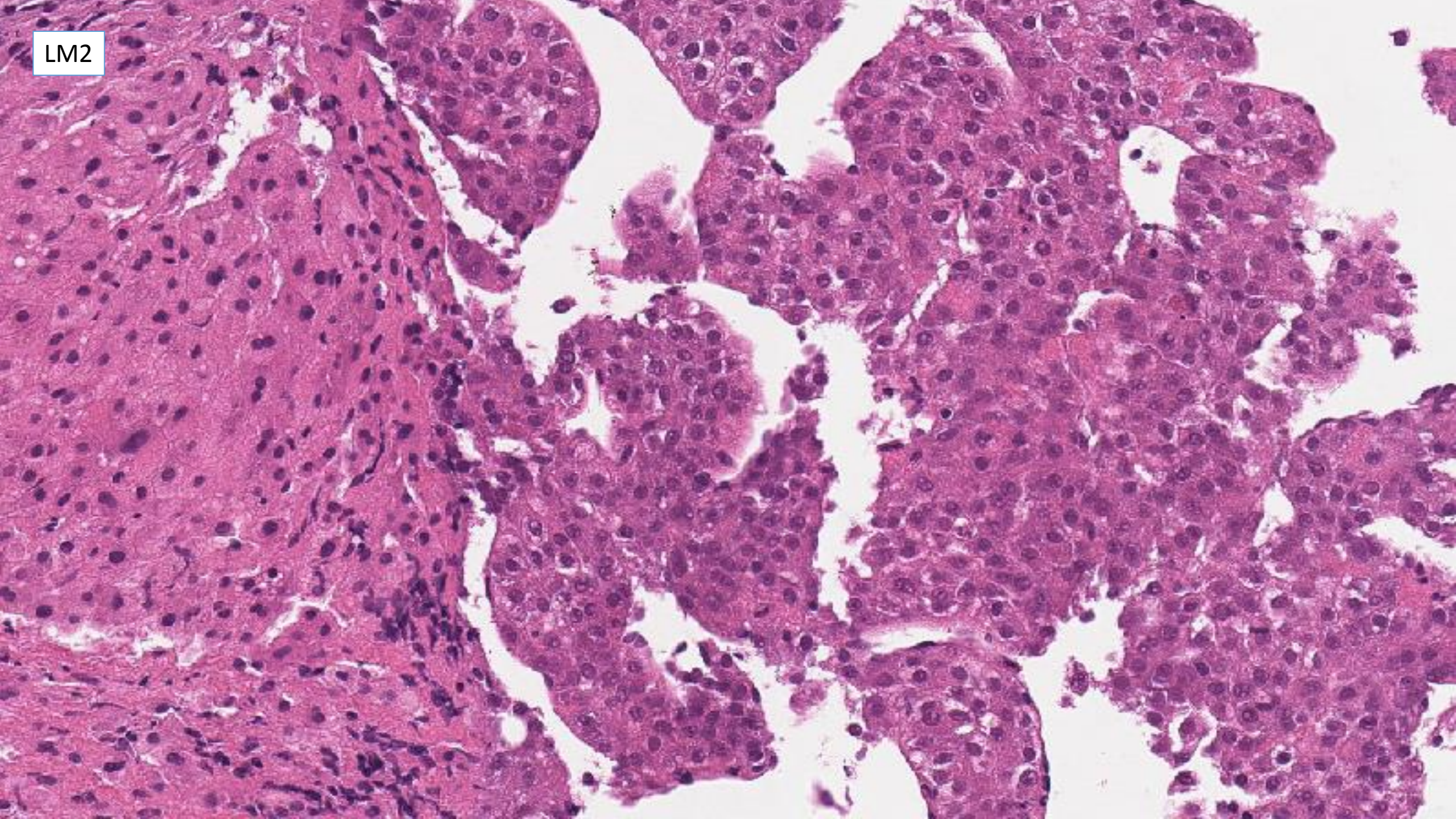
LM2

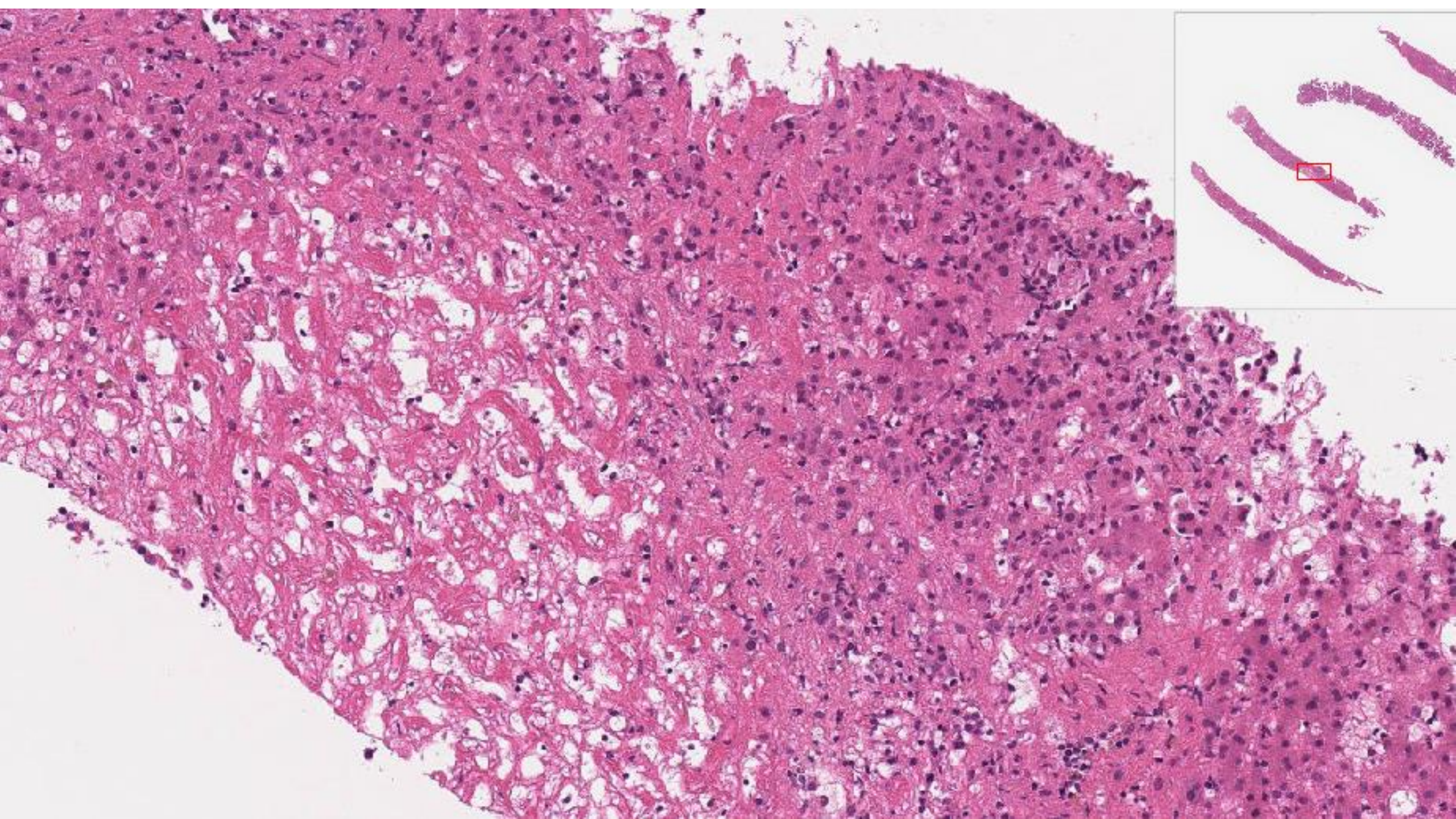


LM2

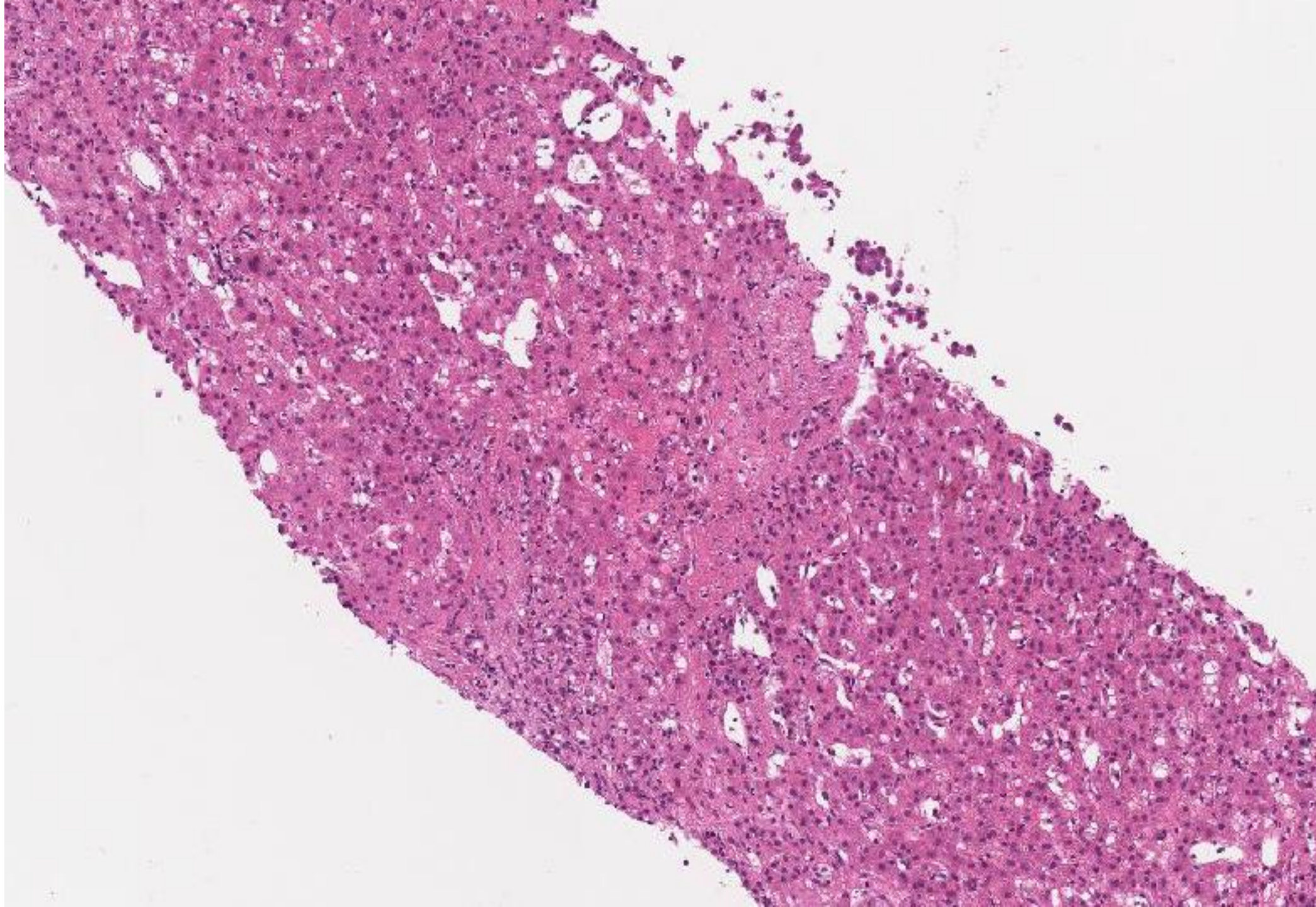


LM2

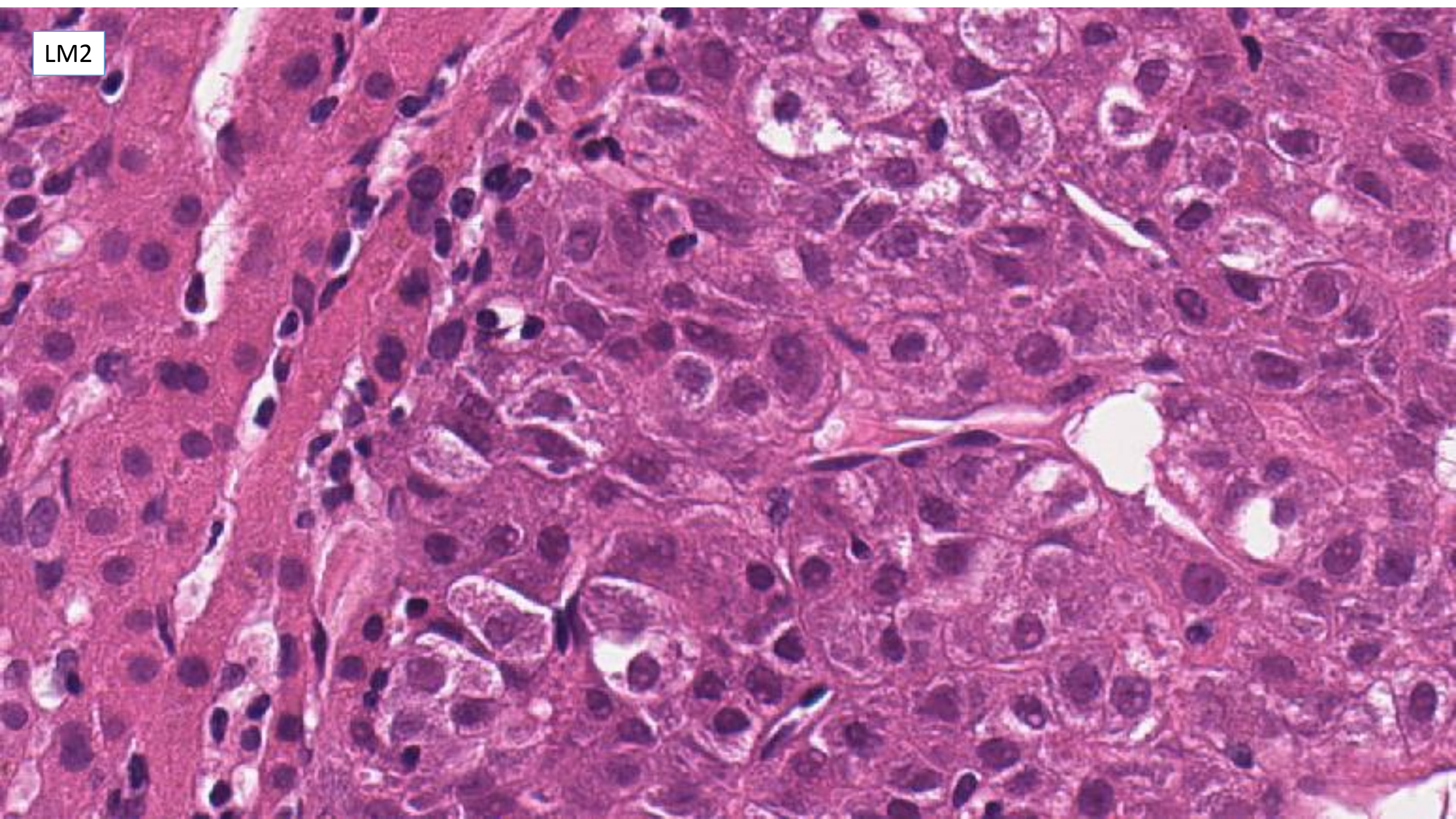


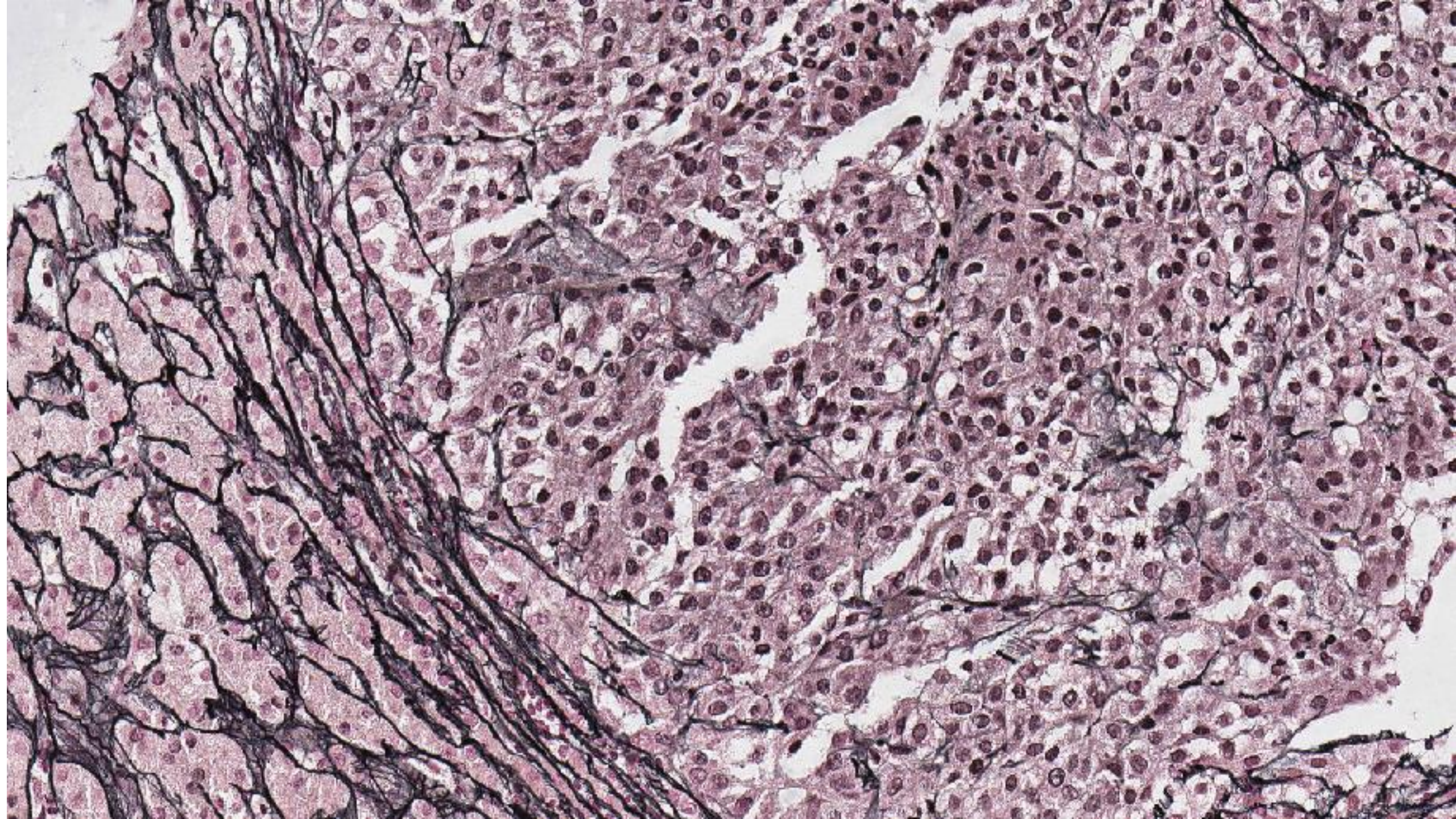


LM2



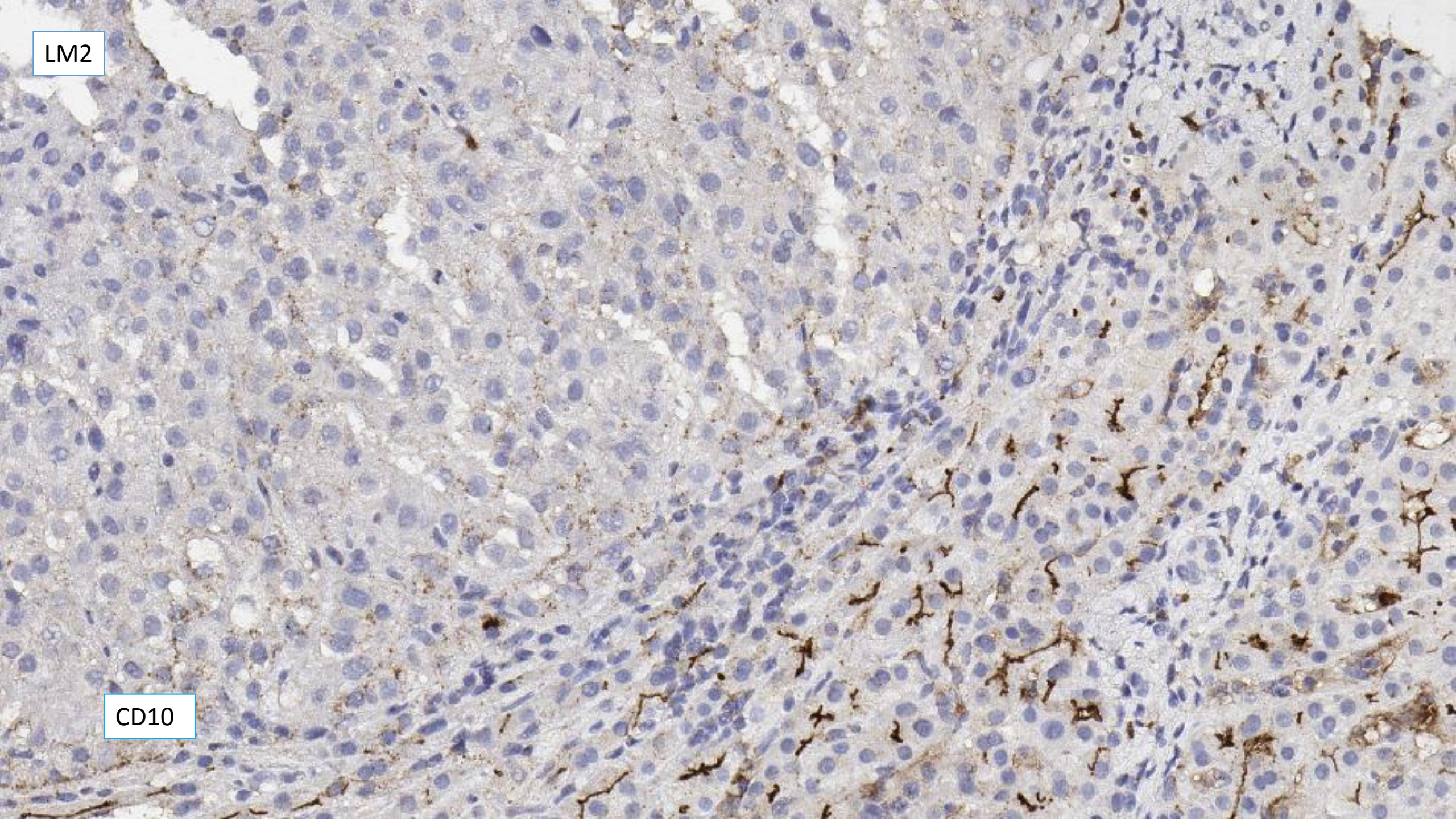
LM2





LM2

CD10



Case LM2 Age 68, Male

biopsy of liver mass. Large infiltrative liver mass, portal vein thrombosis;
? hepatocellular carcinoma

Diagnosis:	
Hepatocellular carcinoma	58
likely hepatocellular carcinoma, do immunos	20
Background liver:	
not mentioned	20
none included	1
non-cirrhotic	13
likely cirrhosis	2
cirrhotic	8
description only	19
mass lesion effect	12
necrosis	7
normal	1

Scoring: for full marks need HCC
or likely HCC, immunos to confirm.

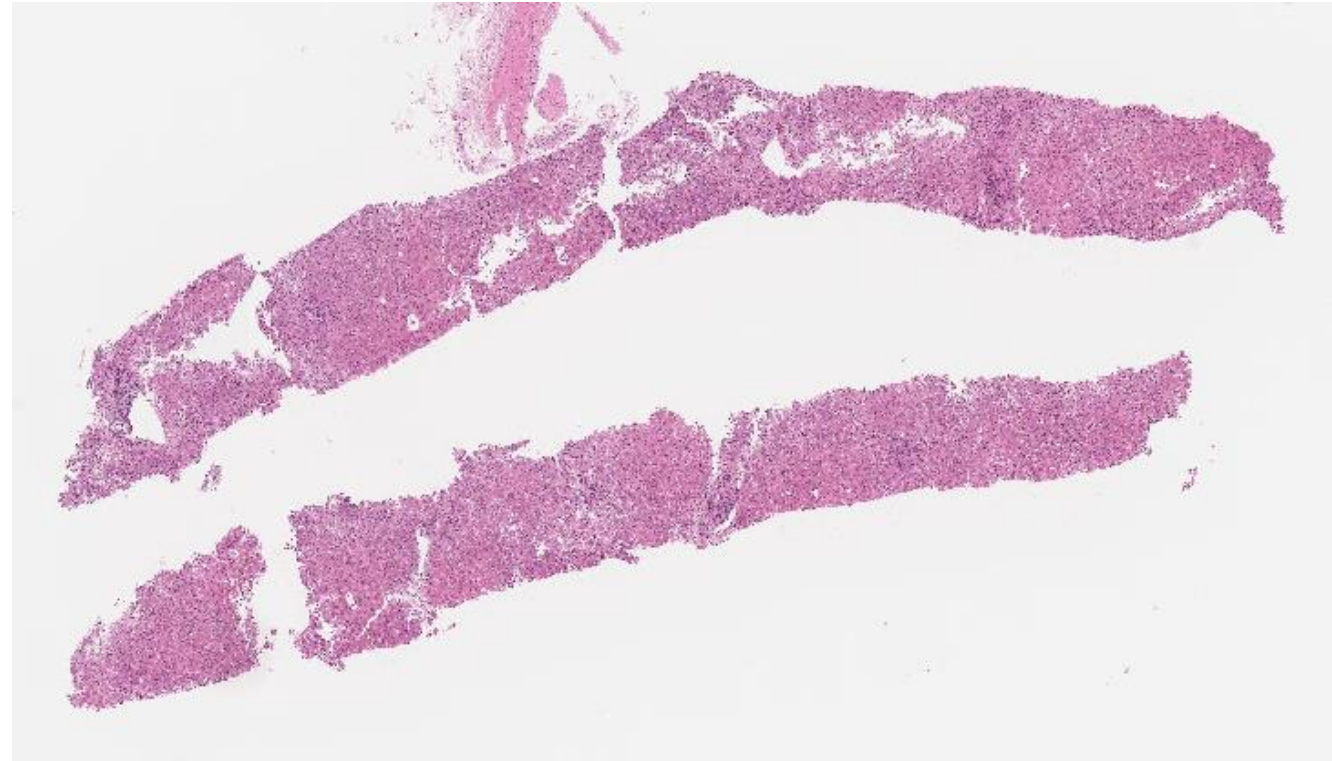
No consensus on background liver, not scored.

All score full marks.

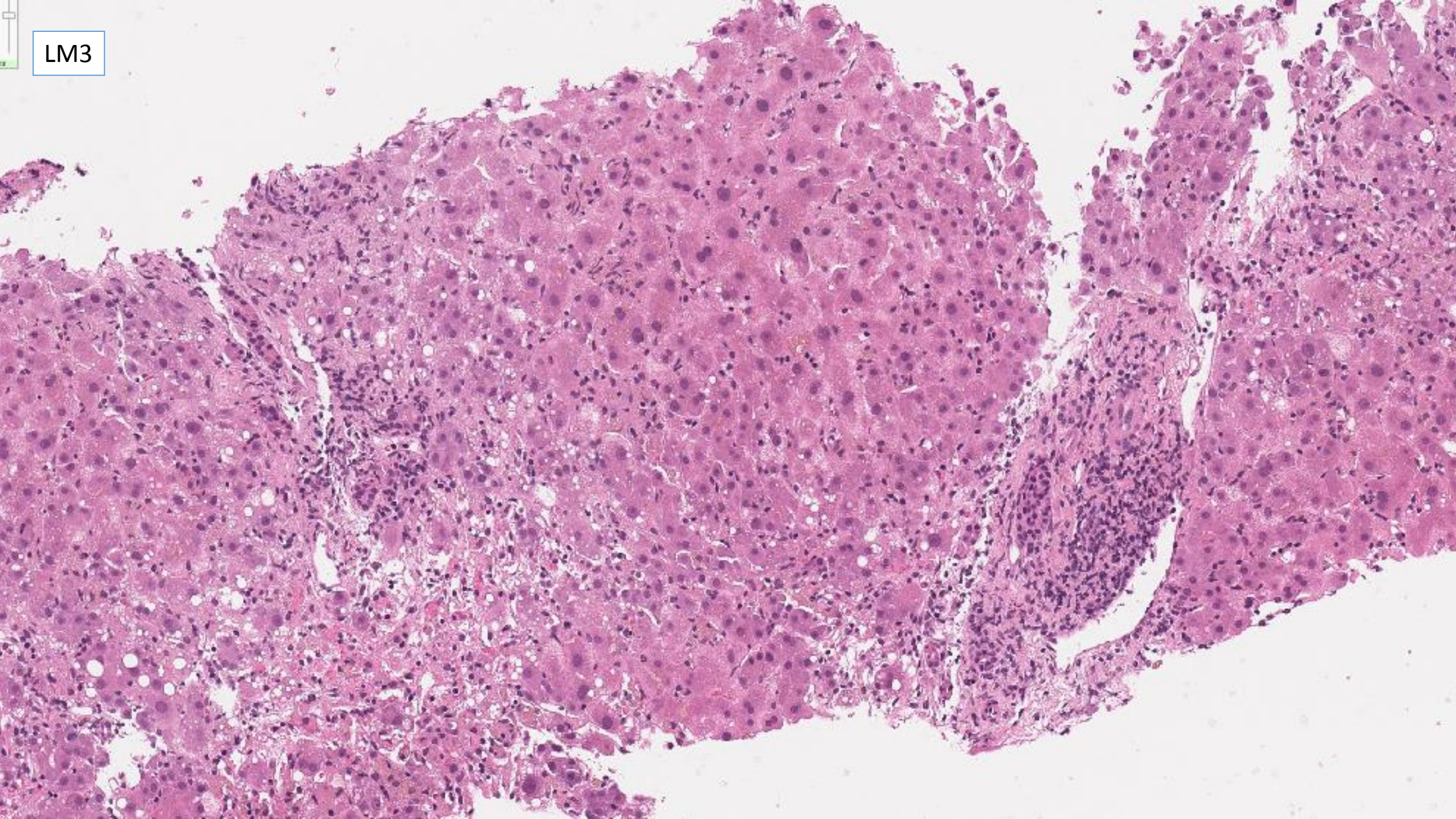
Case number 3

Male 59 years

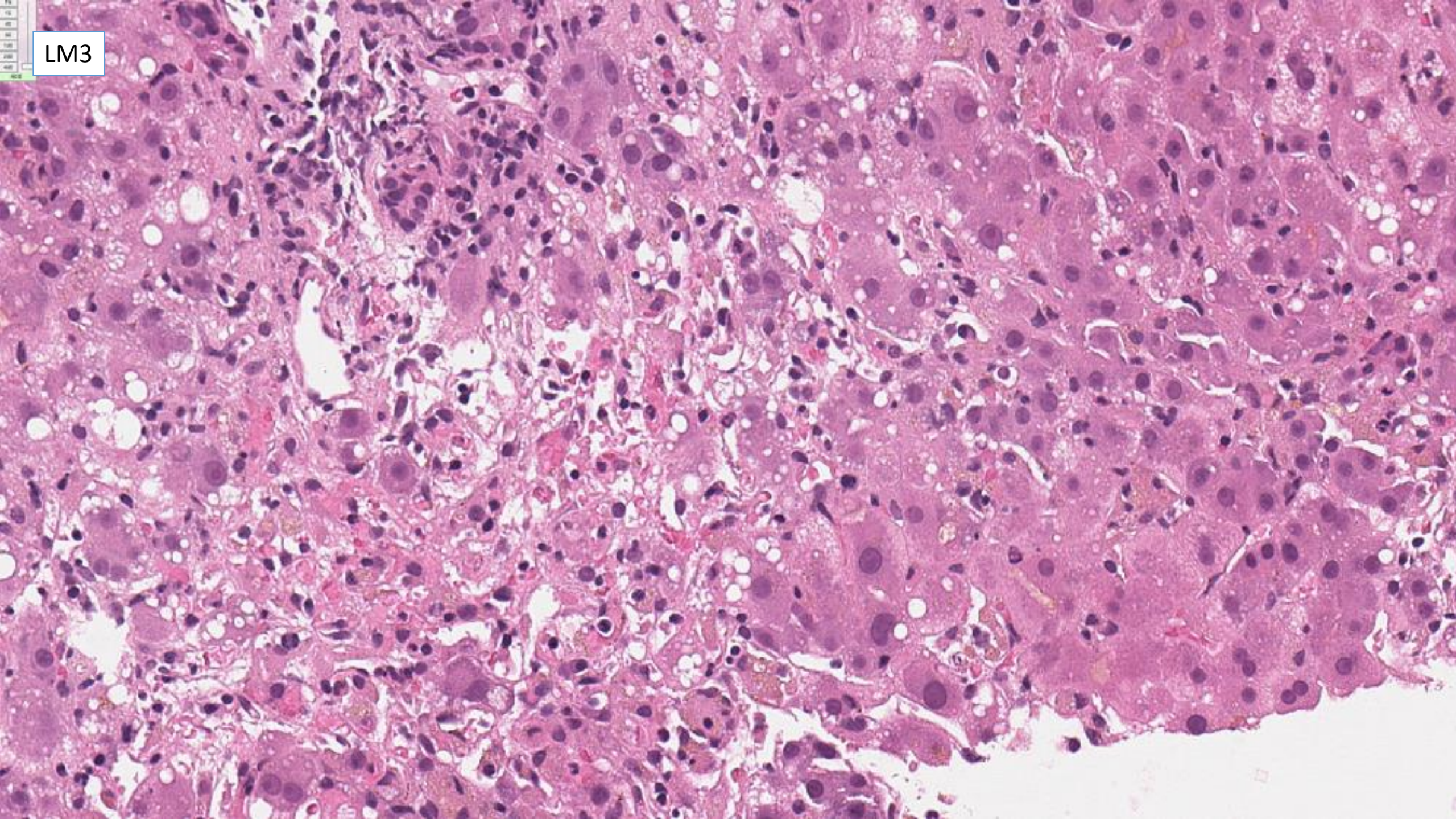
Three day history of nausea, vomiting and jaundice following barbeque with undercooked meat. ALT 9750, bilirubin 200.

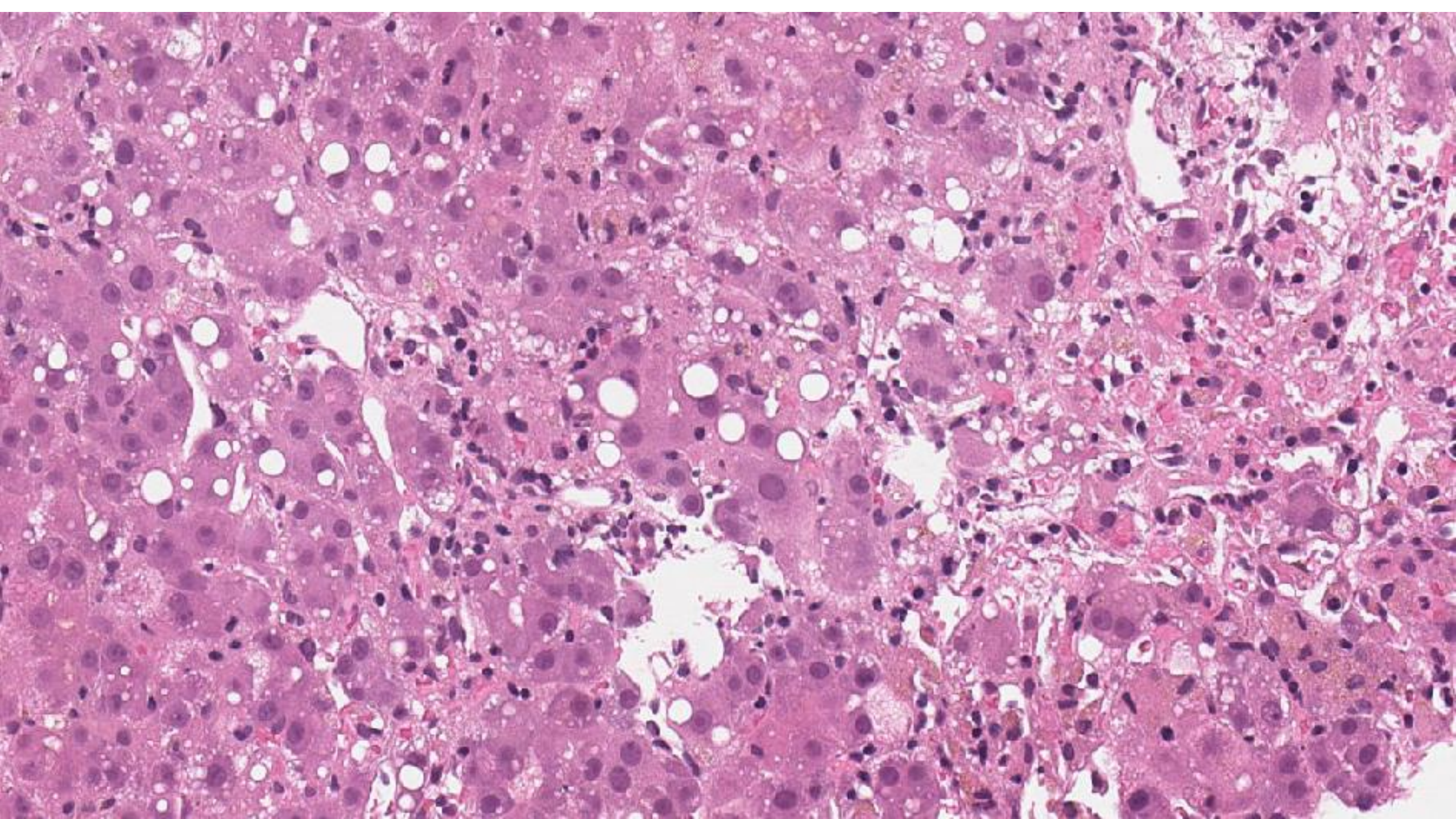


LM3

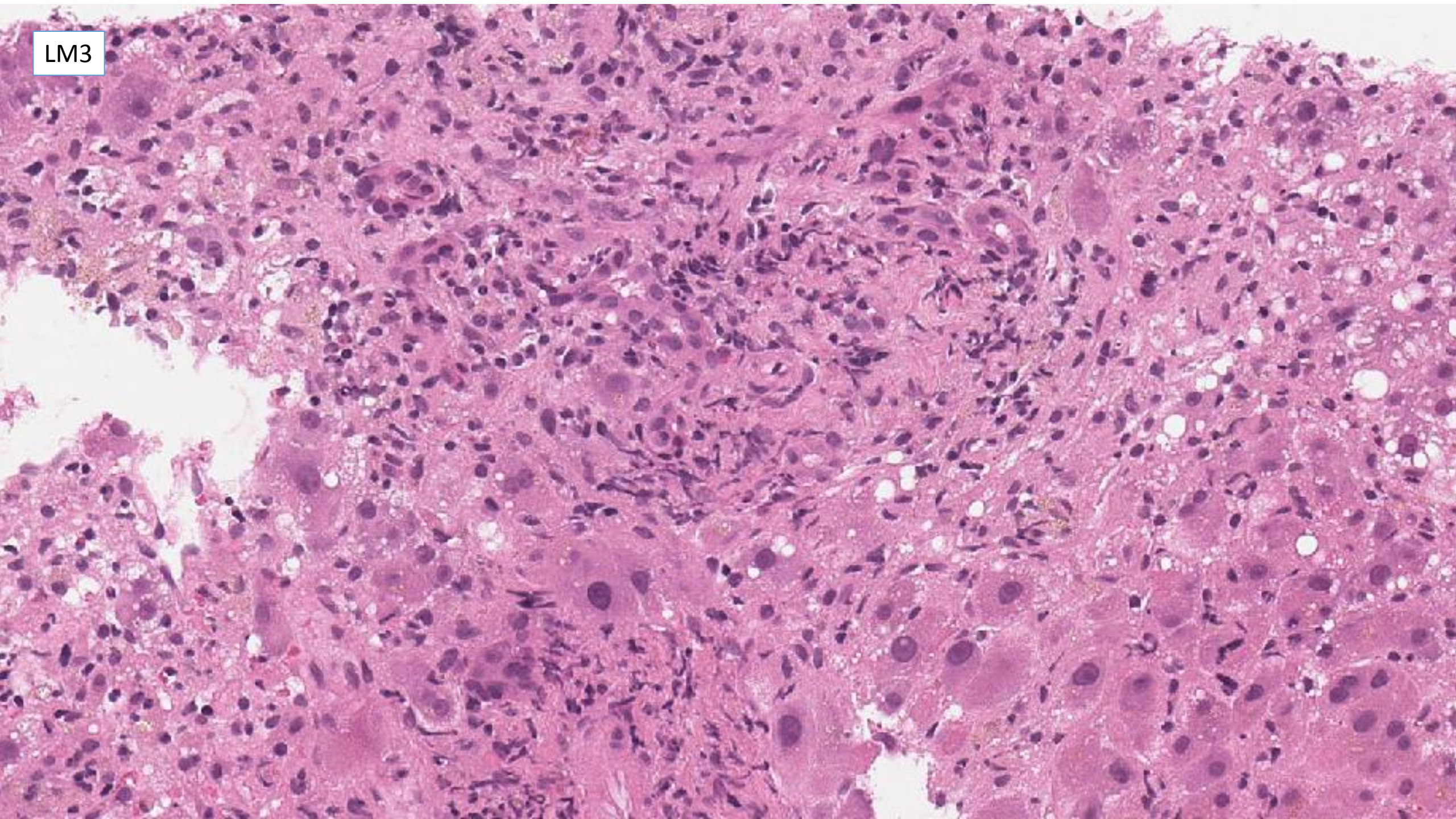


LM3

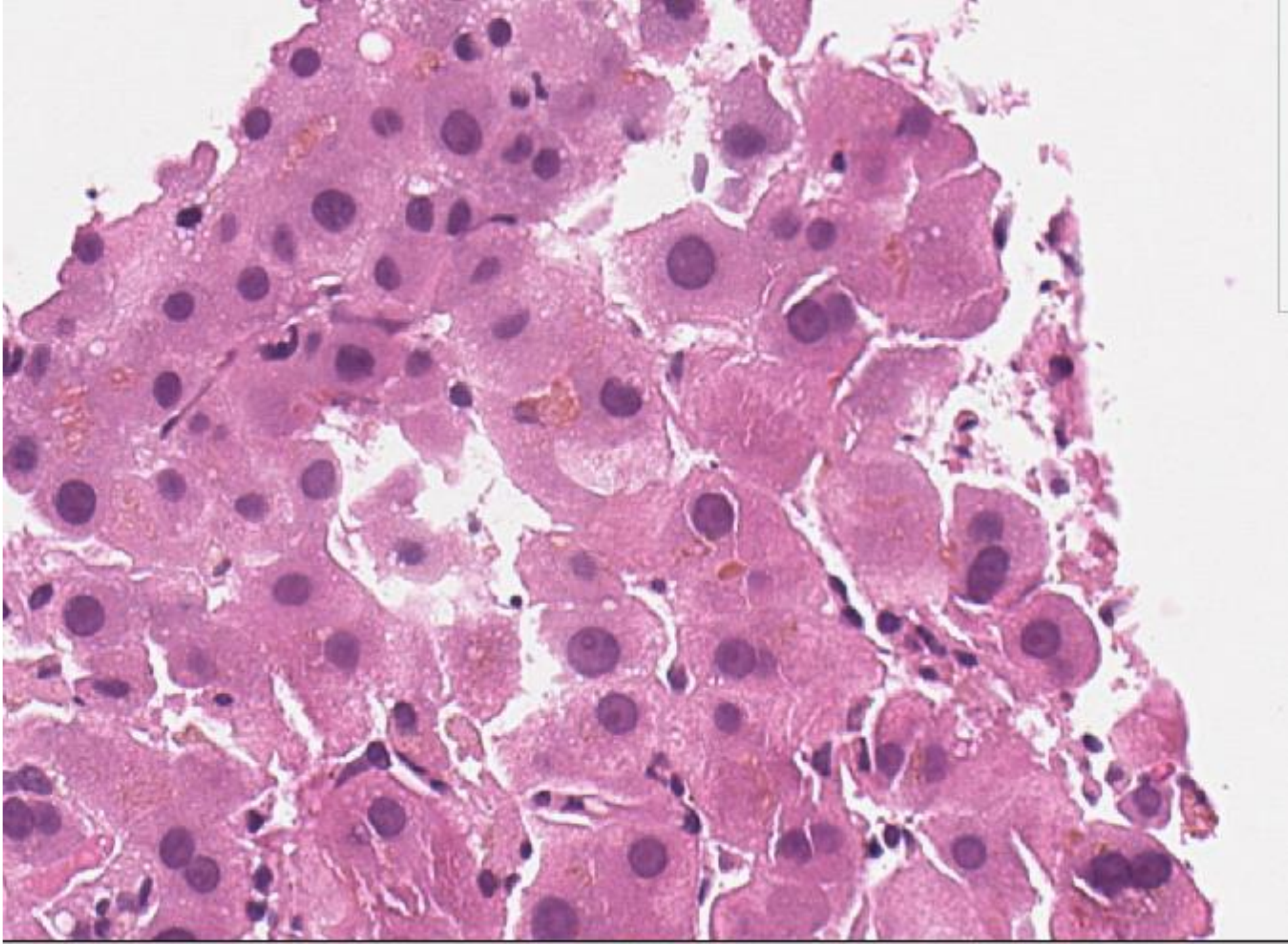




LM3



LM3



Case LM 3 Male 59 years

Three day history of nausea, vomiting and jaundice following barbeque with undercooked meat.
ALT 9750, bilirubin 200.

Diagnosis:	
acute hepatitis	77
acute hepatitis, also Mallory's ? Superimposed alcoholic, Ishak stage 1-2 grade 8	1
Specific features mentioned:	
cholestasis	49
necrosis	44
steatosis	21
aetiology:	
viral as only cause mentioned	34
virus or drug or AIH	20
virus or drug	13
viral or AIH	1
virus not mentioned anywhere, of which	4
drug or AIH	2
drug as only cause mentioned	1
suspected food poisoning'	1
Of viruses:	
hepatitis A	28
hepatitis E	49
hepatitis B or C	1

Scoring: for full marks, need acute hepatitis as the overall diagnosis.

There was a strong consensus that this is likely to be a viral hepatitis, of which hepatitis E or A were frequently mentioned.

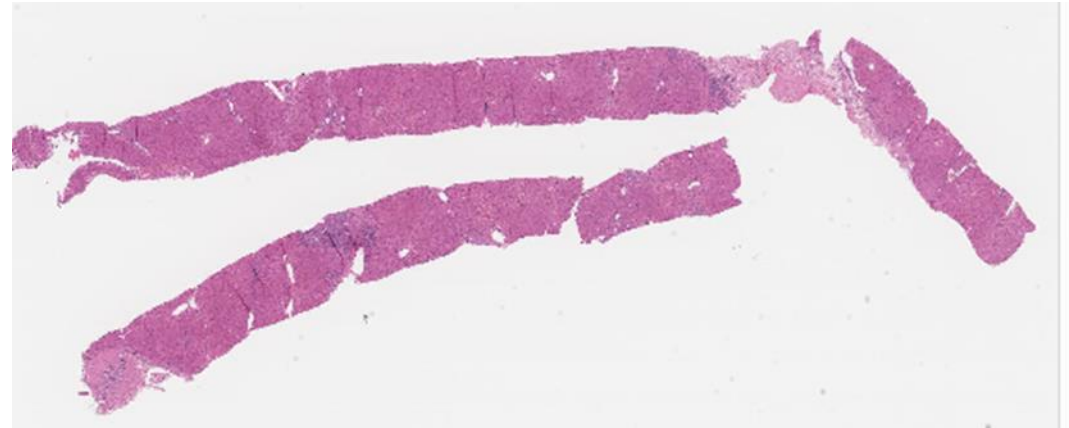
Score 5 marks for no mention of possibility of a viral cause for the hepatitis

The submitting pathologist confirmed that this is a case of acute hepatitis E.

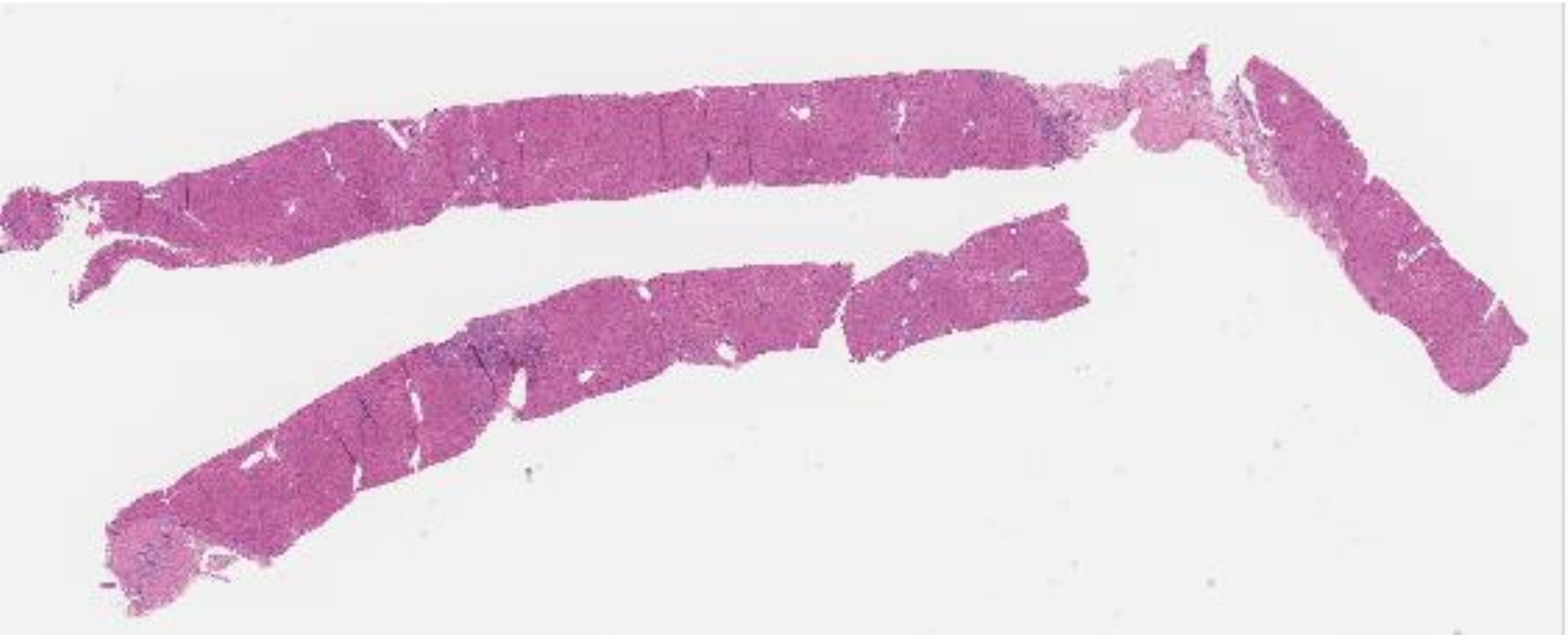
Case LM4 Age 34, Male

Autoimmune hepatitis and cirrhosis. Normal LFTs but persistent raised IgG. Is there ongoing inflammatory activity? Latest autoantibody: SMA 1:160. ANA 1:40. Previous biopsy in 2001 showed probable cirrhosis in keeping with AIH. Moderate interface hepatitis noted at that time.

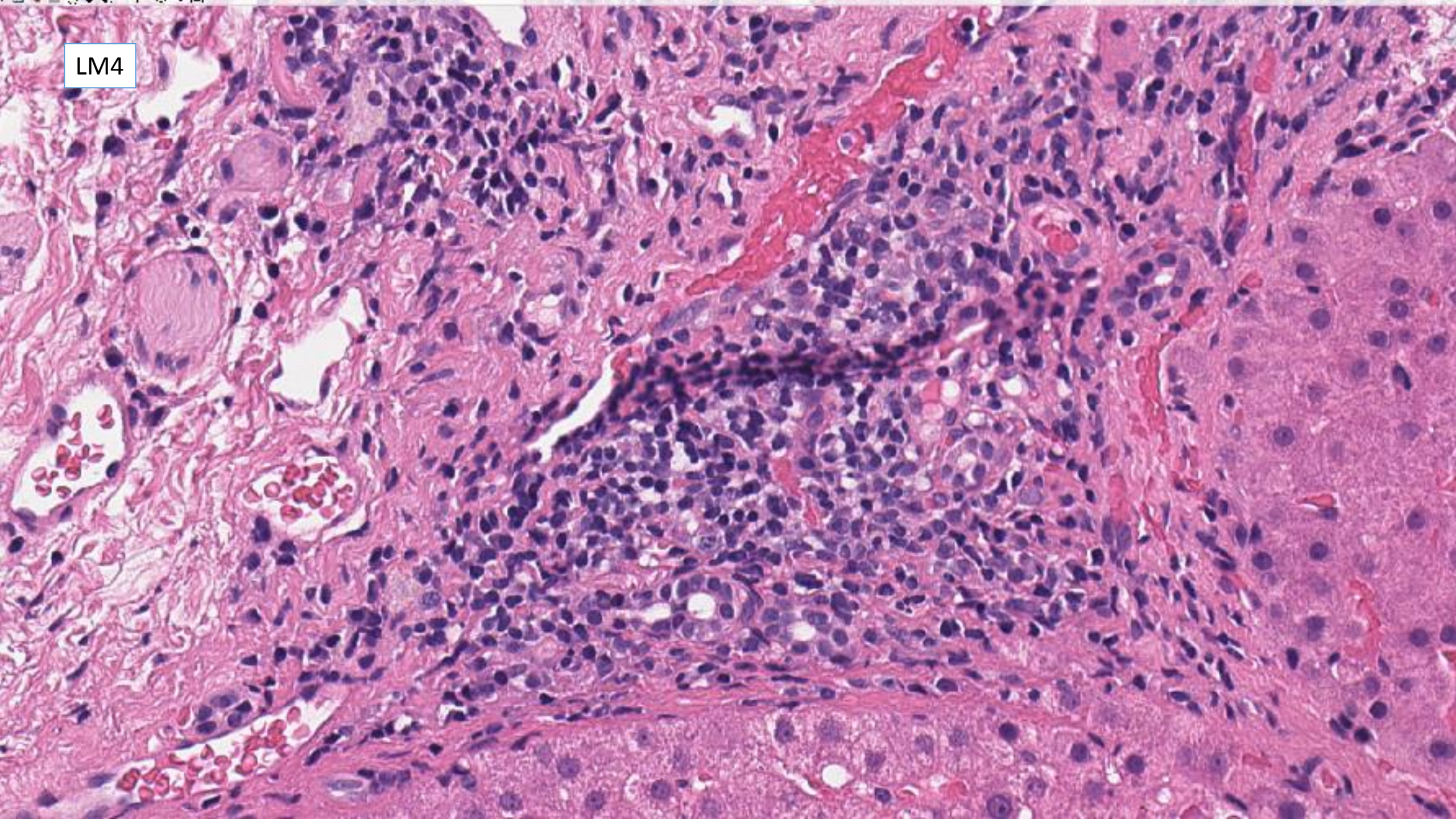
Retic, HVG, orcein



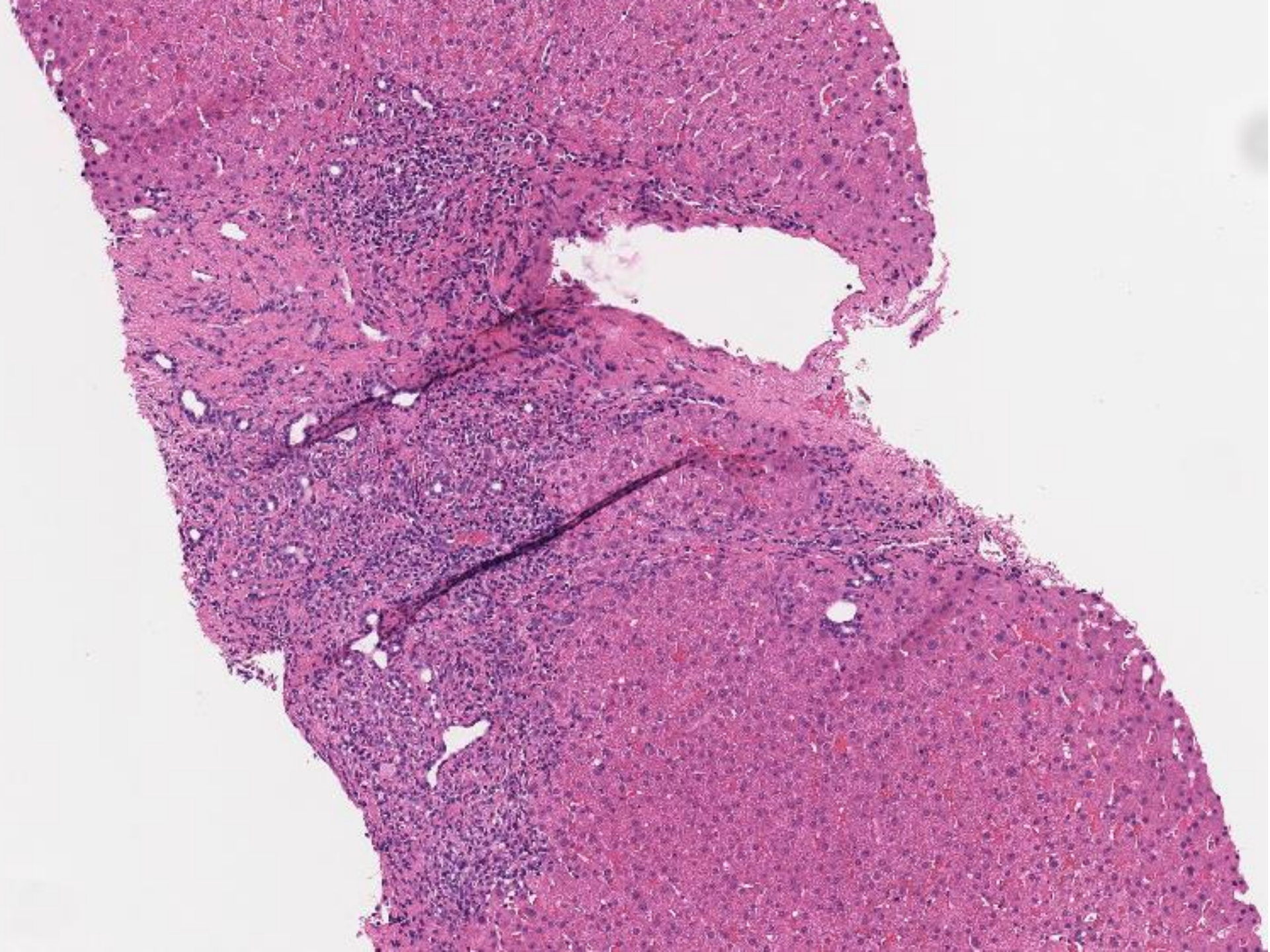
LM4



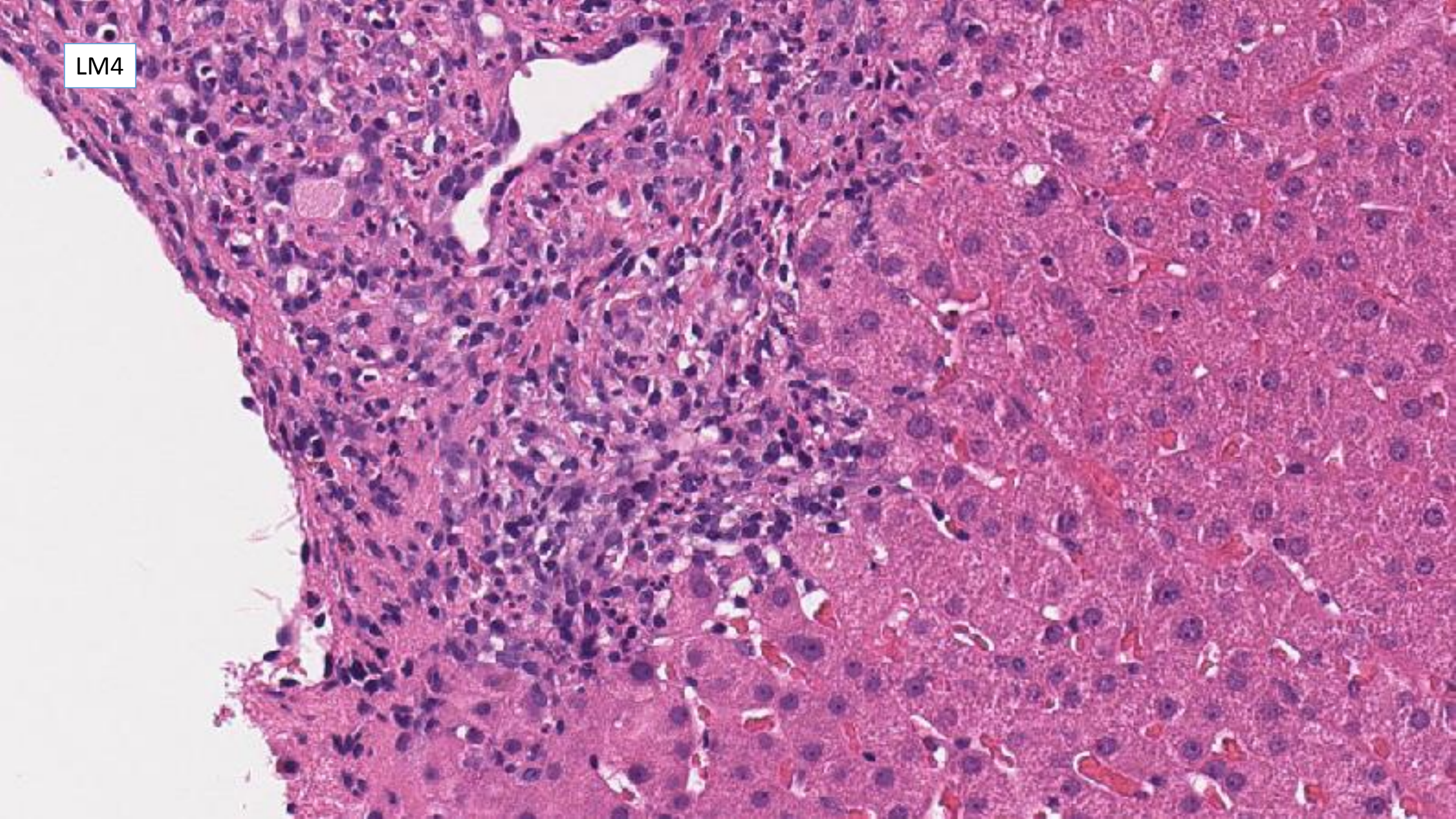
LM4



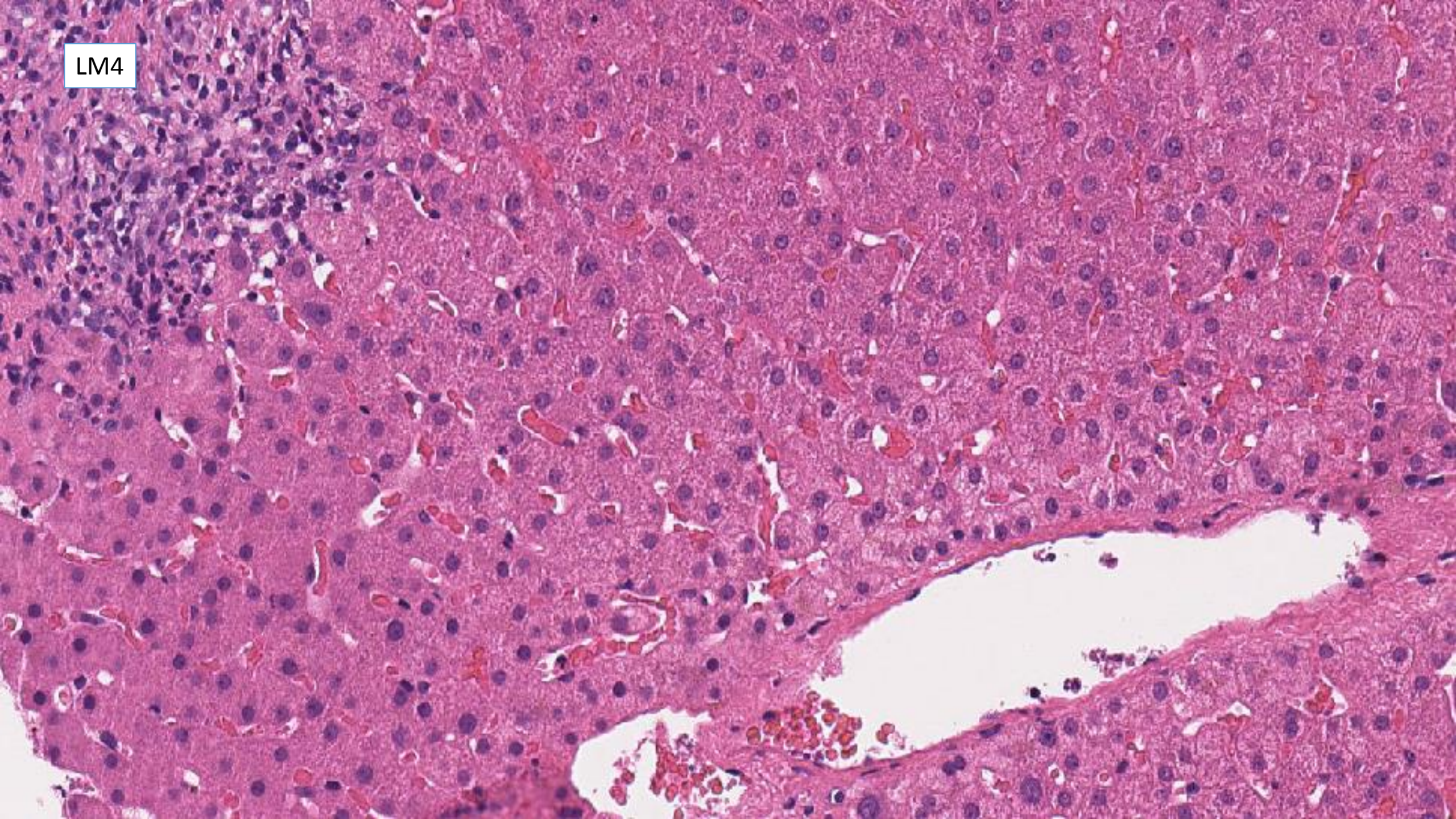
LM4



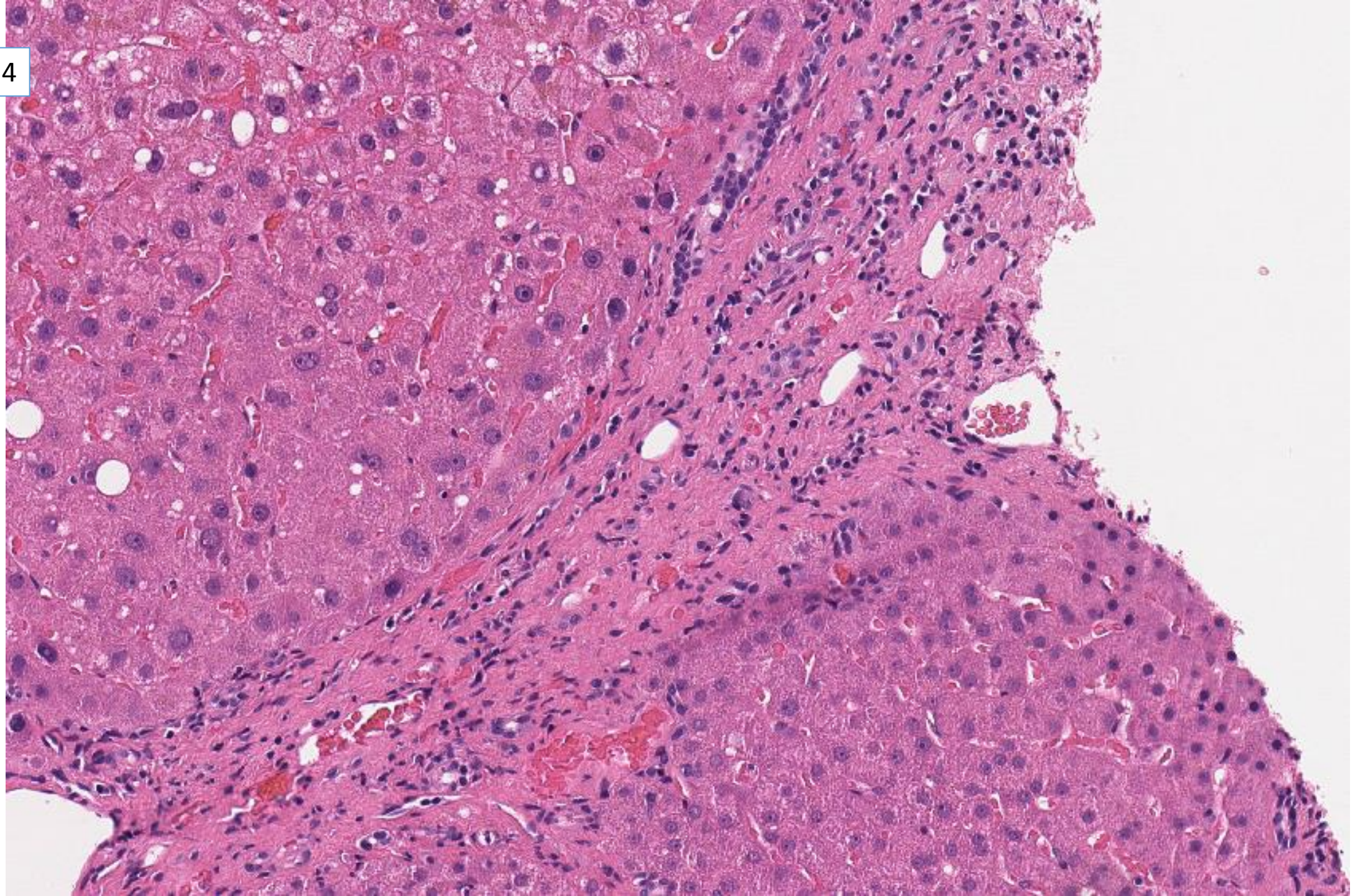
LM4



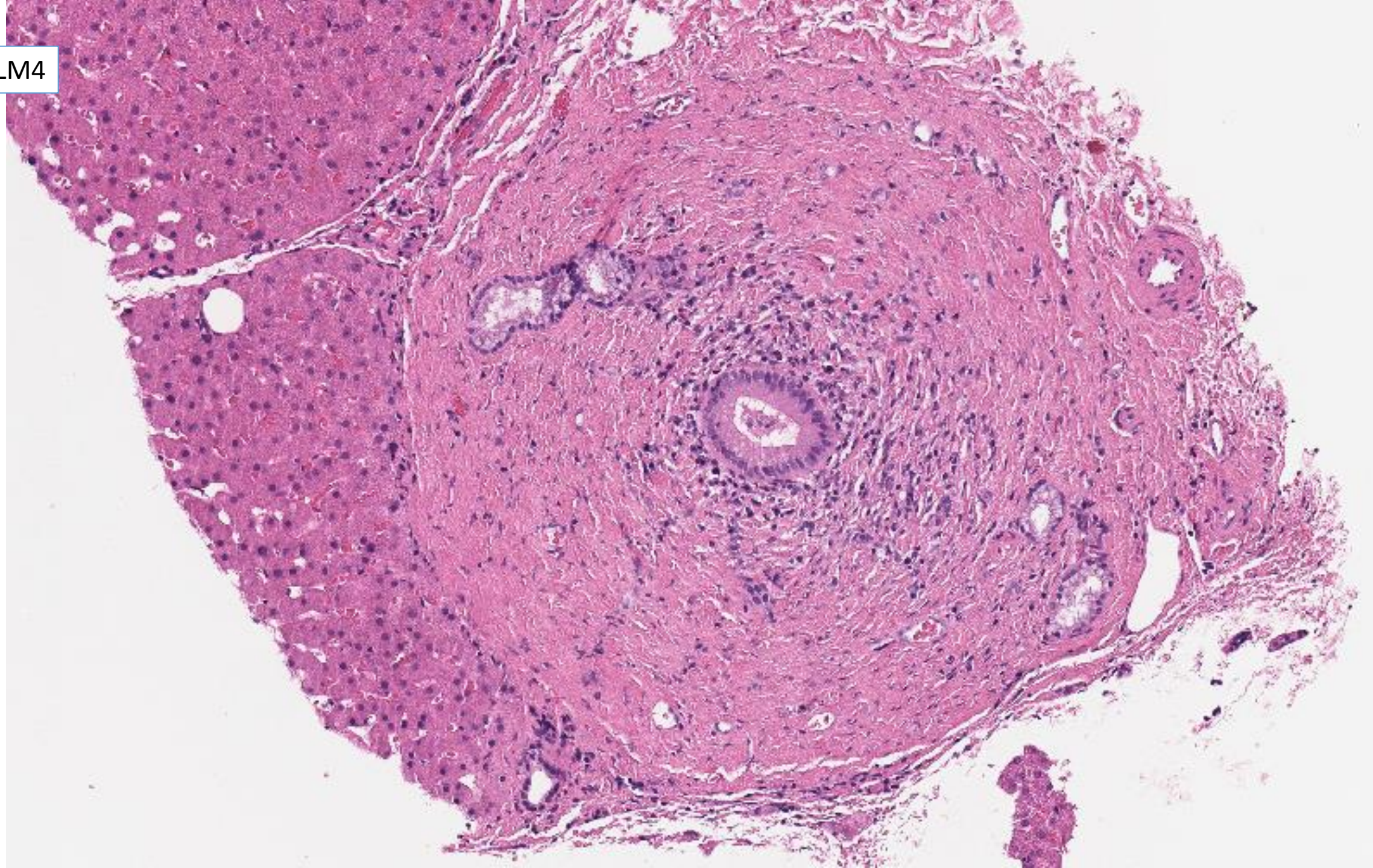
LM4



LM4

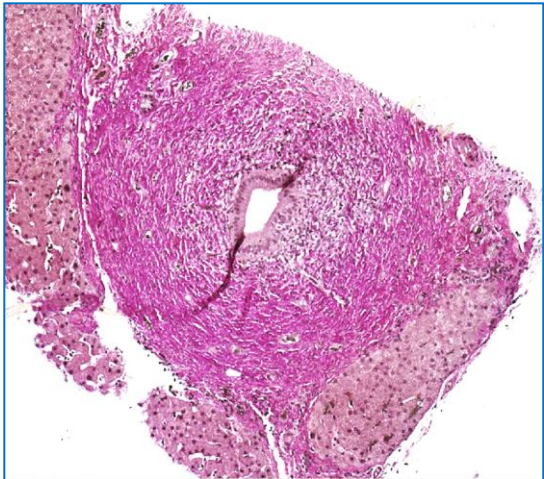


LM4



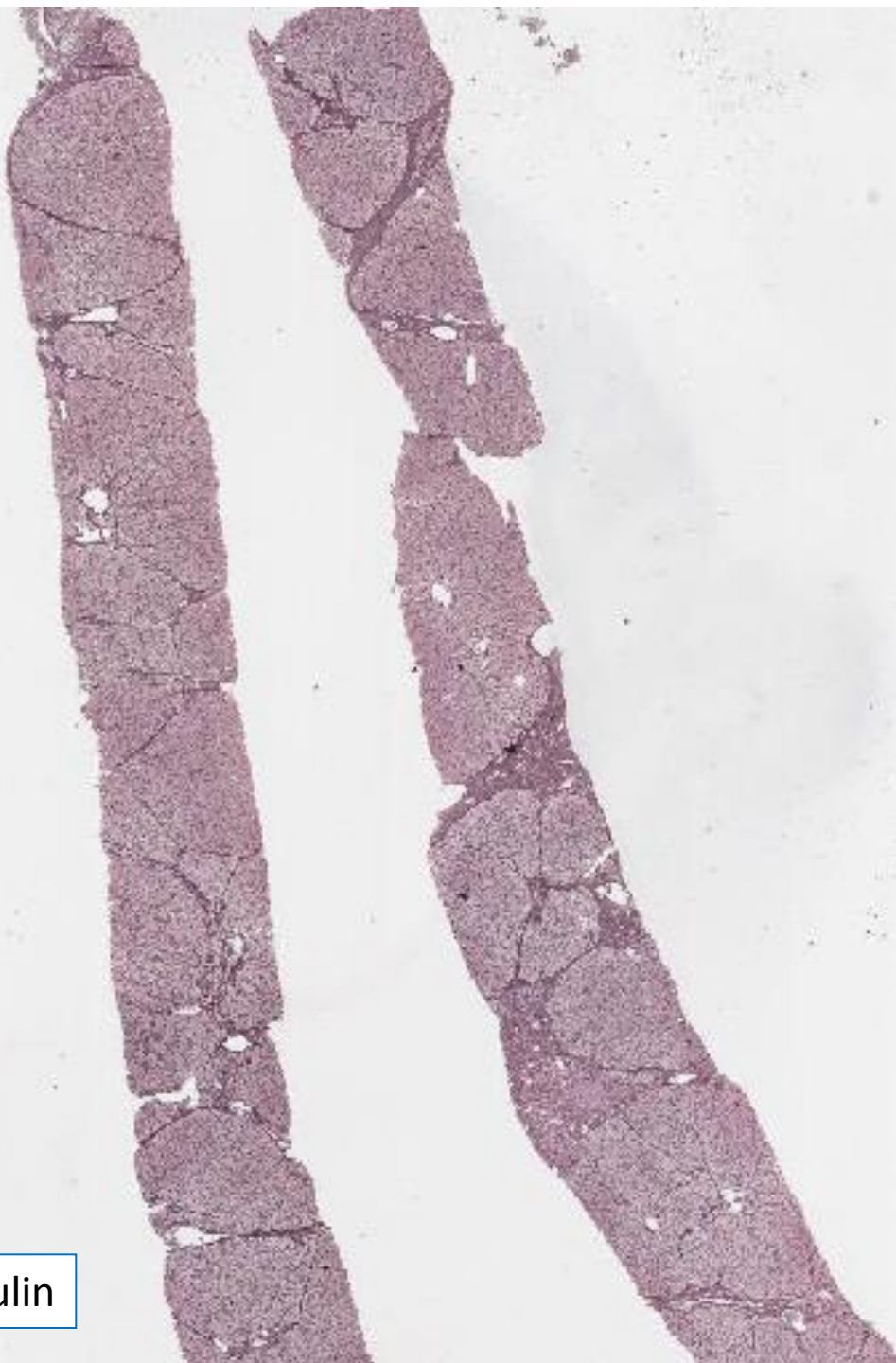
LM4

Haematoxylin van Gieson

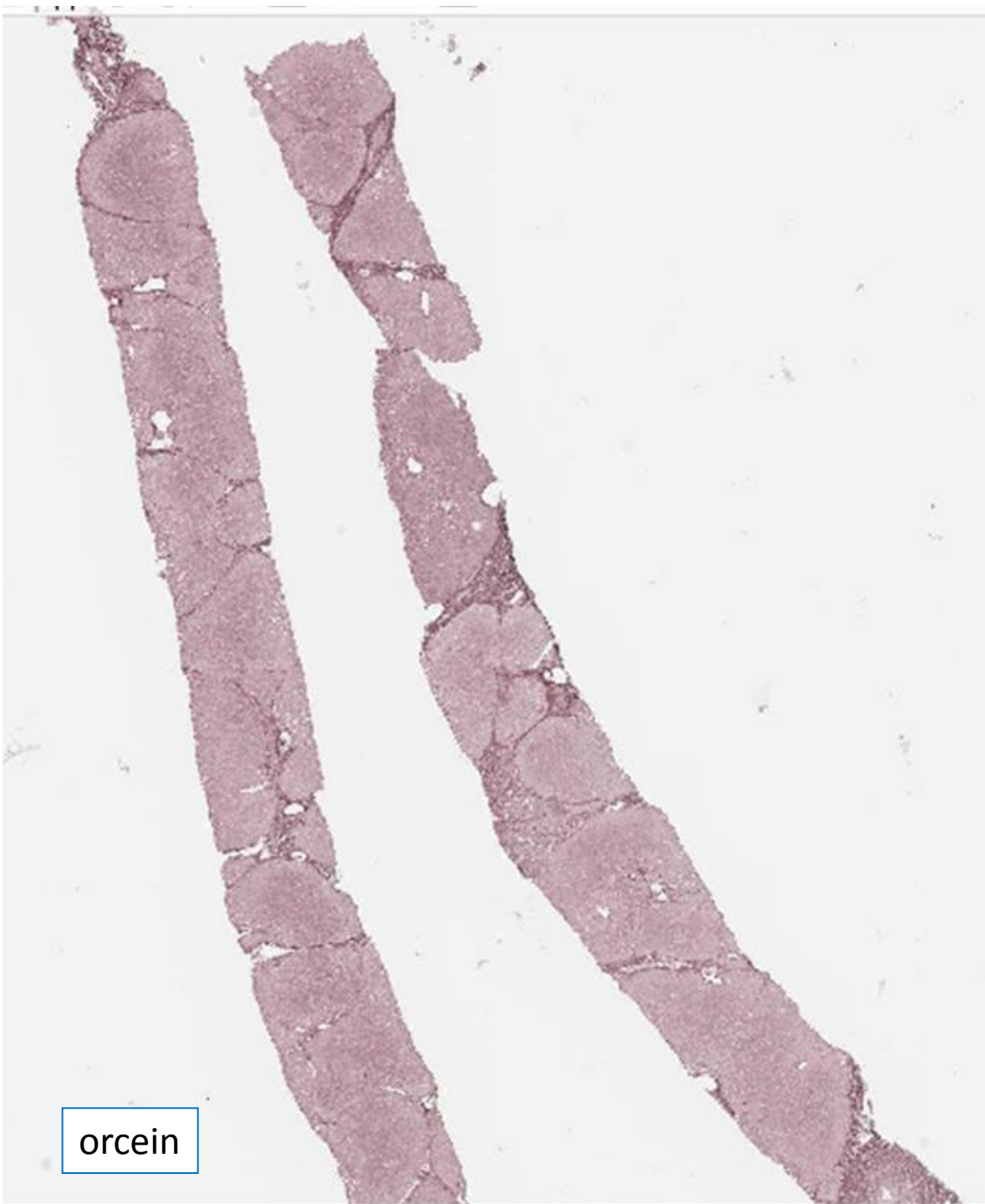


LM4

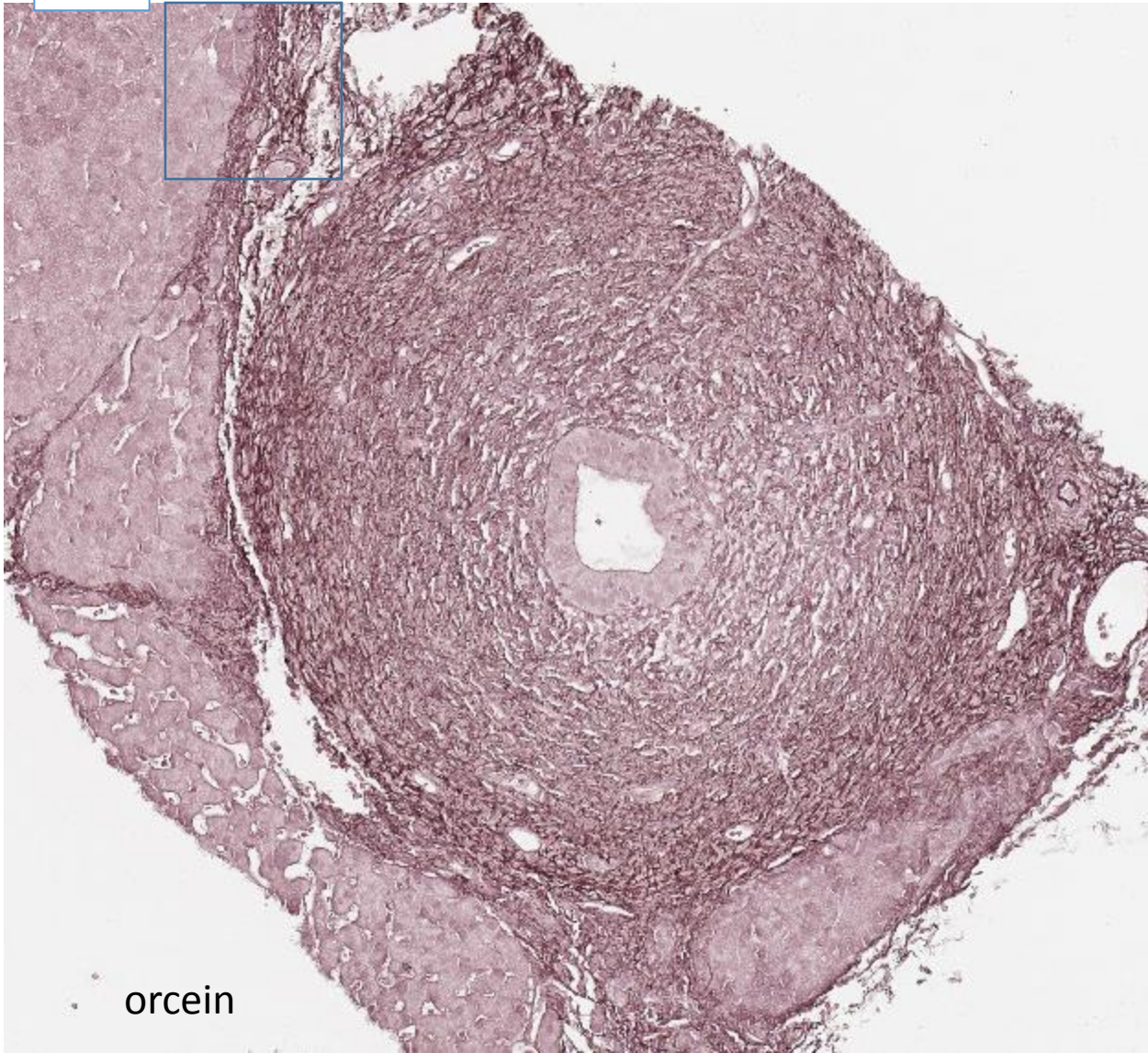
reticulin



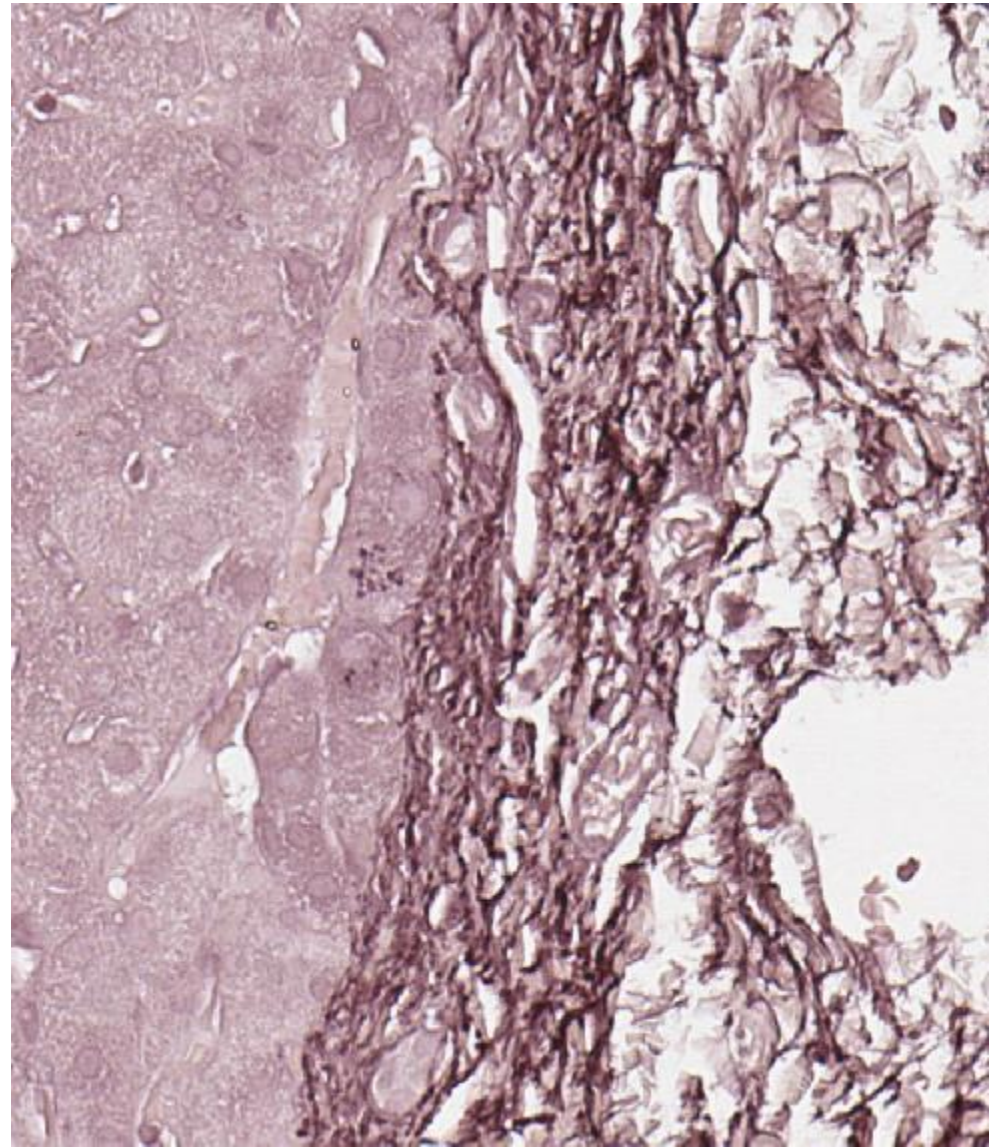
orcein



LM4



orcein



Case LM4 Age 34, Male

Autoimmune hepatitis and cirrhosis. Normal LFTs but persistent raised IgG.

Is there ongoing inflammatory activity?

Morphology: stage	
stage not mentioned	1
early bridging fibrosis	2
bridging fibrosis +/- nodules	9
incomplete, early, suggestive, probable cirrhosis	12
cirrhosis	52
non-cirrhotic portal hypertension as only diagnosis	1
Ishak used by 11: 4=1, 5=3, 6=6	
comment on remodelling/regression (with any of above)	10
Activity:	
activity/grade not mentioned	1
inactive disease	6
active disease, NOS	14
active minimal	11
active, mild	26
active, moderate	3
Ishak grade used by 12, range 2-5	
bile duct lesion mentioned	52

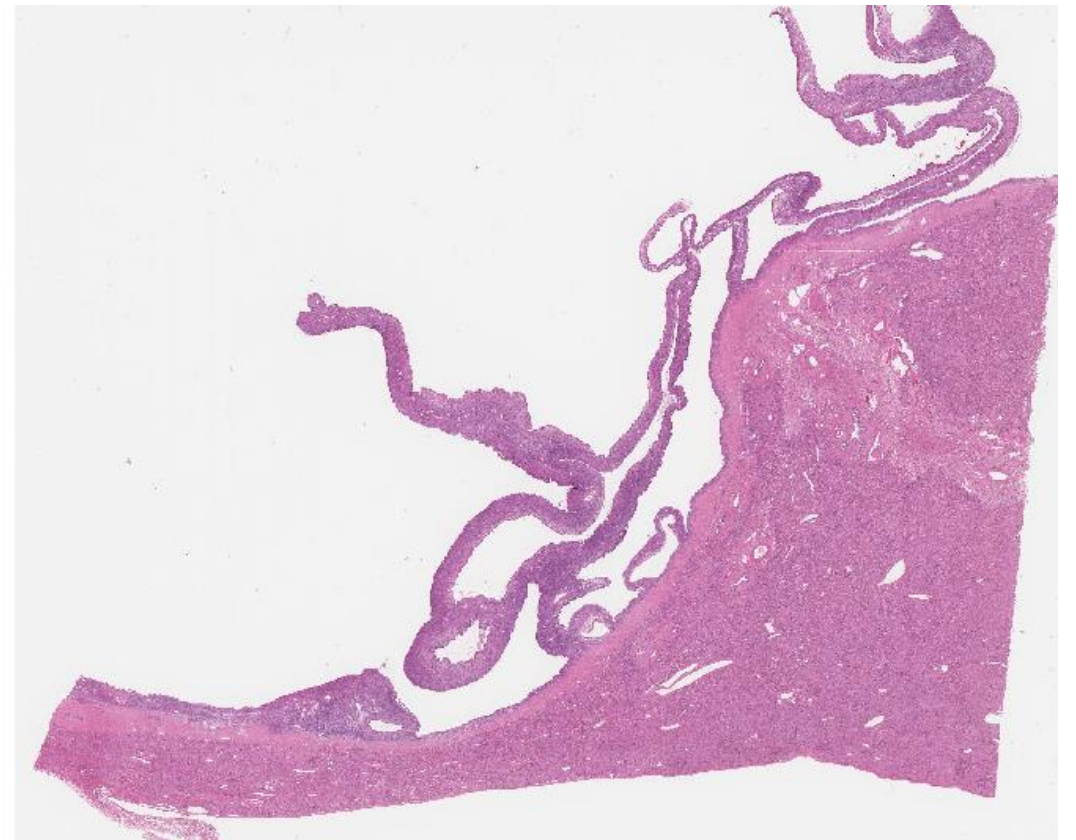
Aetiology:	
consistent with autoimmune hepatitis	60
not active AIH	1
AIH not mentioned	11
biliary:	
AIH overlap with PSC (includes probable)	9
possible also PSC overlap	21
just PSC	6
not also PSC overlap	5
autoimmune cholangitis	2
ascending cholangitis	1
more likely biliary than AIH	2
comment:	
orcein +ve	28
orcein -ve	12
need to know if AIH has been treated	2

Scoring: No consensus for AIH or a biliary component – so not suitable for scoring.

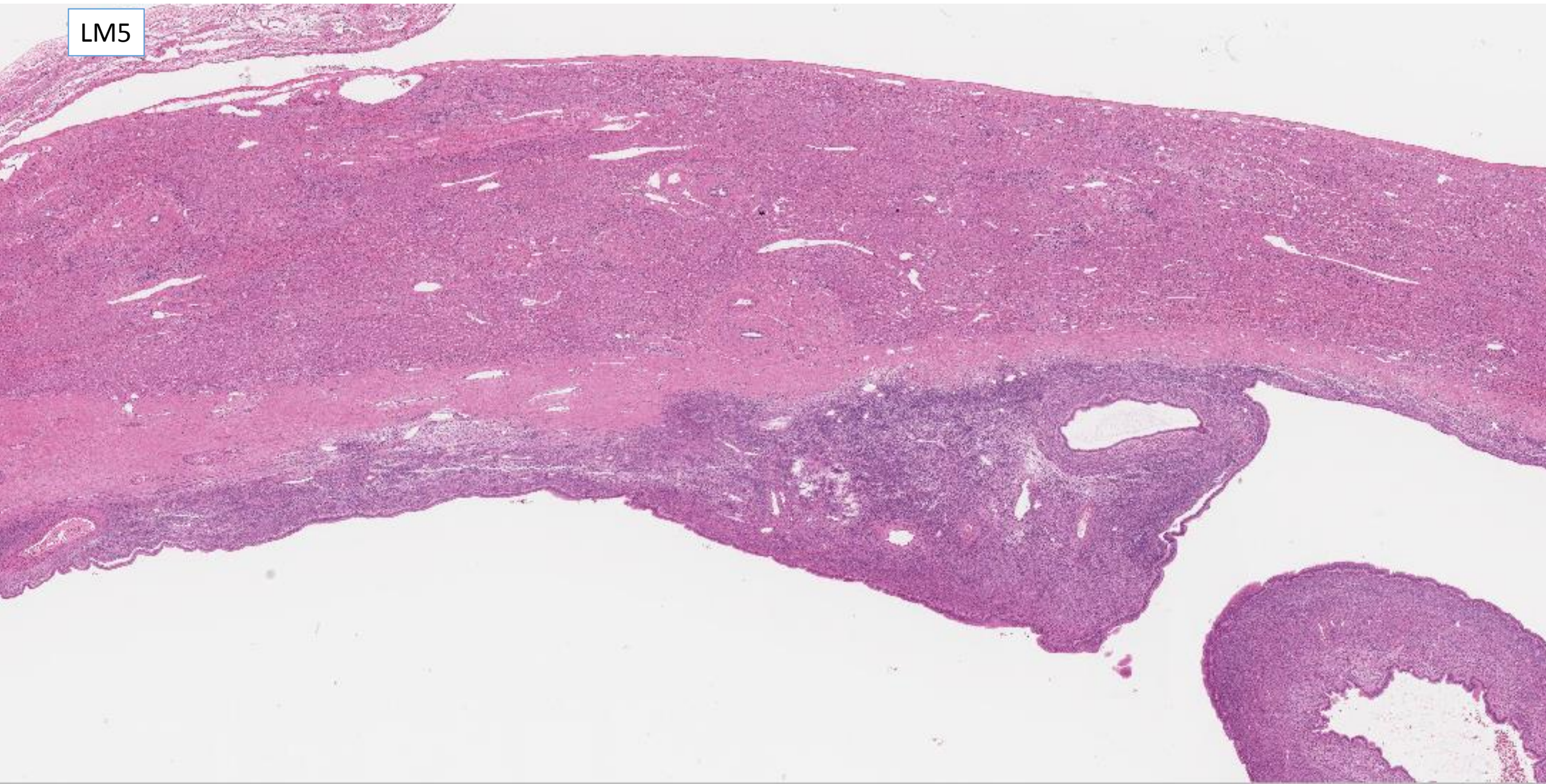
The clinical details do not indicate whether the AIH is being treated.

Case LM5 Age 30, Female

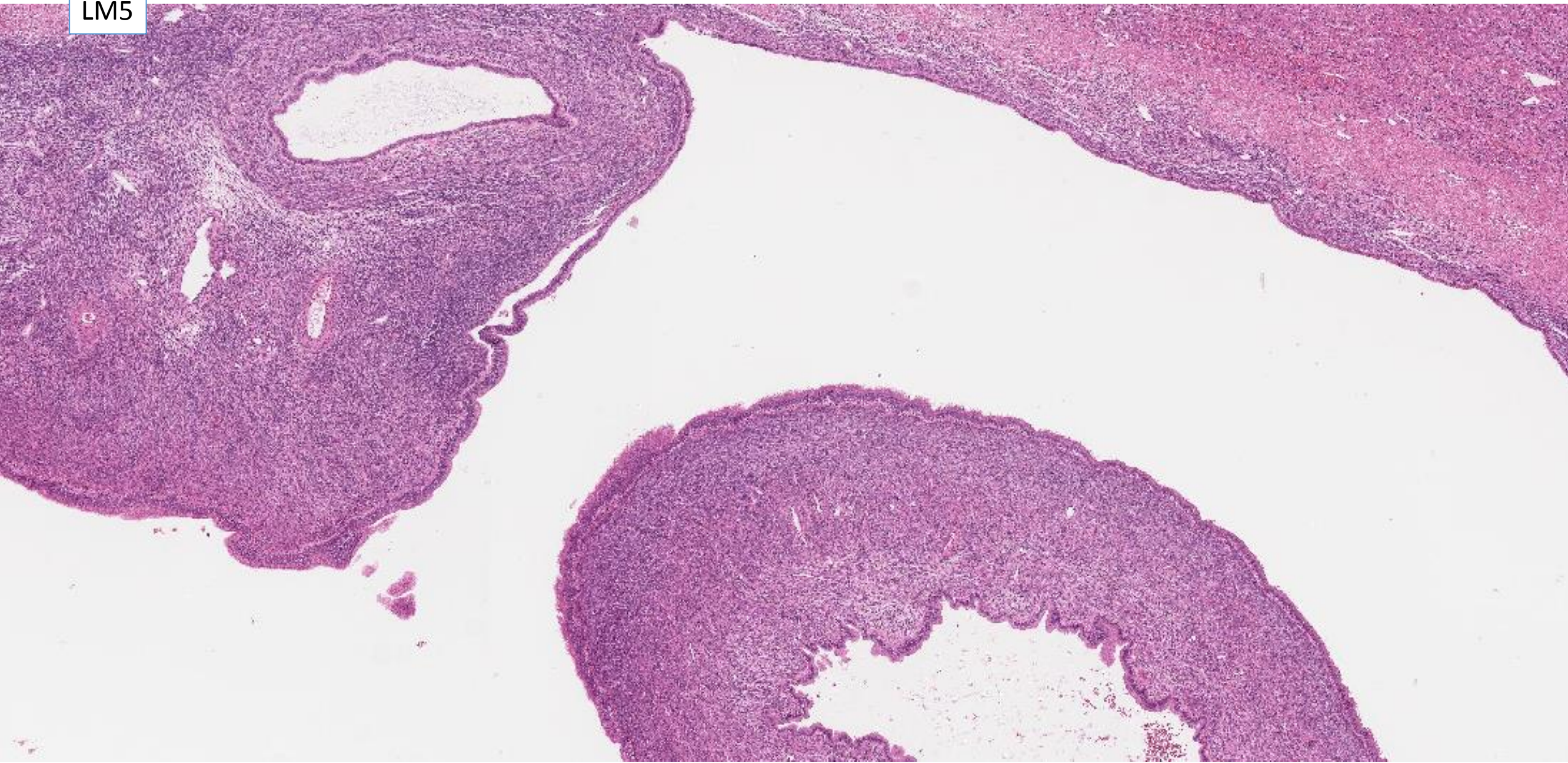
RUQ pain for one year USS Liver Cyst multiseptate
? Hydatid cyst



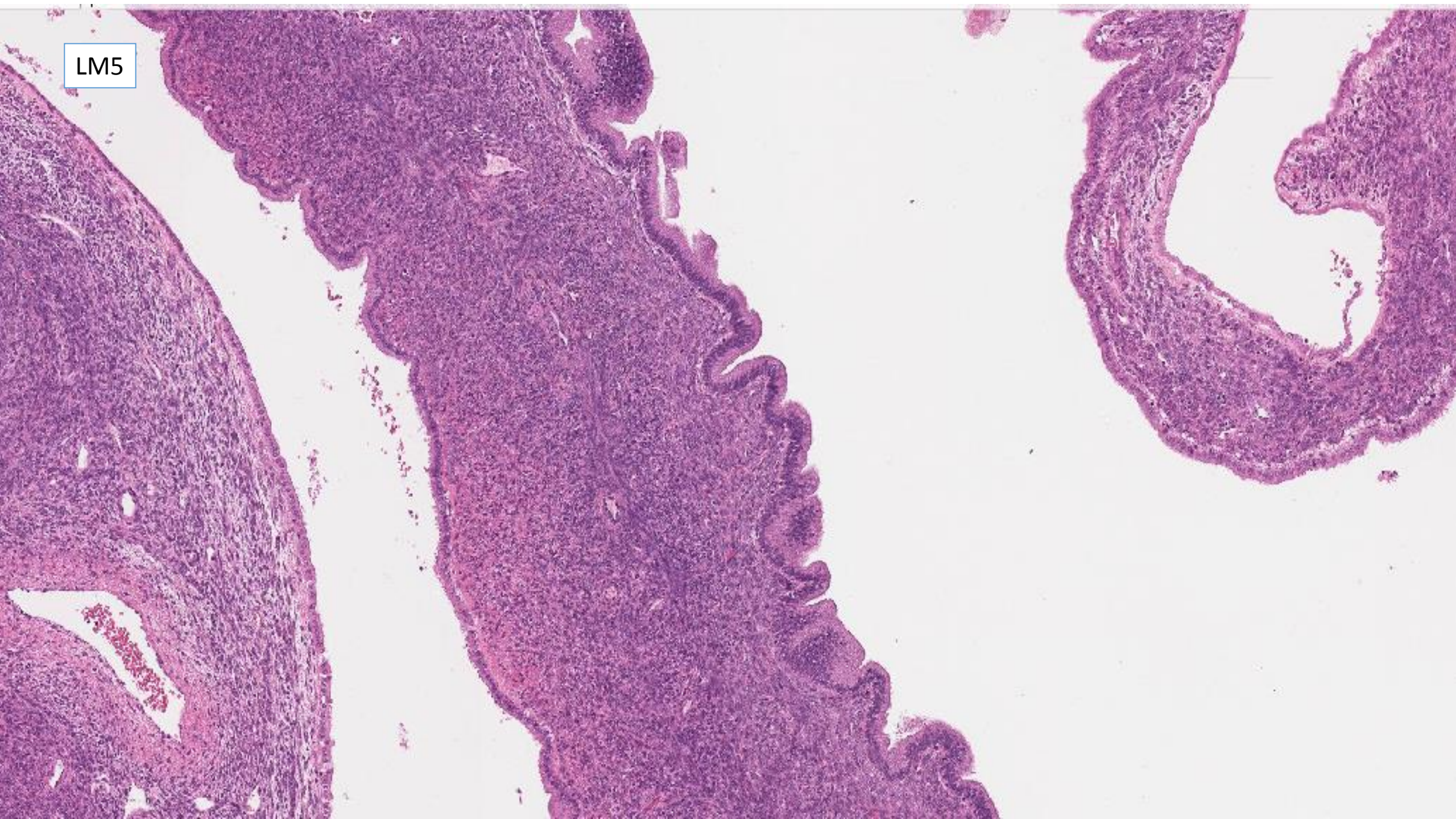
LM5



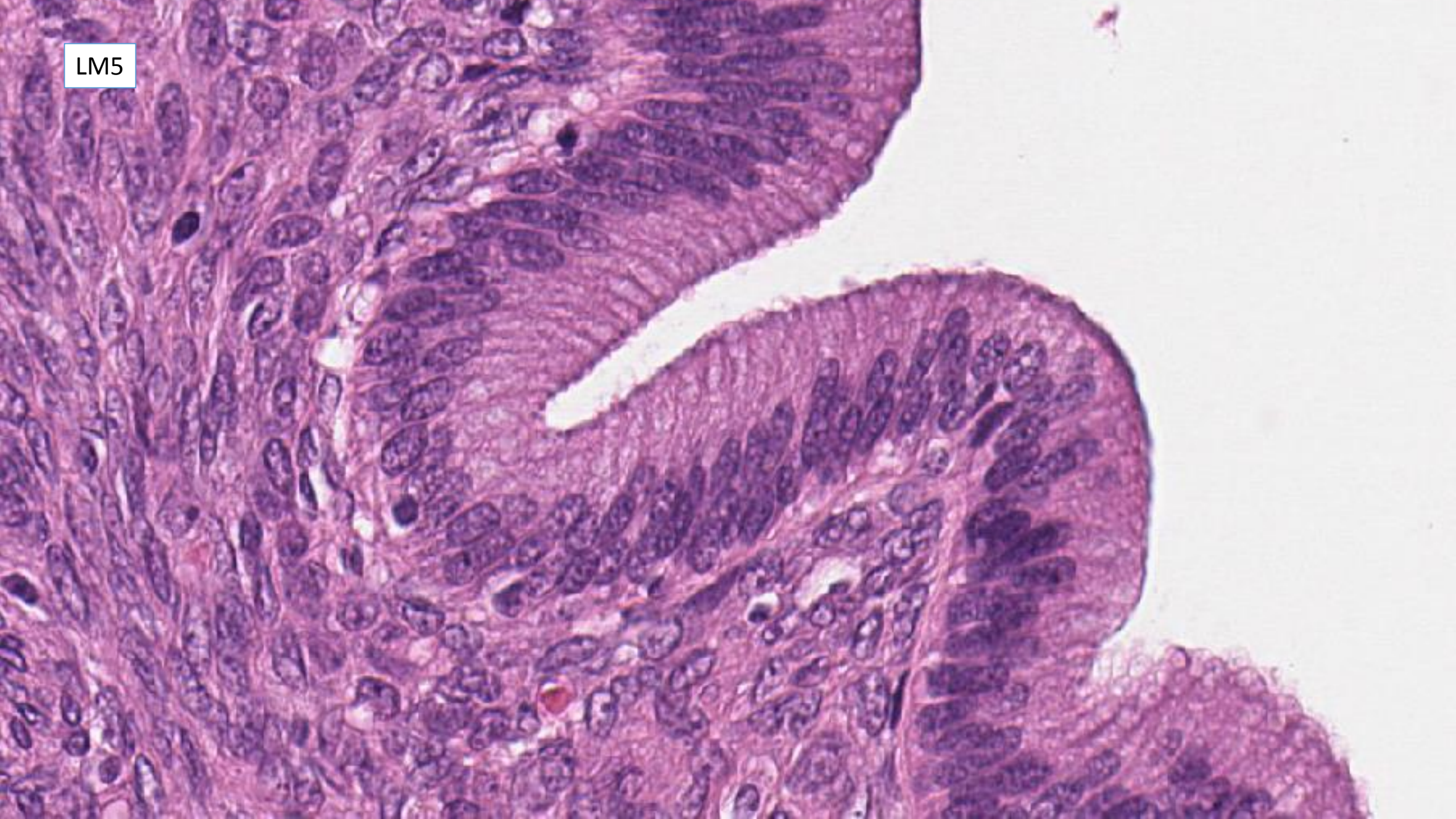
LM5



LM5



LM5



Case LM5 Age 30, Female

RUQ pain for one year USS Liver Cyst multiseptate ? Hydatid cyst

diagnosis:	
mucinous cystic neoplasm	32
cystadenoma	33
both MCN and cystadenoma	12
neither MCN nor cystadenoma	2
of which ? Developmental cyst	1
cyst lined by columnar epithelium with ovarian stroma	1
dysplasia: commented by 40	
no dysplasia/atypia	19
low grade dysplasia/atypia	17
no high grade dysplasia'	3
intermediate grade dysplasia	1
background liver	
giant cells/granuloma	10
mass effect	2
? Sarcoid	3
adjacent liver normal	4

Scoring: For full marks need either mucinous cystic neoplasm or cystadenocarcinoma.

No marks for developmental cyst.

Half marks for descriptive response which includes ovarian stroma, but not giving the name of the cyst.

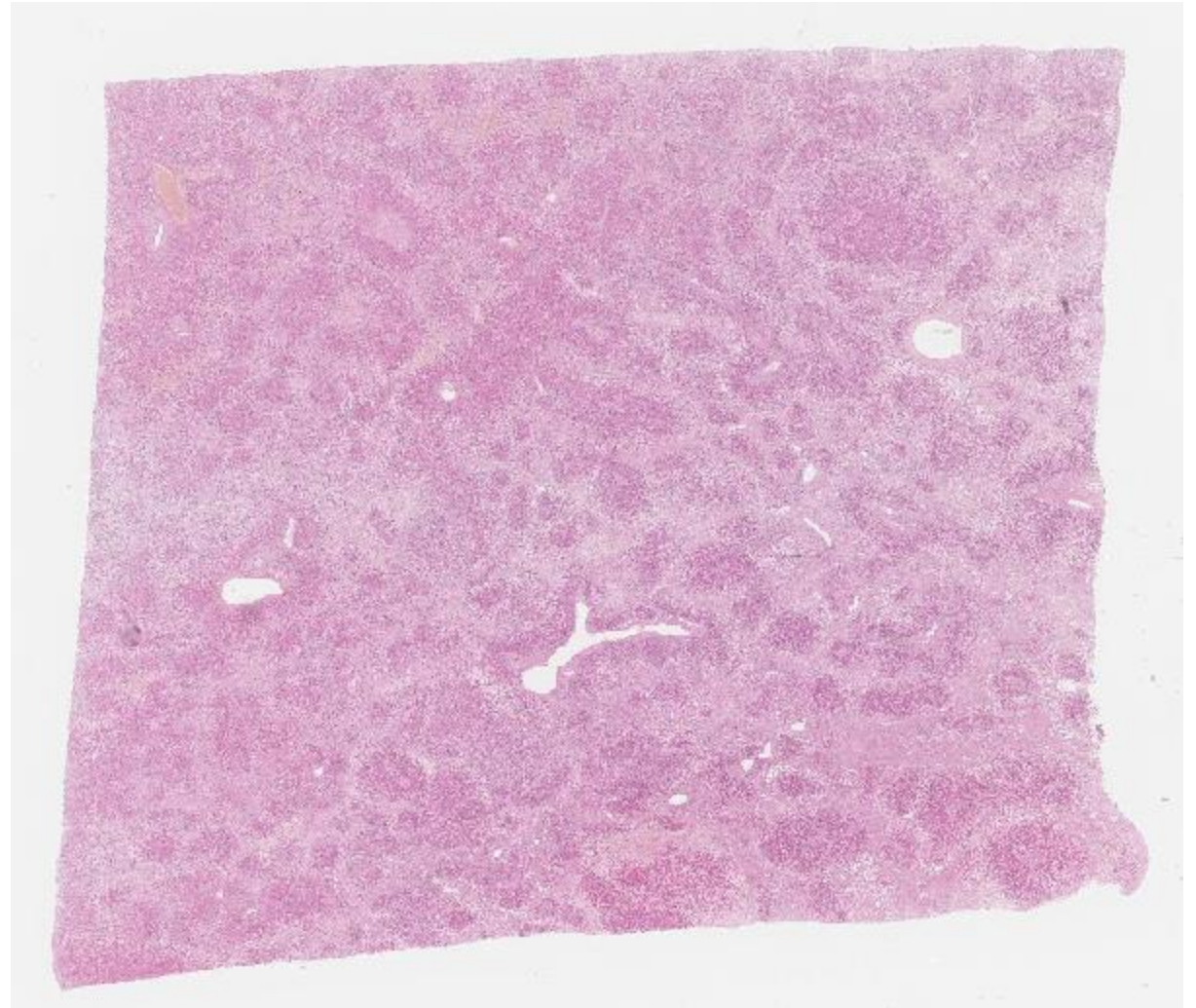
Interesting that 11/19 using cystadenoma terminology said no dysplasia, 15/17 using MCN terminology said low grade dysplasia.

MCN columnar epithelium is considered to be 'low grade dysplasia' by some authors.

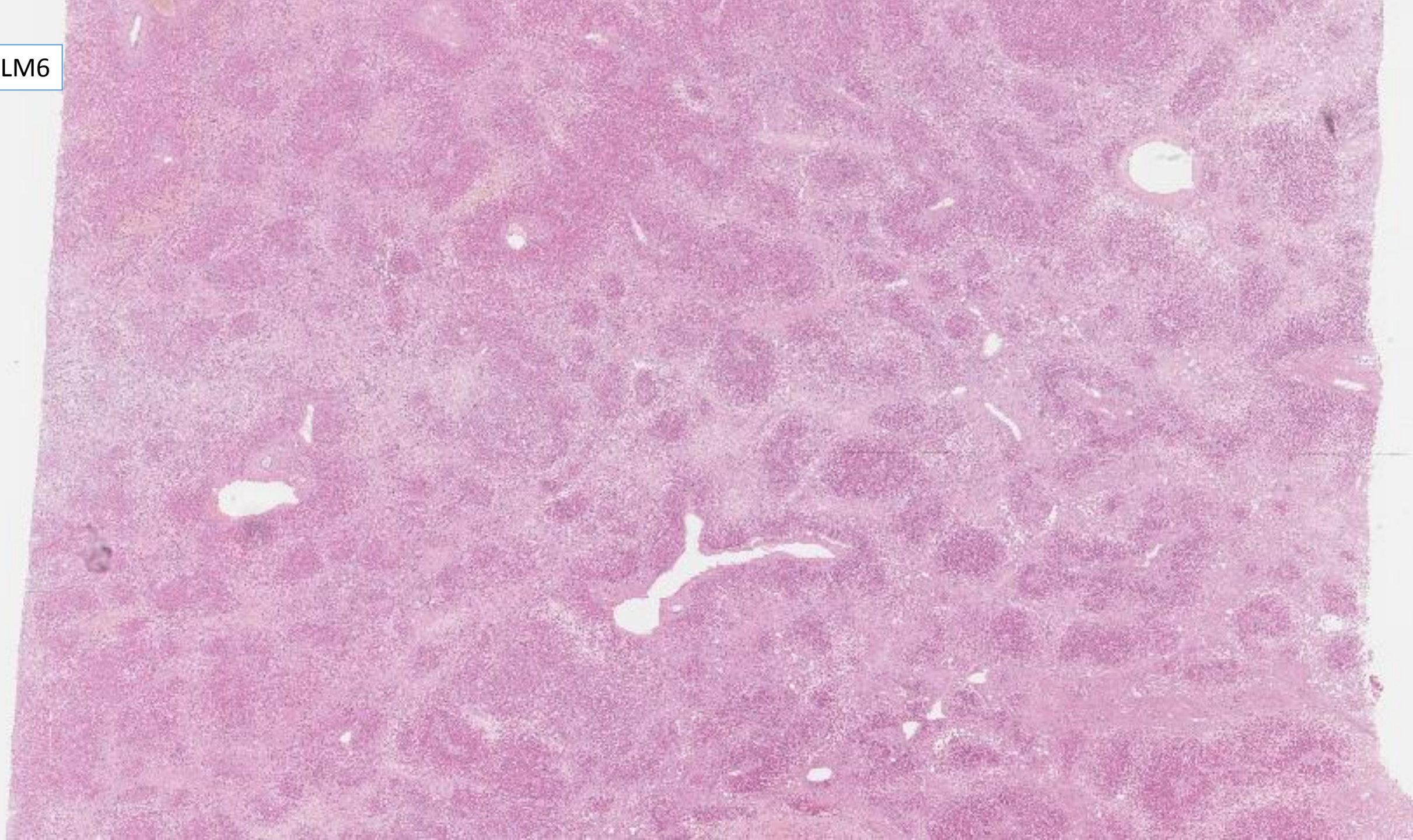
Case LM6 Age = not given, Female

Budd Chiari - liver explant.

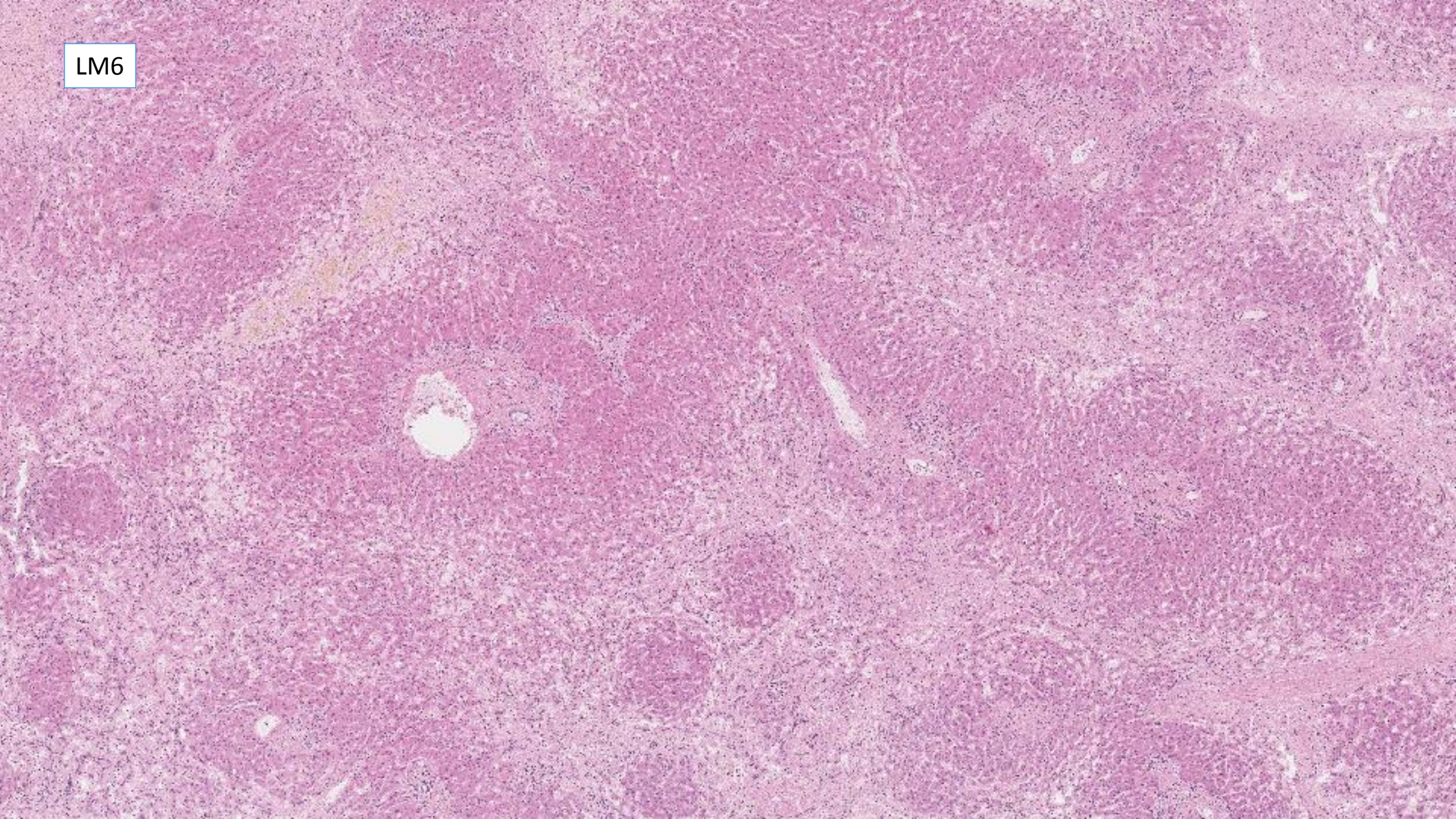
Nodular appearing liver



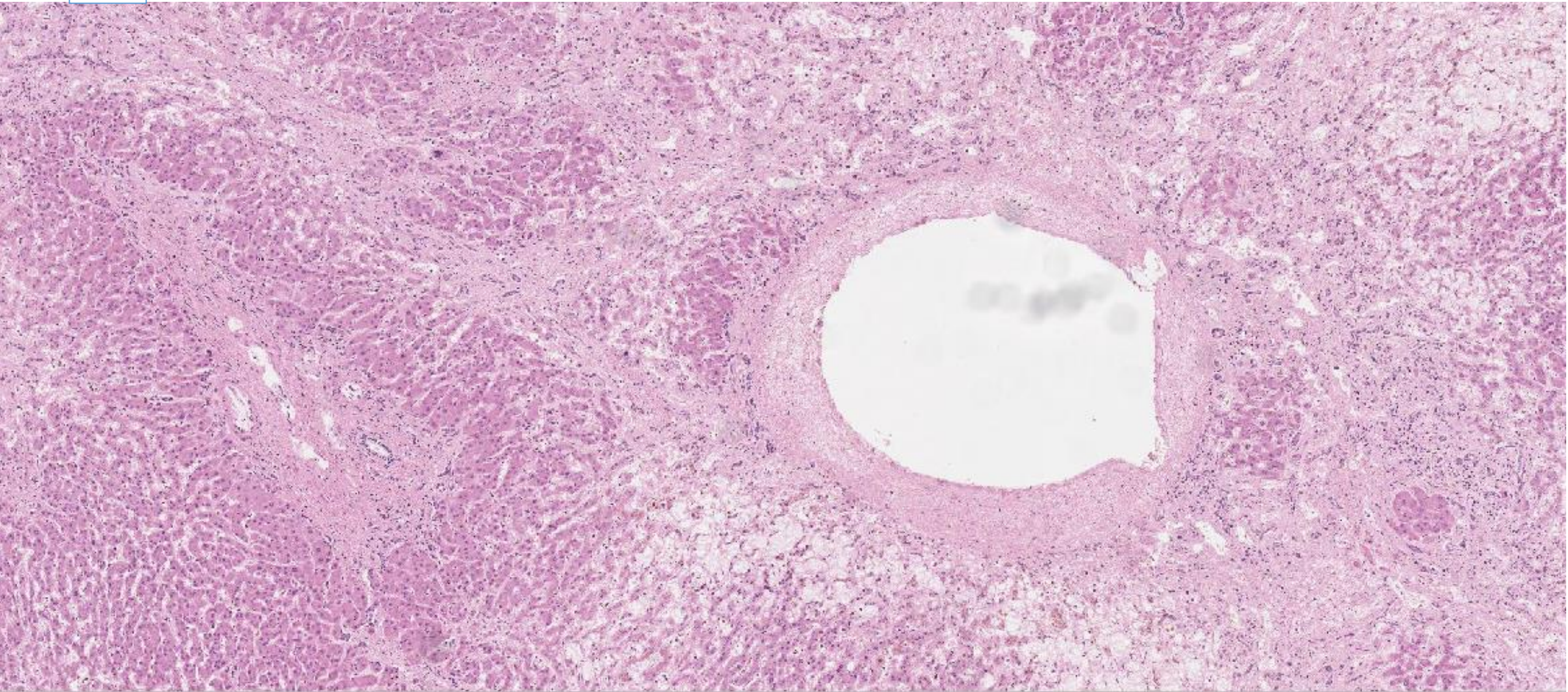
LM6



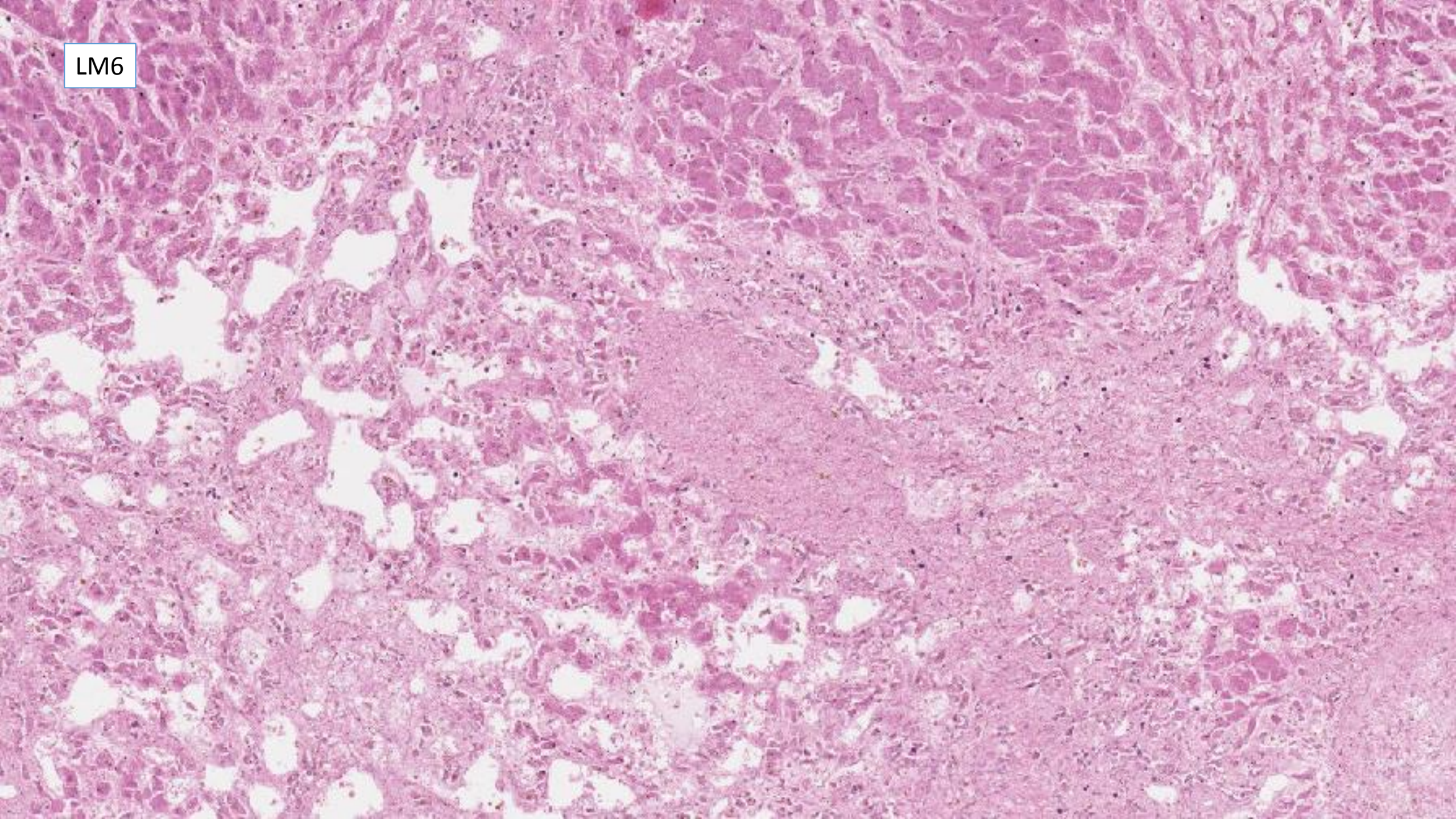
LM6



LM6



LM6



Case LM6 Age = not given, Female

Budd Chiari - liver explant. Nodular appearing liver

LM6	
diagnosis:	
mentions Budd Chiari Syndrome	67
venous outflow obstruction	9
"mainly pericentrilobular necrosis"	1
suspect epithelioid haemangioendothelioma	1
stage:	
cirrhotic	31
some fibrosis - acute on chronic	27
needs connective tissue stain, ?	
Necrosis/fibrosis	5
acute fulminant failure due to BCS	1
chronic not mentioned	14

Scoring:

For full marks – any response that indicates the abnormality is due to Budd Chiari or venous outflow obstruction.

No marks for ‘mainly pericentrilobular necrosis’ or ‘suspect epithelioid haemangioendothelioma.’

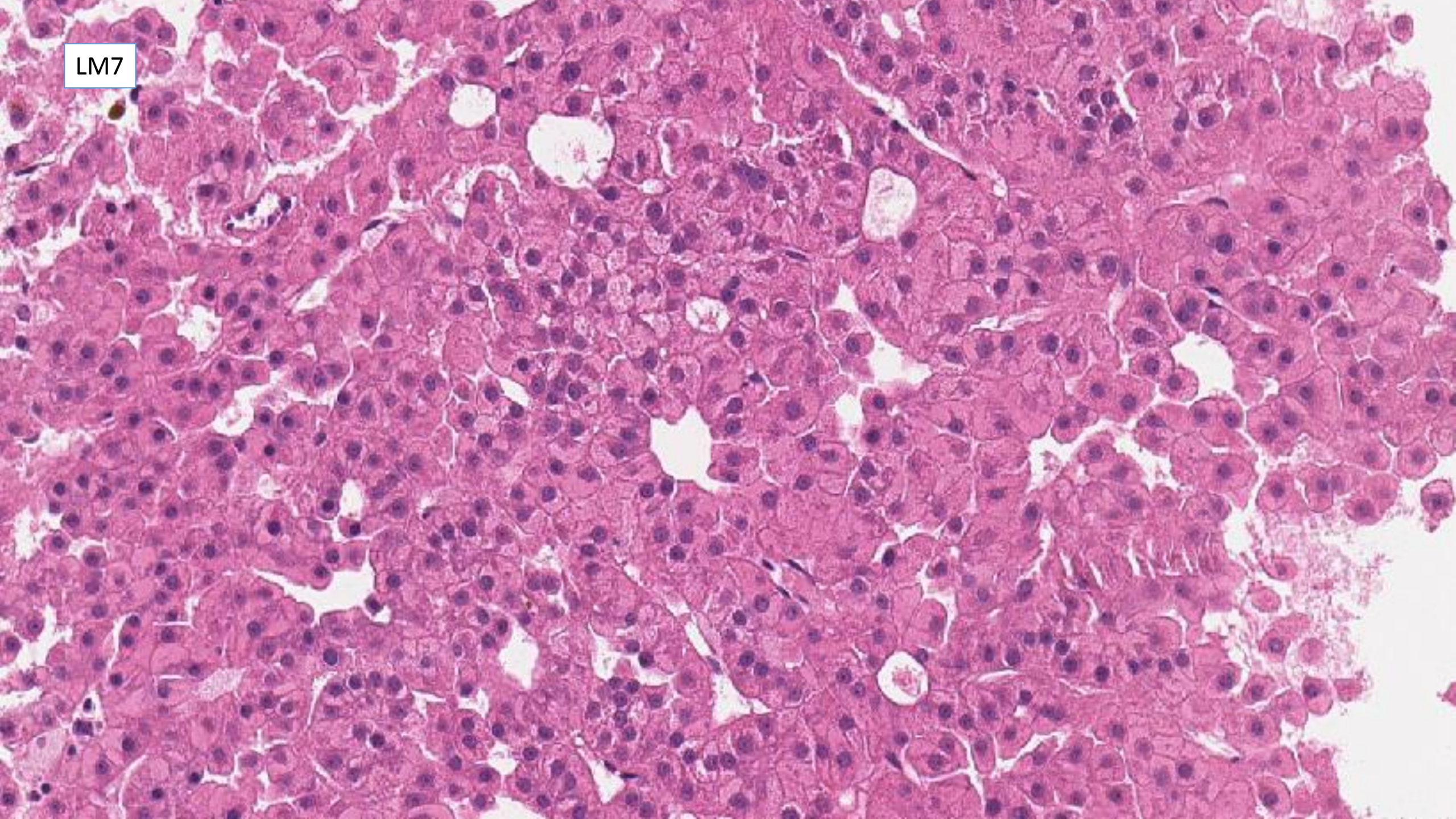
.

Insufficient consensus on presence of chronic disease for this to be used for scoring.

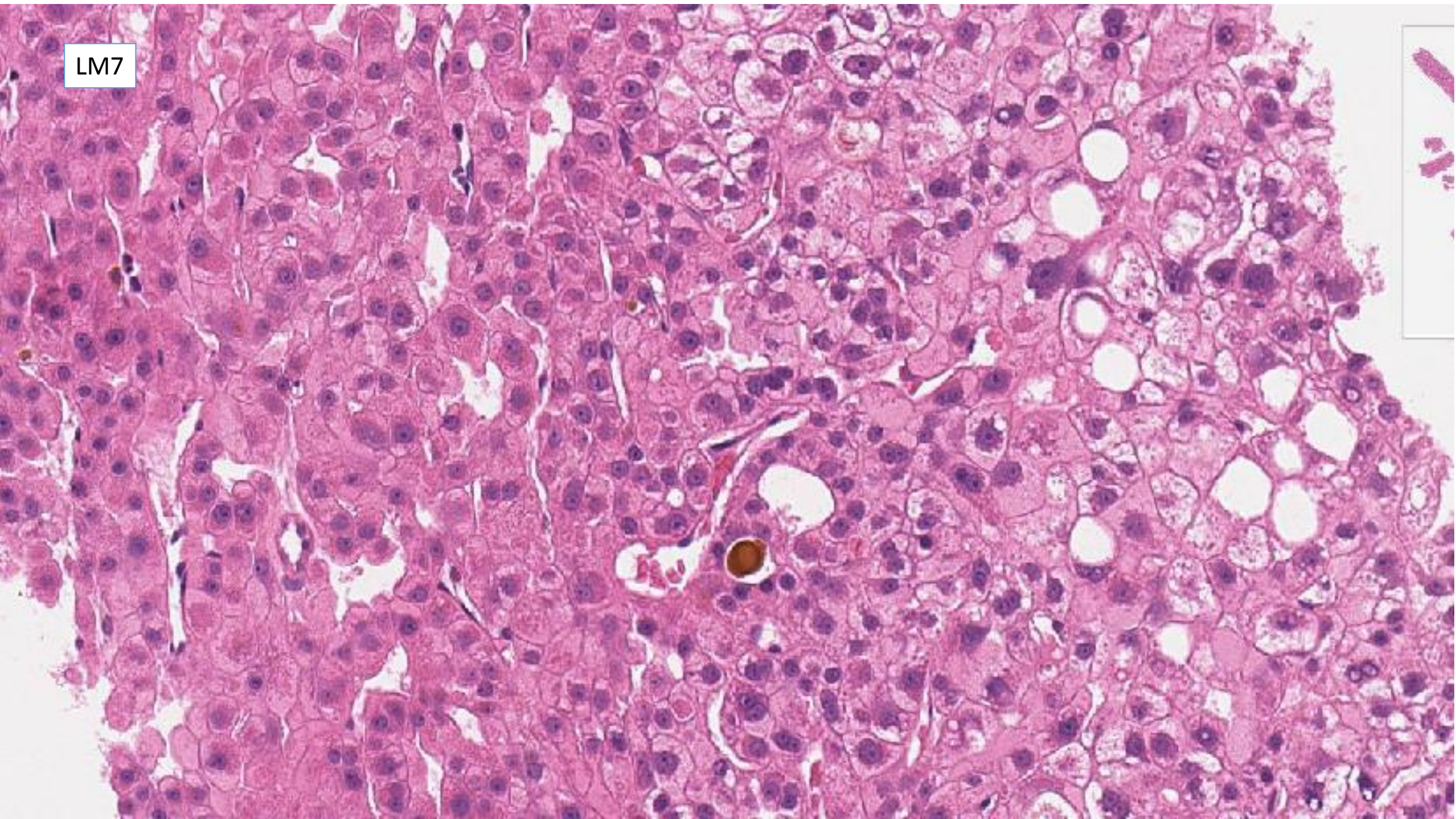
LM7



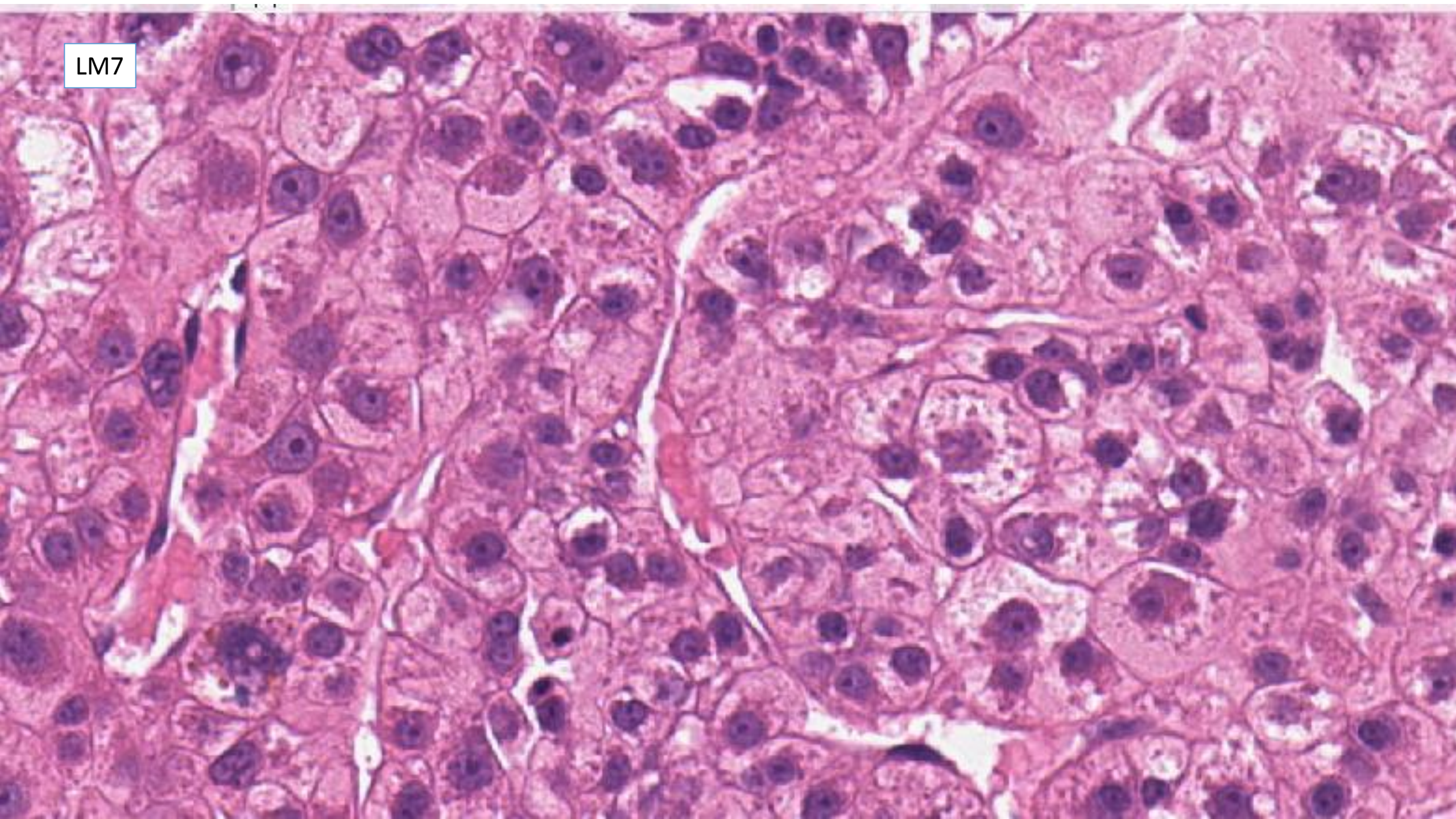
LM7



LM7



LM7



Case LM7 Age 77, Male

Metastatic hormone refractory prostate cancer.

New liver lesion. ? HCC on background of cirrhosis.

LM7	
diagnosis:	
hepatocellular carcinoma	78
of which:	
grade not specified	27
well differentiated	31
moderately differentiated	16
grade 2	4
would do extra stains:	
retic, IHC	15
retic only	4
commented no background liver	30
commented no metastatic prostatic carcinoma	10

Scoring:

For full marks need diagnosis of HCC.

Insufficient consensus to score the grade

All score full marks.

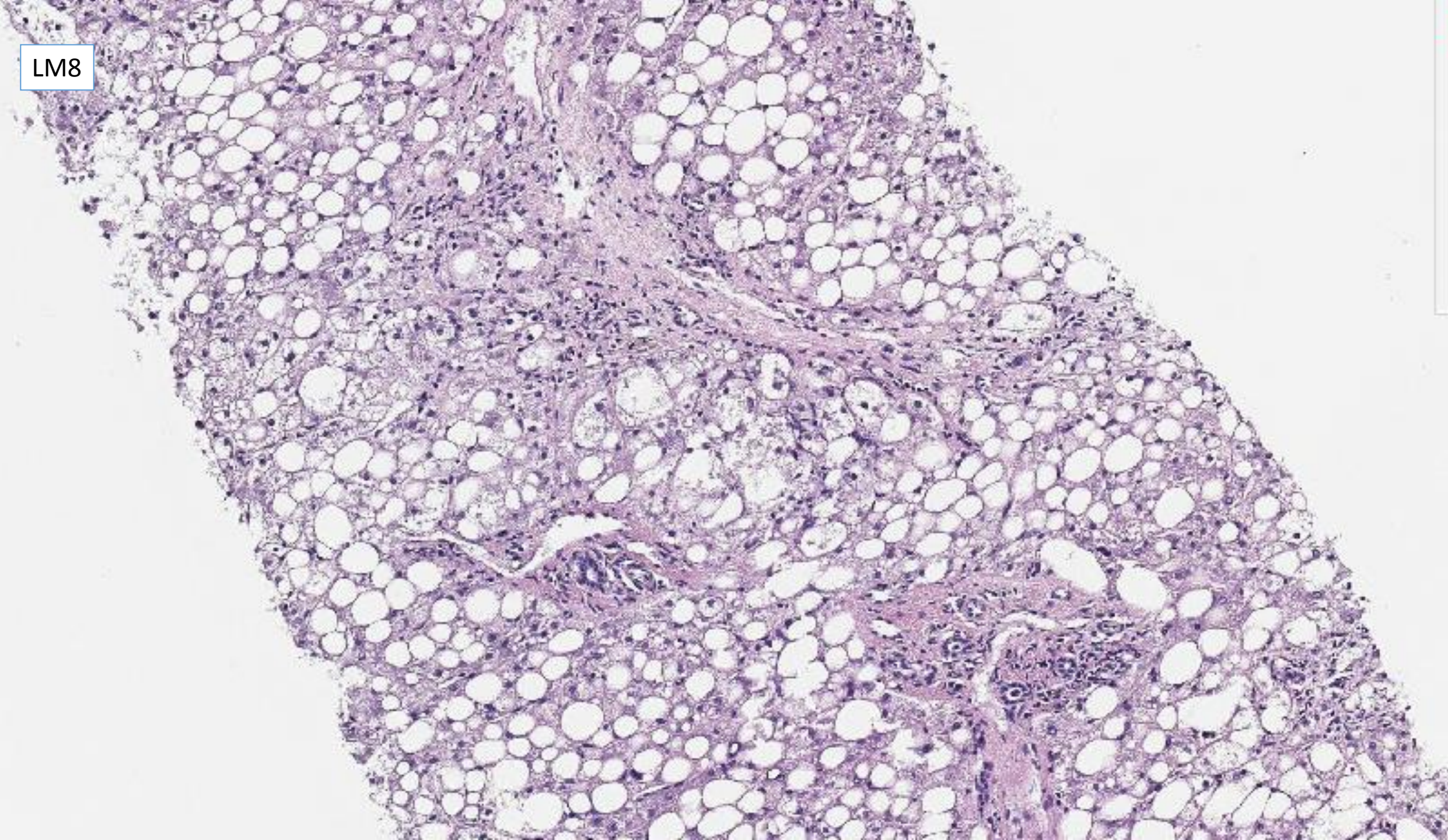
Case LM8 Age 47, Female

Fatty liver. On Tamoxifen. Liver fibroscan 21.8kPa. Raised AST and ALT.

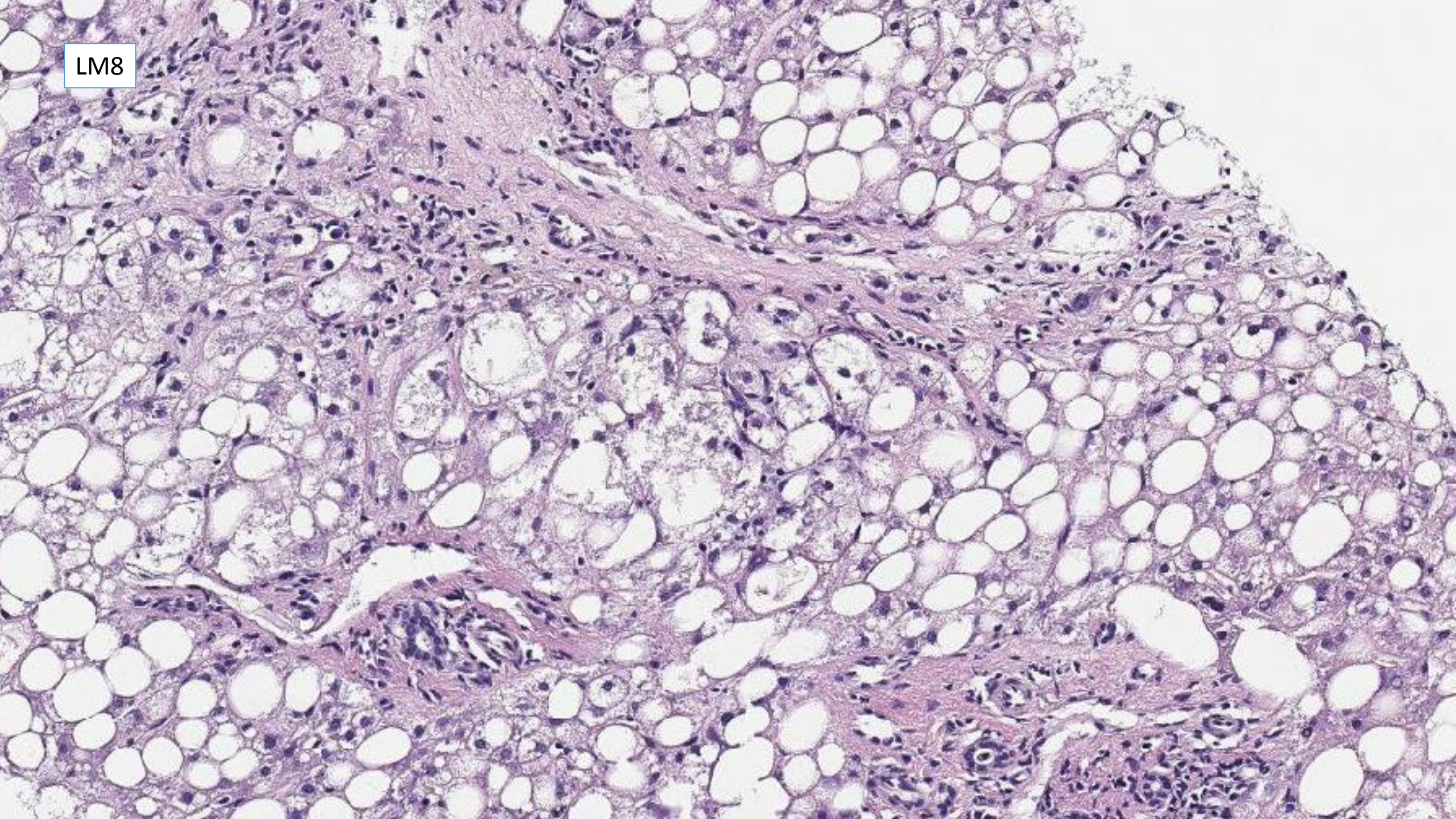
Reticulin, van Gieson, orcein.



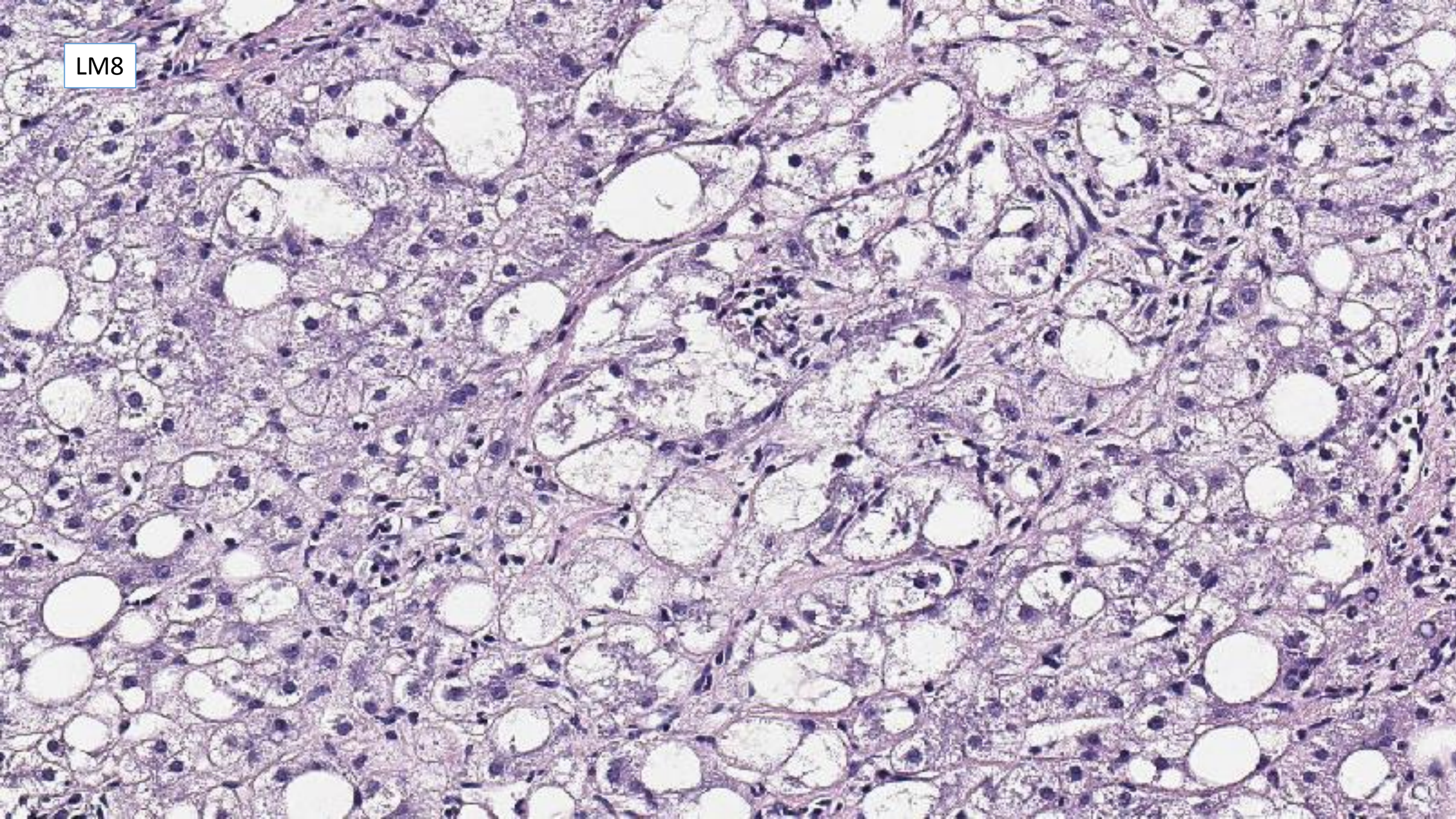
LM8



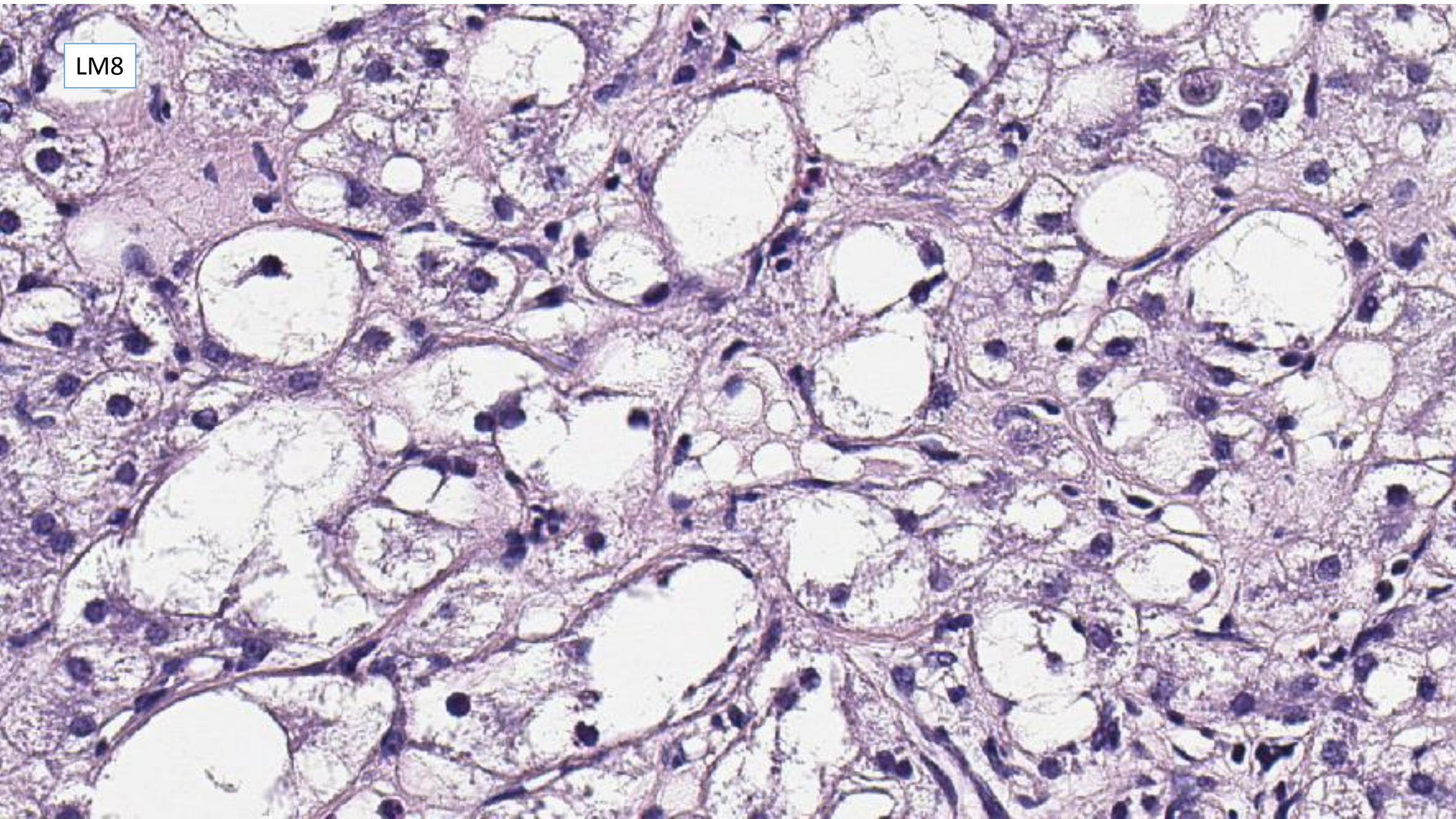
LM8



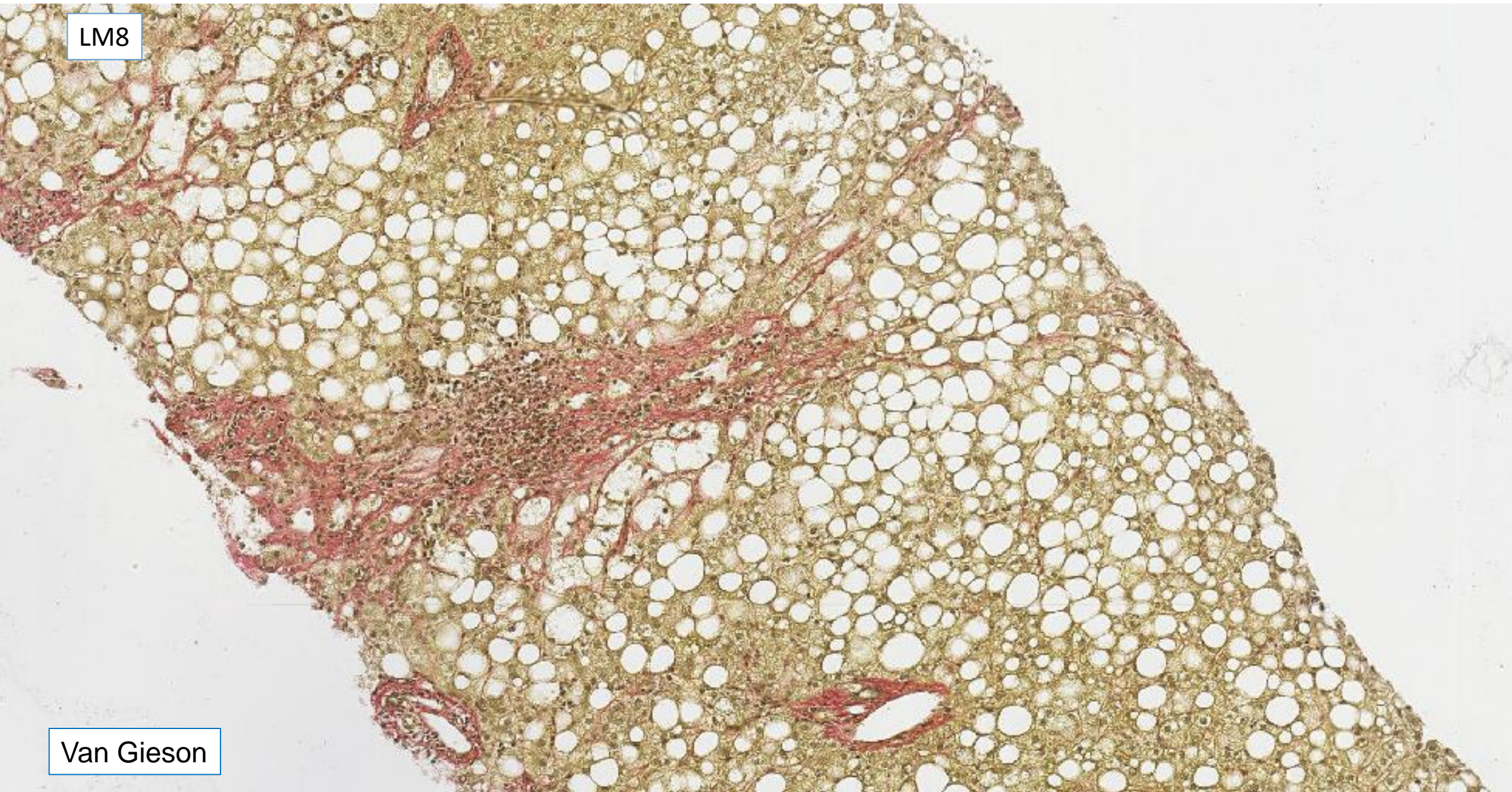
LM8



LM8



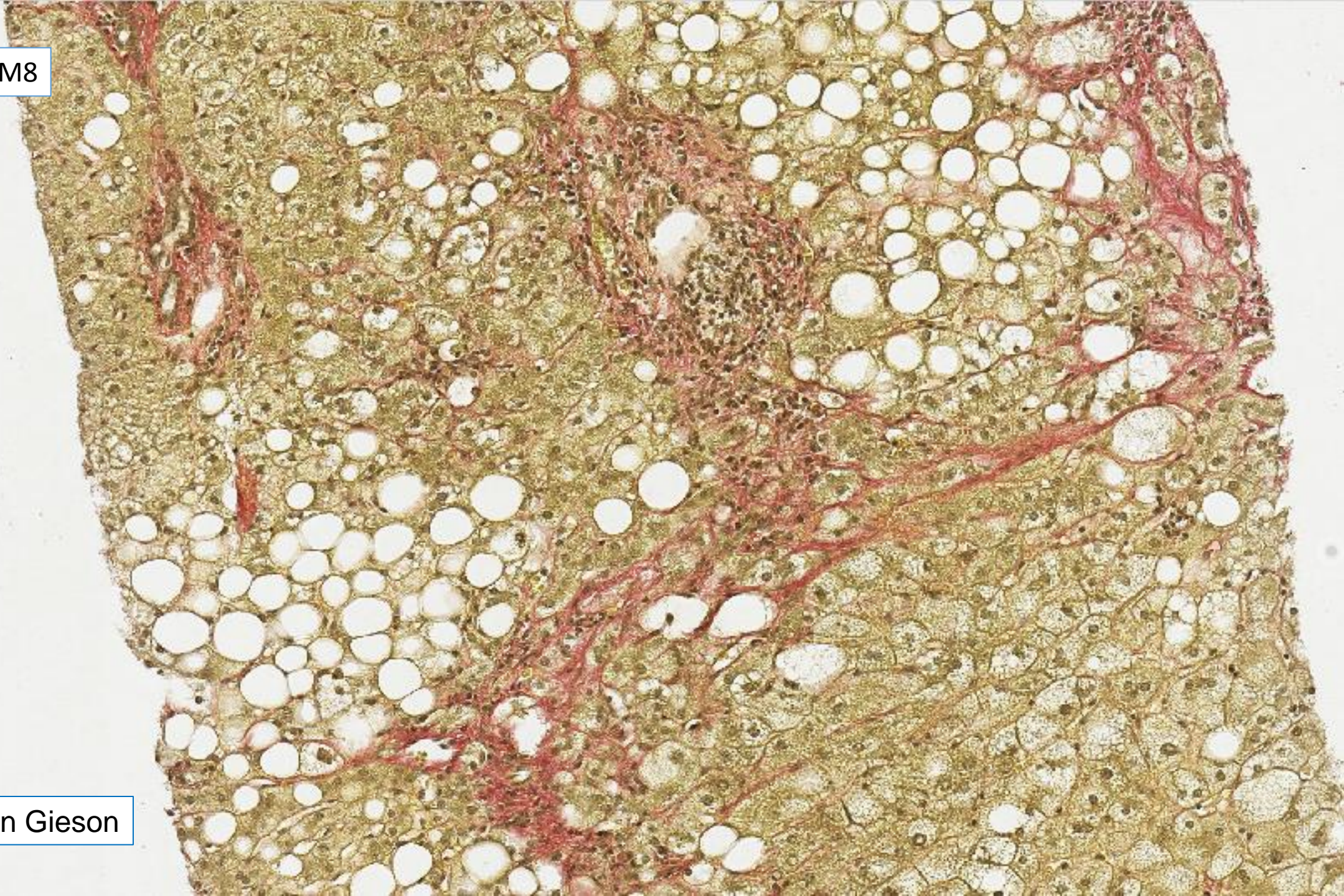
LM8



Van Gieson

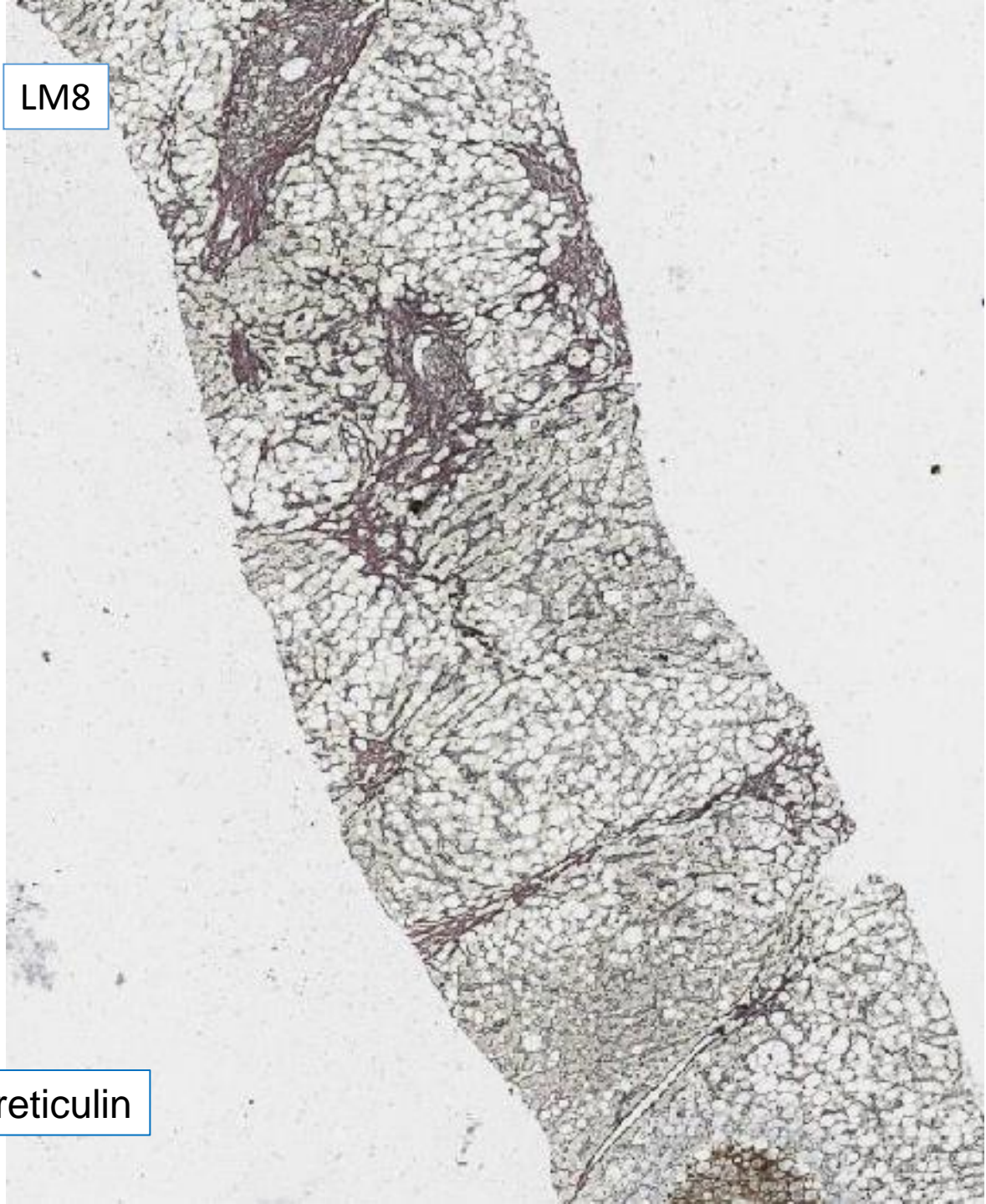
LM8

Van Gieson



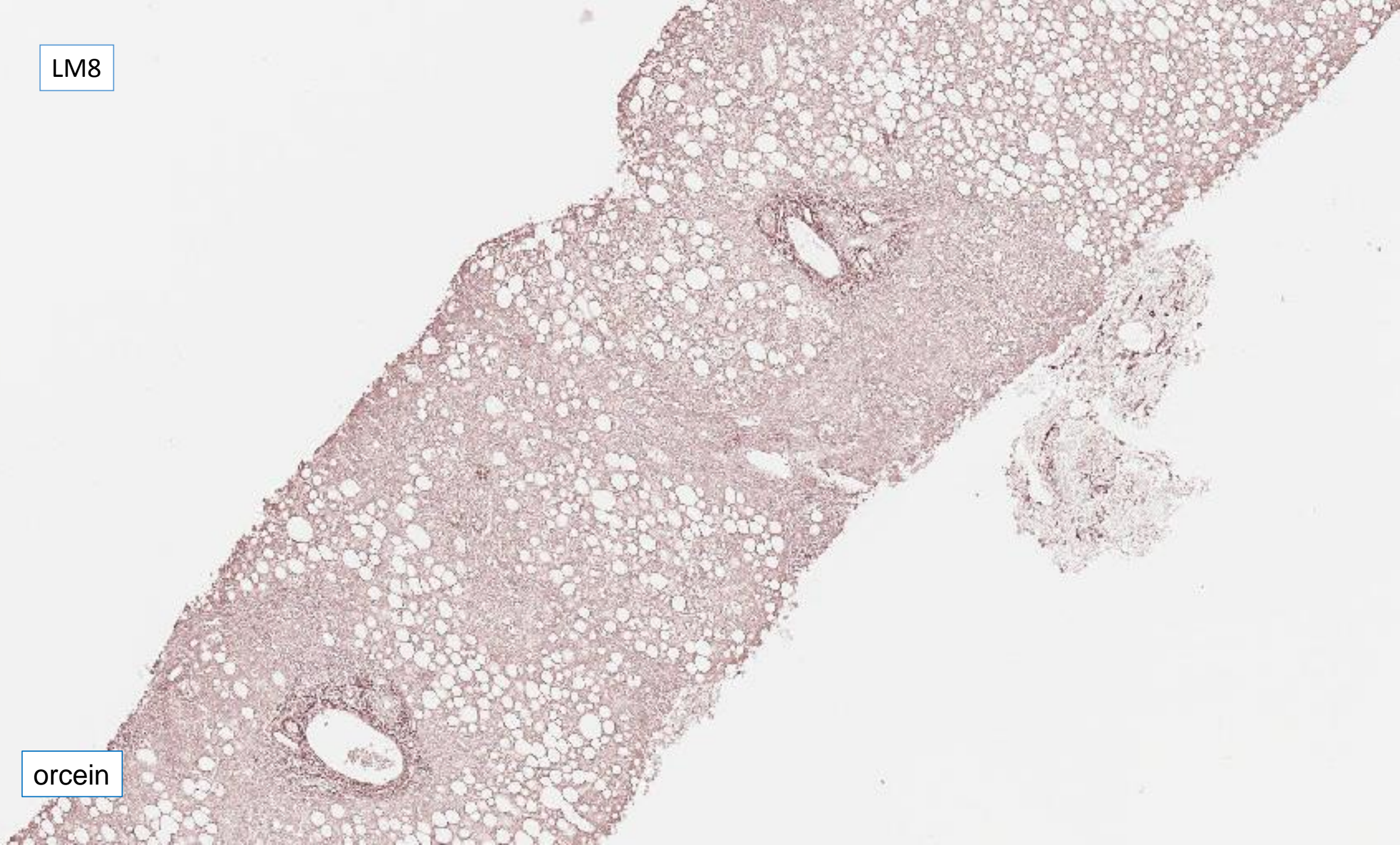
LM8

reticulin



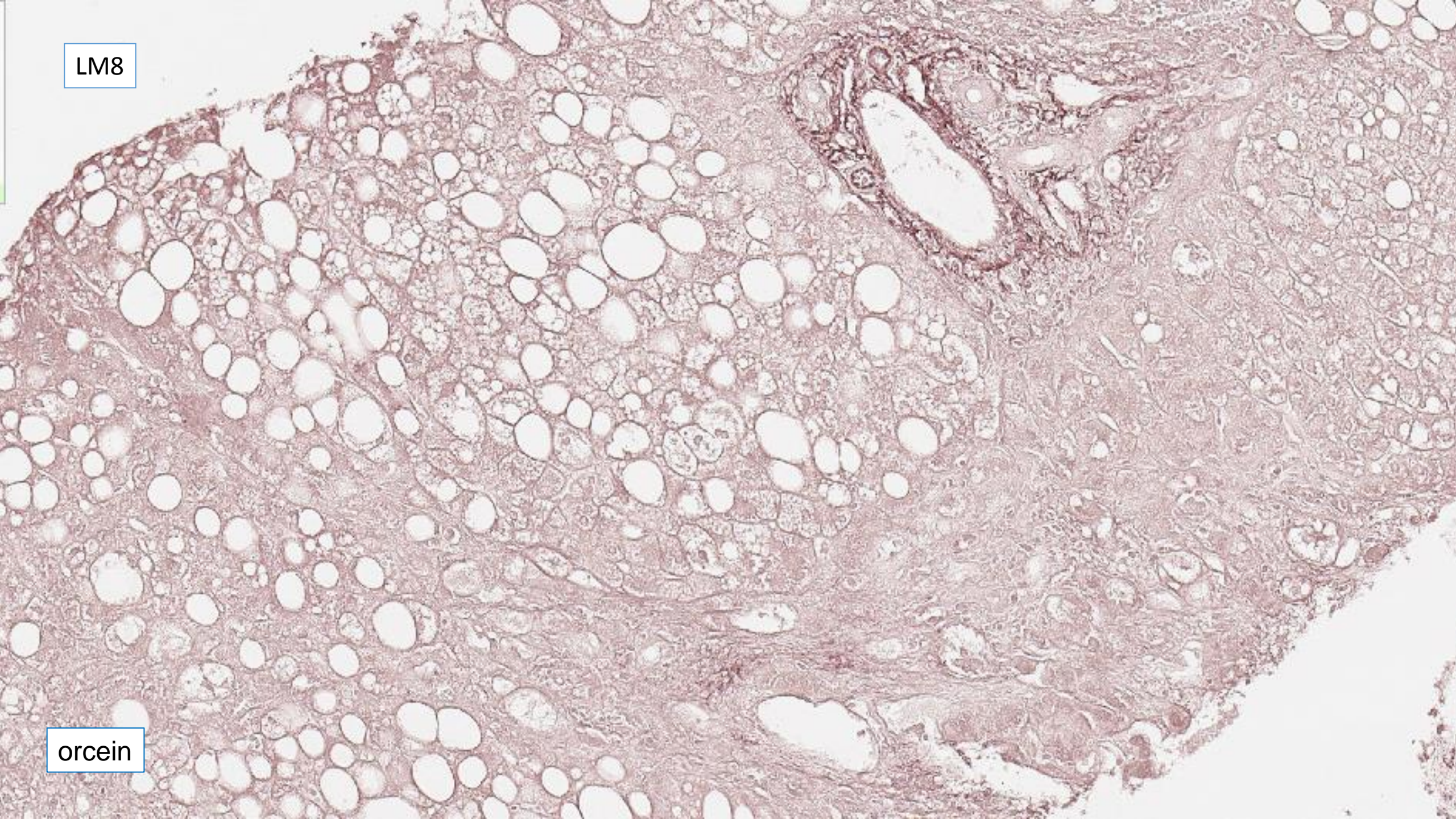
LM8

orcein



LM8

orcein



Case LM8 Age 47, Female

Fatty liver. On Tamoxifen. Liver fibroscan 21.8kPa. Raised AST and ALT.

LM8	
diagnosis:	
steatosis	4
steatohepatitis	72
stage	
bridging fibrosis	46
early/developing cirrhosis	9
probable/definite cirrhosis	6
? Collapse or fibrosis, needs stains	3
fibrosis NOS	1
other descriptive terms (significant, marked, pericellular etc)	5
Kleiner/Brunt: 20 people of which stage 2=2 ,3=17, 4=1	
Ishak stage: 3 people - one each for 3, 4 and 5-6	
grade: Kleiner/Brunt: 19 people, stage 2-3 = 4; stage 5=1, 6=4, 7=10	
grade as text: 12 people: mild=1, mod =5, severe =6	

Aetiology:	
tamoxifen as only or contributing factor	45
NASH/NAFLD/metabolic/alcohol	31
tamoxifen combined with metabolic/alcohol	25
tamoxifen not mentioned at all	26
drug, ALD/NAFLD, AIH, hepatitis C	1
probably alcohol related as only cause	3
no cause suggested	6

Scoring – for full marks, a diagnosis of steatohepatitis and a tamoxifen and/or metabolic syndrome as the likely cause.

Lose 5 marks for steatosis.

Lose 5 marks if there is no comment on the cause of fatty liver disease, or if the only cause suggested is alcohol related liver disease.

Case LM9 Age 22, Male

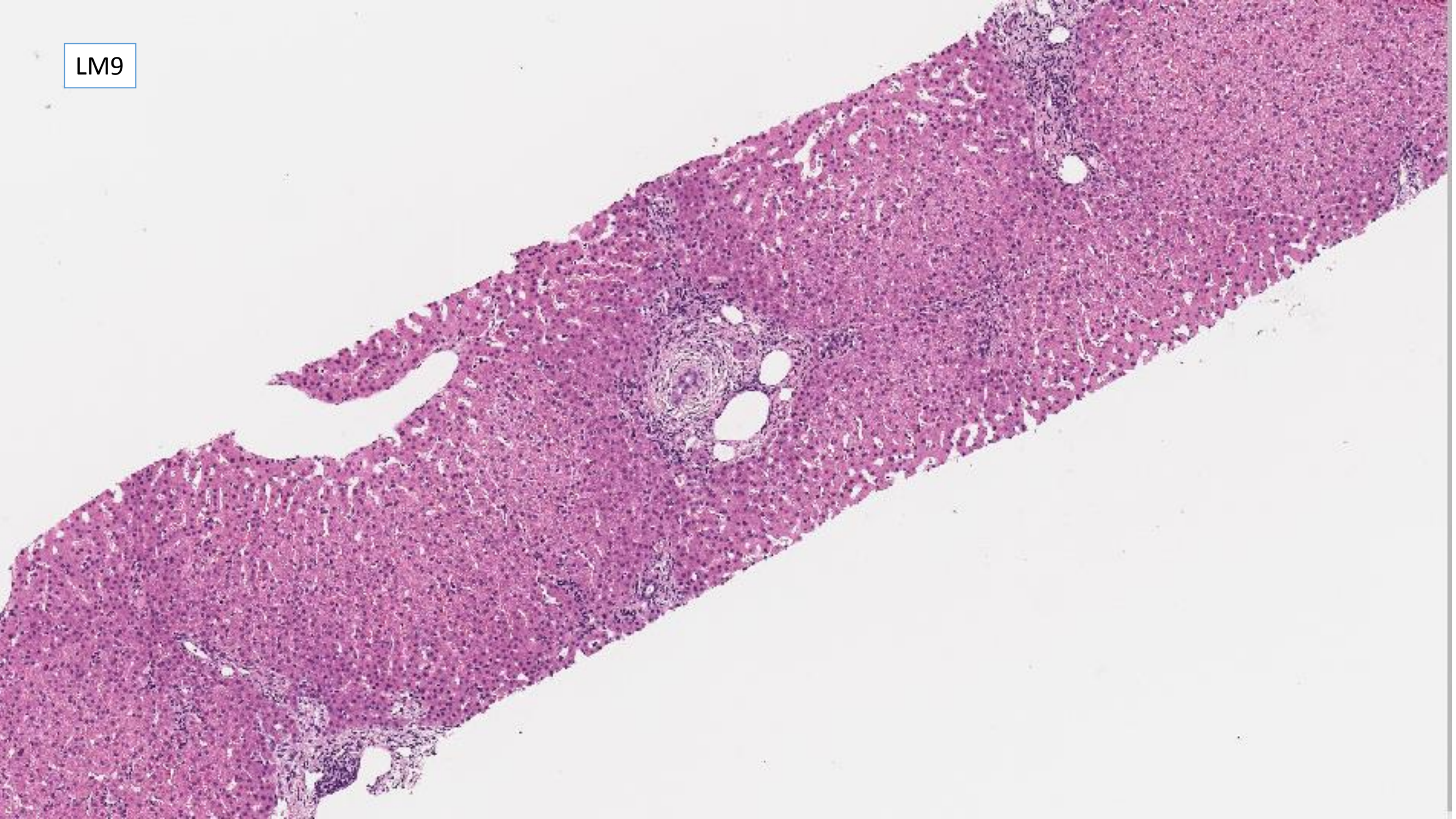
abnormal LFTs. Raised IgG. Anti-smooth muscle antibody positive.

ALP = 236, bilirubin = 7, AST = 65, ALT = 70, GGT = 251.

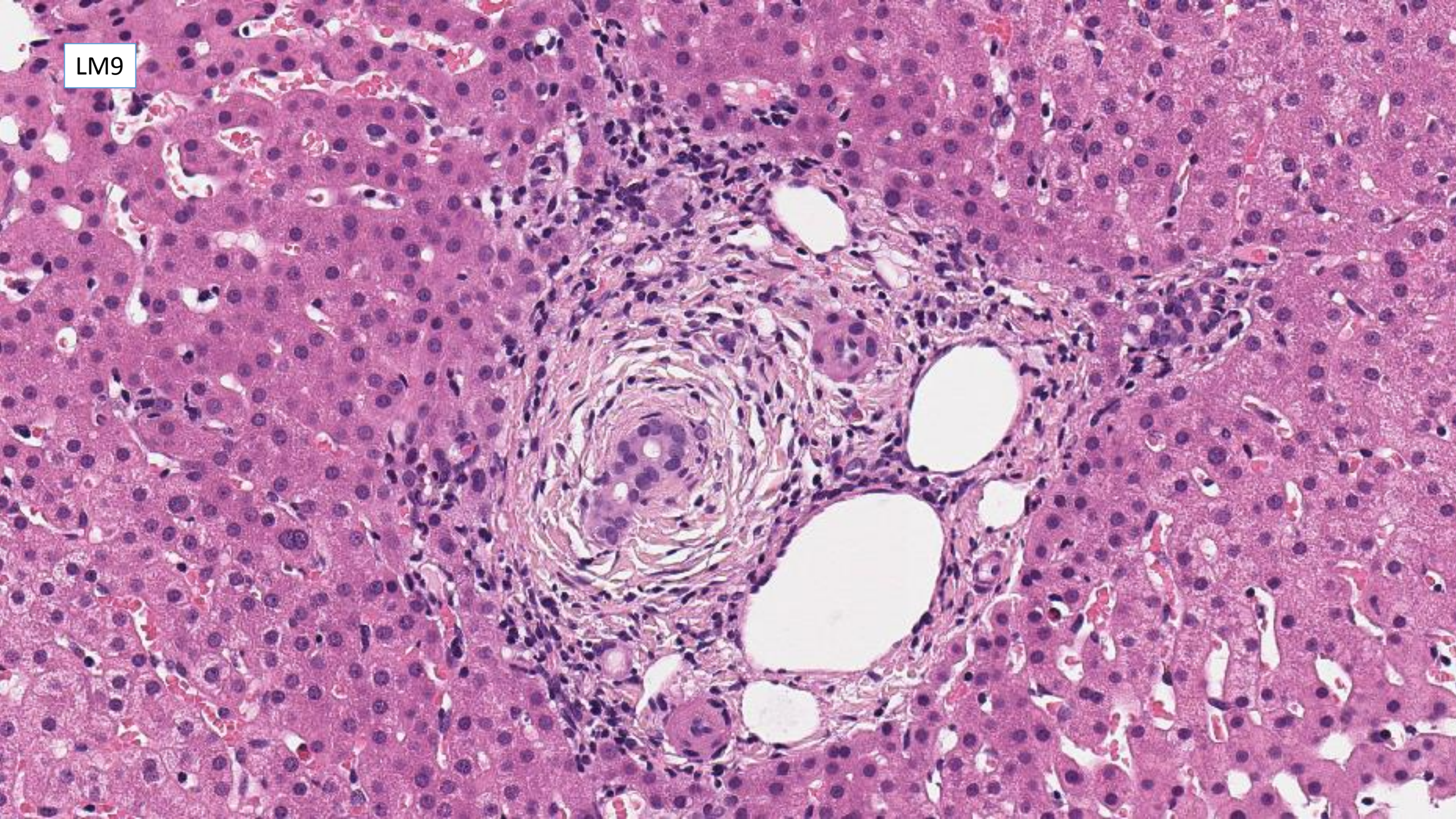
Orcein, van Gieson



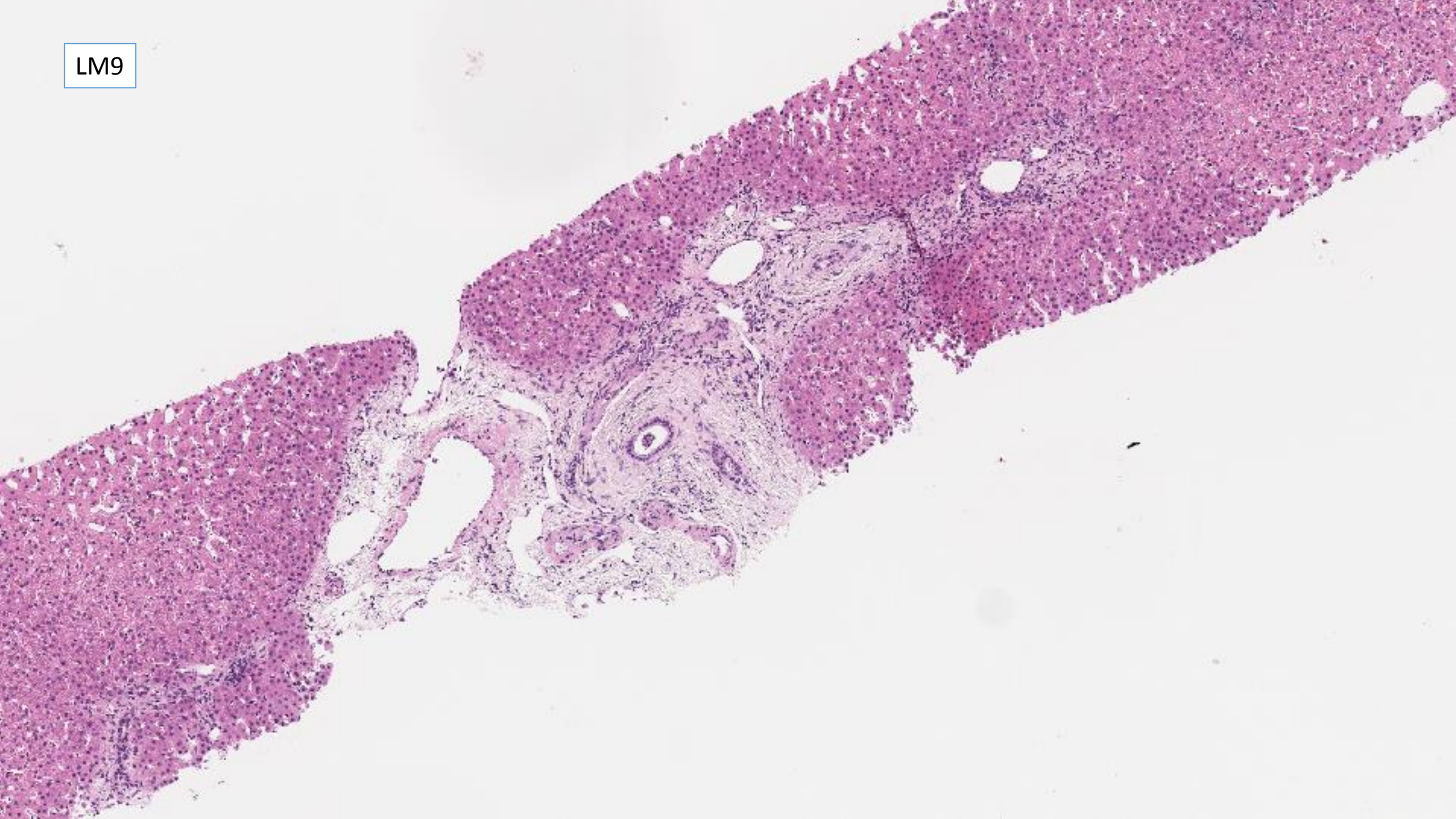
LM9



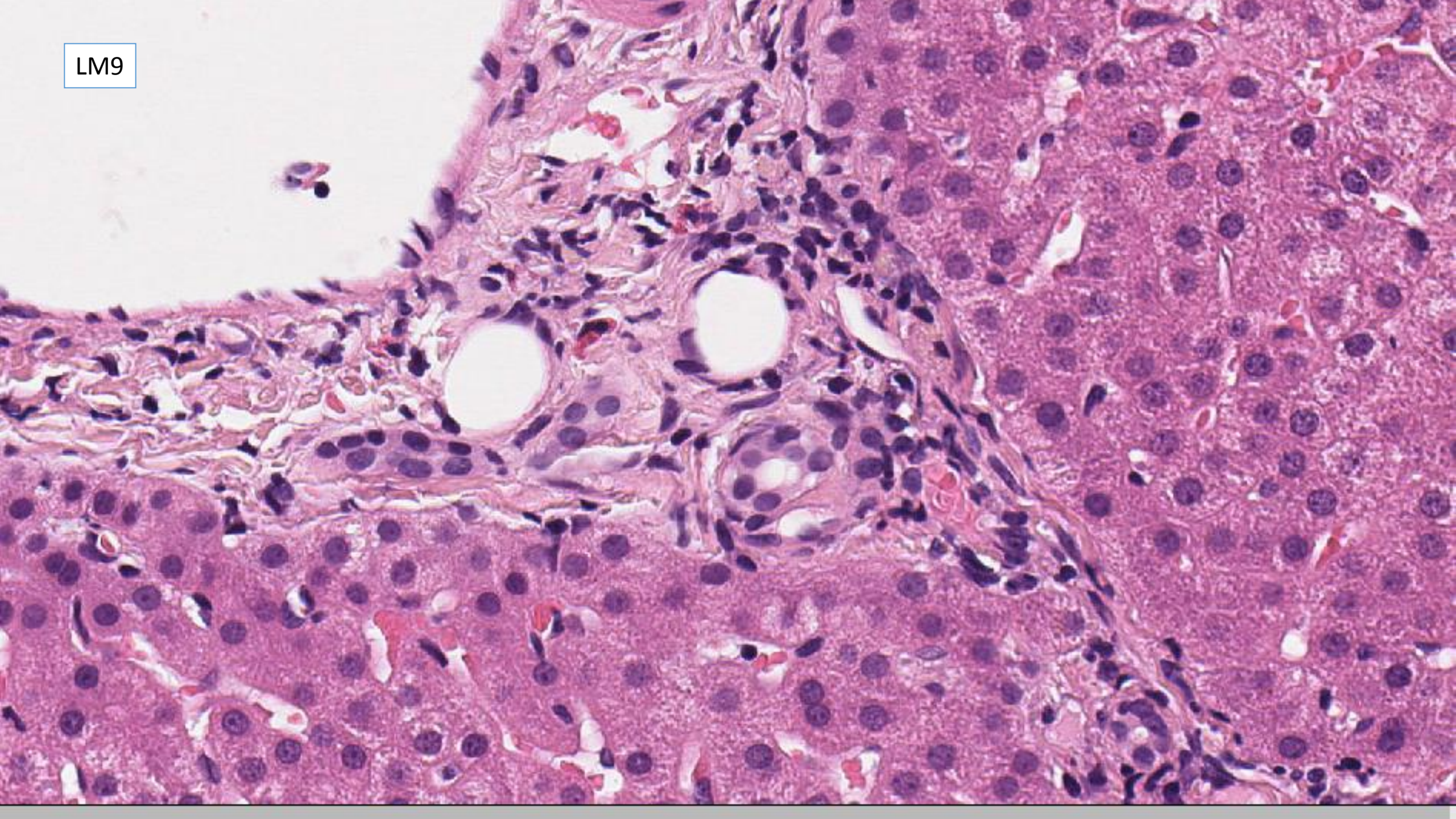
LM9



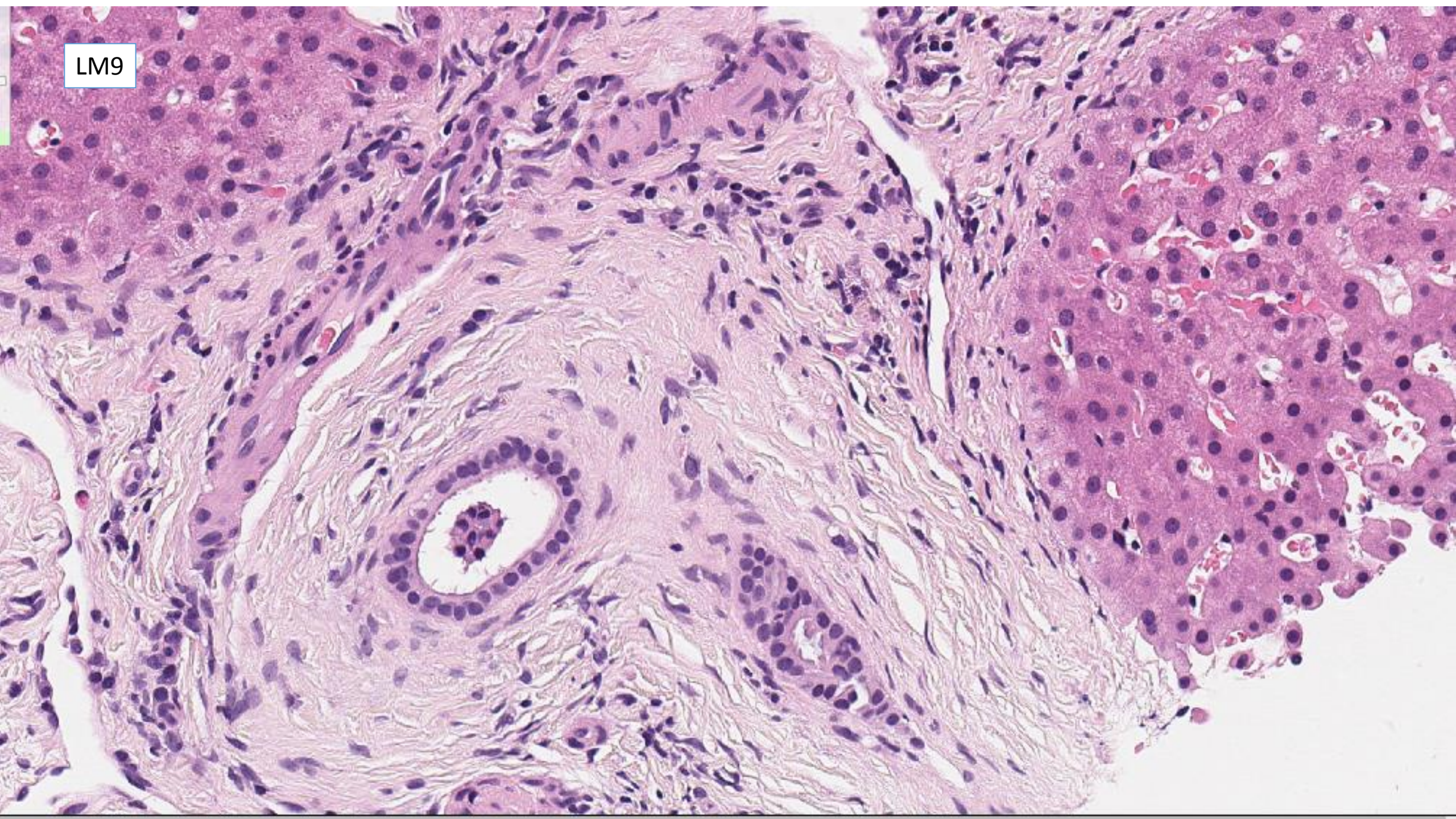
LM9



LM9

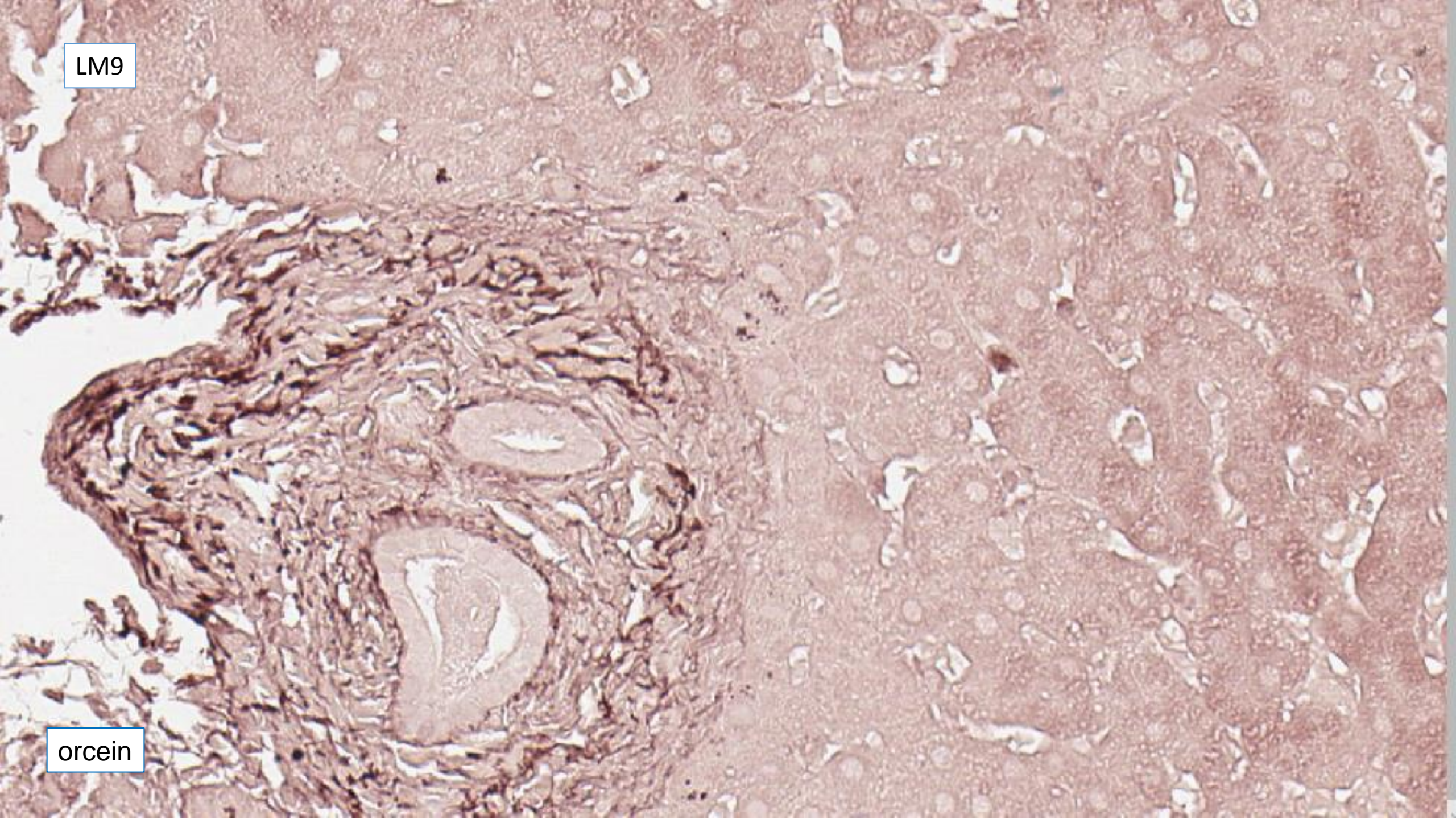


LM9



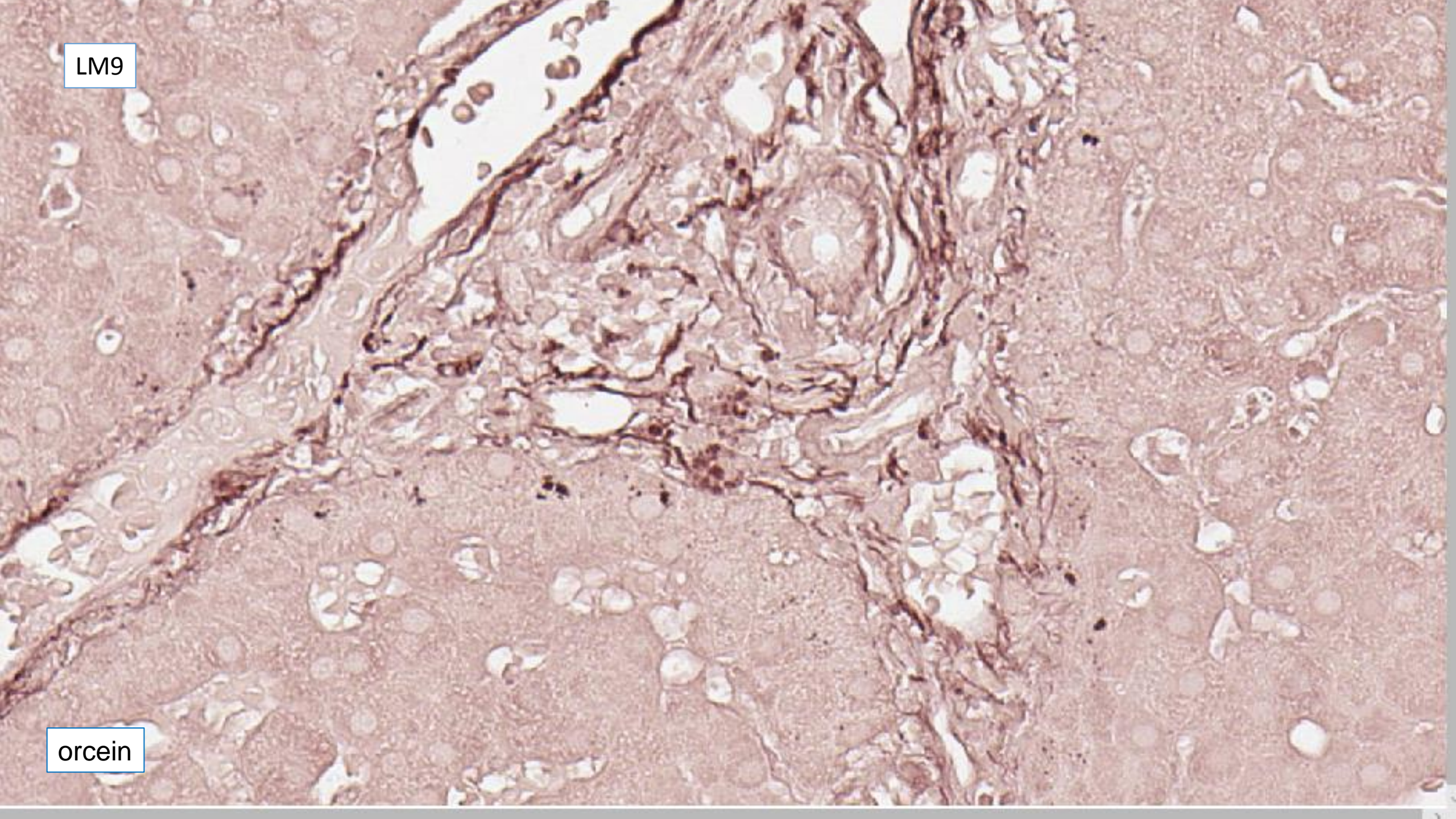
LM9

orcein



LM9

orcein

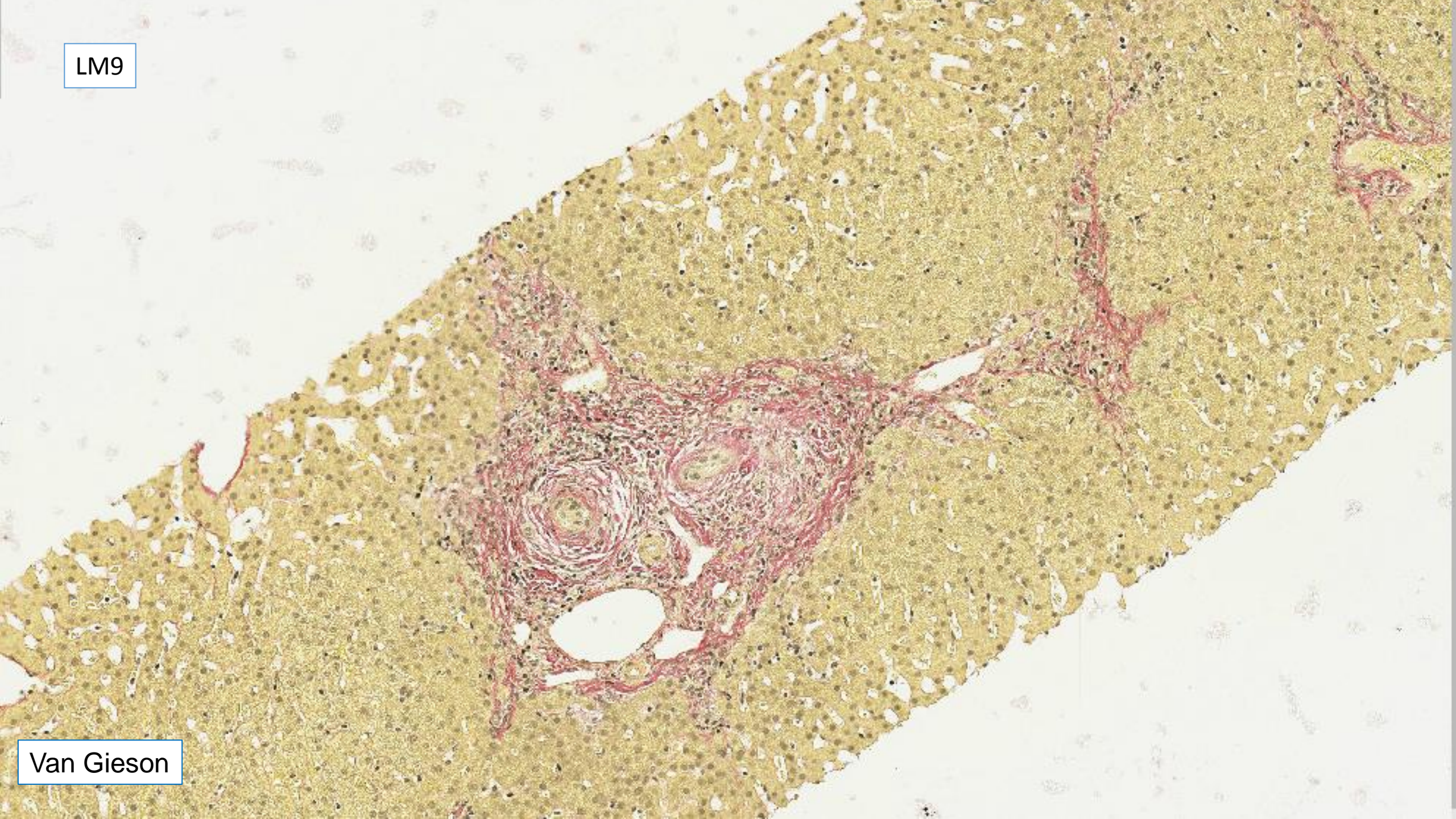


LM9

Van Gieson



LM9



Van Gieson

Case LM9 Age 22, Male

abnormal LFTs. Raised IgG. Anti-smooth muscle antibody positive.

Morphology	
biliary disease, overlap, and/or any mention of PSC or PBC	77
no mention of biliary disease	1
fibrosis/stage – any comment on fibrosis	78
portal fibrosis	13
bridging fibrosis	45
incomplete cirrhosis	1
no fibrosis	1
moderate fibrosis	1
periductal fibrosis, as only mention of fibrosis	10
Metavir F1 A1	1

comments -	
Cu protein present	66
CK7 would be helpful	2
exclude Wilson's	1
* learning point - these suggested AIH on the basis of the serology,	
not from the morphology results - no current AIH disease activity	

Diagnosis:	
primary sclerosing cholangitis	74
Biliary disease, but not including PSC by name	4
Primary biliary cirrhosis	2
PBC or PSC	1
PSC/AIH overlap	3
PSC with possible overlap with AIH*	9
AIH with possible overlap with PSC	1
AIH with possible overlap	1
autoimmune hepatitis, mild disease activity	1
no features of AIH	13

Scoring: for full marks, any diagnosis with primary sclerosing cholangitis.

Score no marks if no mention of biliary disease.

Score 5 marks for primary biliary cirrhosis, or ‘possible overlap’ without naming the disease.

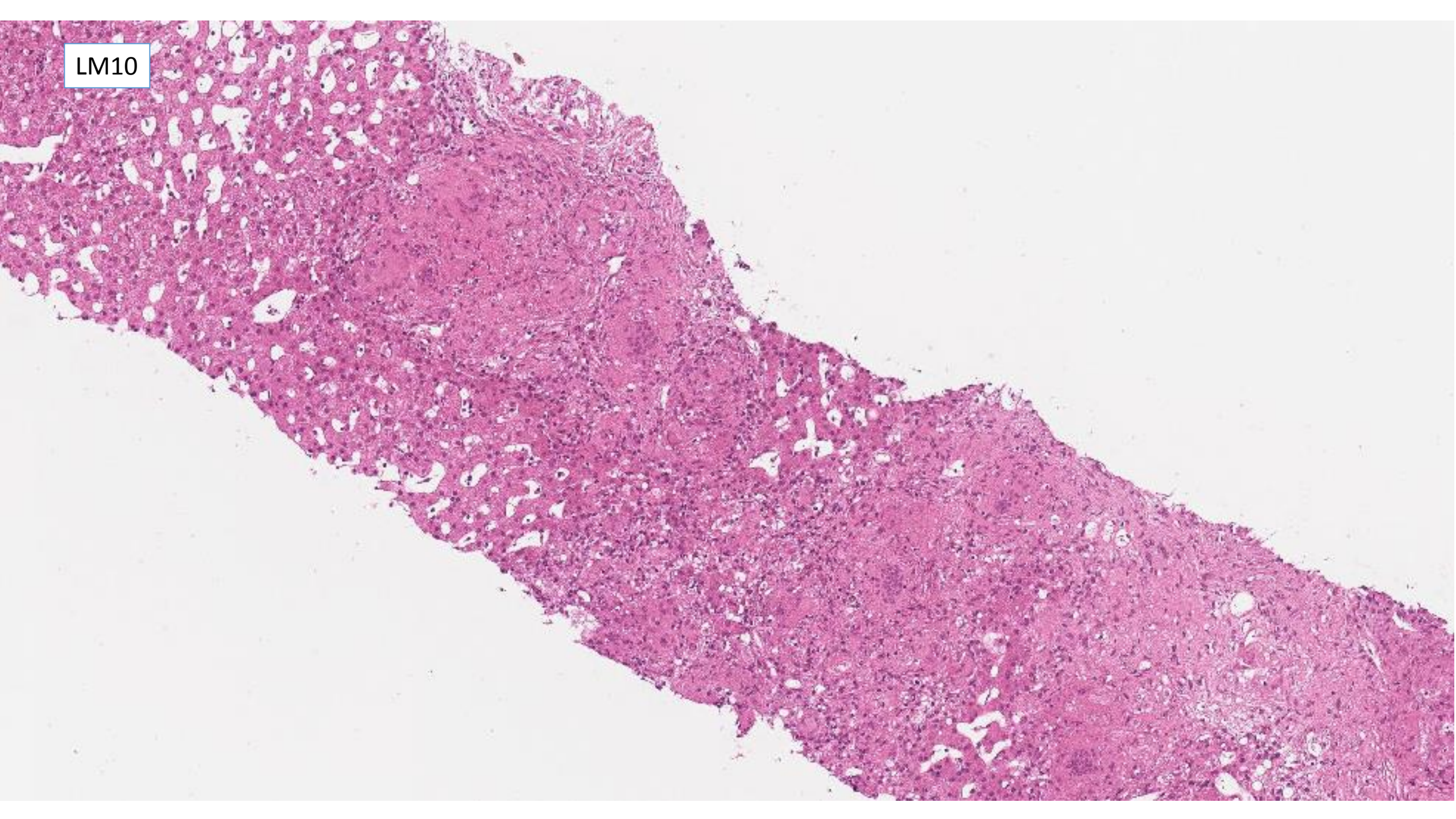
Case LM10 Age 29, Male

multiple tiny nodules in liver. Also small nodules in spleen on imaging. Retroperitoneal lymphadenopathy. History of sarcoidosis.

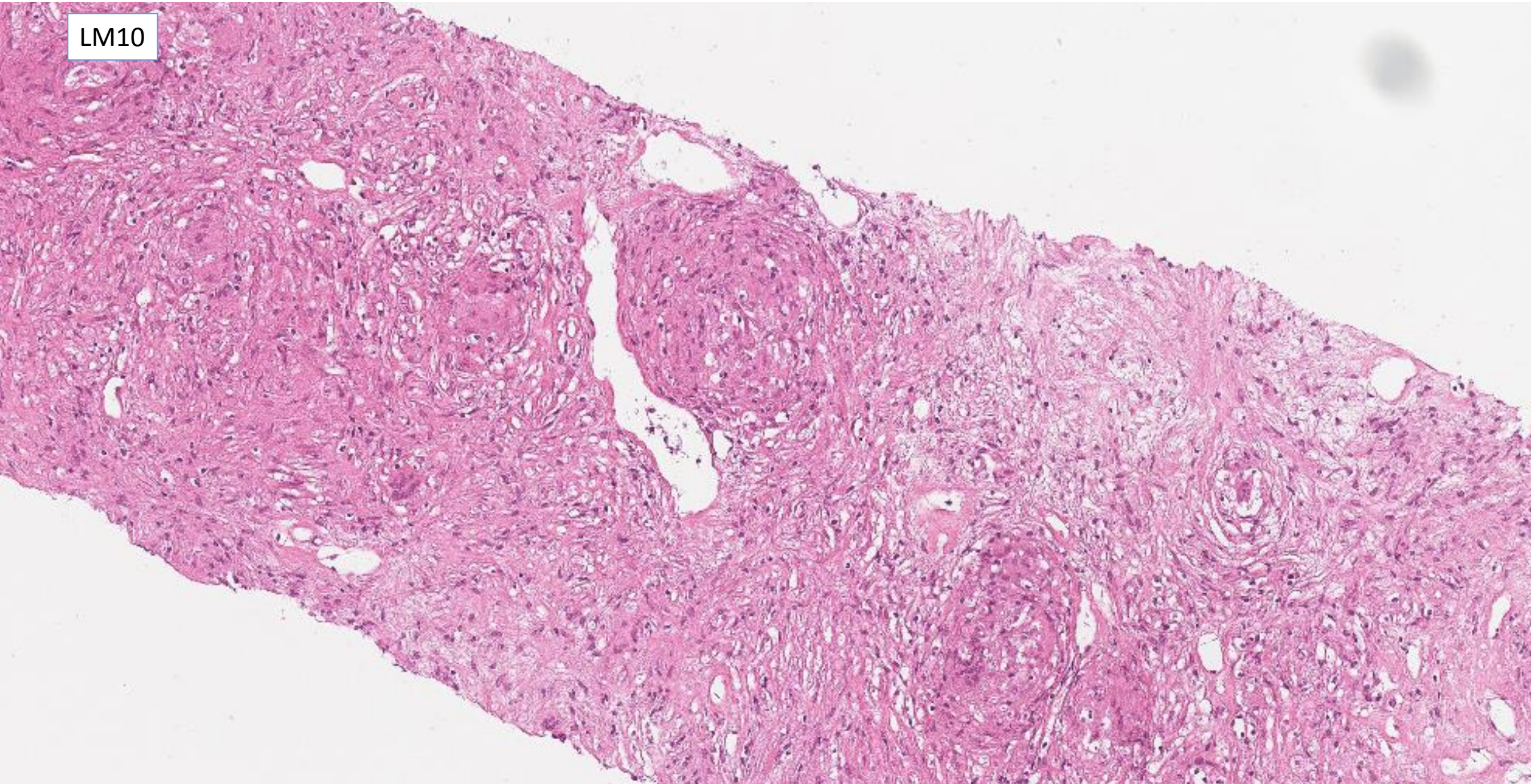
Retic, Masson trichrome

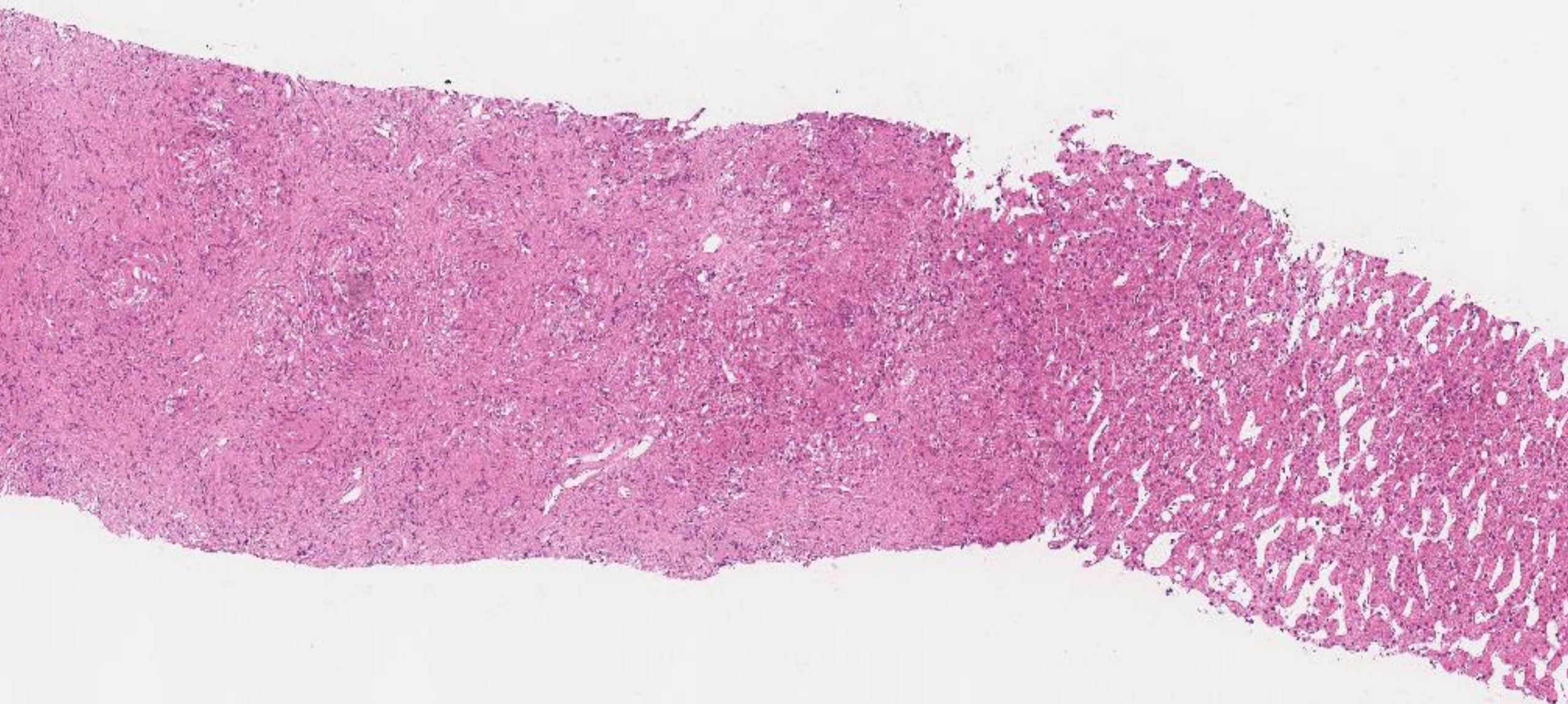


LM10

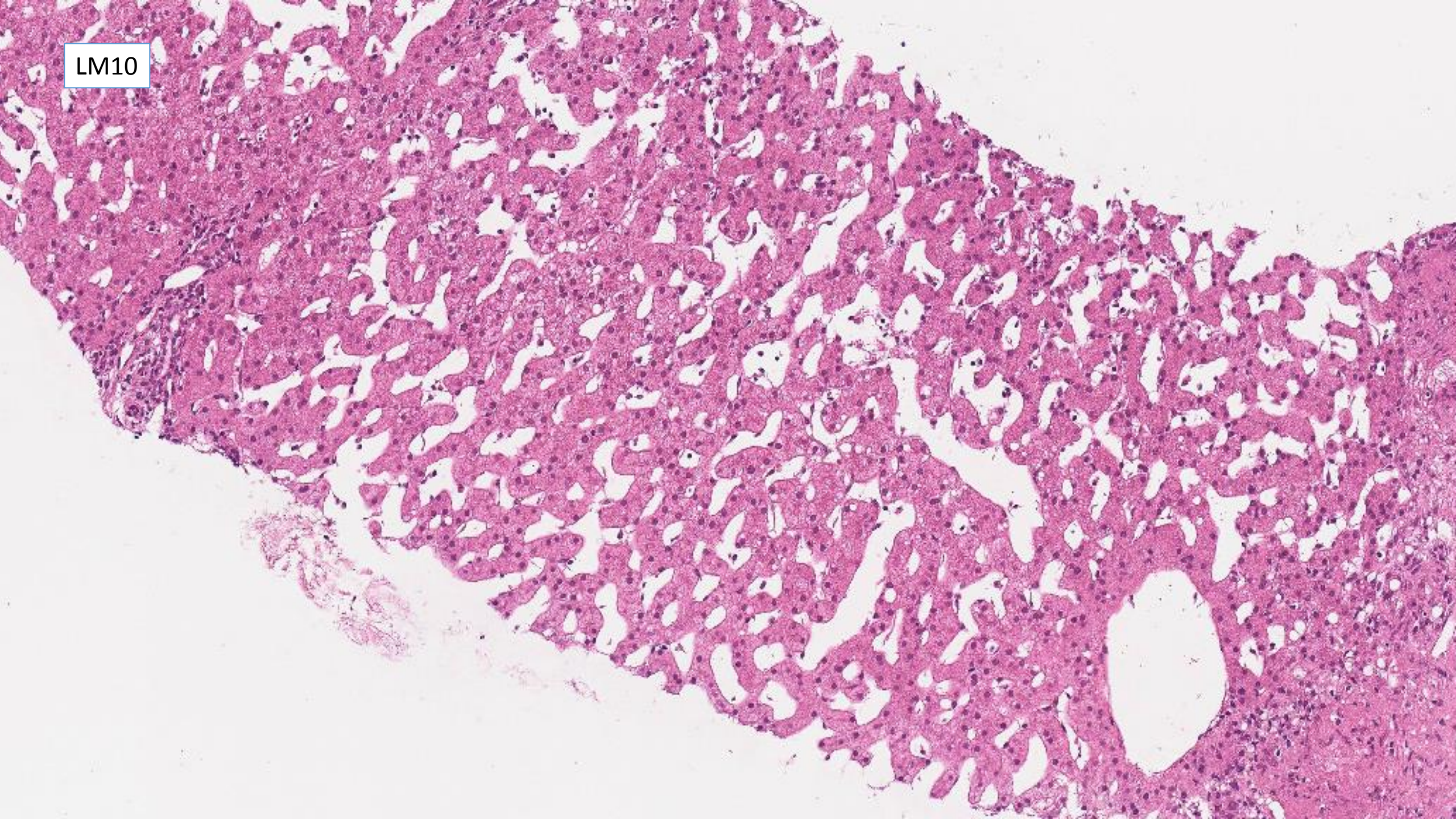


LM10

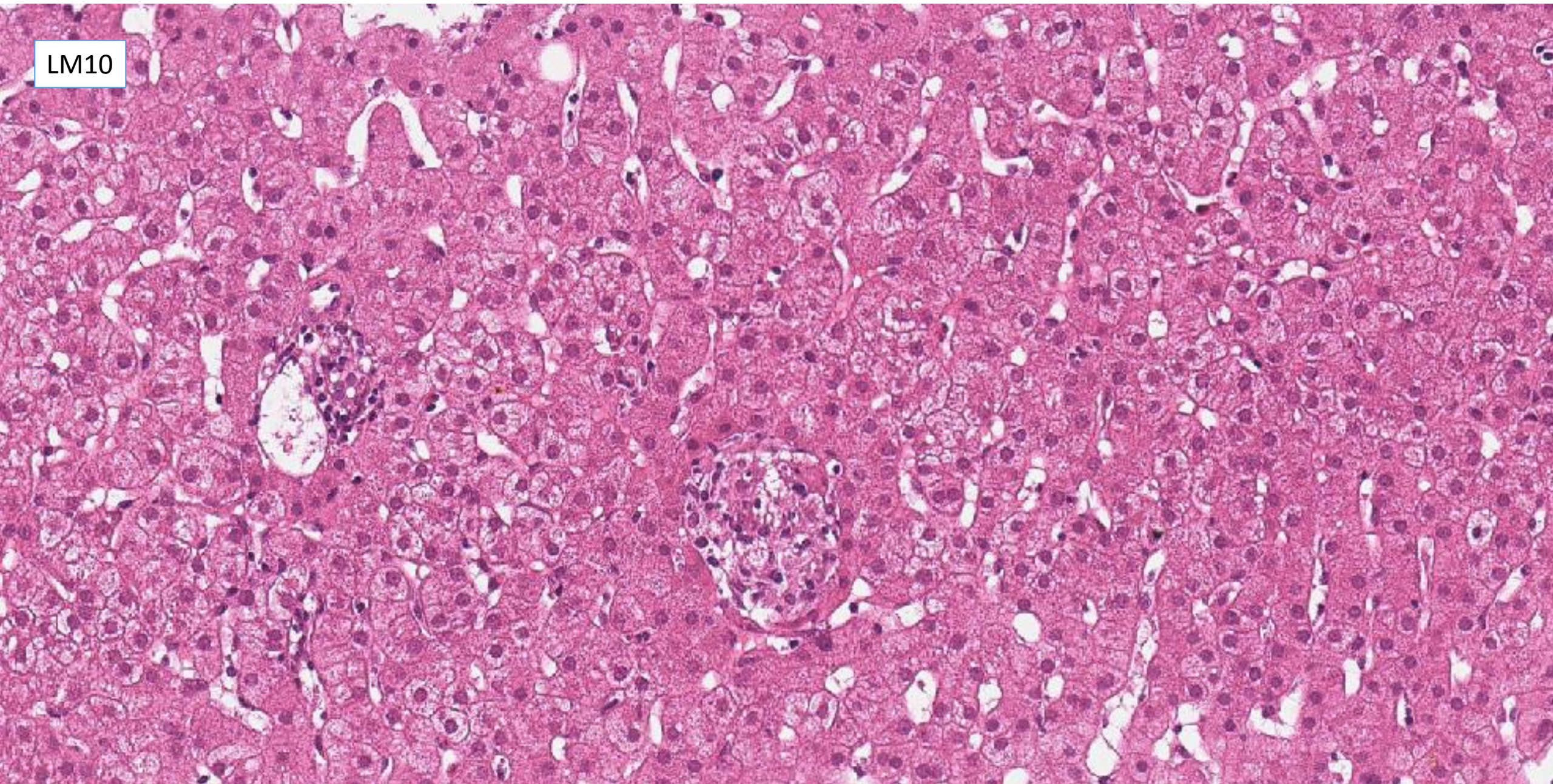




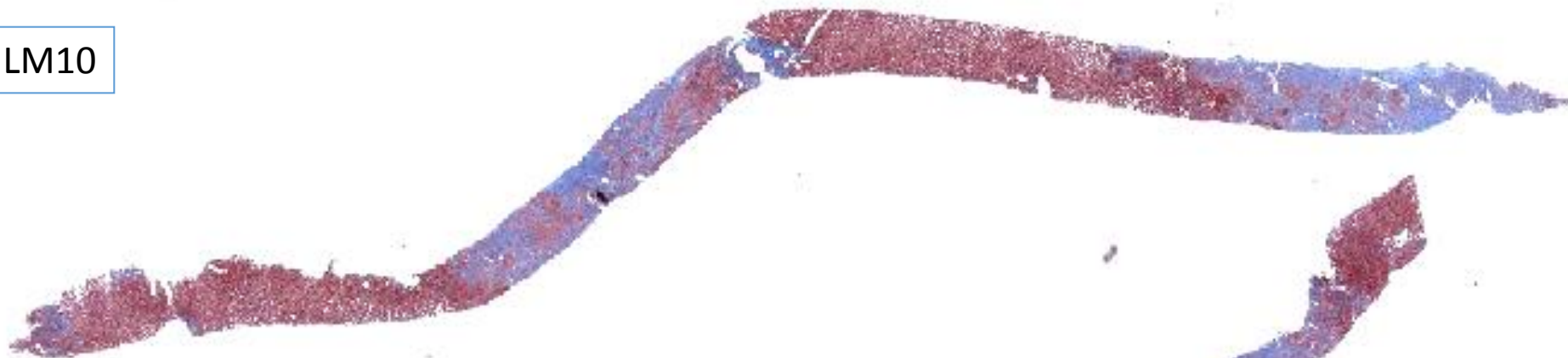
LM10



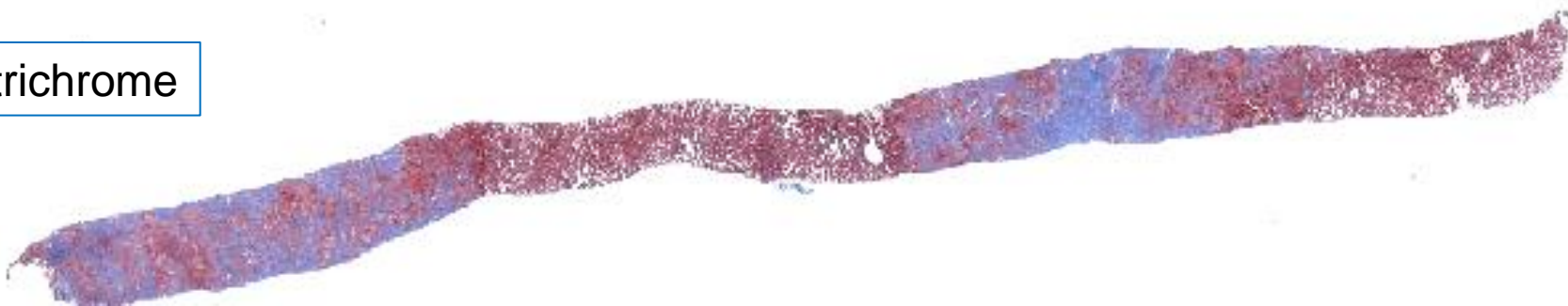
LM10

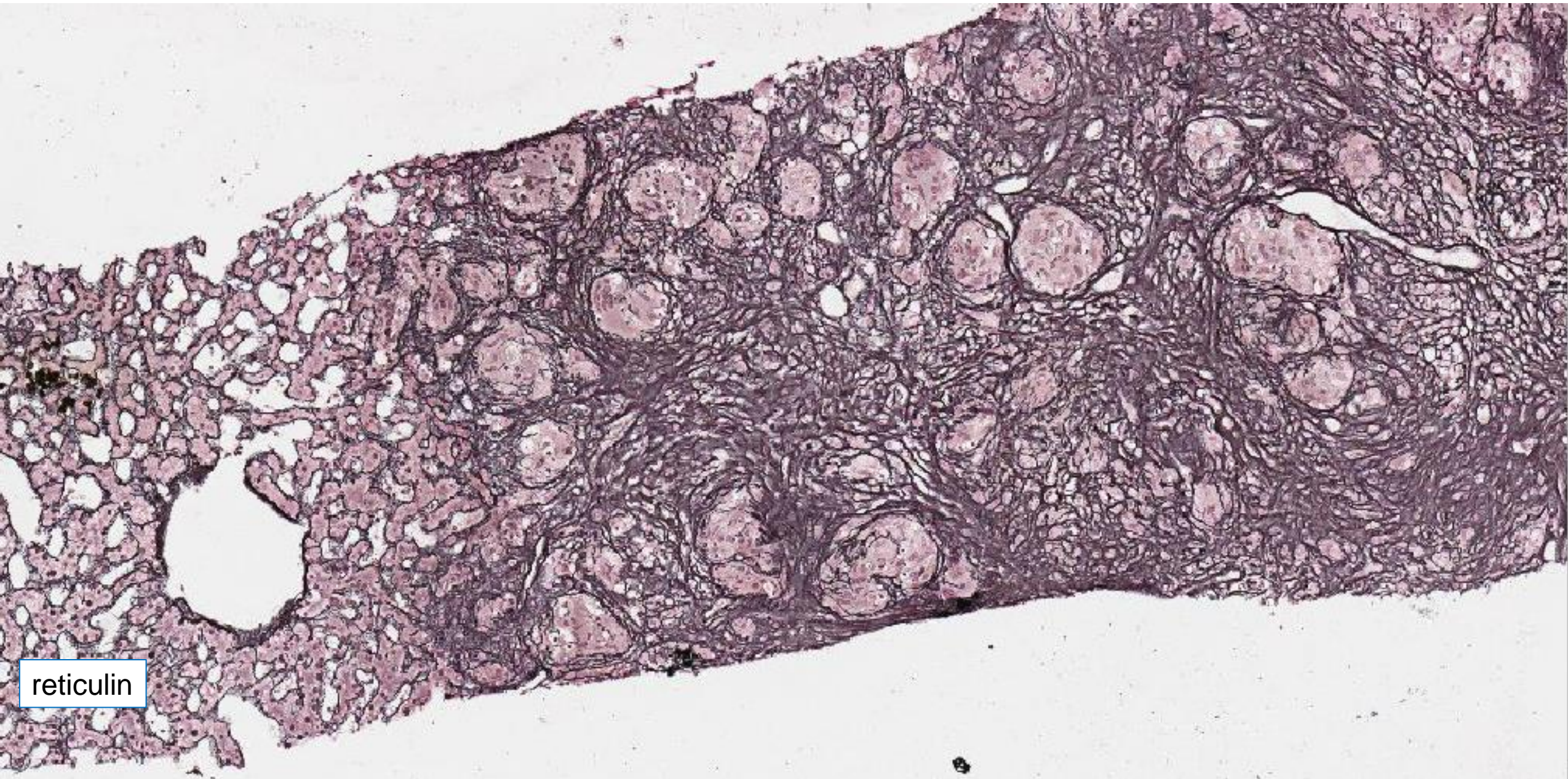


LM10



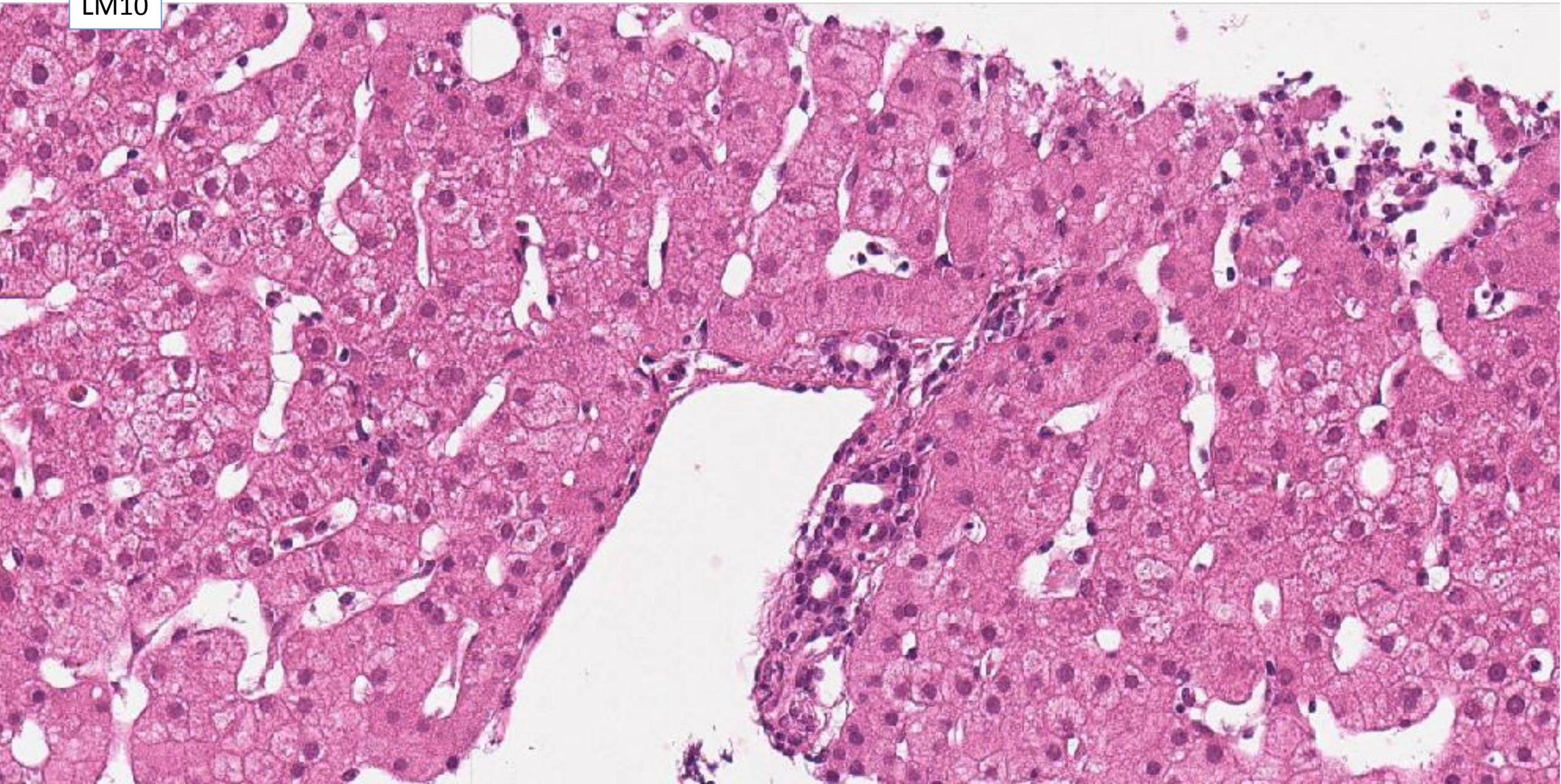
Masson trichrome





reticulin

LM10



Case LM10 Age 29, Male

multiple tiny nodules in liver. Also small nodules in spleen on imaging. Retroperitoneal lymphadenopathy. History of sarcoidosis.

LM10	
morphology	
granulomas	73
granulomatous hepatitis	5
diagnosis	
sarcoid	78
also consider/exclude other causes	37
do stains - ZN +/- others	22
ductopenia	2
sinusoidal dilatation	31
attributed to mass effect	3
consider/exclude venous outflow obstruction	7

Scoring:

For full marks – a description of granulomas, and comment that these are consistent with sarcoid.

Granulomatous hepatitis was accepted as an alternative description.

Case LM10 Age 29, Male

multiple tiny nodules in liver. Also small nodules in spleen on imaging. Retroperitoneal lymphadenopathy. History of sarcoidosis.

LM10	
morphology	
granulomas	73
granulomatous hepatitis	5
diagnosis	
sarcoid	78
also consider/exclude other causes	37
do stains - ZN +/- others	22
ductopenia	2
sinusoidal dilatation	31
attributed to mass effect	3
consider/exclude venous outflow obstruction	7

Score 10 – 4 votes
Score 5 – 3 votes

Suggested scoring:

For full marks – a description of granulomas, and comment that these are consistent with sarcoid.

Half marks for granulomatous hepatitis without any description of the sarcoid-like characteristics of the granulomas?

Case LM11

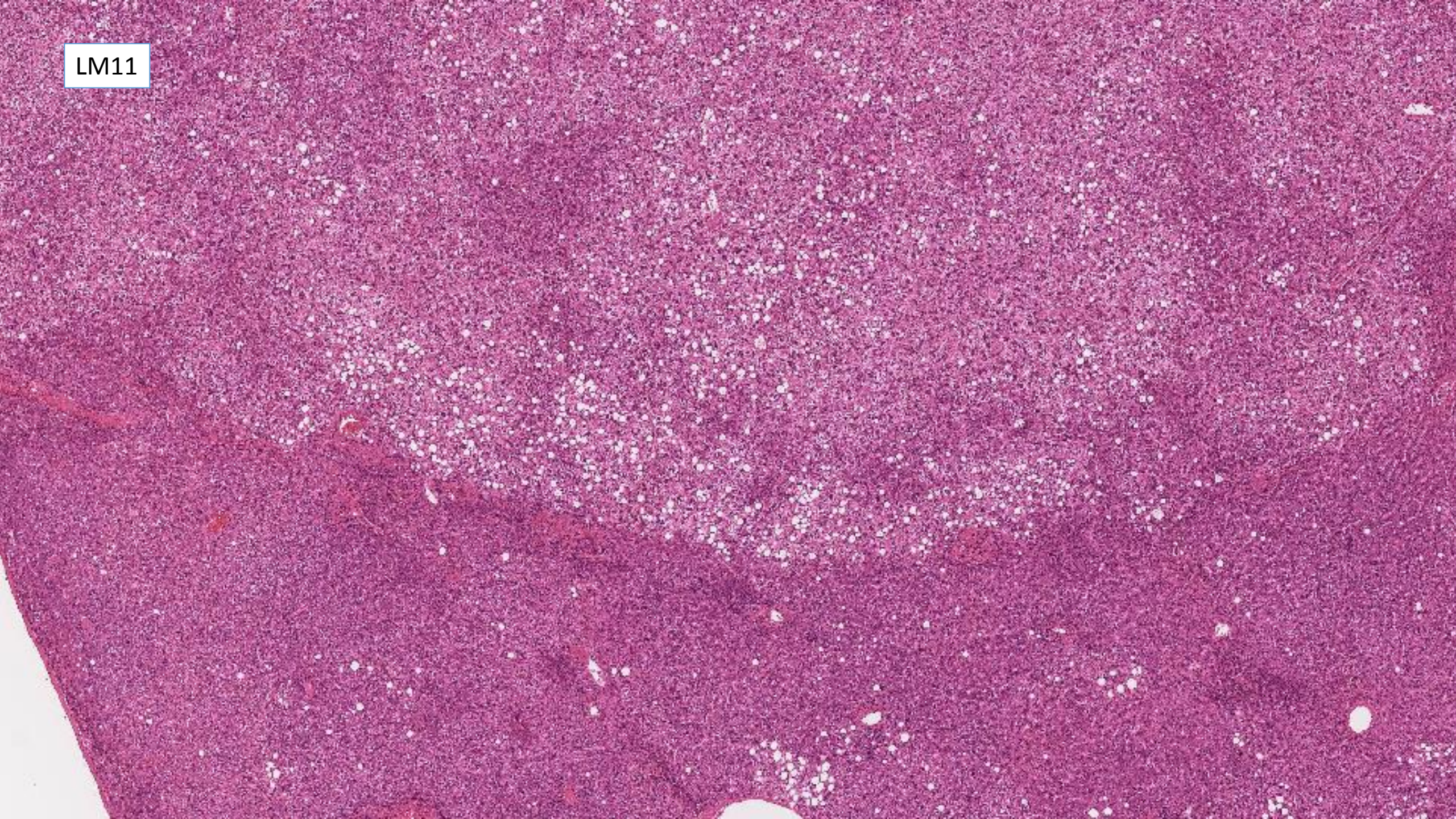
Age 55, Female

colorectal liver metastasis,

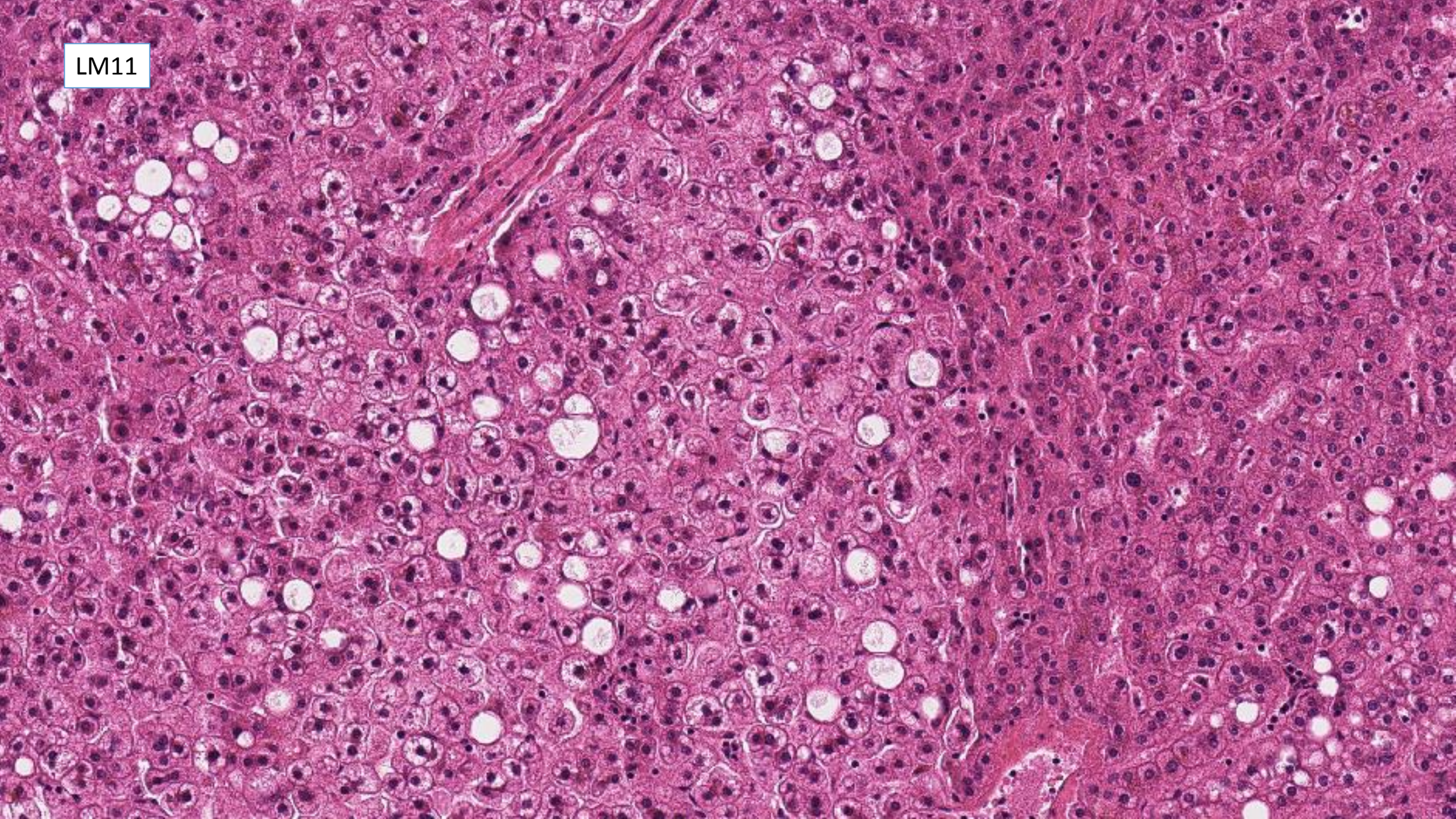
lesion in segment 5



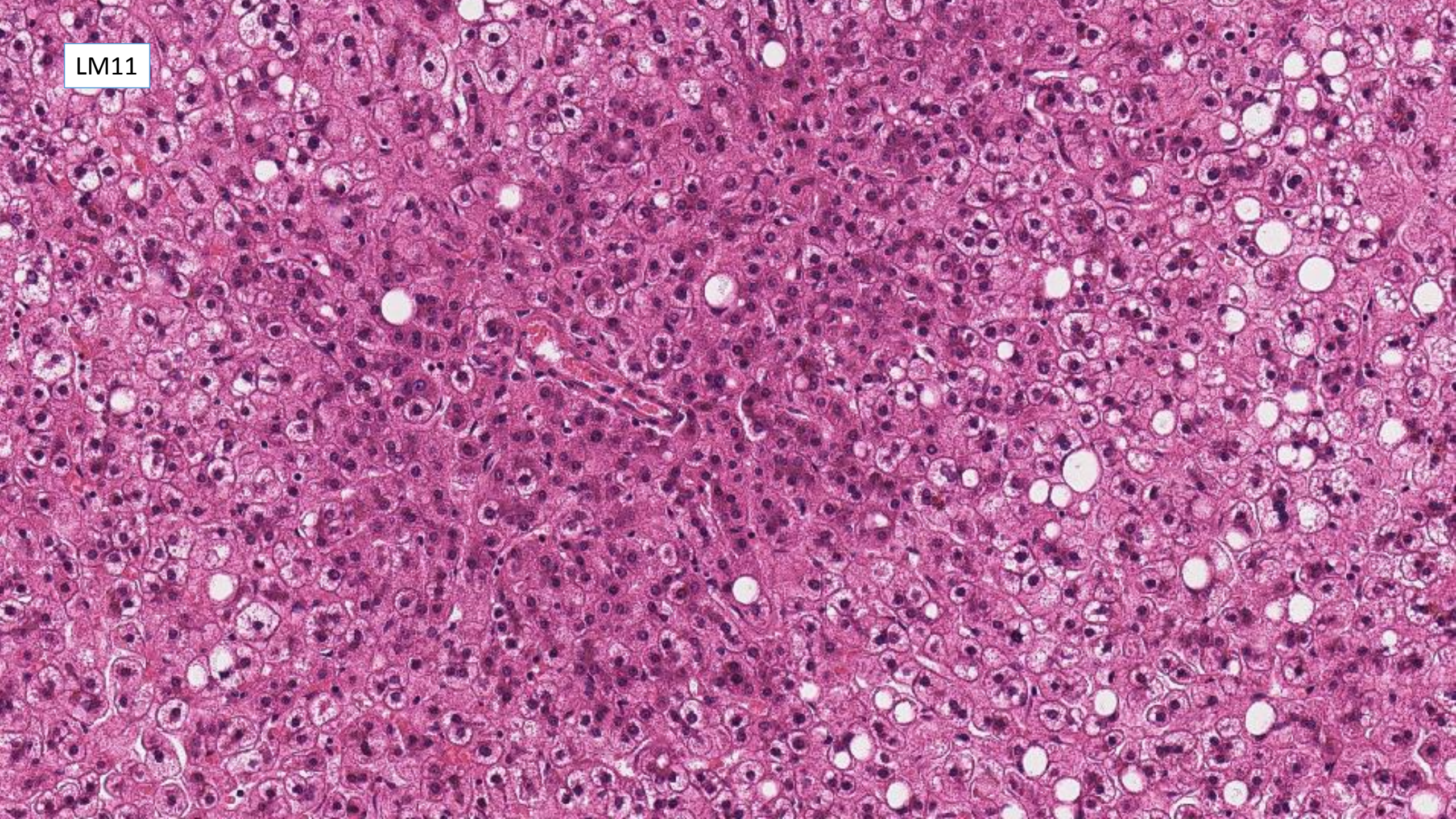
LM11



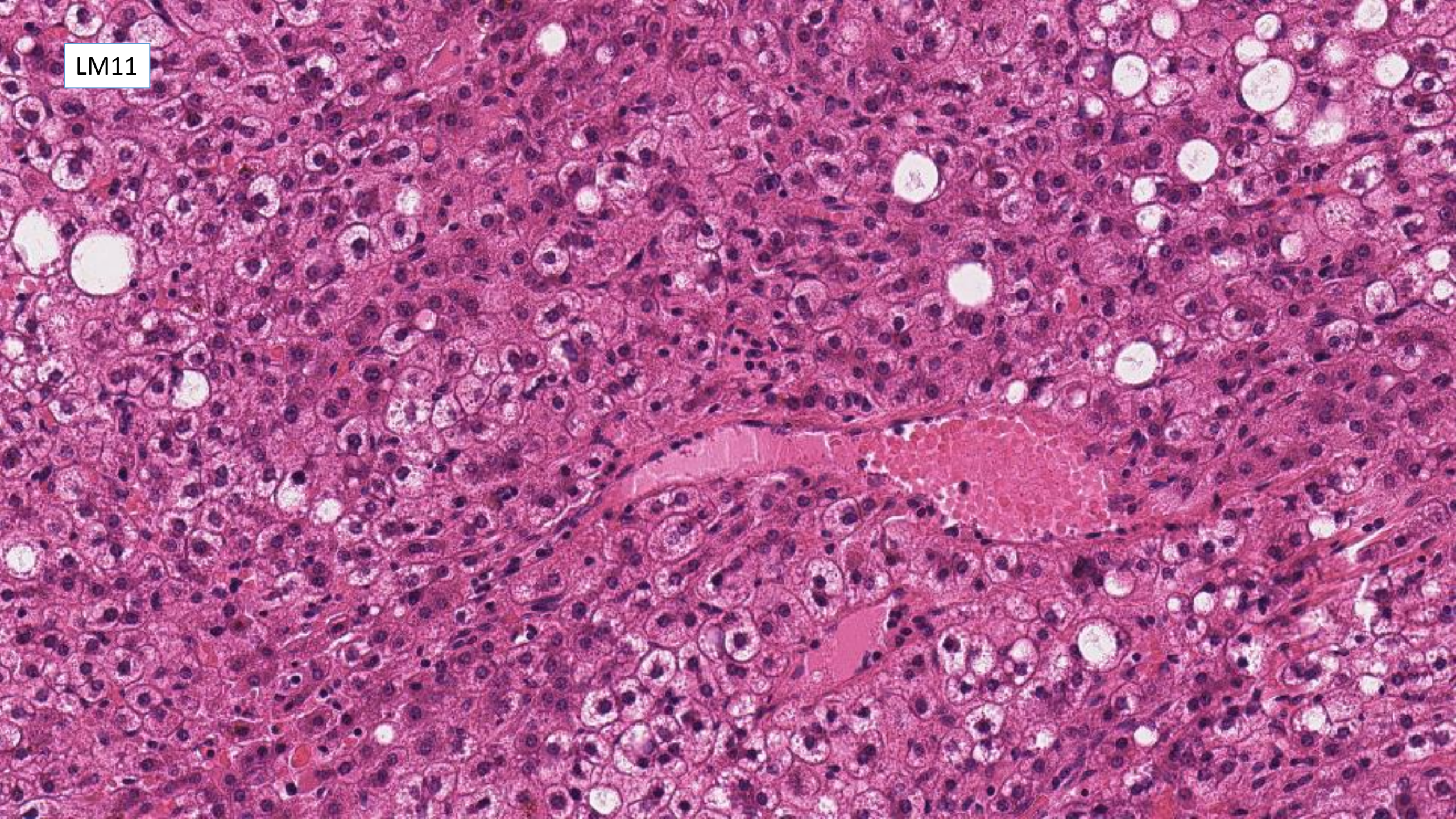
LM11



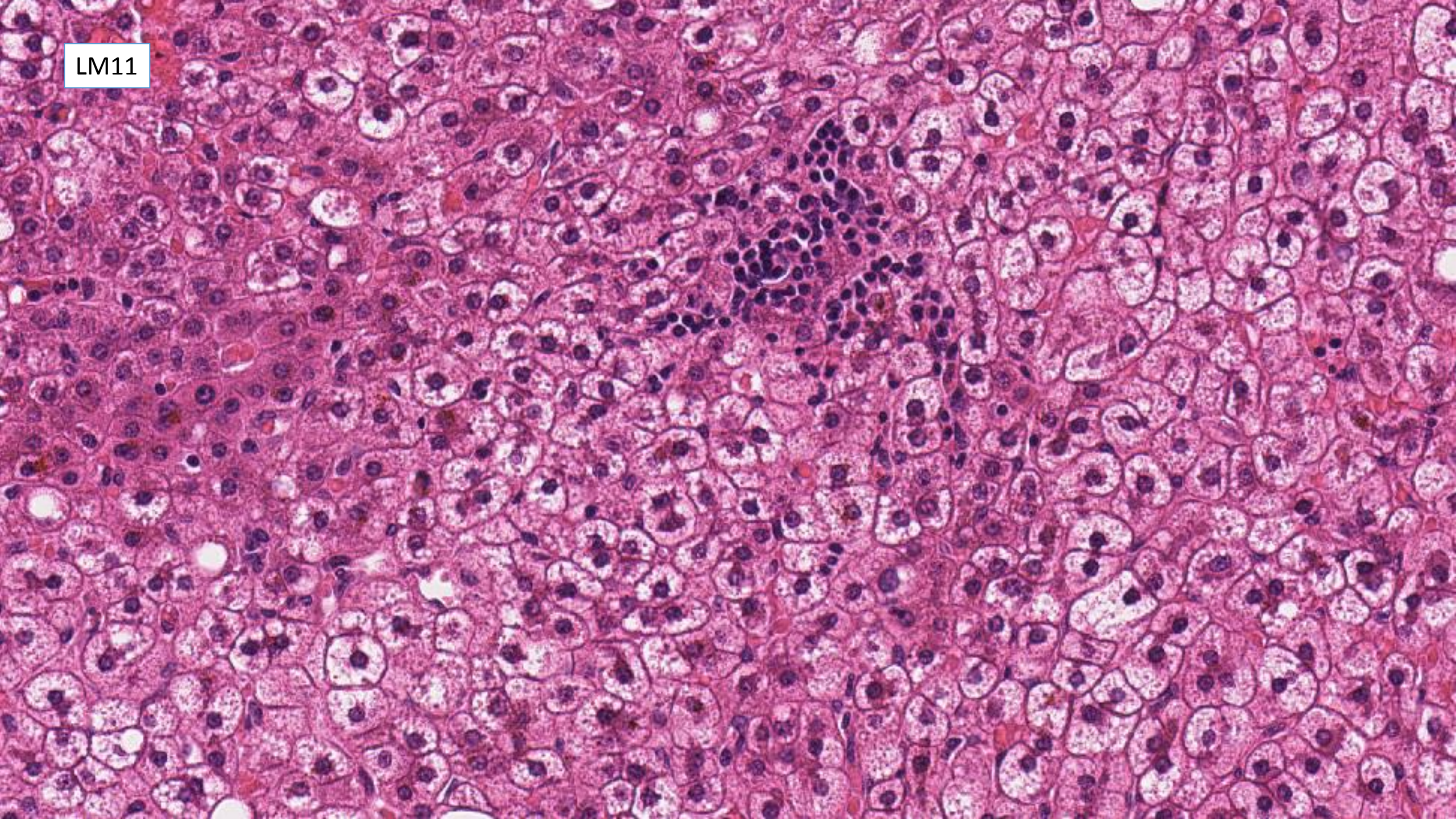
LM11



LM11



LM11



Case LM11 Age 55, Female

colorectal liver metastasis, lesion in segment 5

LM11	
diagnosis:	
hepatocellular adenoma (HCA)	68
type: steatotic, HNF1a mutated - 14, inflammatory - 3	
well differentiated HCC or adenoma	2
Focal nodular hyperplasia	1
hepatocellular lesion, needs IHC for diagnosis	2
FNH or HCA	2
HCC or metastatic Renal cell carcinoma	1
focal steatohepatitis	1
? Hepatocellular, angiomyolipoma, adrenal cortical	1
would do IHC	25
Background liver	
steatosis	26
no comment	42
non-cirrhotic	8
normal / unremarkable	5
no evidence of metastatic colorectal cancer	35

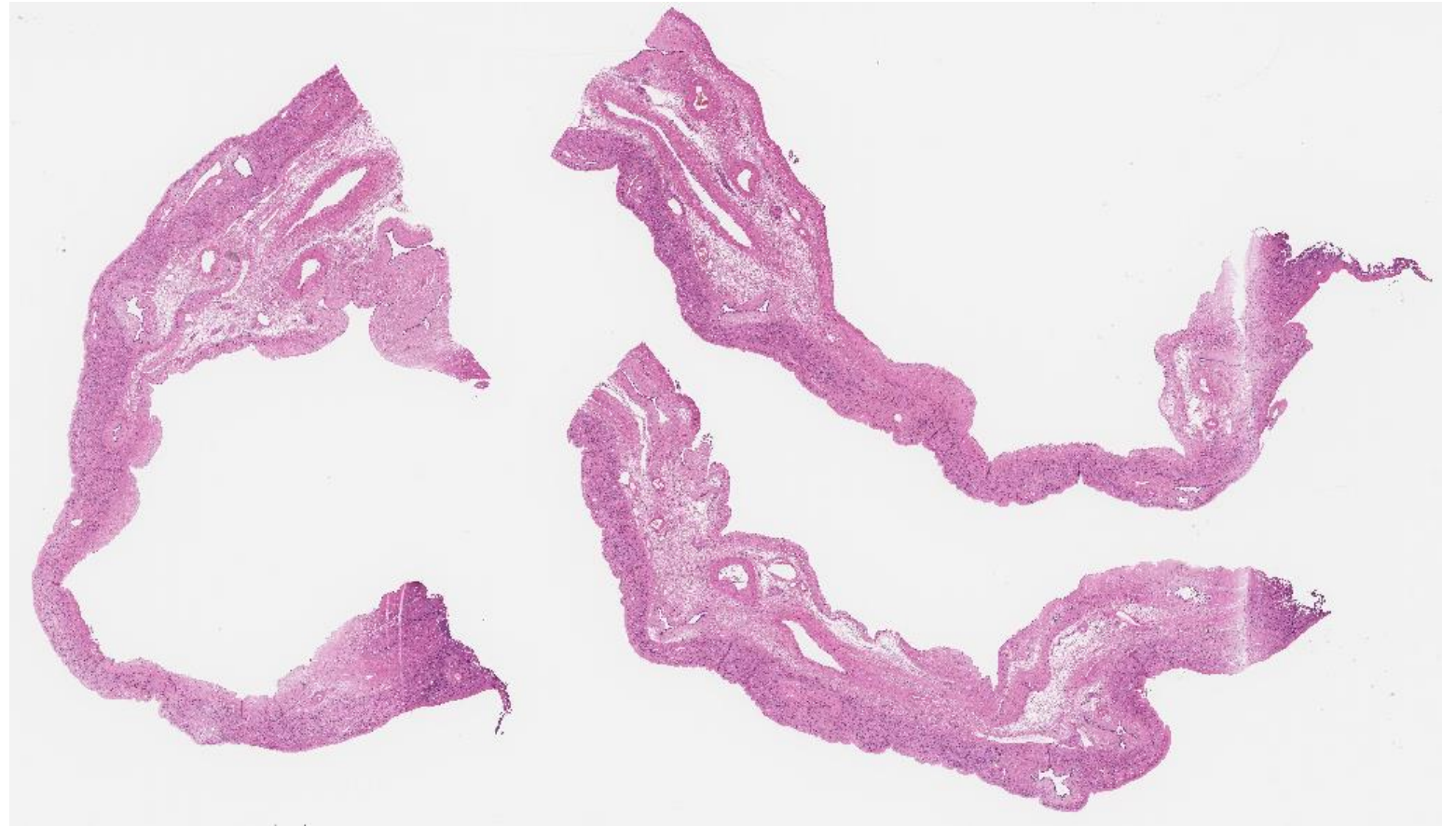
Scoring: for full marks, hepatocellular adenoma, or well differentiated hepatocellular neoplasm, needs immunohistochemistry for diagnosis.

Score 5 for focal nodular hyperplasia or adenoma,

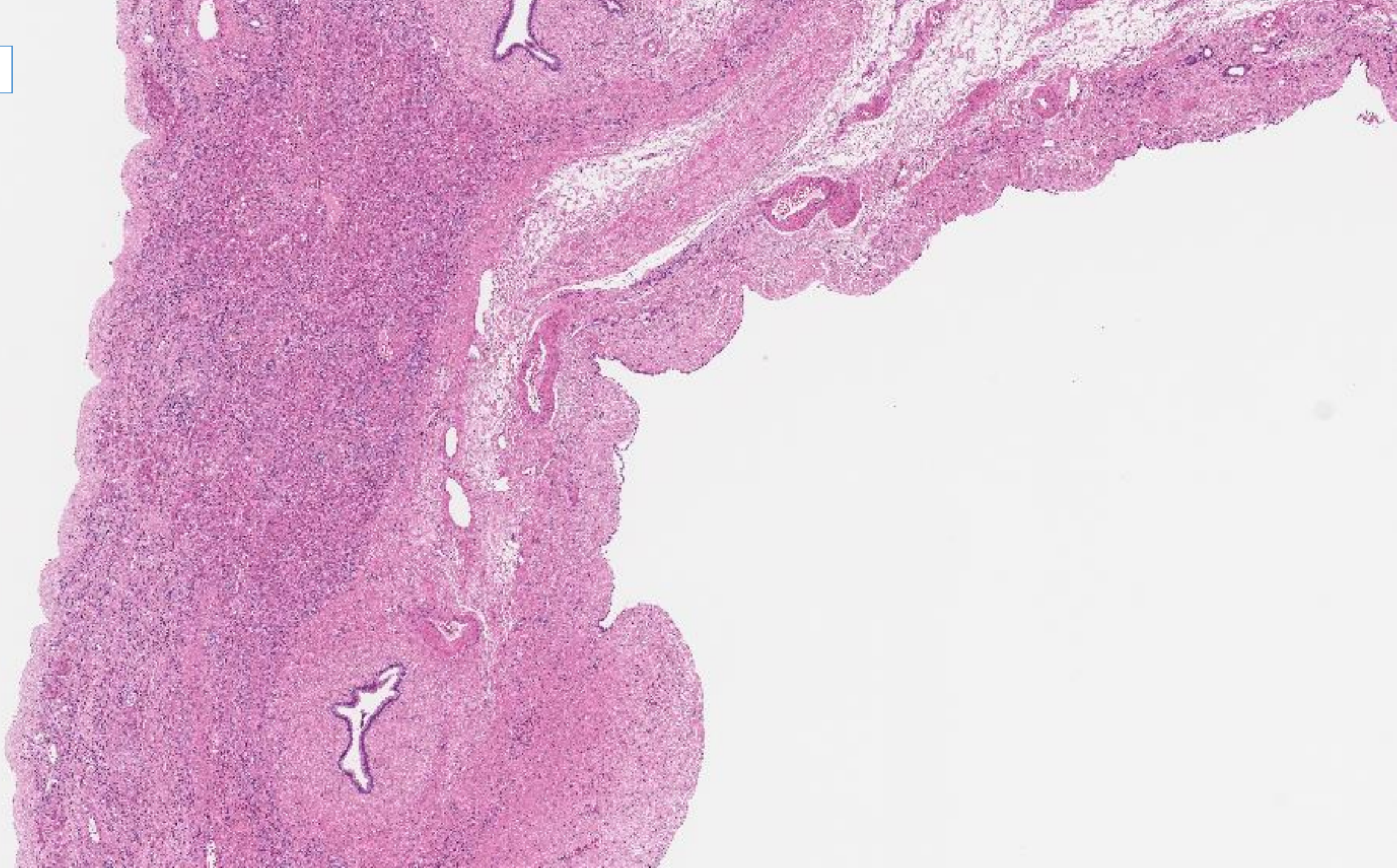
score 0 for responses not including hepatocellular adenoma.

Case LM12 Age 65, Female

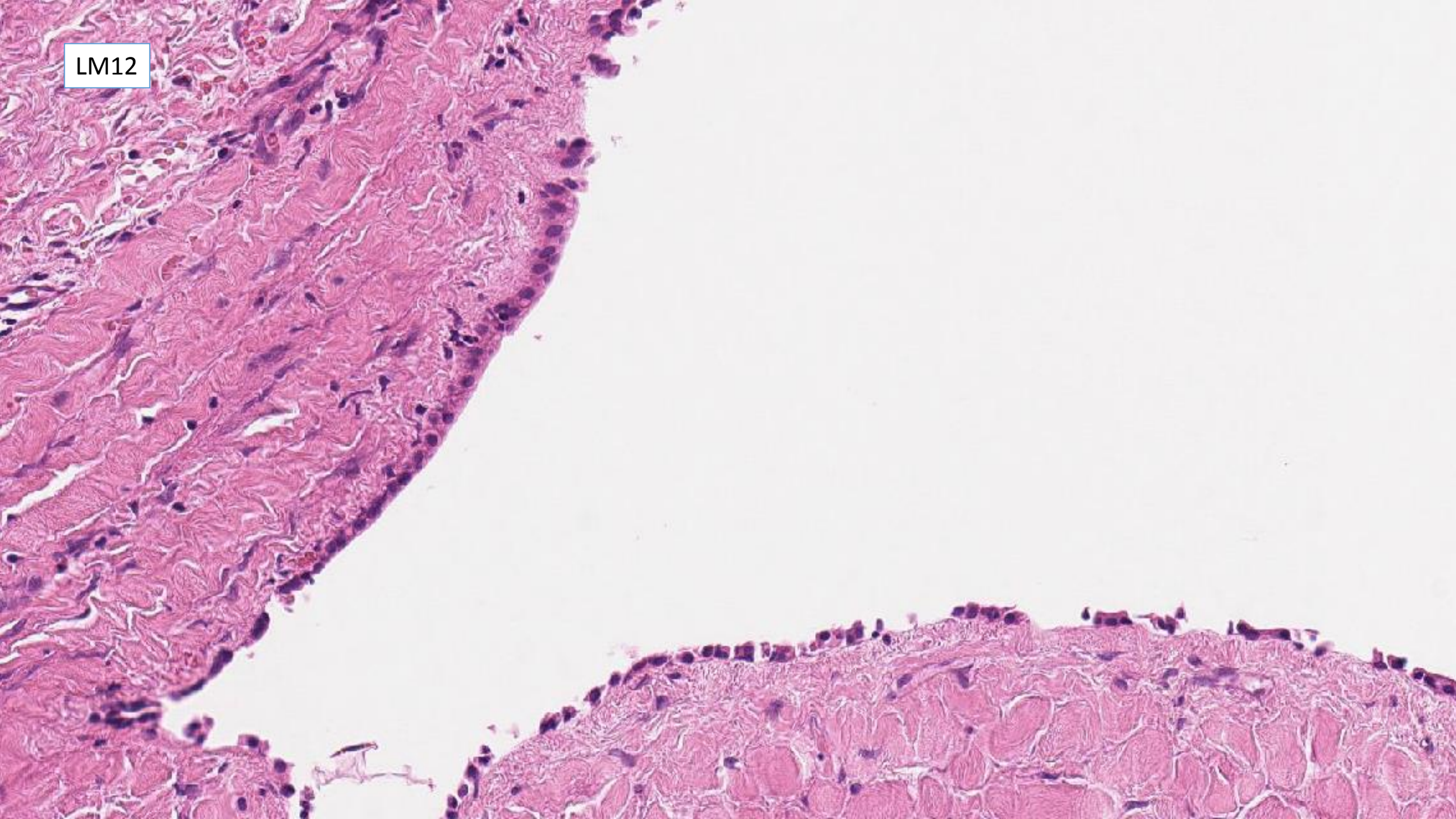
Large liver cyst causing compression of CHD with cholestatic liver function tests. no malignant features. Incidental gall stones.



LM12



LM12



Case LM12 Age 65, Female

Large liver cyst causing compression of CHD with cholestatic liver function tests. no malignant features. Incidental gall stones.

LM12	
diagnosis	
simple biliary cyst, or bile duct cyst	64
choledochal cyst	4
cystadenoma	3
hepatic cyst	2
solitary unilocular cyst	1
liver cyst	1
choledochal, cystadenoma, or non-specific biliary cyst	1
congenital cyst	1
peribiliary cyst	1
Comments:	
simple cyst, radiology to distinguish from choledochal	6
exclude fibropolycystic disease	2

Scoring:

Consensus diagnosis is biliary cyst or bile duct cyst.

Half marks for less specific diagnosis

Score 5 marks for choledochal cyst or non-specific diagnosis.

No marks for cystadenoma, congenital or peribiliary cyst, which are different entities.

Case LM12 Age 65, Female

Large liver cyst causing compression of CHD with cholestatic liver function tests. no malignant features. Incidental gall stones.

LM12	
diagnosis	
simple biliary cyst, or bile duct cyst	64
choledochal cyst	4
cystadenoma	3
hepatic cyst	2
solitary unilocular cyst	1
liver cyst	1
choledochal, cystadenoma, or non-specific biliary cyst	1
congenital cyst	1
peribiliary cyst	1
Comments:	
simple cyst, radiology to distinguish from choledochal	6
exclude fibropolycystic disease	2

Score 5 – 5 votes
Score 0 – 2 votes

Suggested scoring:

Consensus diagnosis is biliary cyst or bile duct cyst.

Half marks for less specific diagnosis

? half marks for choledochal cyst as only diagnosis?

No marks for cystadenoma, congenital or peribiliary cyst, which are different entities.

The end - circulation LM

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2016 meeting is on 10th October – circulations Jan-April and May-August