

National Liver EQA Scheme  
Circulation C1  
Autumn 2010

Discussed 4<sup>th</sup> November 2010  
Dundee

62 responses – 19 sent in on the last day!

Suggested scoring based on first 44 responses, circulated to 5 steering committee members and incorporates their views on criteria. The same principles then applied to the additional responses and sent to the scheme members a few days before the meeting, with request for comments. One member sent comments on two cases.

Scoring and discussion from the meeting are included here. Due to cancellation of B1 discussion in July, there was very limited time for discussion of this round.

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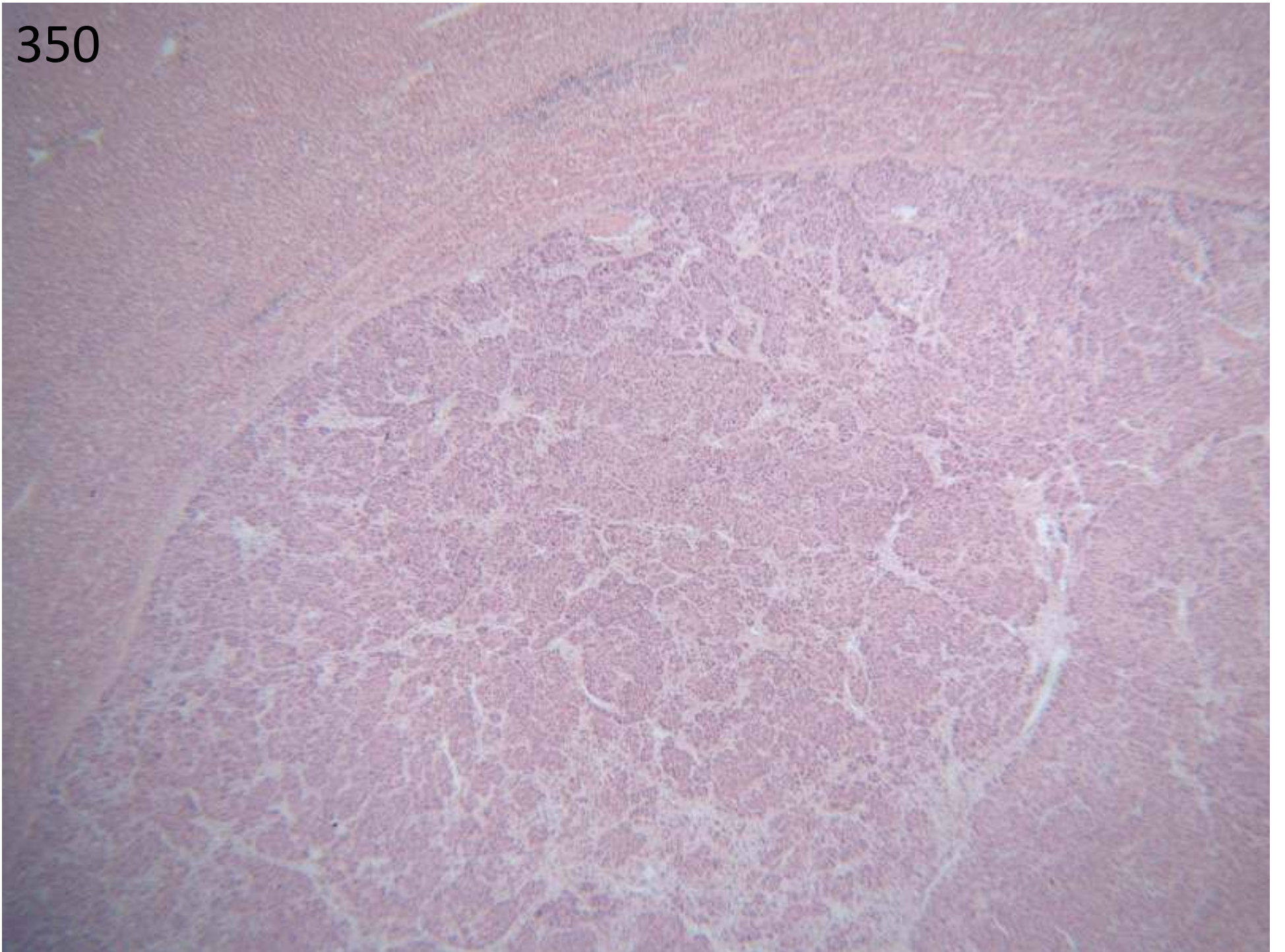
58/Female

History of adrenocortical carcinoma previously resected. Now multiple lesions in liver, 4 lesions now resected. All show similar appearances

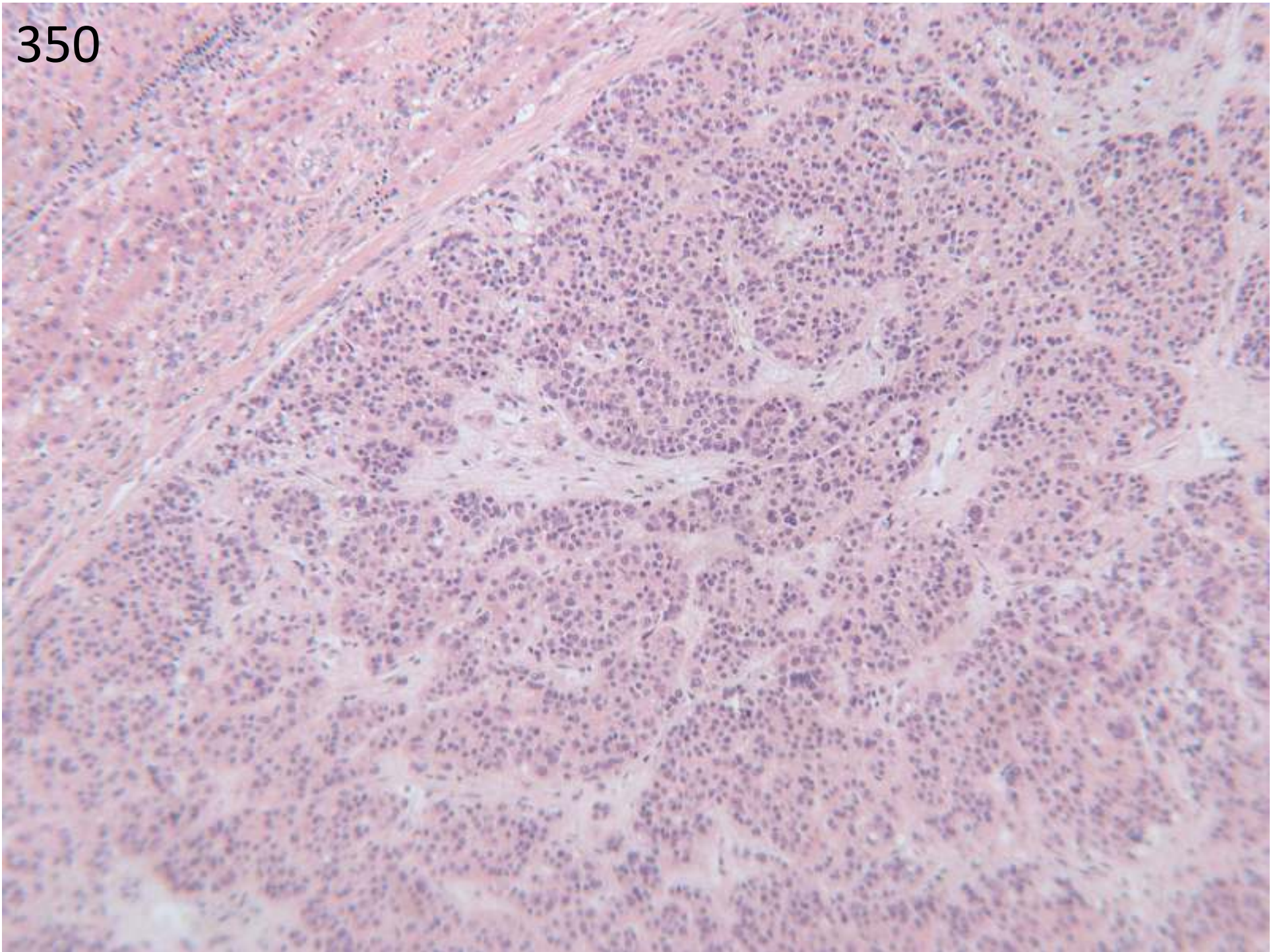
Liver nodule From segment 4

Irregular piece of liver 3x2x2.5cm  
bearing nodule 1cm in diameter

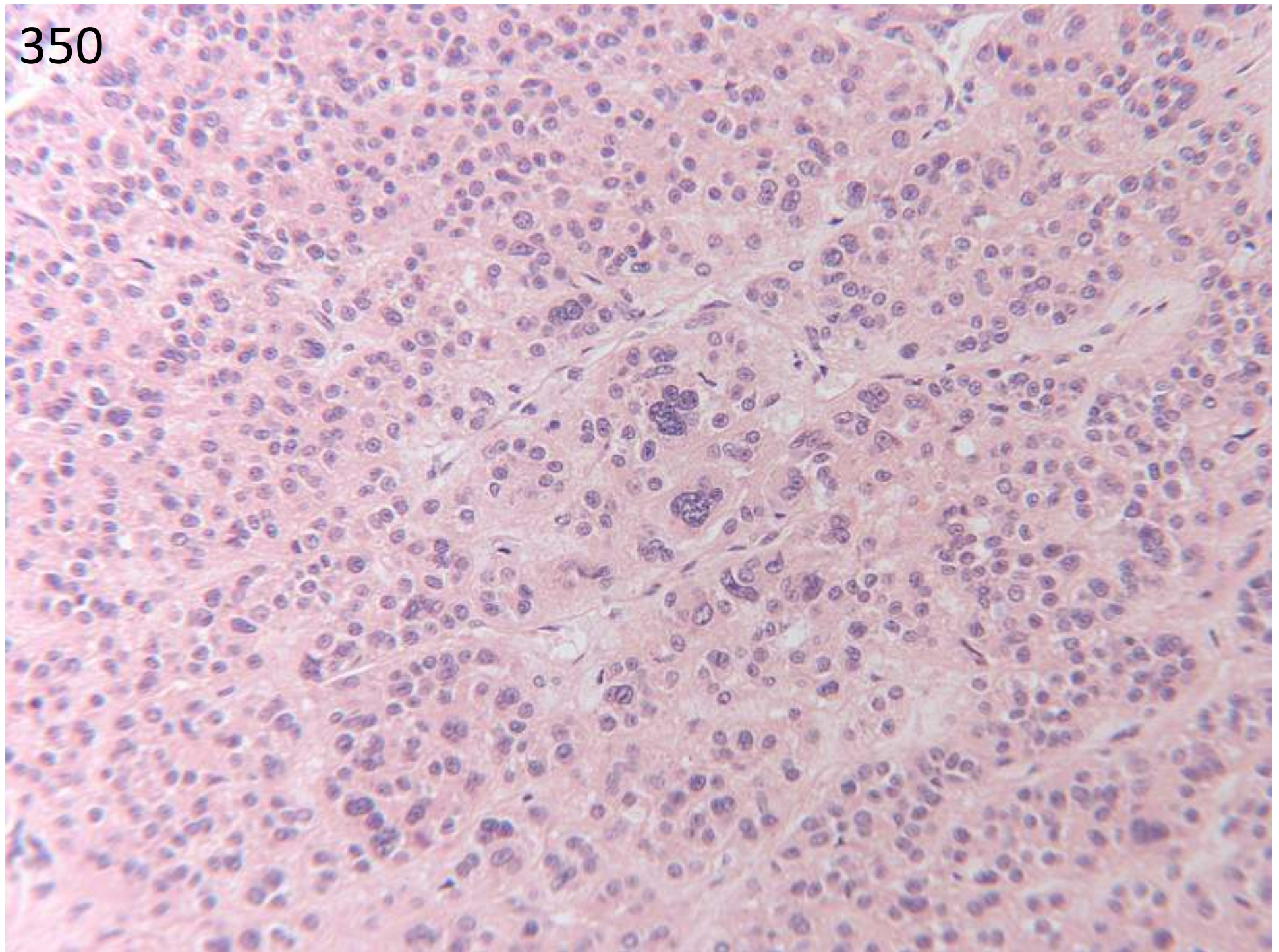
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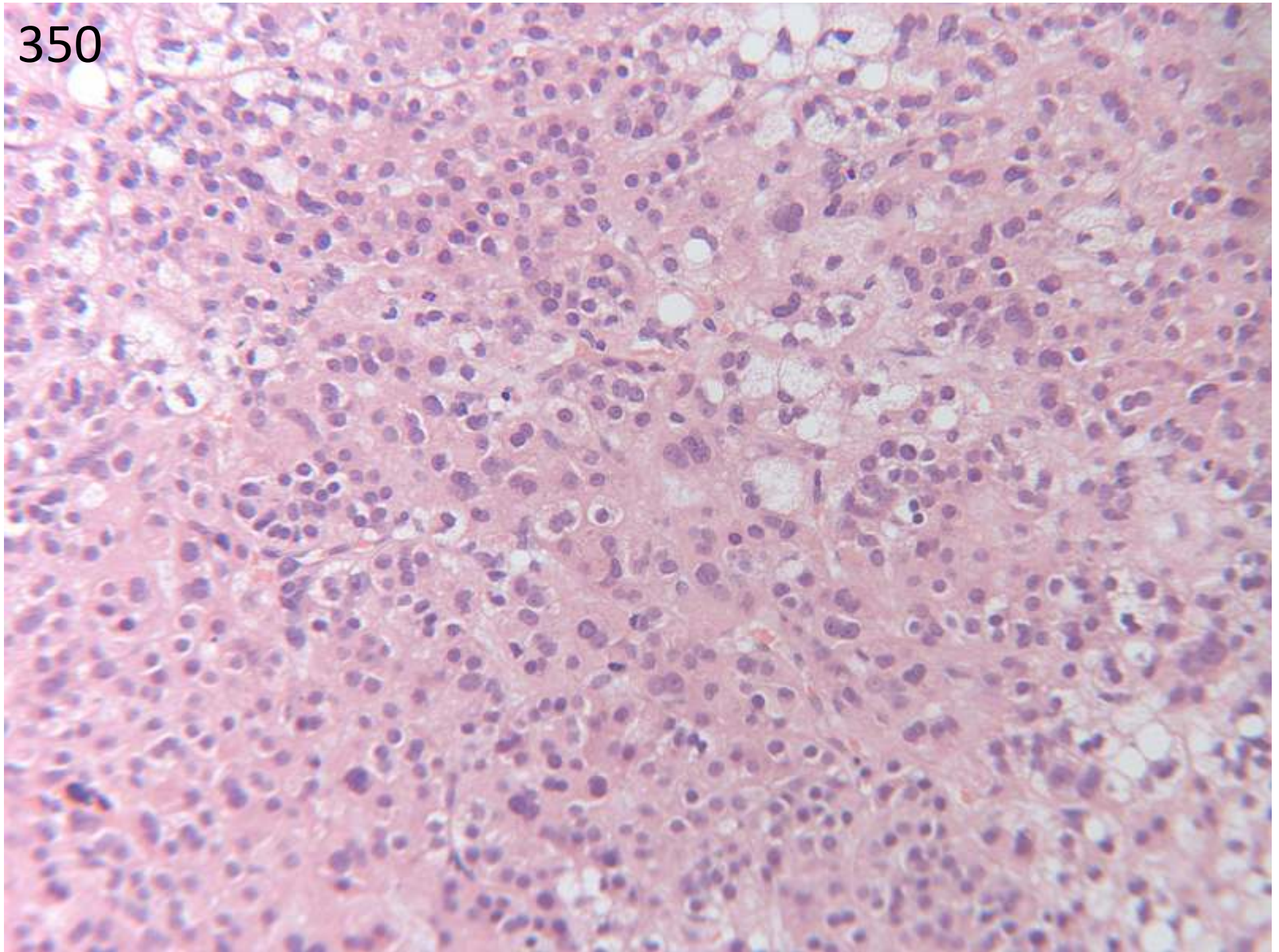
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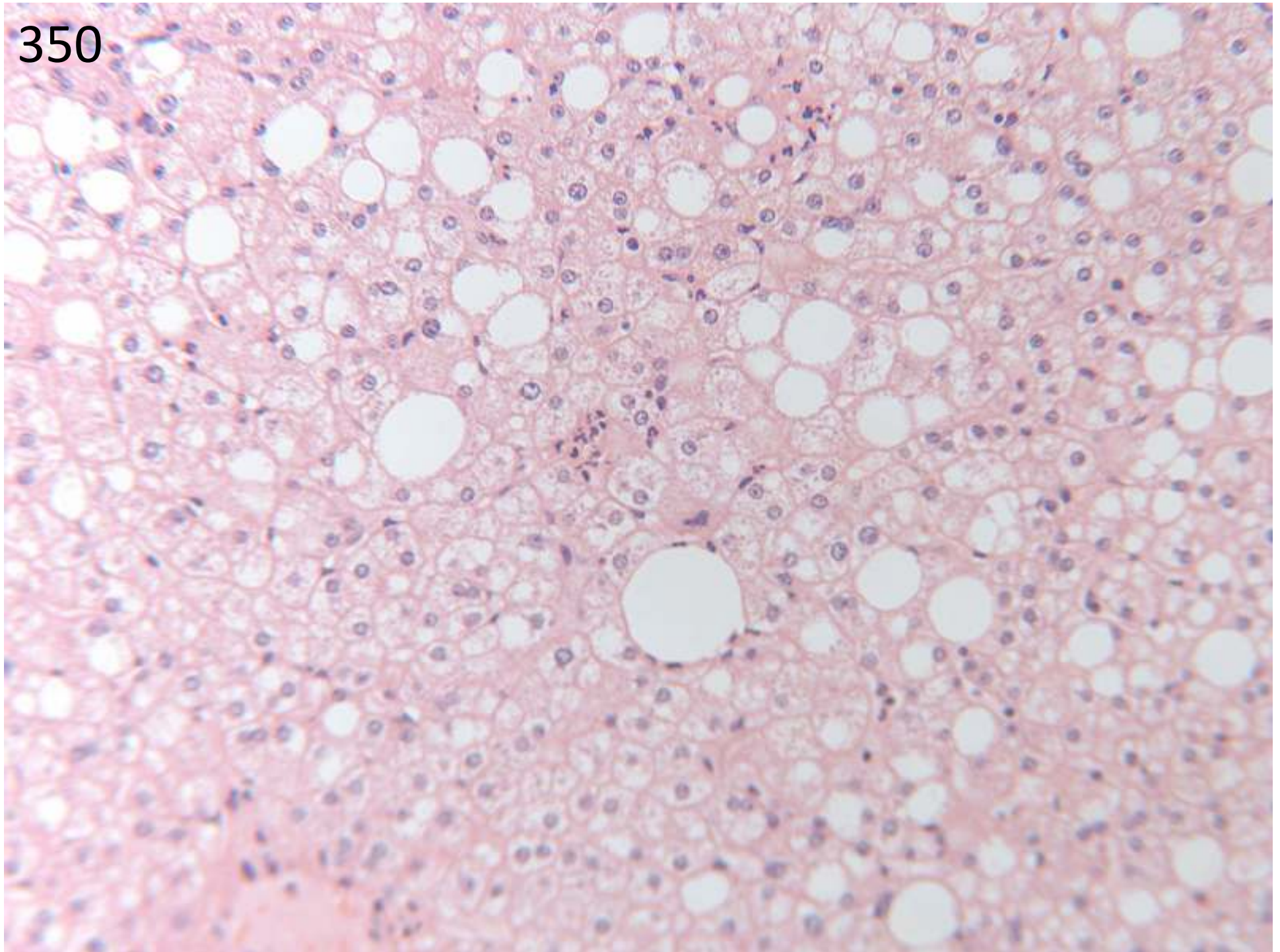
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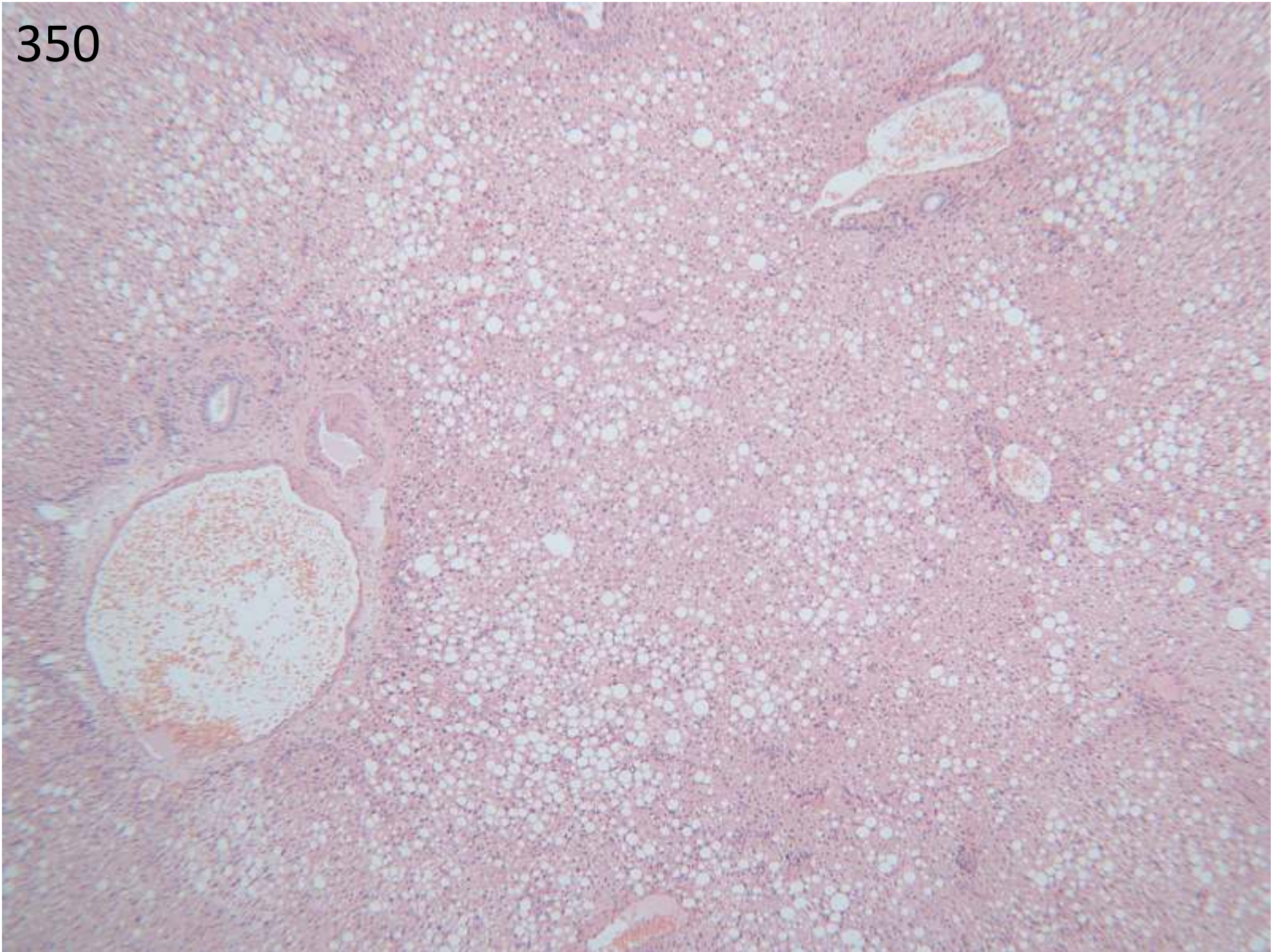
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## Case 350

### Lesion:

- 18 Carcinoma, c/w adrenal metastasis only
- 8 c/w adrenal, but exclude HCC
- 32 c/w adrenal metastasis, confirm with immunos
- 1 metastatic endocrine carcinoma, do immunos
- 1 metastatic carcinoma – compare with previous primary
- 1 atypical hepatic adenoma, do immunos (CD34, CK7, glipican, etc not adrenal markers)

### Background liver:

- 5 steatosis/steatohepatitis
- 23 steatosis
- 2 normal
- 1 features adjacent to SOL
- 2 non-cirrhotic
- 26 no mention of background liver

*Agreed scoring: accept all diagnoses of metastasis, +/- immune to confirm adrenal origin. Comment on background liver good practice but not required for scoring on this occasion, since this would have resulted in insufficient consensus for scoring.*

Case 350: submitting pathologist's diagnosis:

metastatic adrenocortical carcinoma

Follow up information:

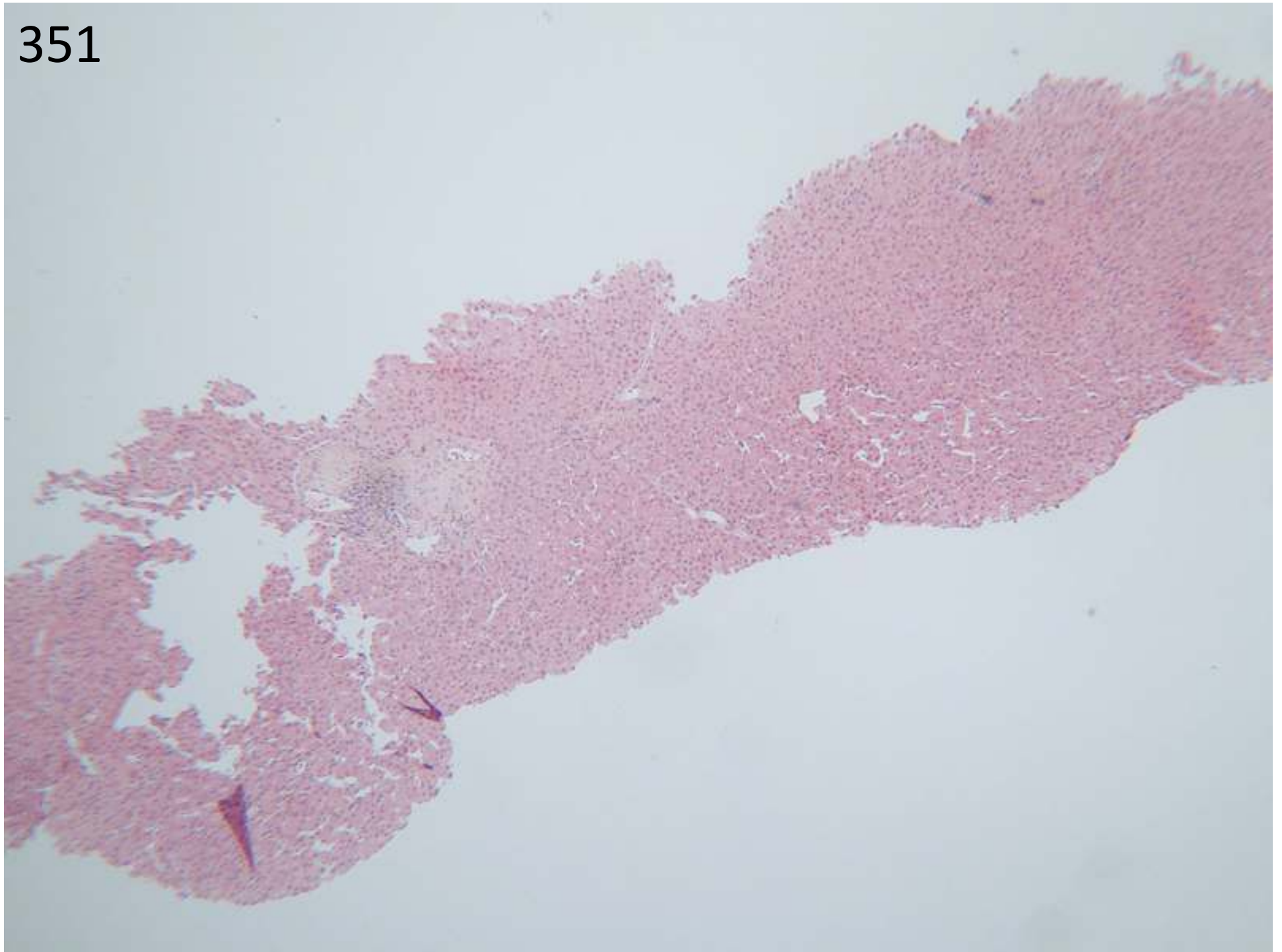
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19/Male

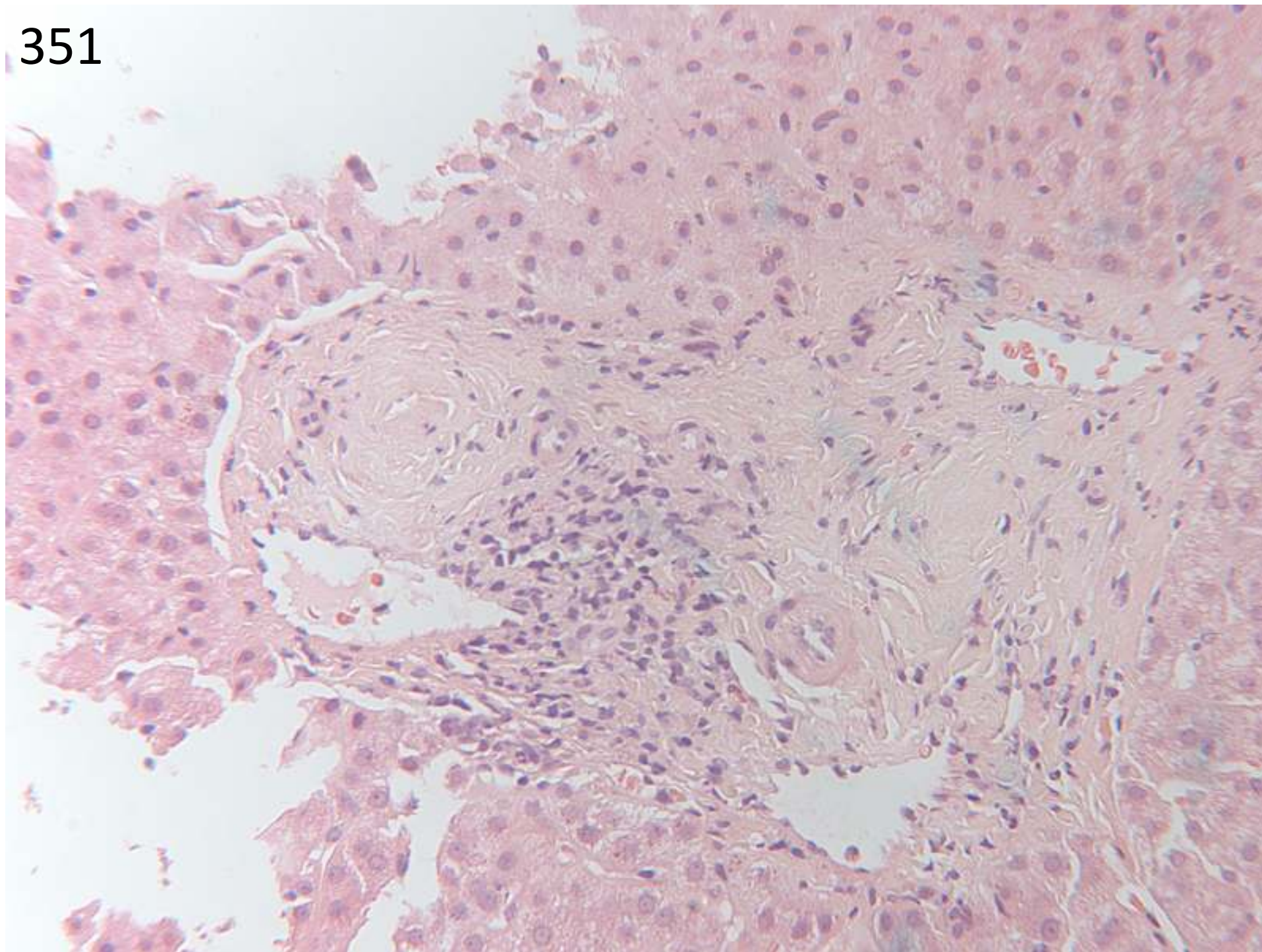
Pruritis for few months then jaundice following course of treatment with tetracycline for acne. ALT 300, Anti SMA positive. ? PSC, AIH? overlap

Liver biopsy      2 cores larger 20mm in length

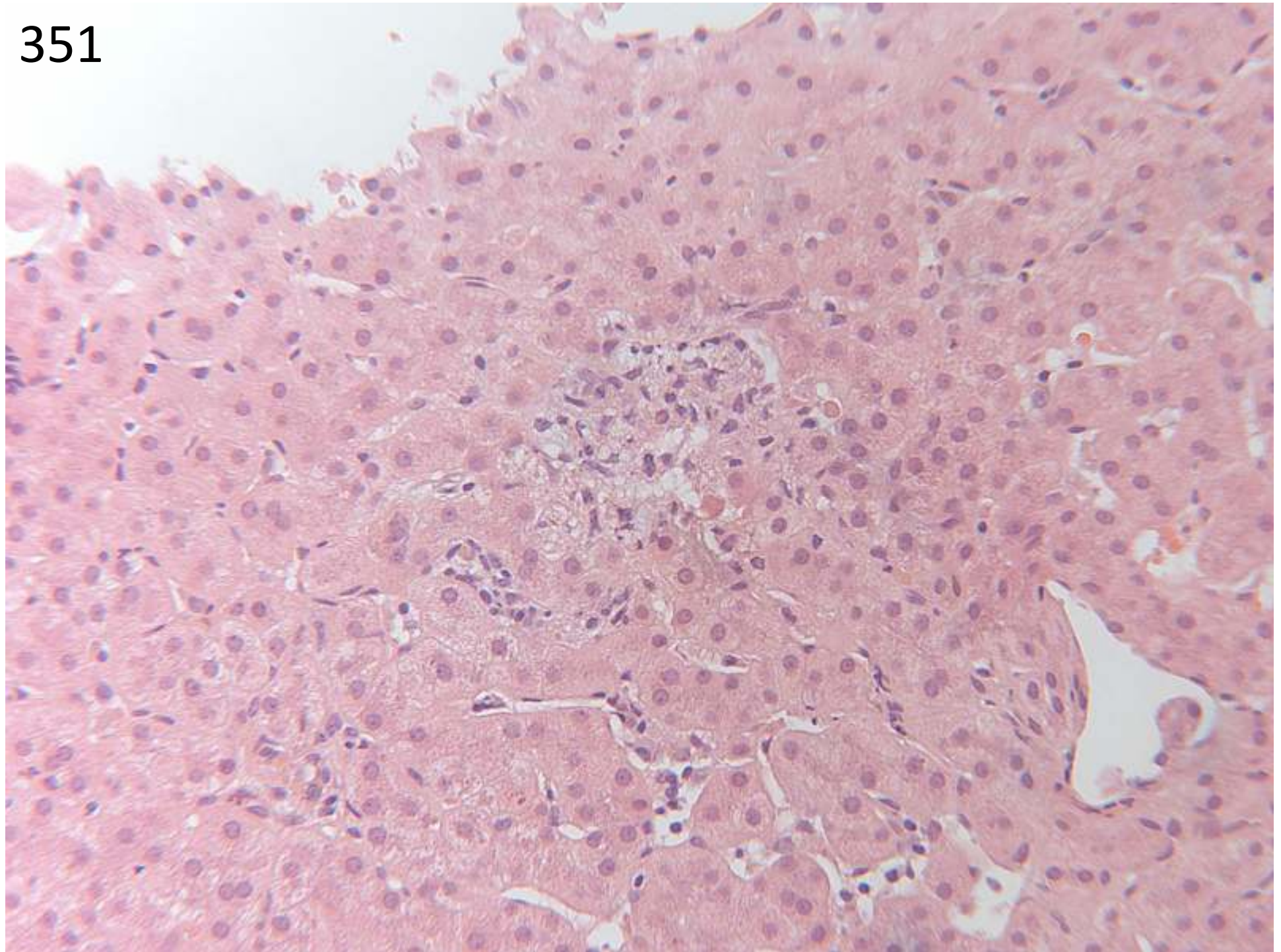
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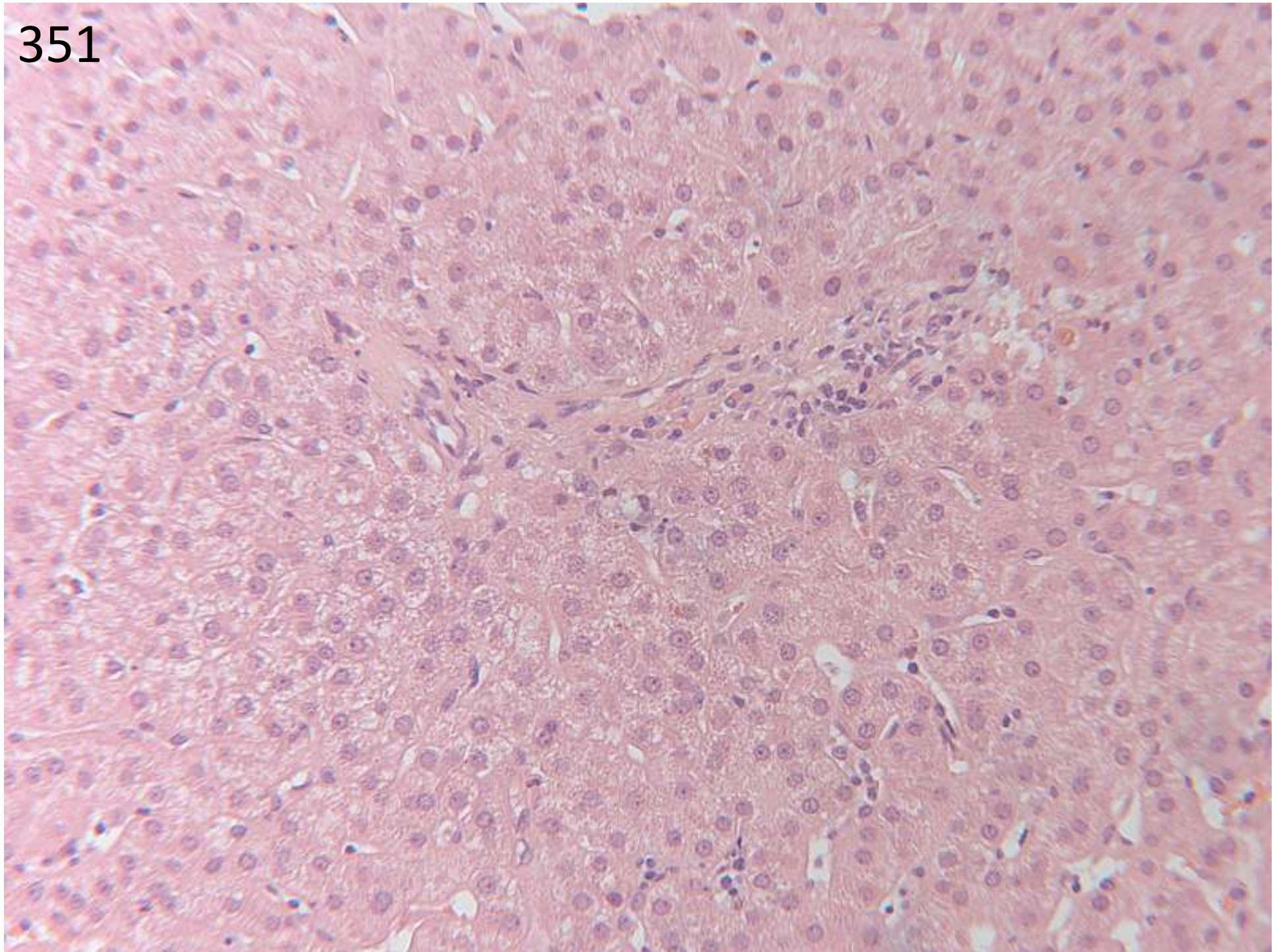
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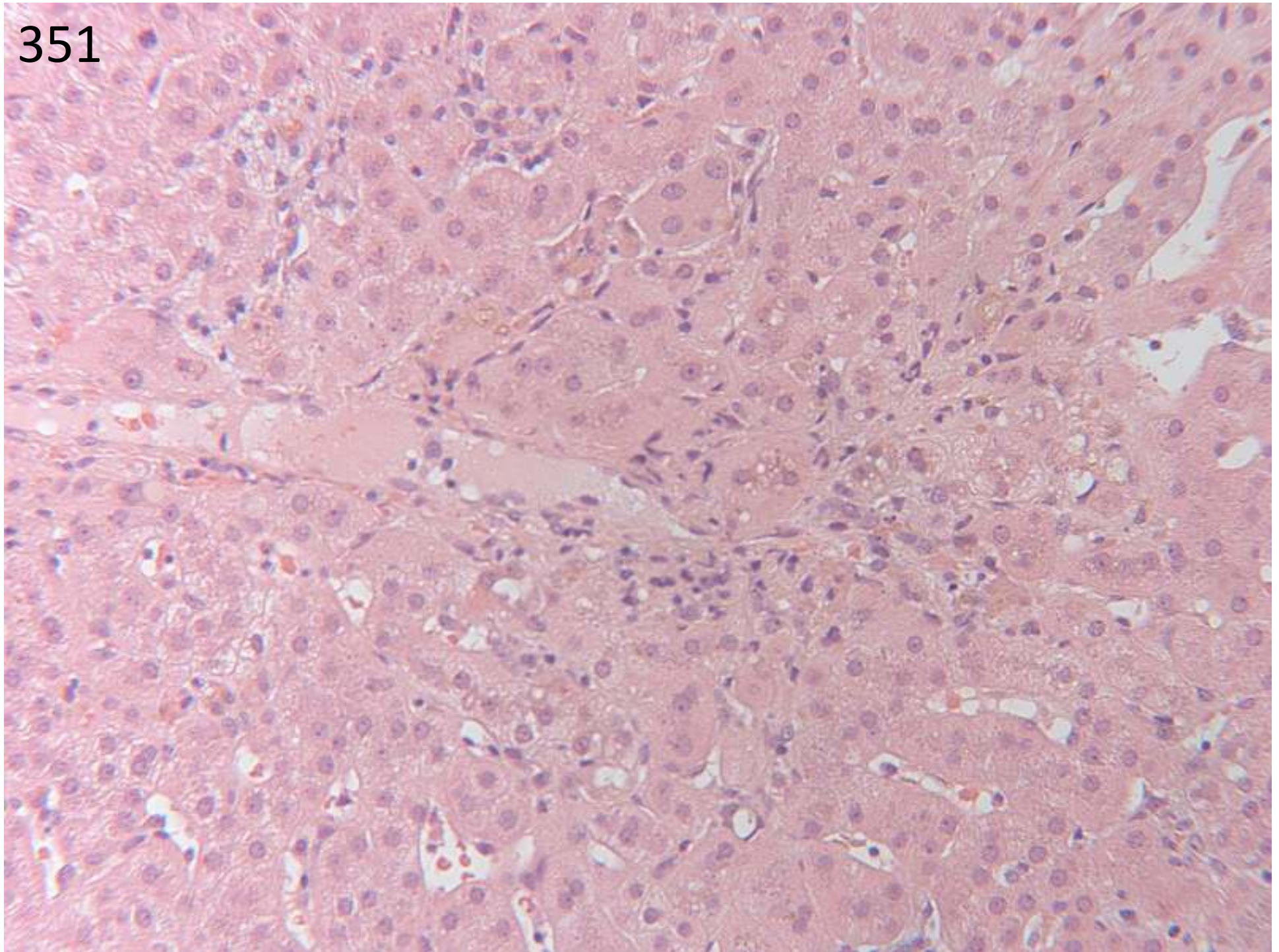
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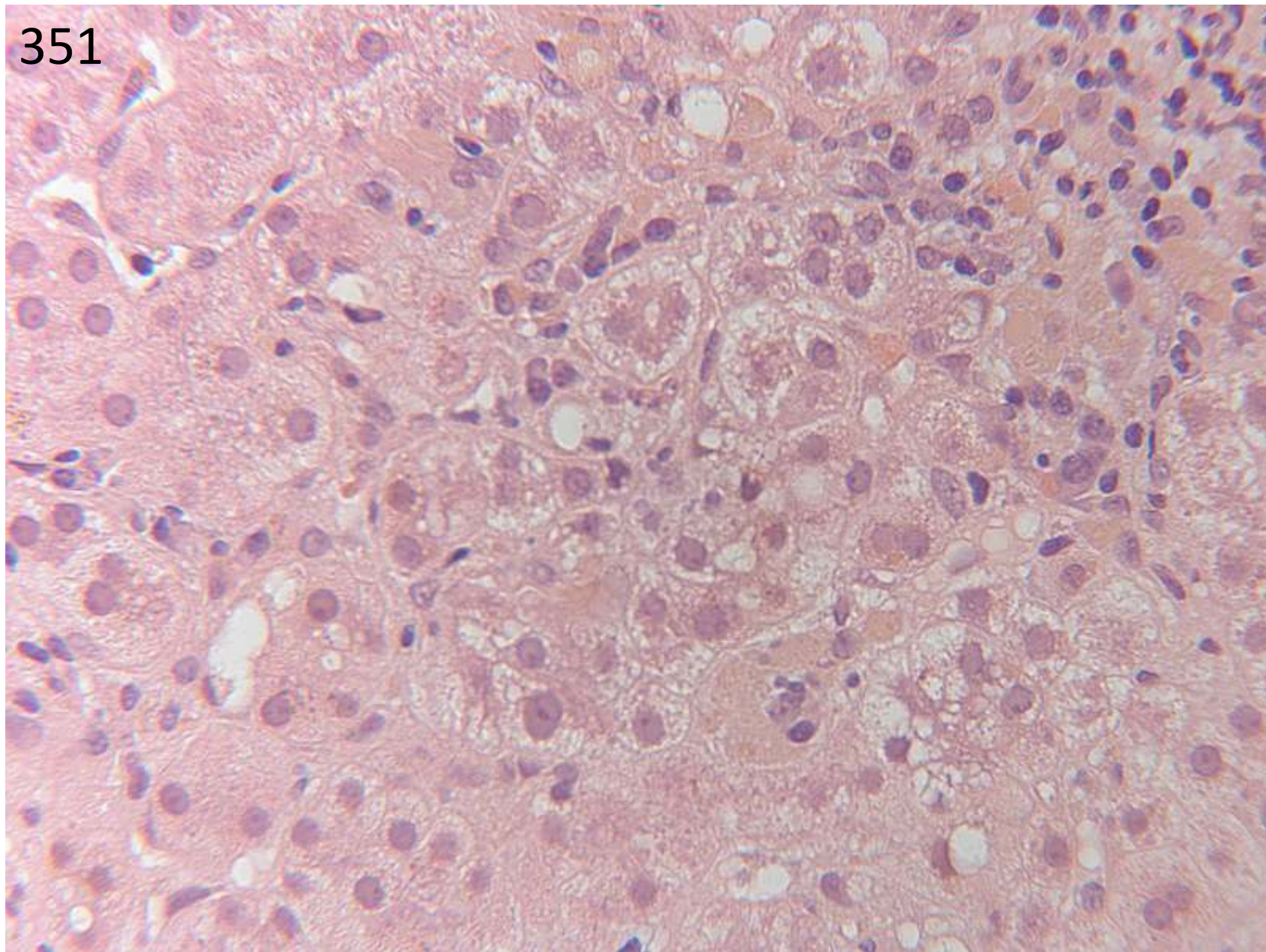
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## Case 351

### Morphology

- 49 cholestasis with ductopaenia
- 3 cholestasis, sclerosing lesions
- 1 Cholestasis and possible bile duct damage
- 1 cholestasis, ducts probably normal
- 4 cholestasis NOS
- 3 ductopaenia and hepatitic changes; cholestasis not mentioned

### clinicopathological

- 15 PSC without differential
- 12 drugs without differential
- 27 differential that includes PSC and drugs
  - 1 in keeping with AIH, PSC not excluded but less likely
- 18 AIH in differential, includes 5 AIH/PSC overlap
- 17 unlikely AIH
- 13 AIH not mentioned
  - 1 'cholangiopathy rather than AIH'
  - 1 'PSC also cholestatic hepatitis'

*Suggested scoring: either not suitable for scoring, or lose marks for not including ductopaenia.  
Meeting – agreed to retain for scoring, since ductopaenia is unequivocal (5 marks deducted for responses in red).*

*However there is insufficient consensus on the clinicopathological section for this to be scored.*

Case 351: submitting pathologist's diagnosis:

- BILE DUCTS ABSENT/DAMAGED-PSC, NO EVIDENCE OF AIH

352

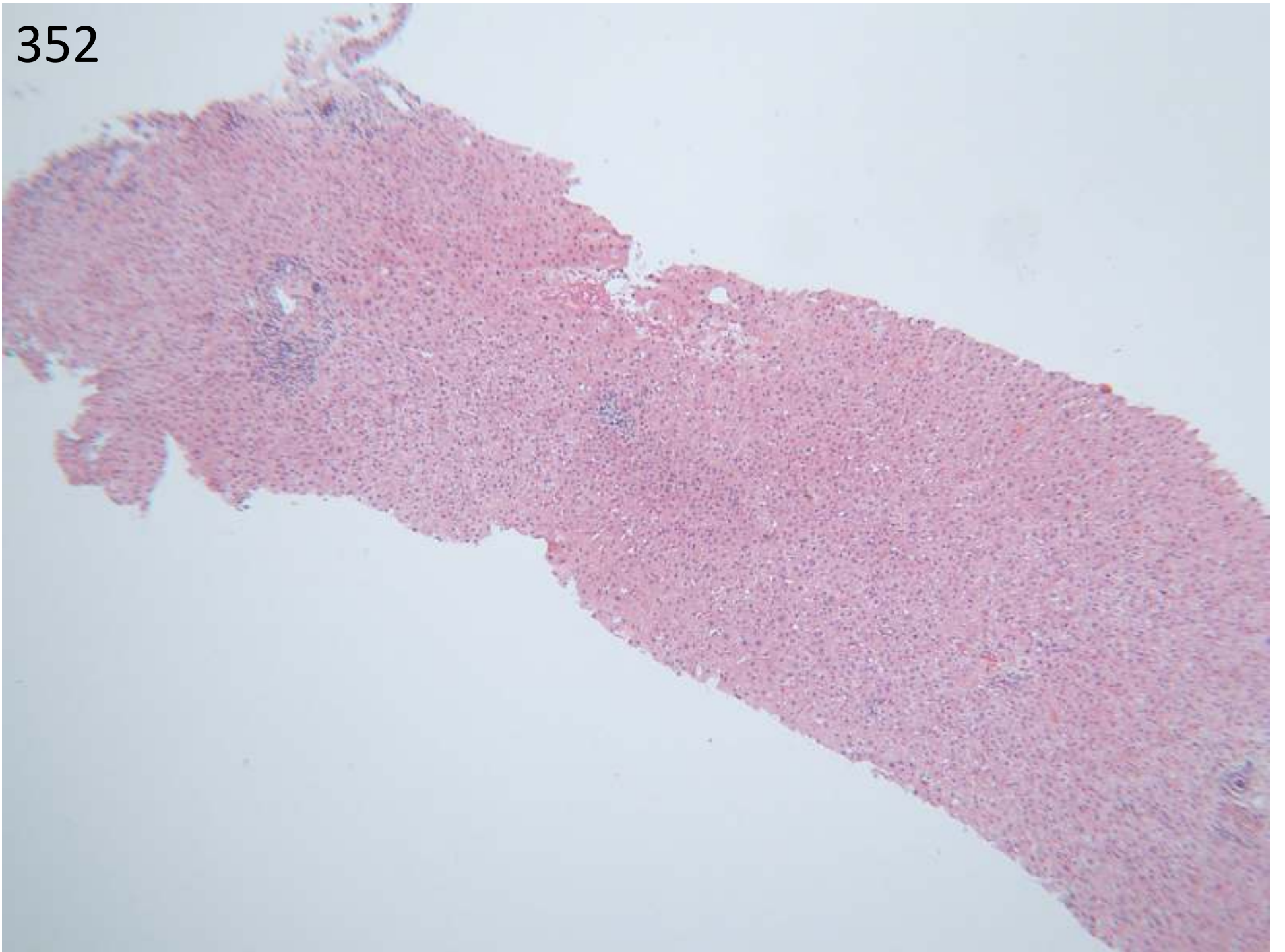
44/female

Abnormal LFT ALP802, GGT319, psoriasis, exclude  
PBC, serology negative

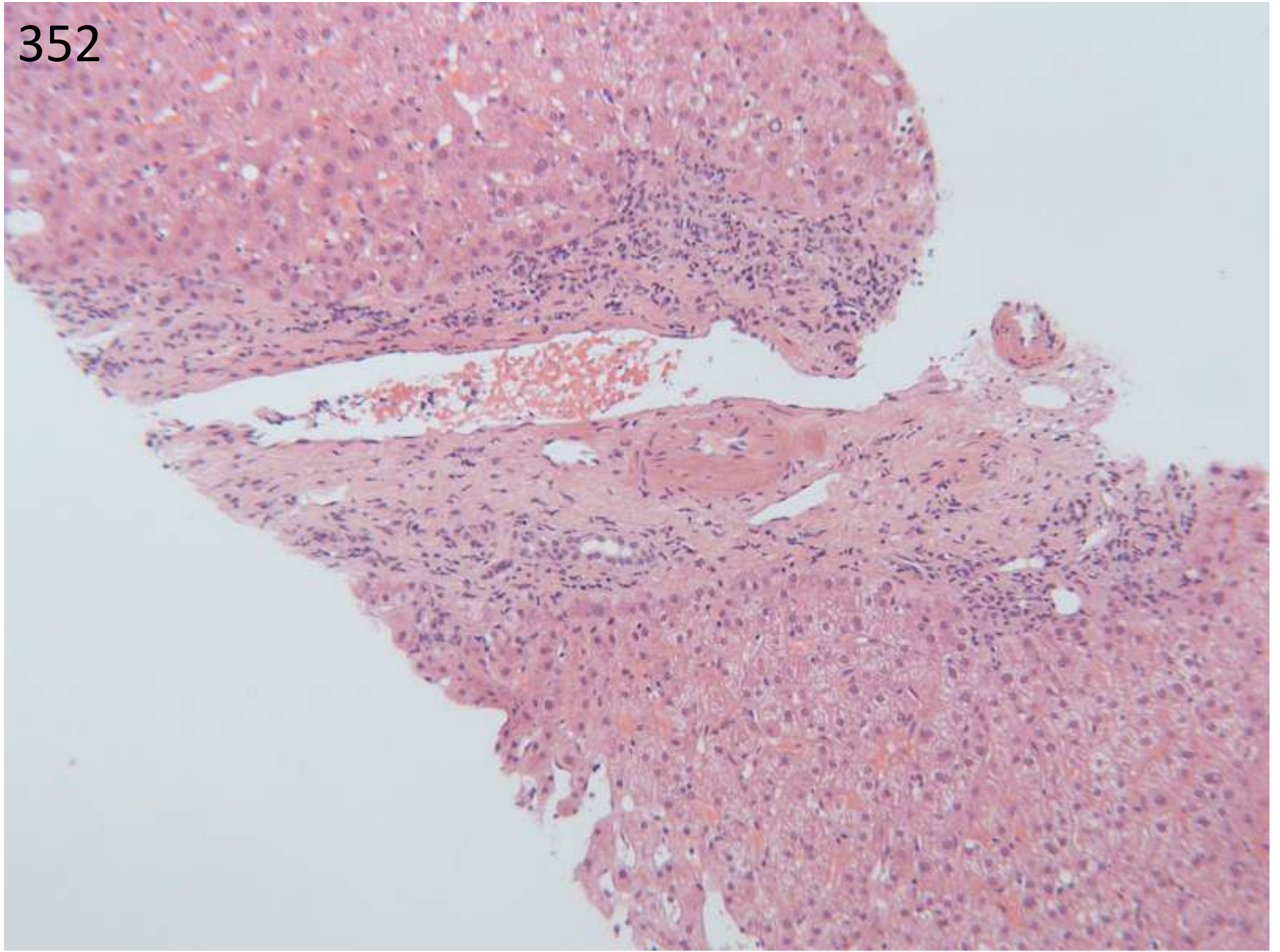
liver biopsy - 2 cores each 18mm in length

*H&E slide plus photomic of special stain*

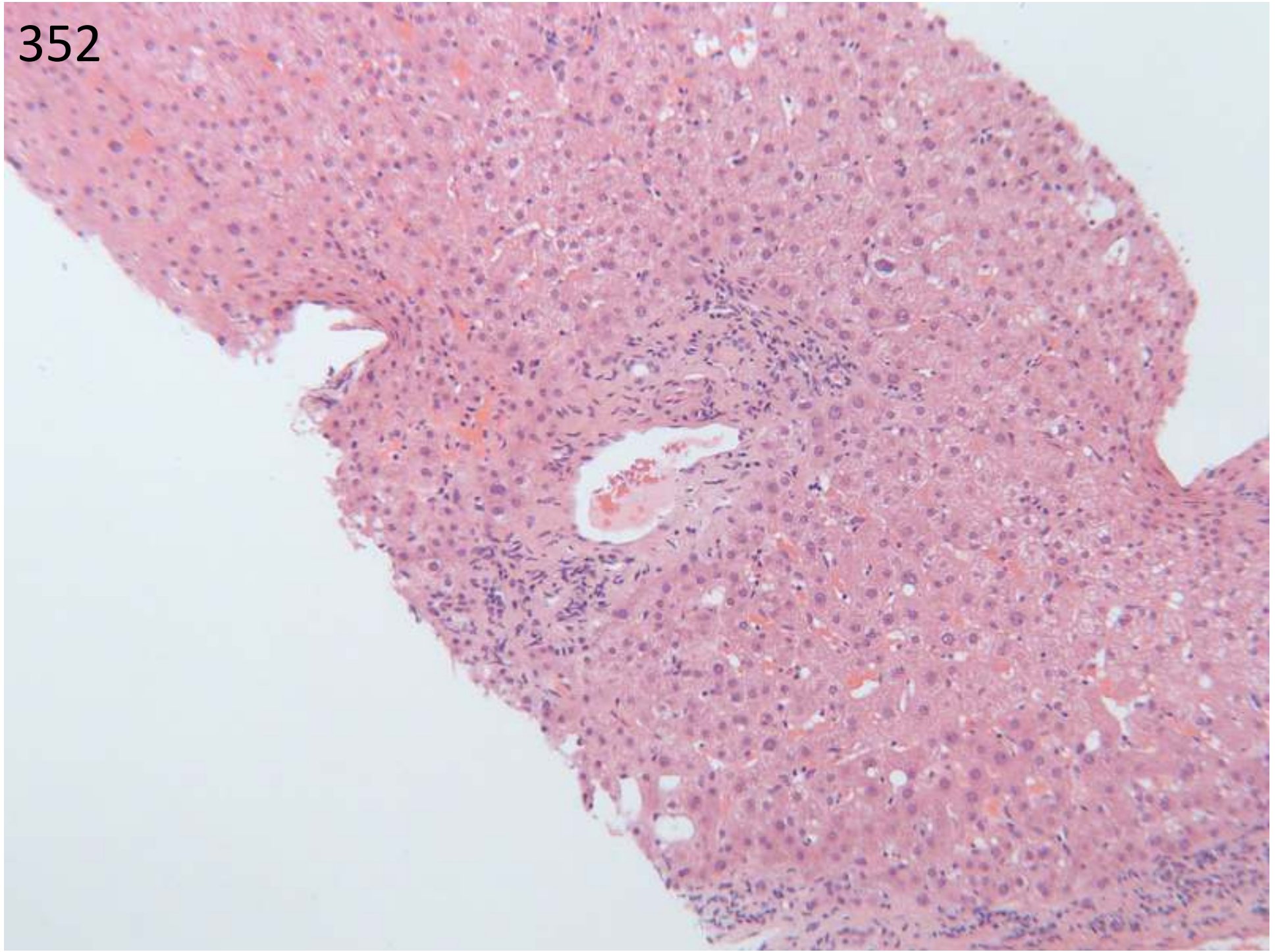
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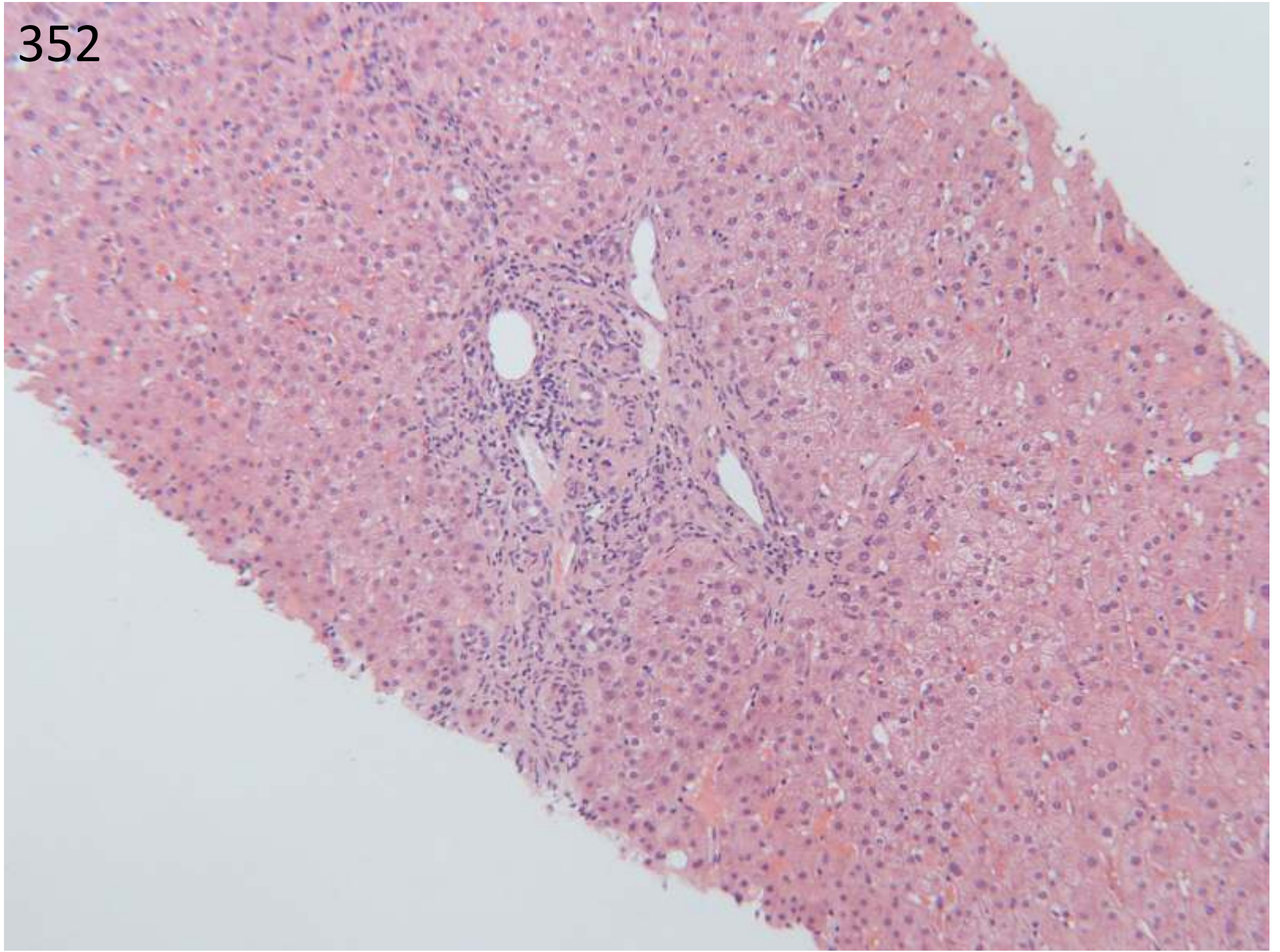
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## Case 352

### Morphology

51 biliary/portal fibrosis and inflammation and ductular reaction

1 'portal and periportal granulomatous inflammation, Shikata positive'

6 chronic active inflammation – no mention of biliary features

1 chronic hepatitis with granuloma – no mention of biliary features

1 focal ductopaenia, CAP+, chronic active hepatitis

### clinicopathological

35 biliary disease, consistent with PBC

8 PBC without mentioning biliary disease more generally

6 PBC unlikely – favours other diagnoses (drugs x5, LBDO)

5 no mention of PBC (diagnoses = PSC, LBDO, drug induced/psoriasis x3)

4 chronic cholestatic condition NOS

*Agreed scoring: lose marks if not clear recognition that this is a biliary process,  
and if report directs clinician away from diagnosis of PBC*

Case 352: submitting pathologist's diagnosis:

Biliary process without specific features AMA  
negative PBC is a possibility as well as PSC but  
chronic large duct obstruction should also be  
excluded.

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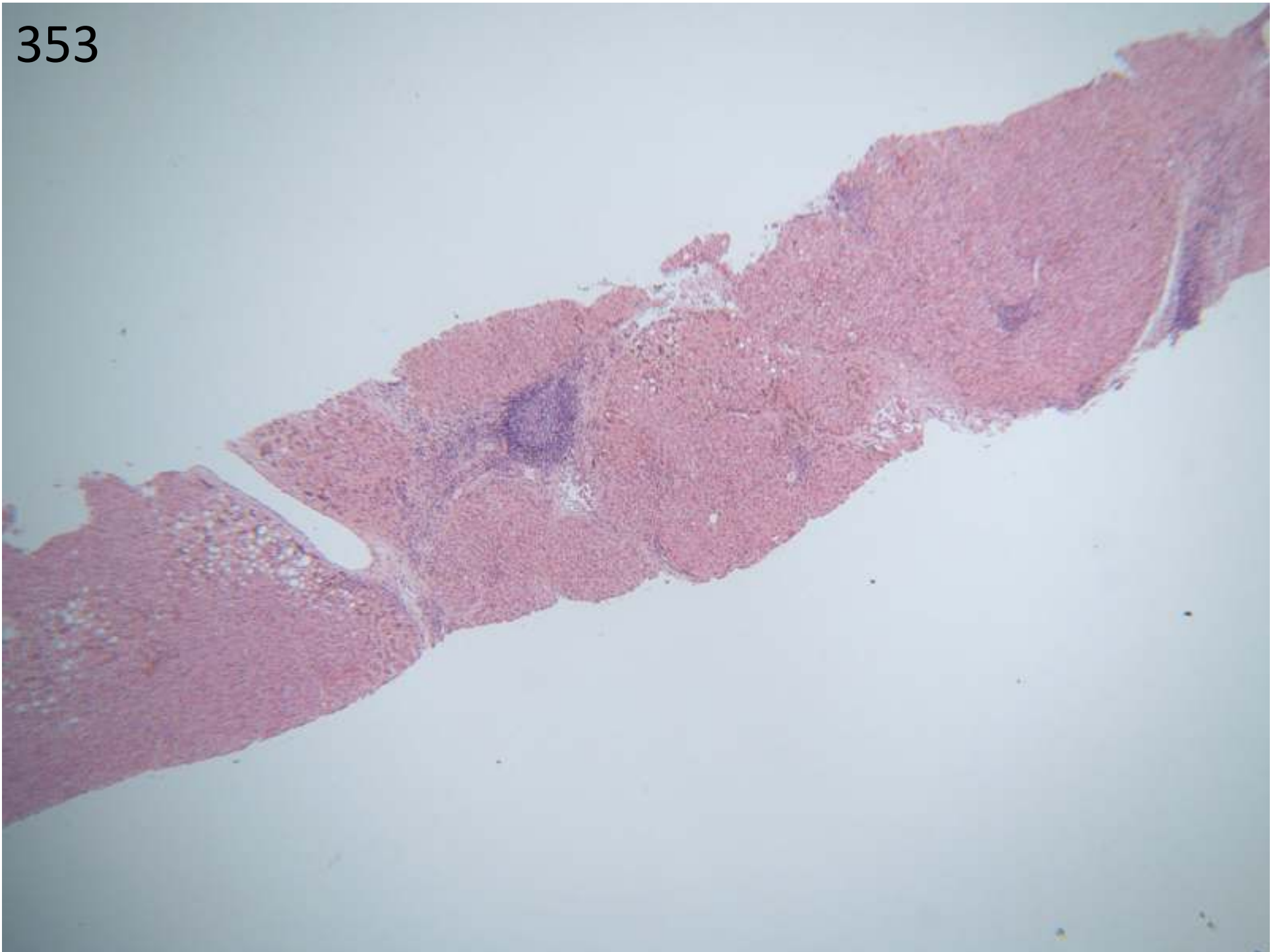
33/male

Abnormal LFT, Hepatitis C, ?Fibrosis. (Later info:  
Thalassaemia, multiple blood transfusions)

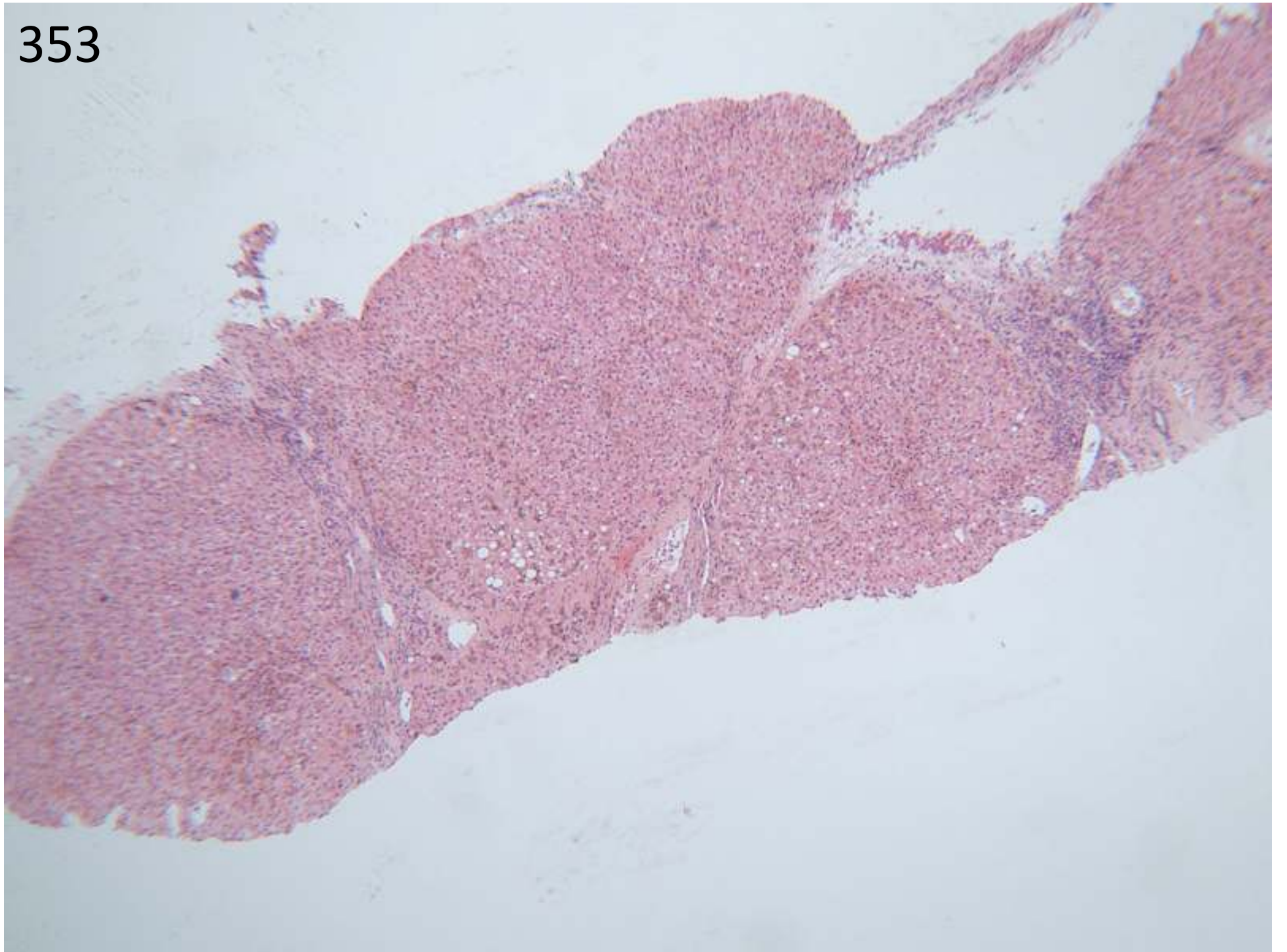
Liver biopsy - 2 cores each 20mm in length

*H&E slide plus photomic of special stain*

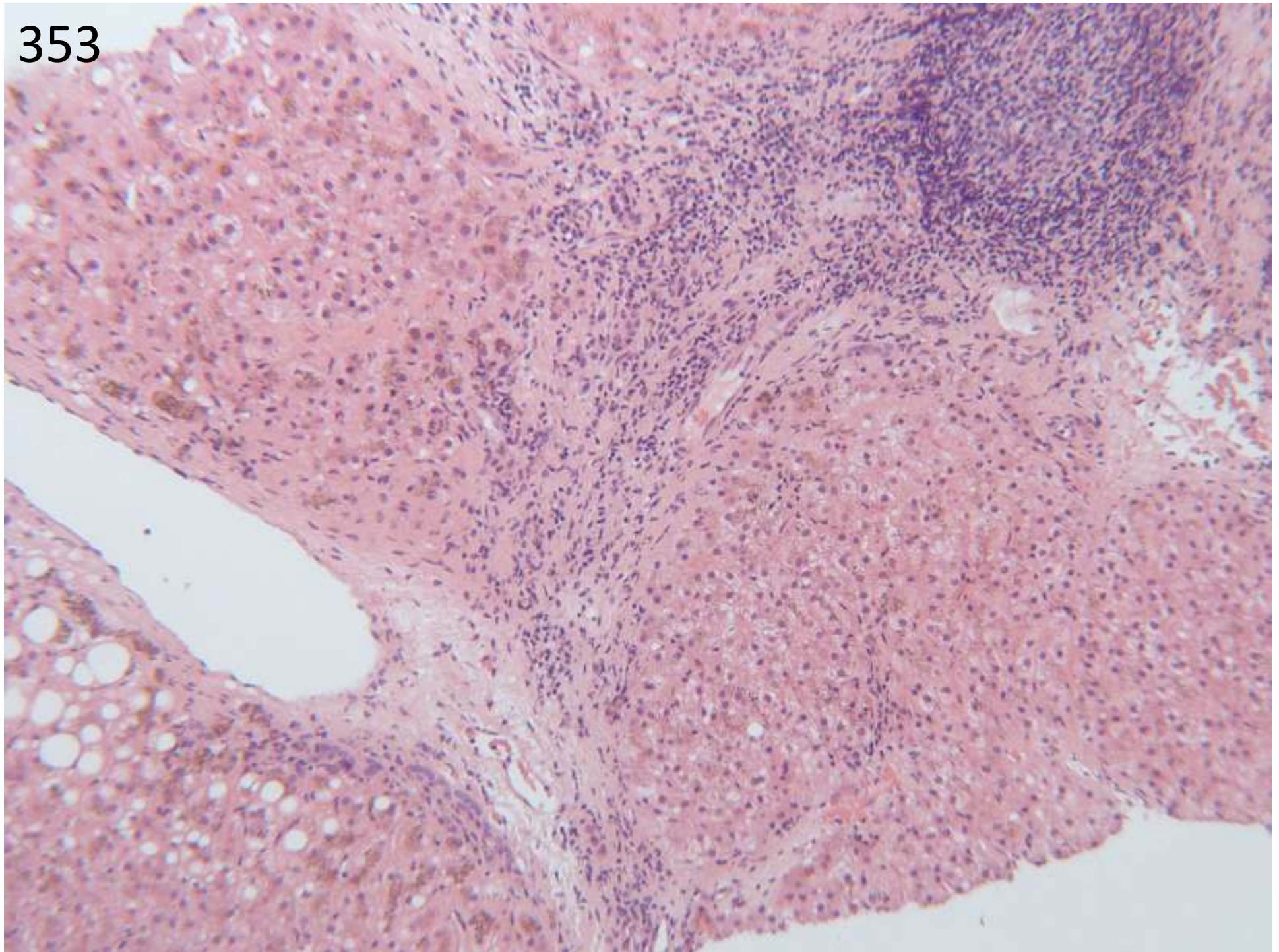
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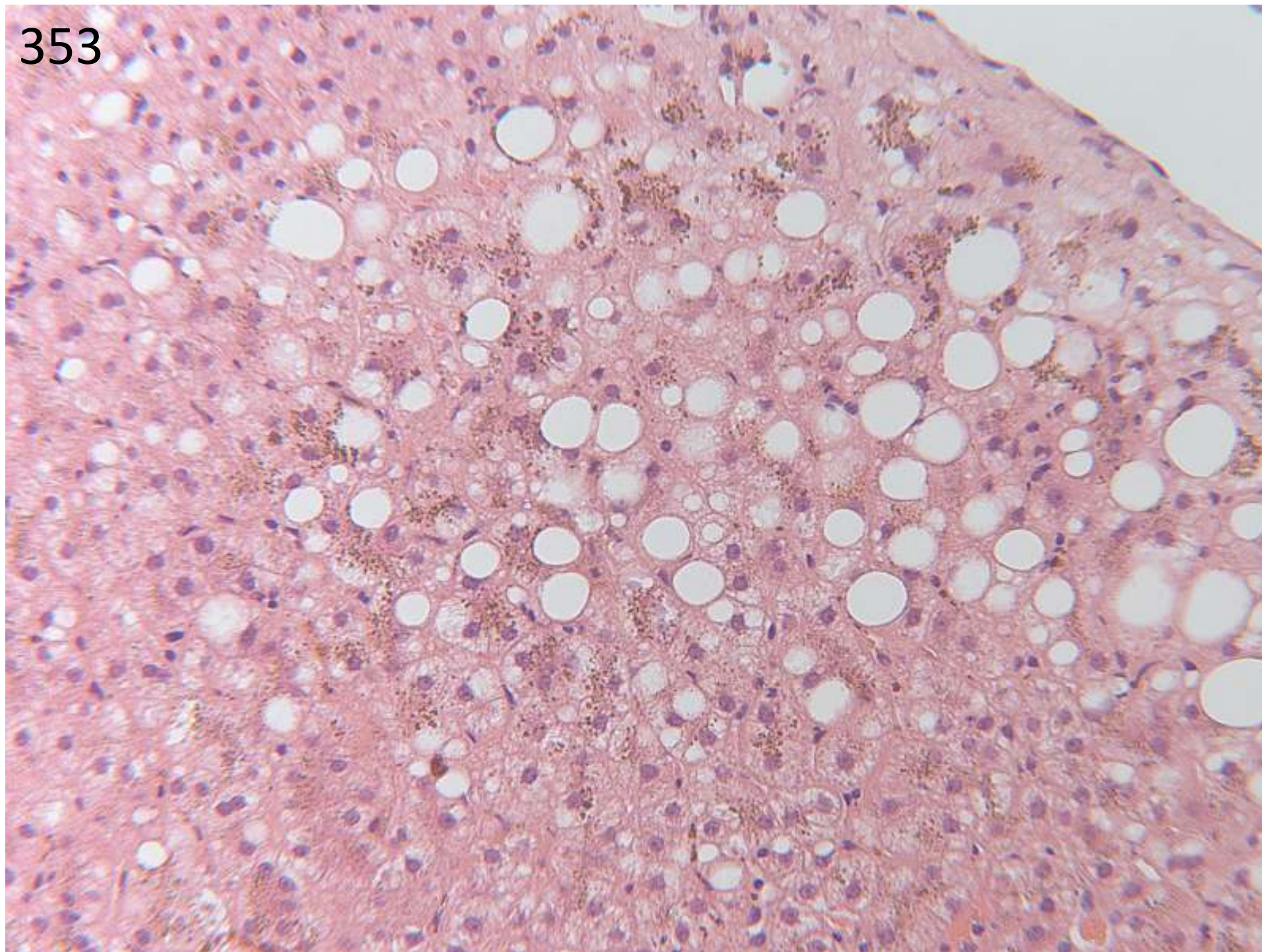
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### Case 353

11 Fibrosis (all include bridging fibrosis and/or needs connective tissue stains)

23 developing cirrhosis/probable cirrhosis/stage 5 fibrosis

27 cirrhosis

50 hepatitis C

12 no mention of hepatitis C

41 iron, c/w transfusion

7 iron – excl. Haemochromatosis (transfusion not mentioned)

11 iron – siderosis NOS

34 steatosis

18 gave some hepatitis activity grade, 15 used Ishak: 14 grade 2-5 (6 grade 3) and 1 grade 9

8 others none/mild/mod

1 'cirrhosis with excess iron secondary to transfusion' only, no mention of hepatitis

1 'cirrhosis, heavy iron overload' – only, no mention of hepatitis as contributing

*Agreed scoring: lose 5 marks for no mention of hepatitis C, score 0 if no indication of chronic hepatitis. Results should include a comment on iron in relation to transfusions, but insufficient consensus on this point for it to be scored.*

Case 353: submitting pathologist's diagnosis:

Chronic hepatitis C, Ishak grade 3, stage 5 (at least) plus iron overload secondary to transfusions. Both may be contributory factors to fibrosis

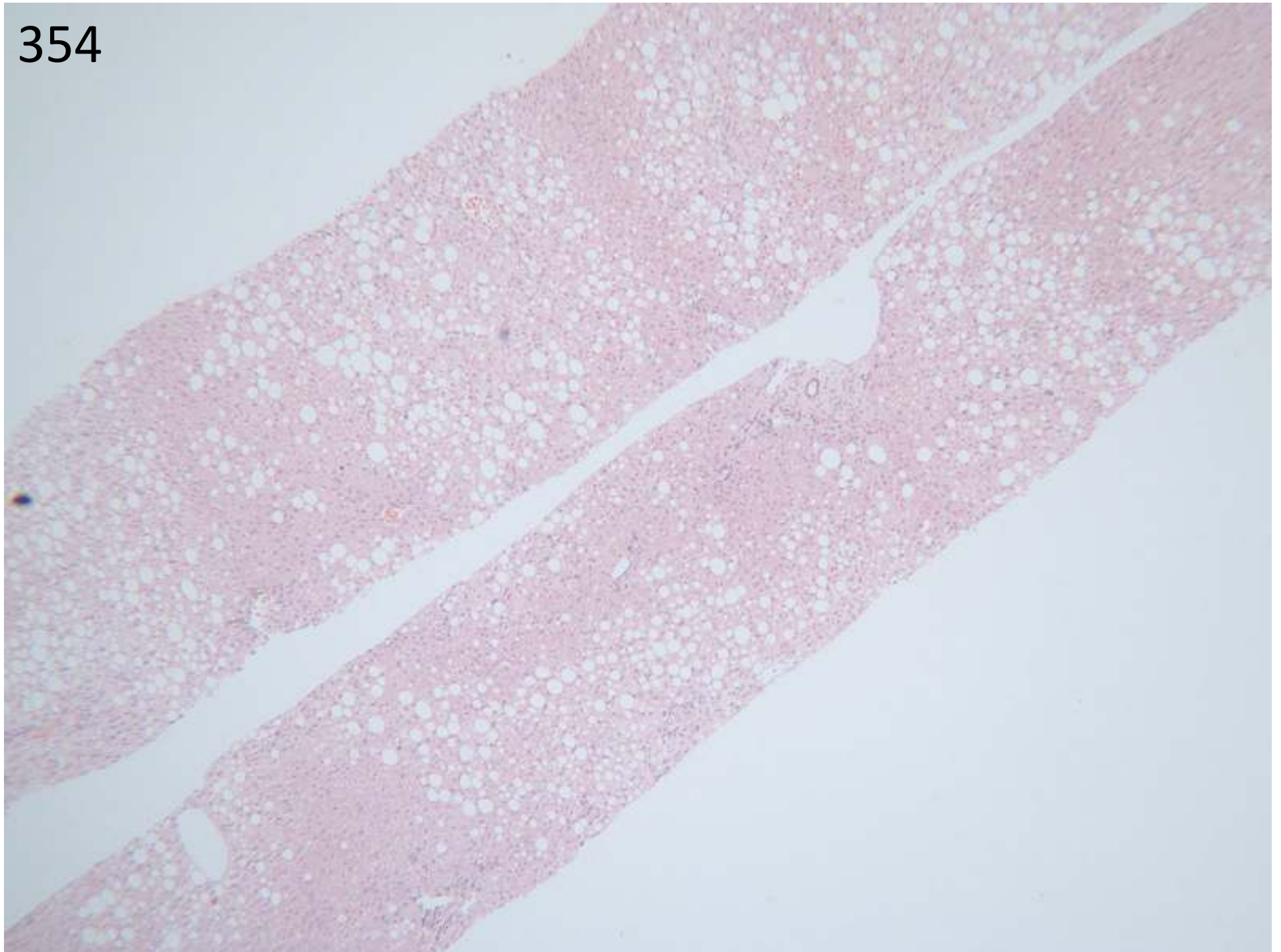
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50/Male

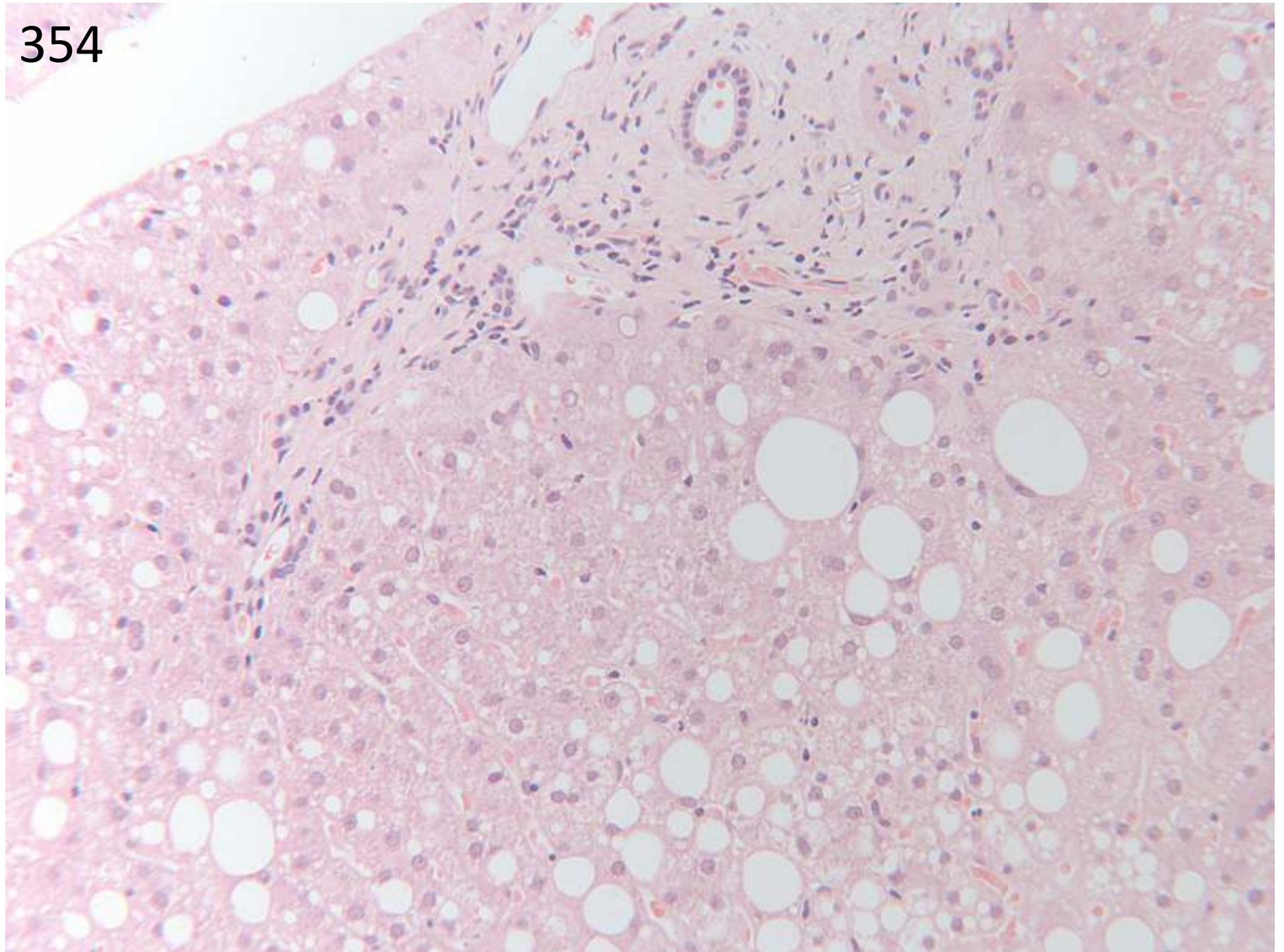
Information on request form- ?NASH information on electronic clinic letter History of coeliac disease and hypertension. Elevated ALT. Clinical suspicion of NASH

Liver core biopsy - Two cores of tan tissue 12 and 15mm long

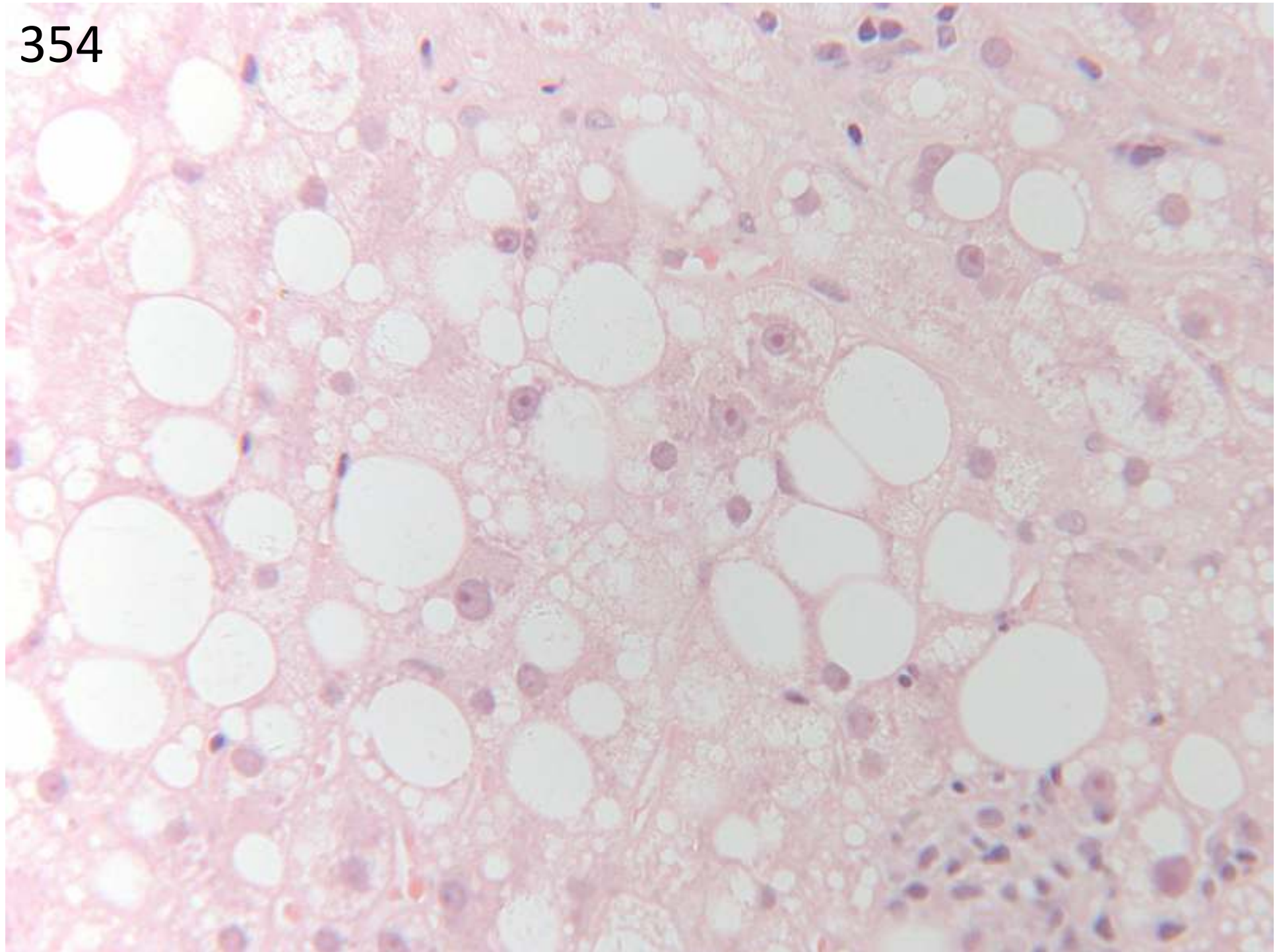
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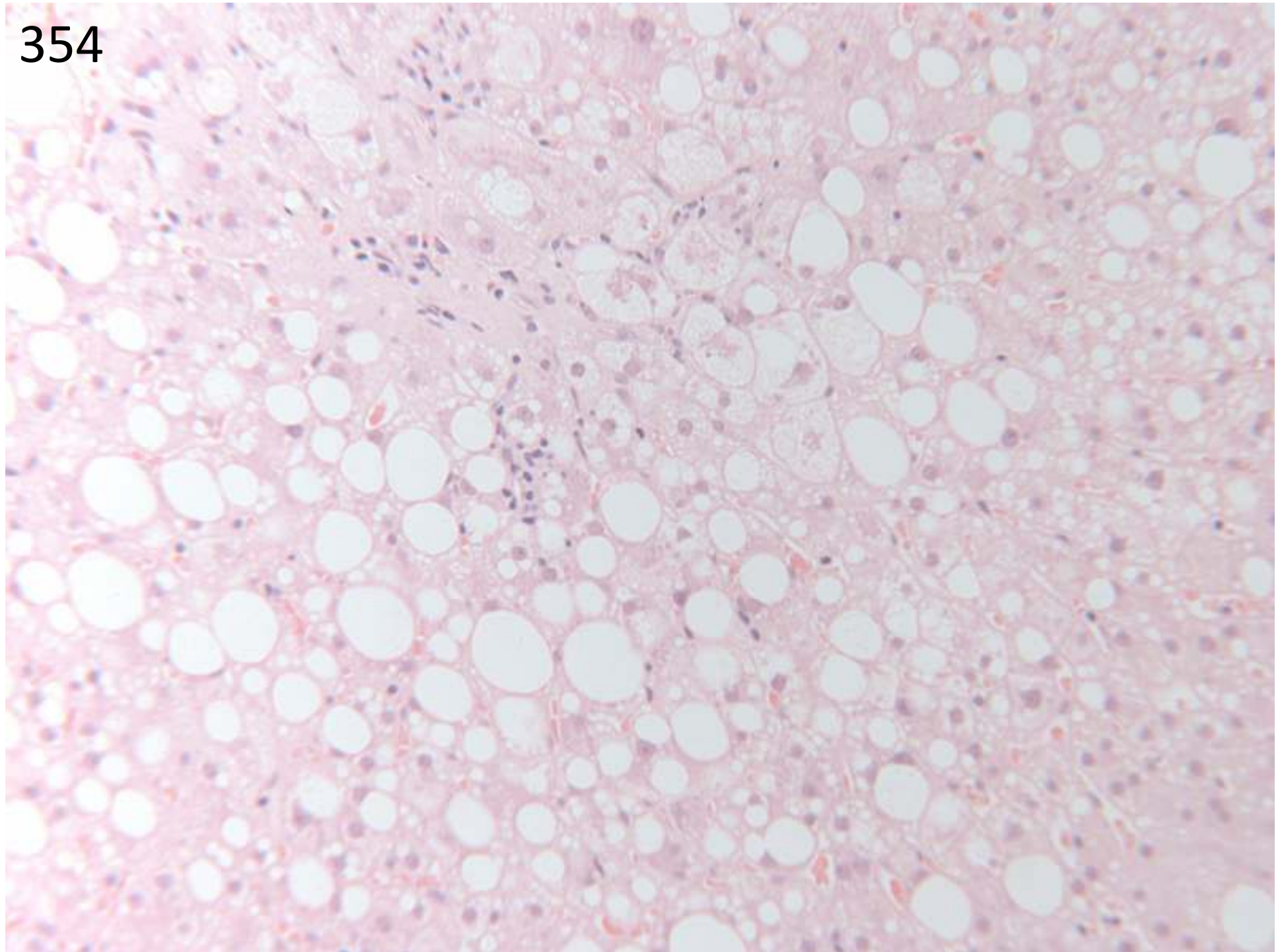
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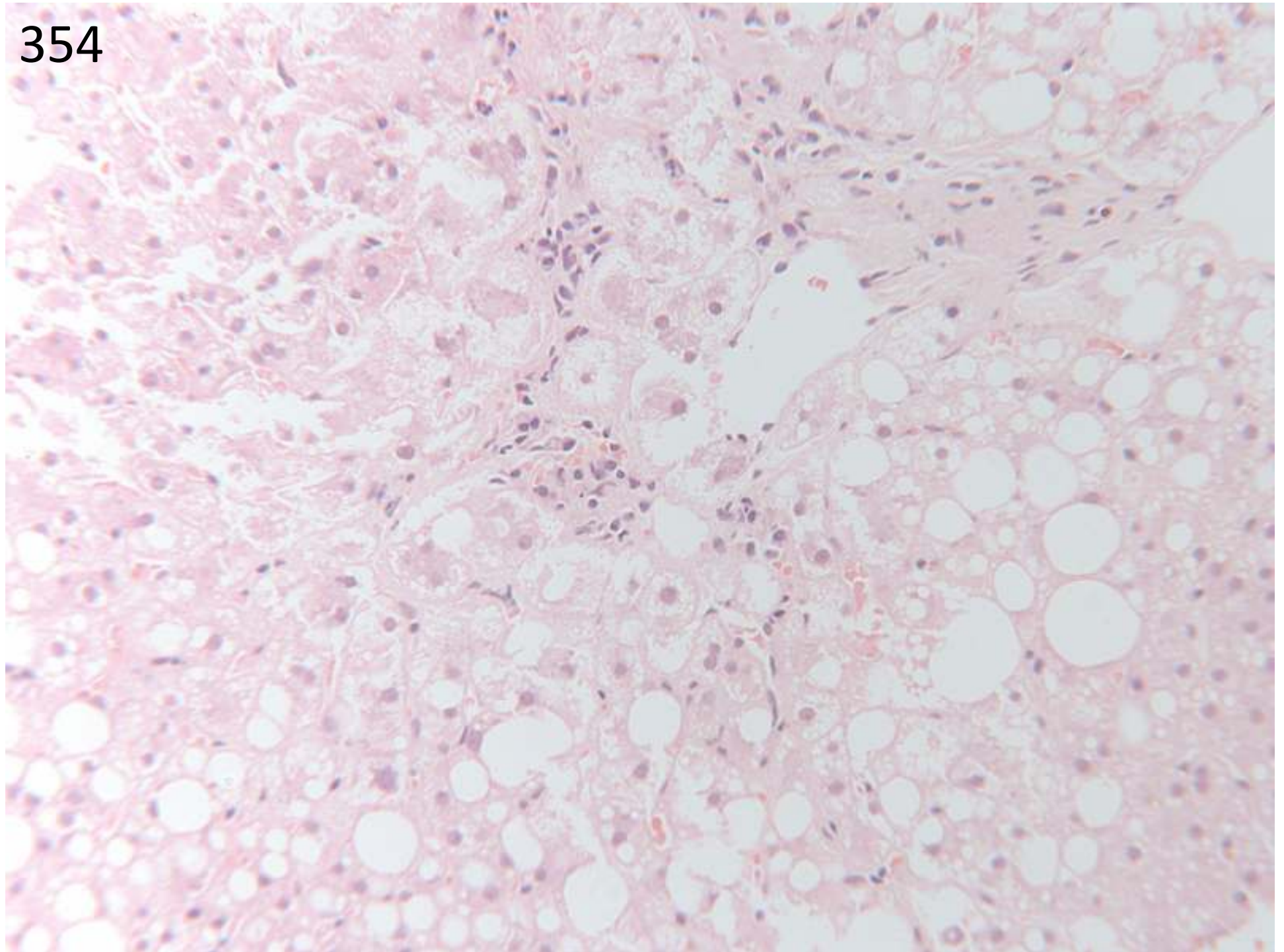
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## Case 354

### Morphology

57 steatohepatitis

1 severe steatosis, possibly steatohepatitis

3 steatosis

### clinicopathological

37 c/w NASH

14 c/w NASH exclude alcohol

1 ? diabetic (no mention of NASH)

1 rule out excess alcohol (no comment on non-alcoholic cause)

5 steatohepatitis, no mention of cause

1 c/w NAFLD

1 BMI, DM, alcohol etc (no mention NASH/NAFLD)

1 'severe steatosis, probably alcoholic'

1 'steatosis and portal inflammation ? due to coeliac, exclude drug, alcohol'

1 'NASH – likely to be coeliac related'

*Agreed scoring: lose points for steatosis – there are definite full house steatohepatitis features in this biopsy.*

*Given the clinical suspicion of NASH, answers should include c/w NASH/NAFLD. There was discussion on the contribution of coeliac disease – members were aware of cases where coeliac disease had been at least a contributory factor, so last response accepted*

Case 354: submitting pathologist's diagnosis:

NASH with early bridging fibrosis (but clinical correlation required exclude ASH)

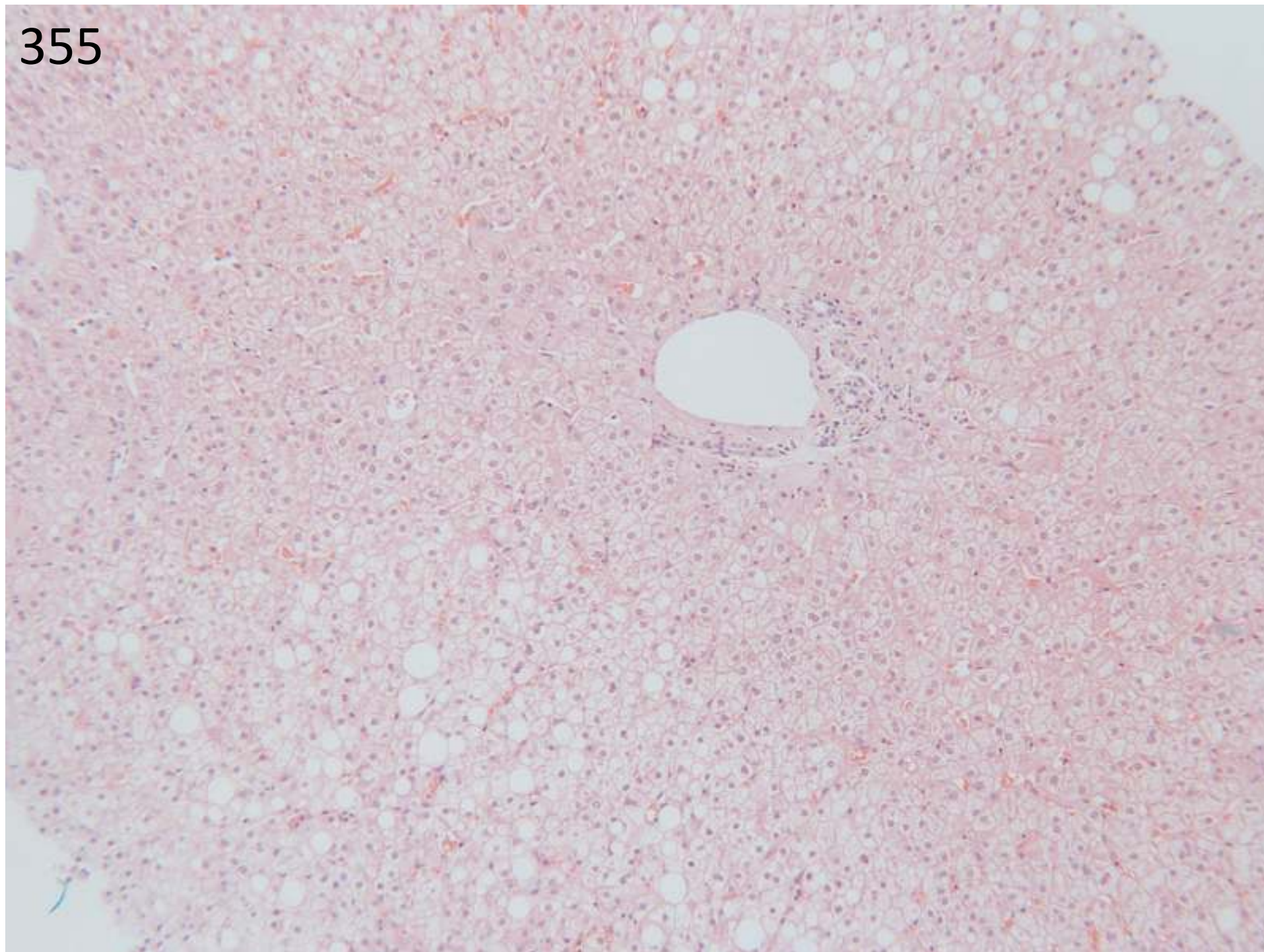
355

49/female

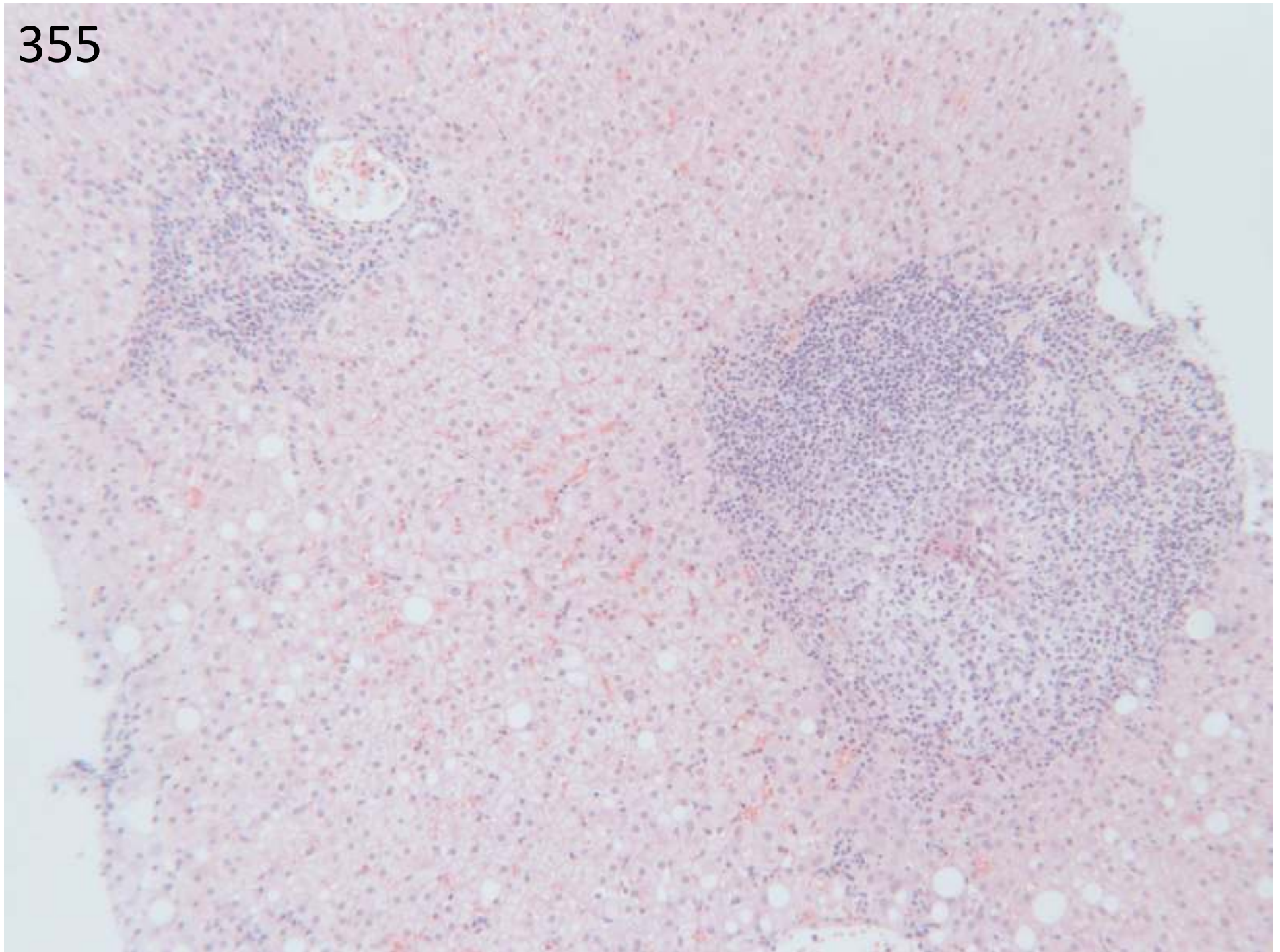
Raised ALT and immunoglobulins, ANA +ve (1/640),  
antimitochondrial antibody +ve, negative M2, ultrasound  
showed fatty liver, no copper-associated protein

liver biopsy - 3 cores, measuring 6mm, 8mm and 20mm in  
length

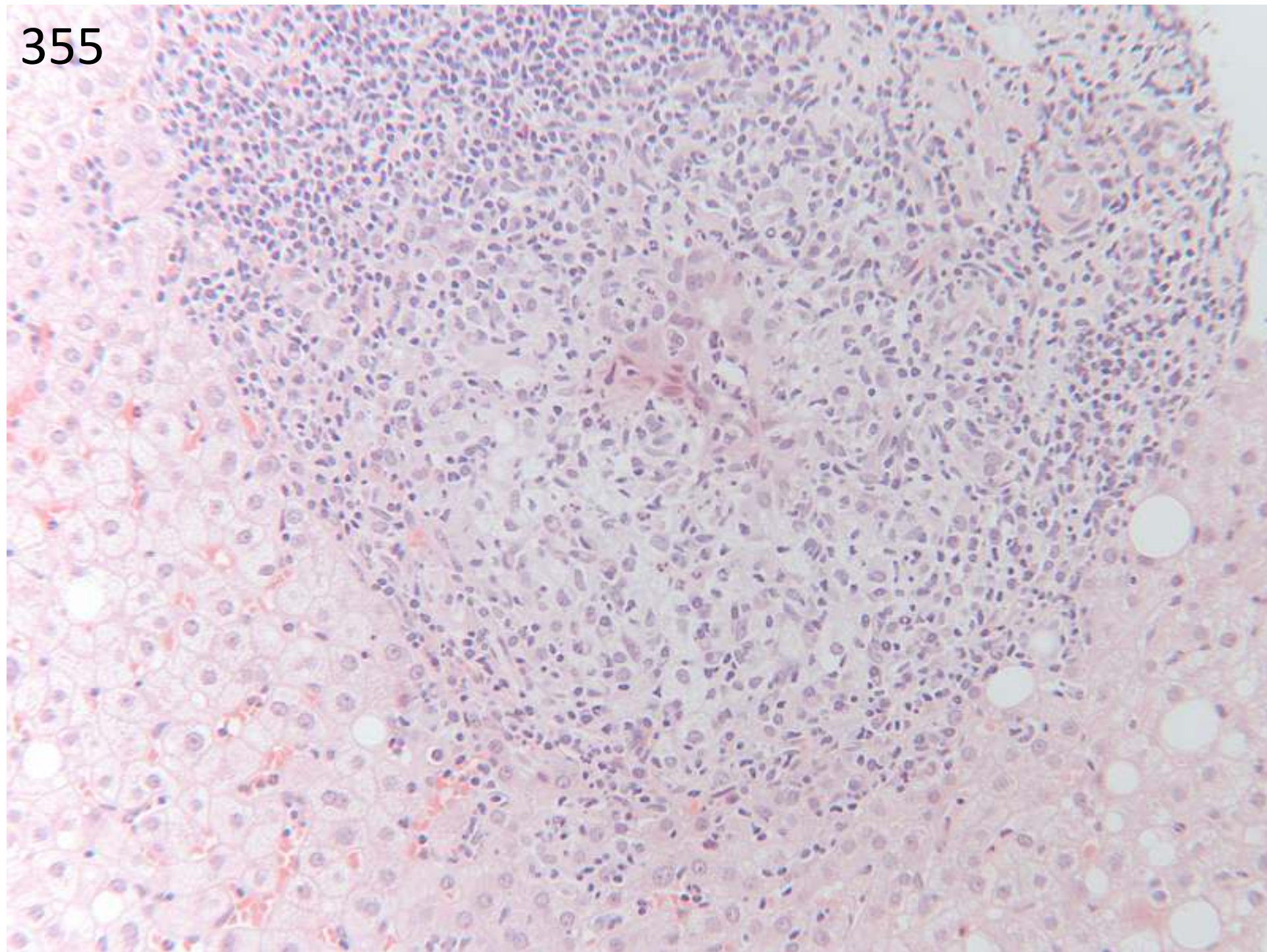
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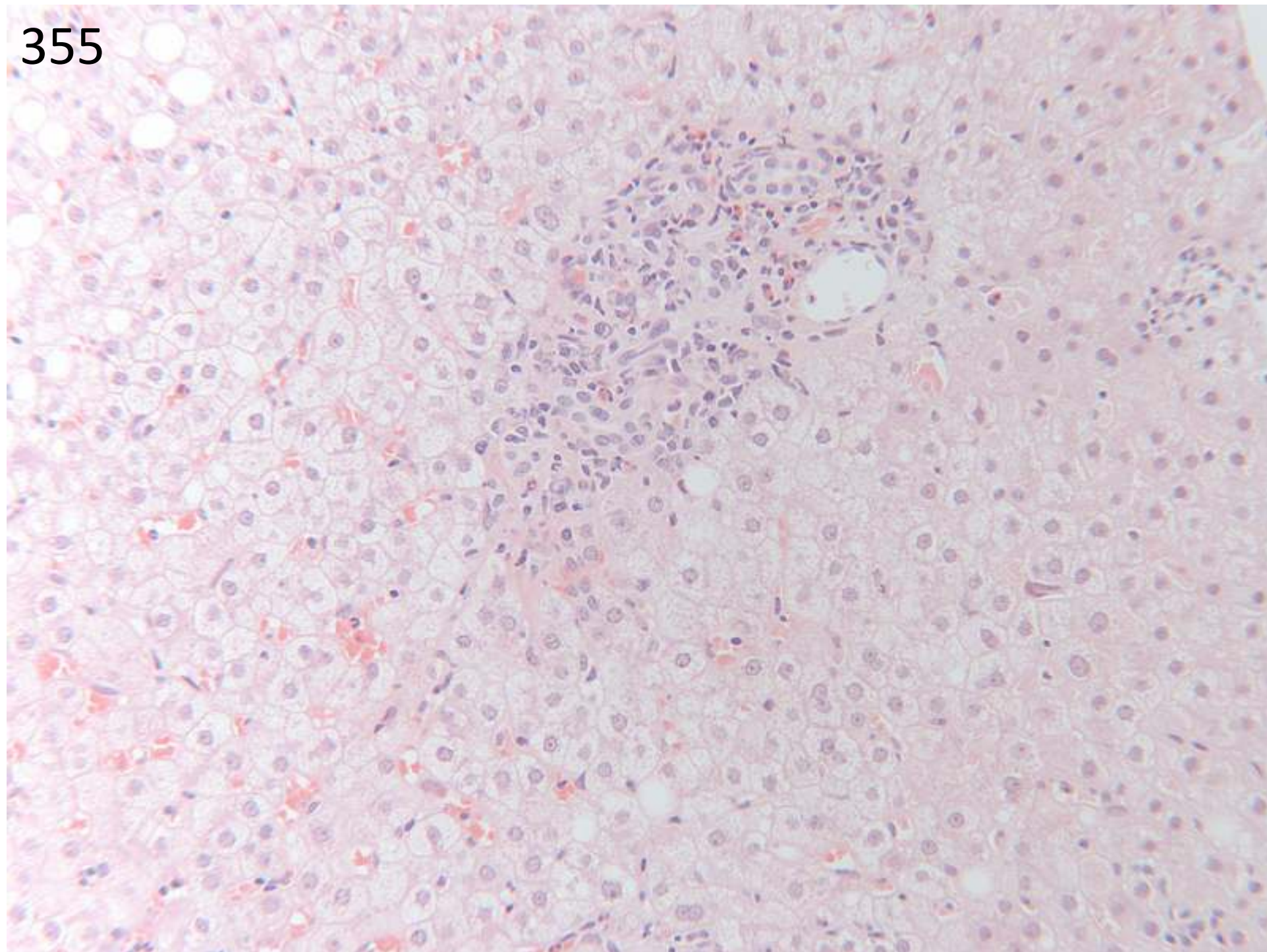
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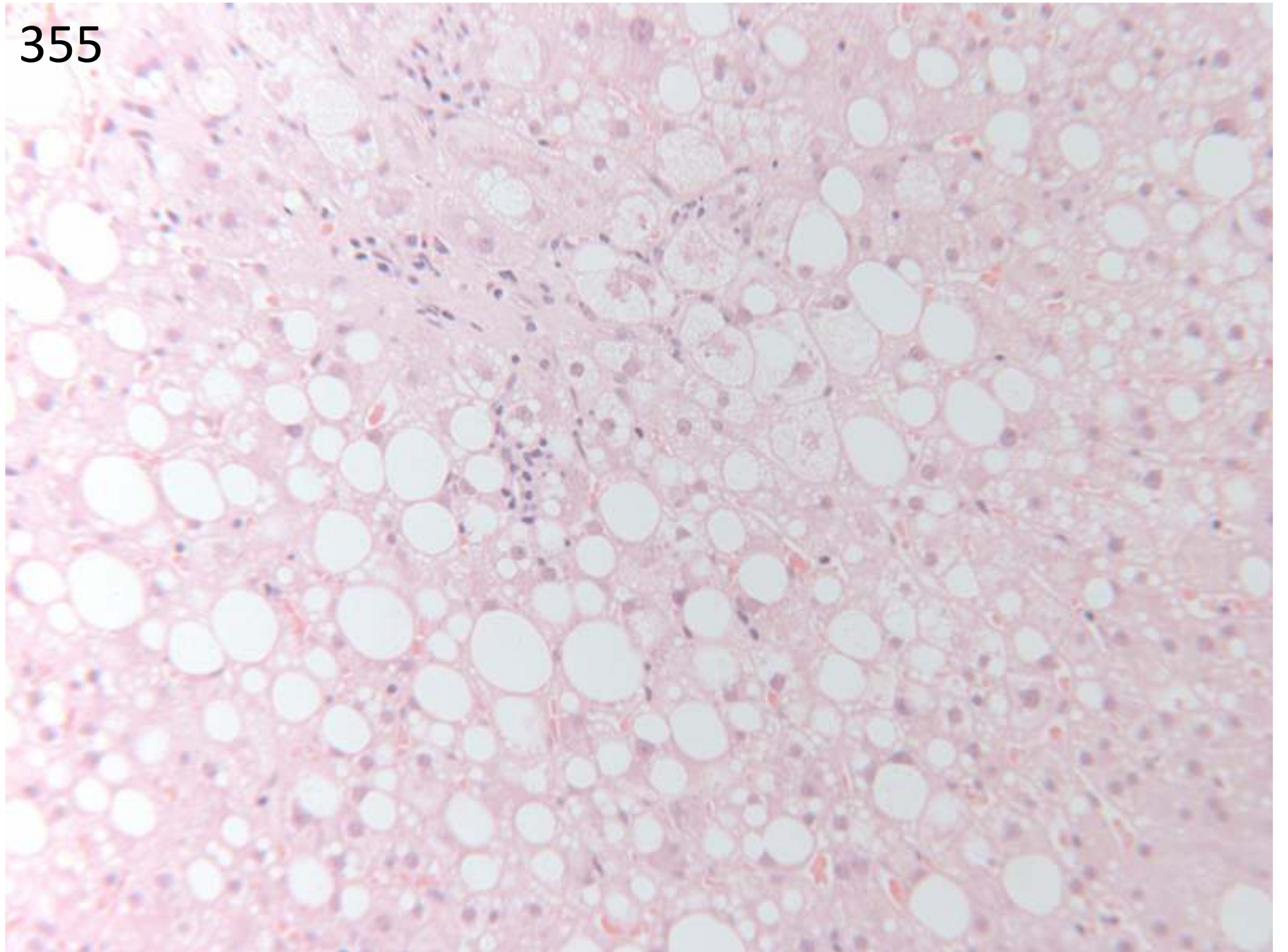
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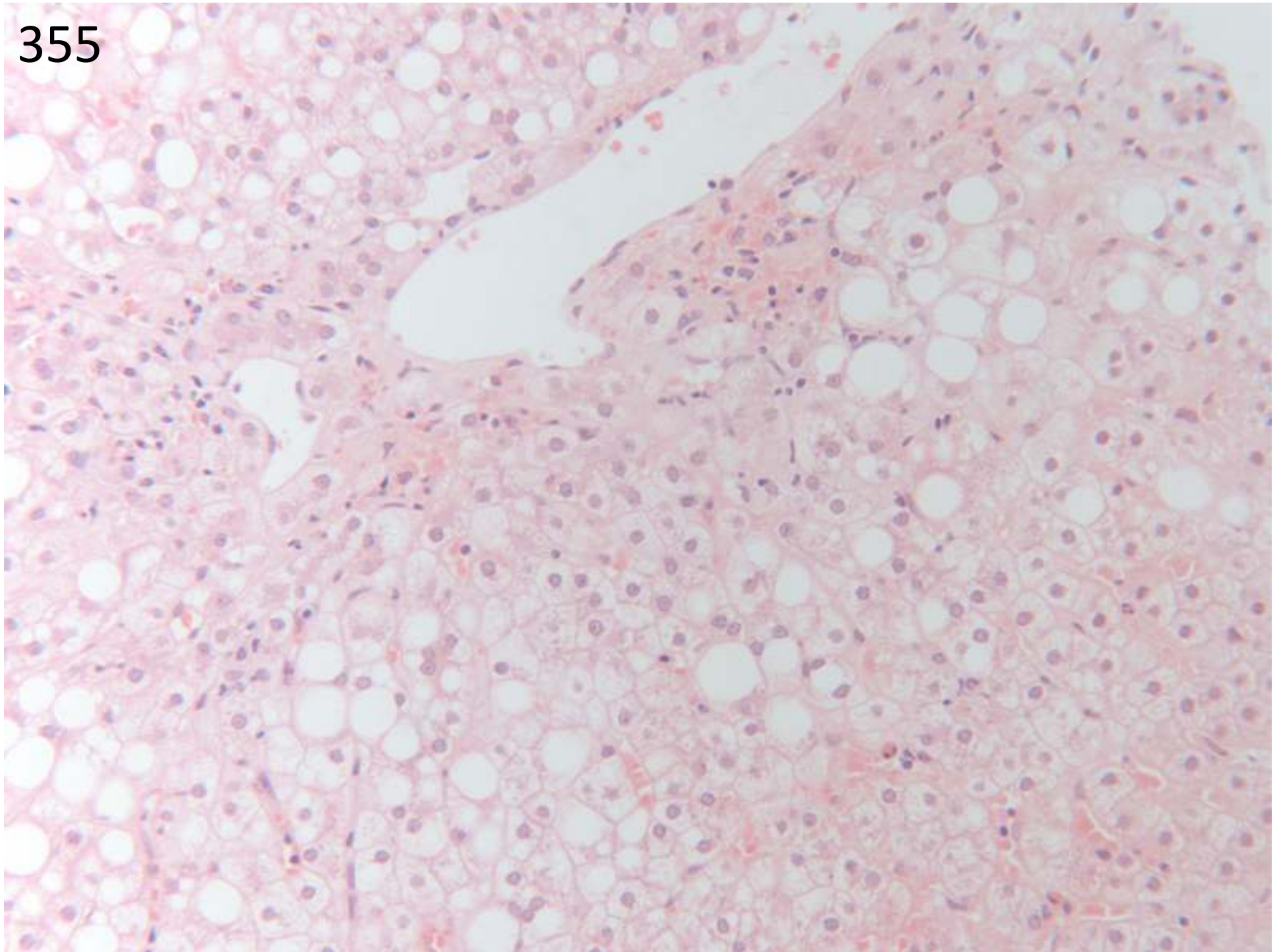
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## Case 355

### morphology

- 32 portal inflammation with granuloma – PBC
- 18 other portal inflammation and bile duct damage

8 biliary features not mentioned

### clinicopathological

- 34 c/w PBC
- 12 overlap with AIH/PBC
- 2 autoimmune cholangitis
- 3 c/w AIH/cholangitis
- 1 c/w antibody negative PBC, exclude drugs
- 1 CAH (lupoid) SLE?
- 3 AIH and steatosis
- 2 steatohepatitis, no features of autoimmune disease
- 1 steatohepatitis – PBC unlikely (negative M2 and Cu protein) AIH unlikely, exclude hepatitis C
- 1 ? viral hepatitis, esp Hep C
- 1 morphology description only

21 steatohepatitis

39 steatosis

2 no mention of fatty change

28 – responses included comment on NASH/ASH

*Agreed scoring: morphology deduct 5 points if no mention of portal granuloma/other bile duct damage. or none of fatty change.*

*Clinicopathological – insufficient consensus for this part to be scored.*

Case 355: submitting pathologist's diagnosis:

1. steatohepatitis
2. cholangiopathy. Could be PBC

356

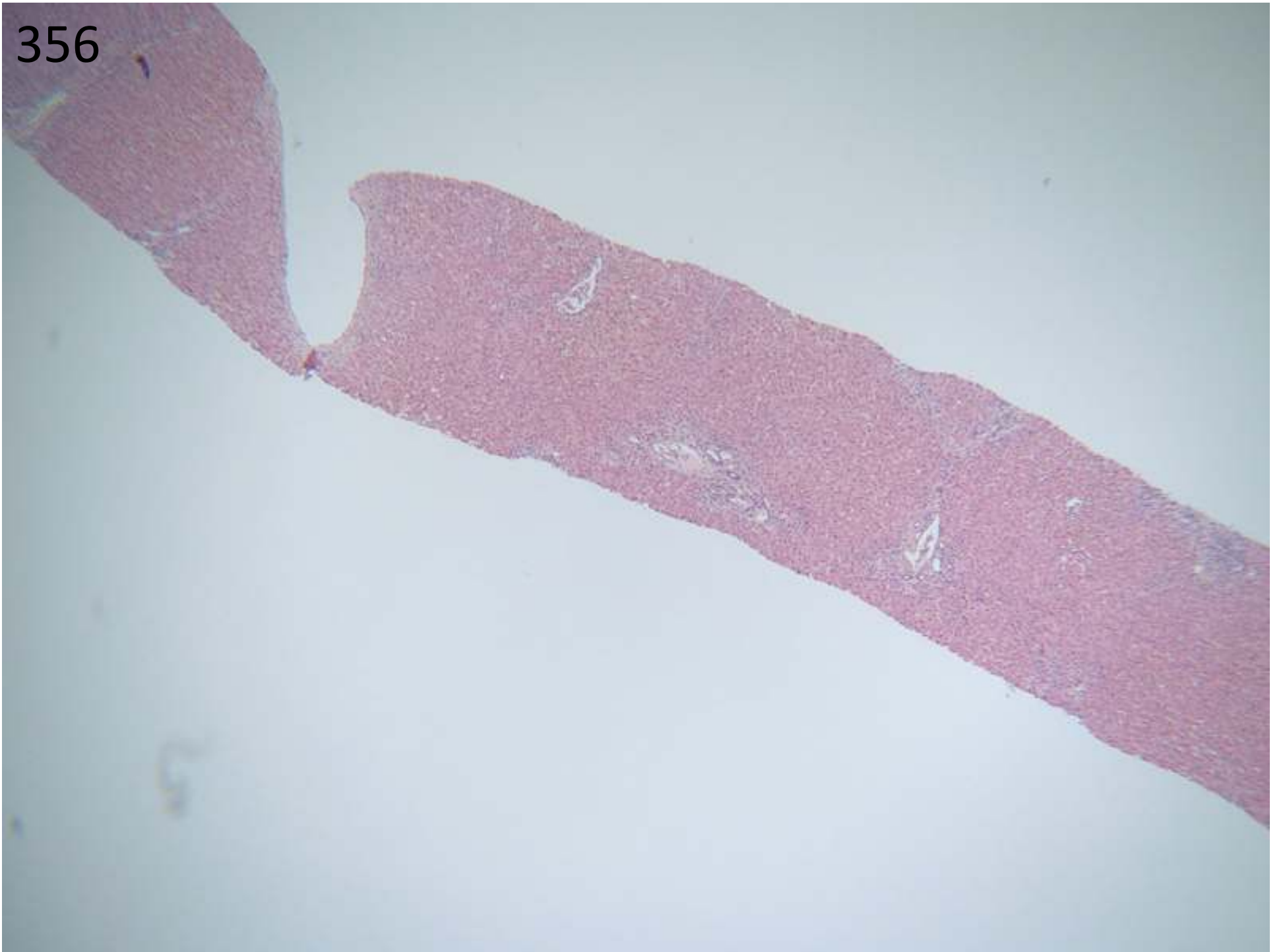
30/Male

Jaundice ?drug induced liver damage.

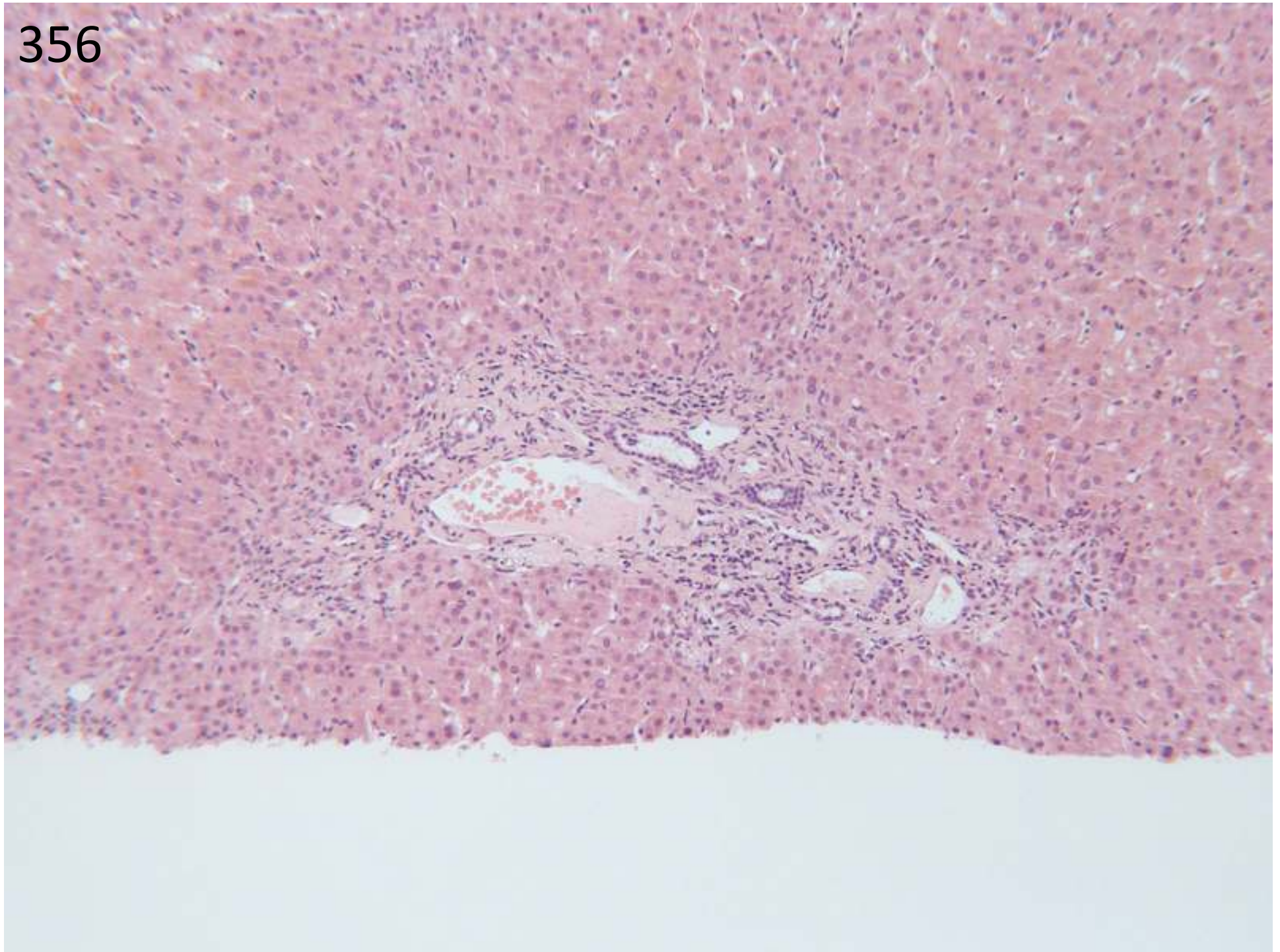
Bilirubin 750

Liver core biopsy - 2.5cm core

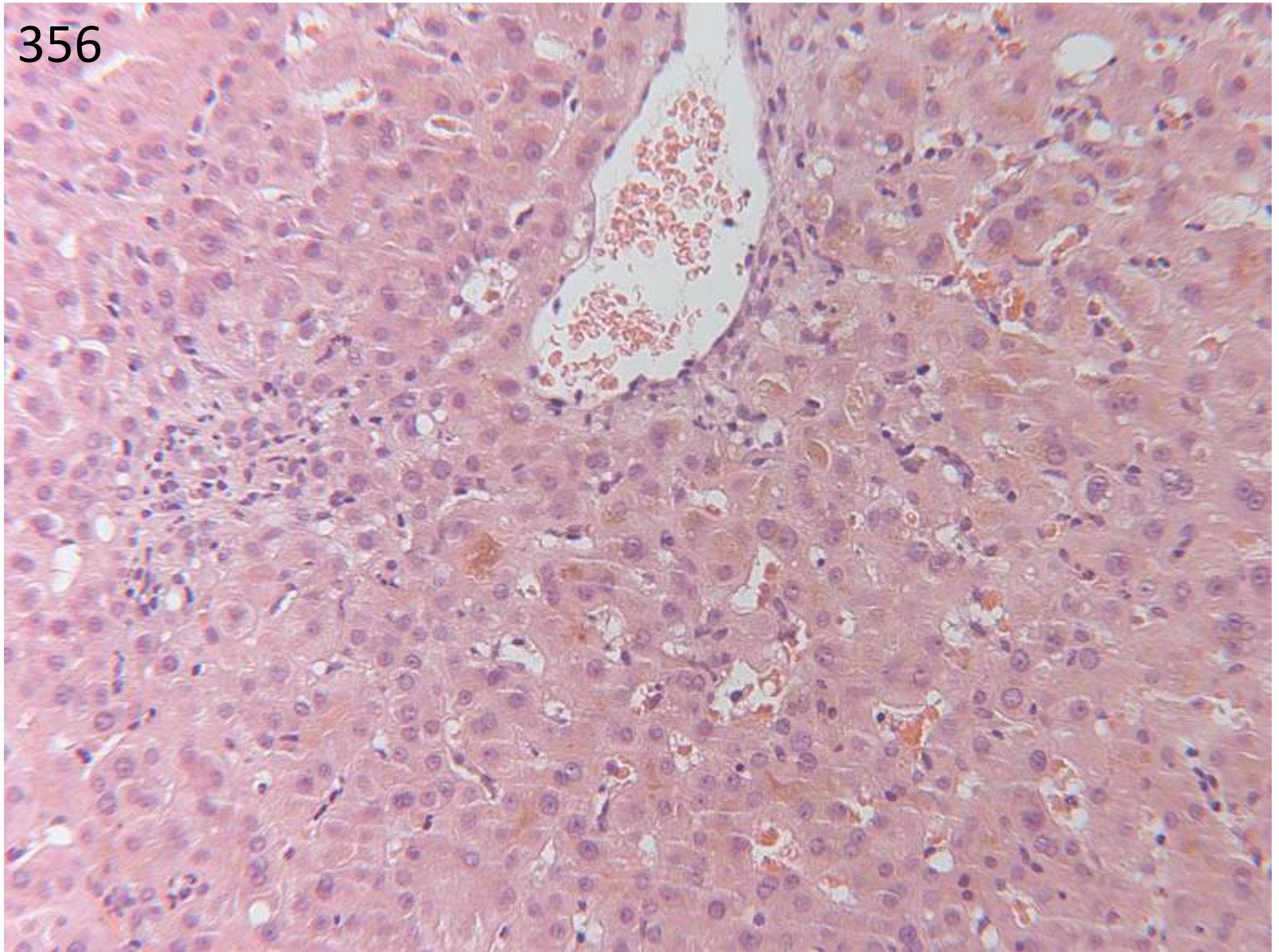
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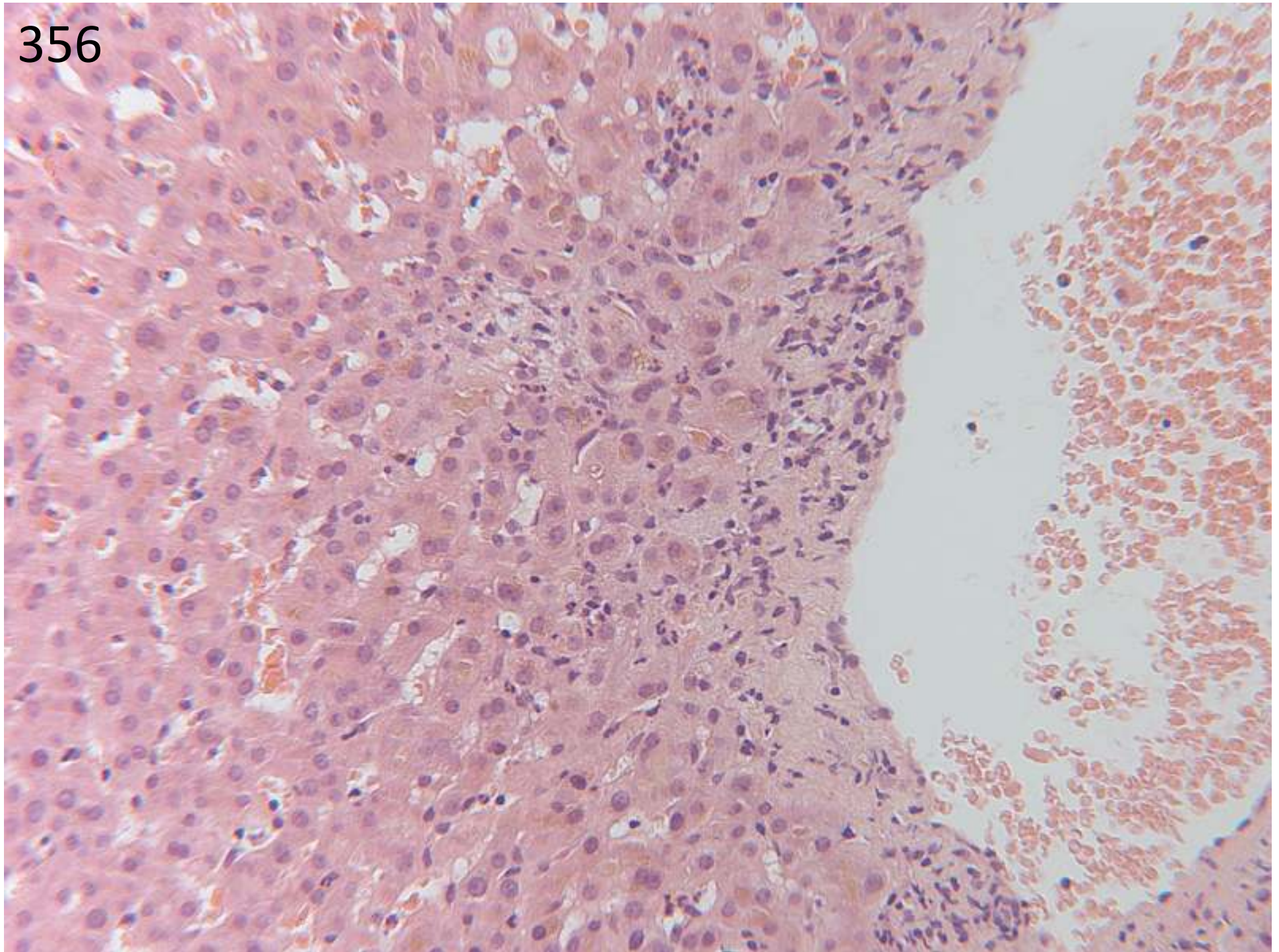
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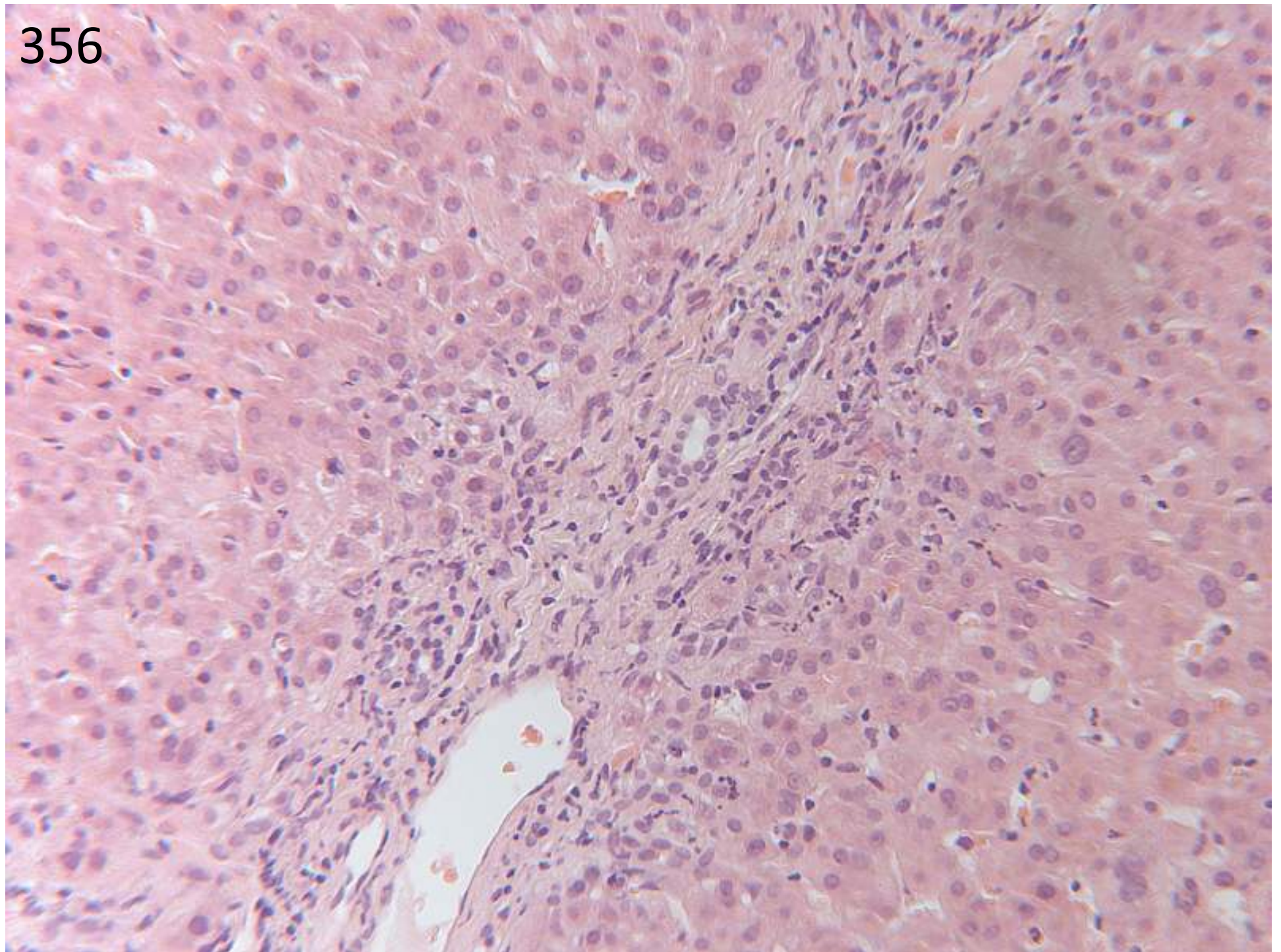
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## Case 356

29 cholestatic hepatitis

6 cholestatic hepatitis with confluent/bridging necrosis

17 cholestasis

7 cholestasis and fibrosis

1 severe steatosis

35 c/w drugs

11 drugs favoured with differential of LBDO

2 LBDO favoured with differential of drugs

3 differential between drugs v. viruses (1 hep E)

5 chronic cholestatic disease, of which 3 ? PSC

2 distal obstruction, cholangiopathy

1 viral/augmentin/PSC

1 cholestasis, differential includes paraneoplastic, ingestion, genetic

*Suggested scoring: probably not possible to score this – need clinical information about the drugs to decide whether this is likely or other causes should be considered.*

*OR could decide to include for scoring, and accept responses indicating cholestasis and no evidence of chronicity/fibrosis/chronic biliary disease. If able to score, should also deduct 5 points for bridging necrosis – none of that present. 5 marks deducted if no mention of drugs as potential cause of cholestasis.*

*The members voted to include this case in the scoring.*

Case 356: submitting pathologist's diagnosis:

drug induced acute cholestatic hepatitis

357

Female/73

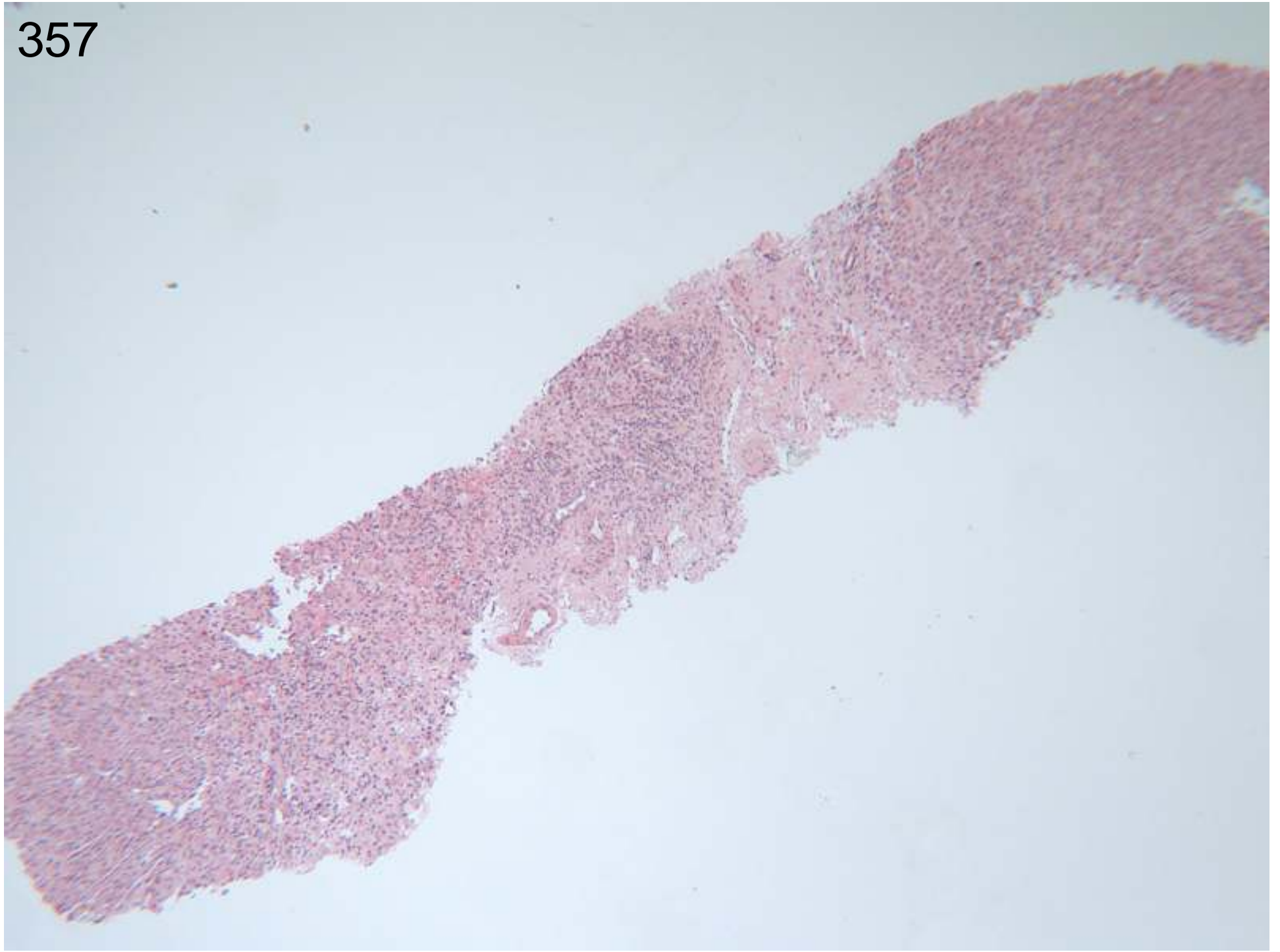
New onset jaundice, last INR 1.3, ?liver  
pathology, US normal

Liver biopsy - 1.5cm and 1.2cm cores

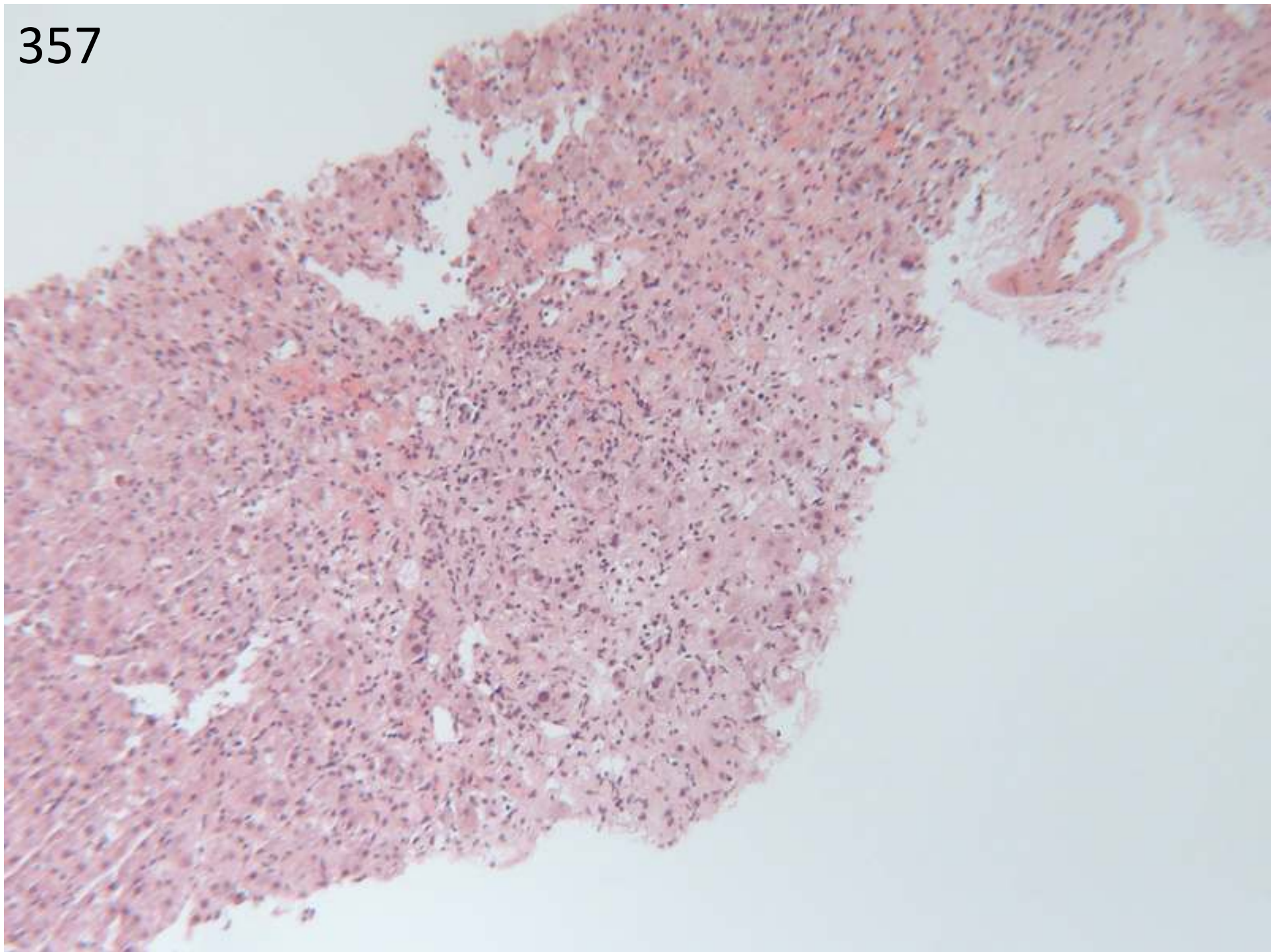
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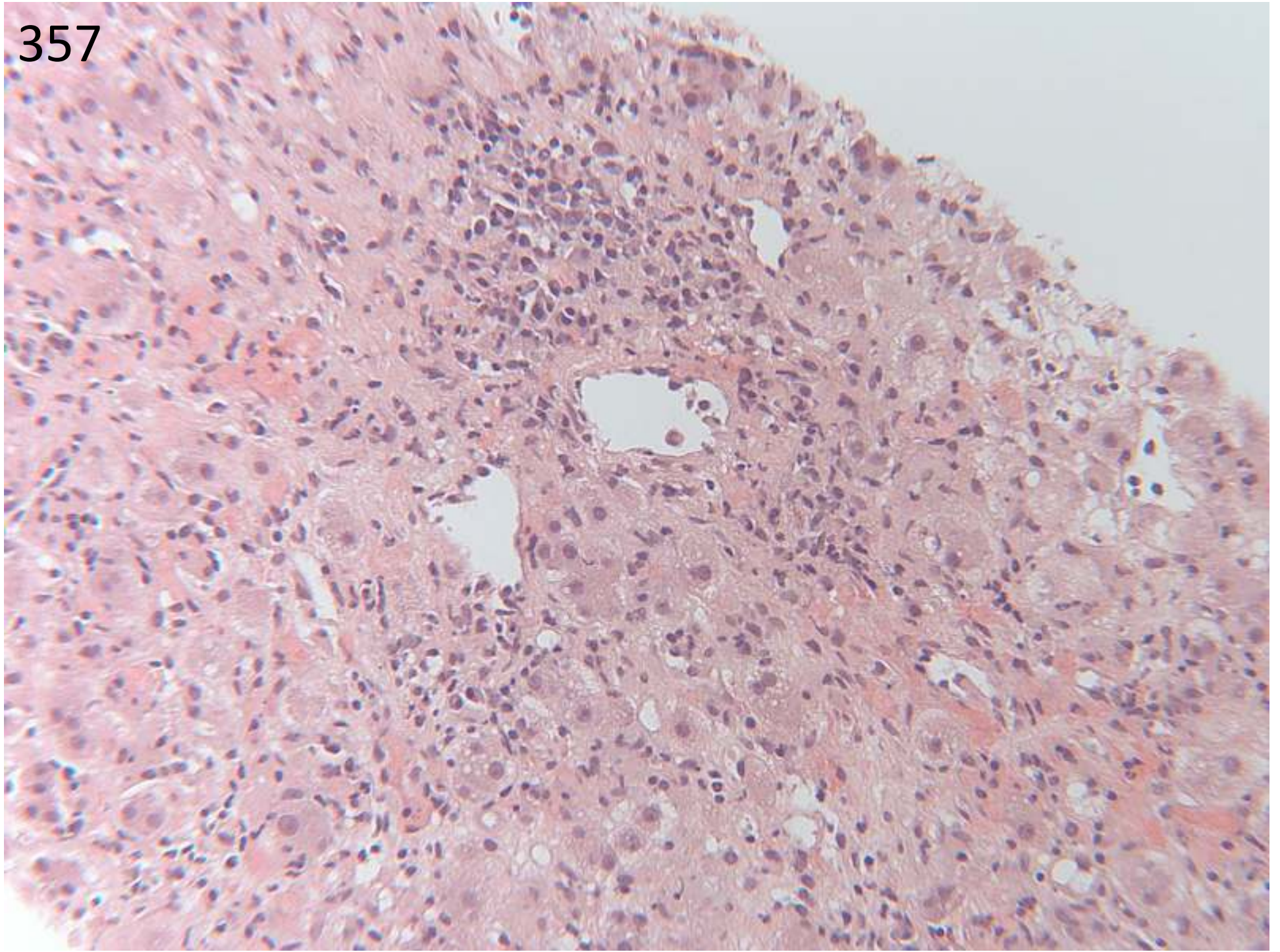
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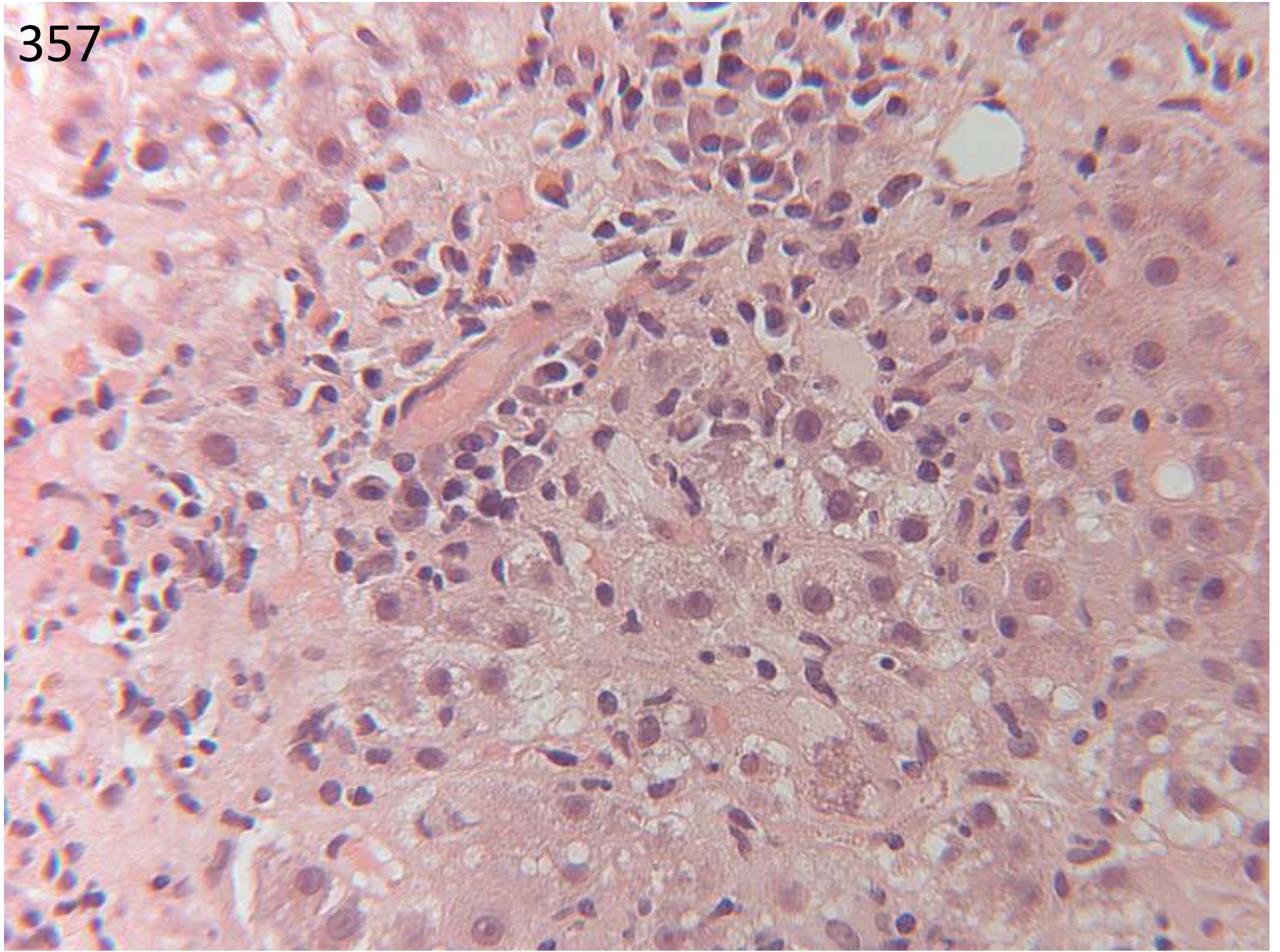
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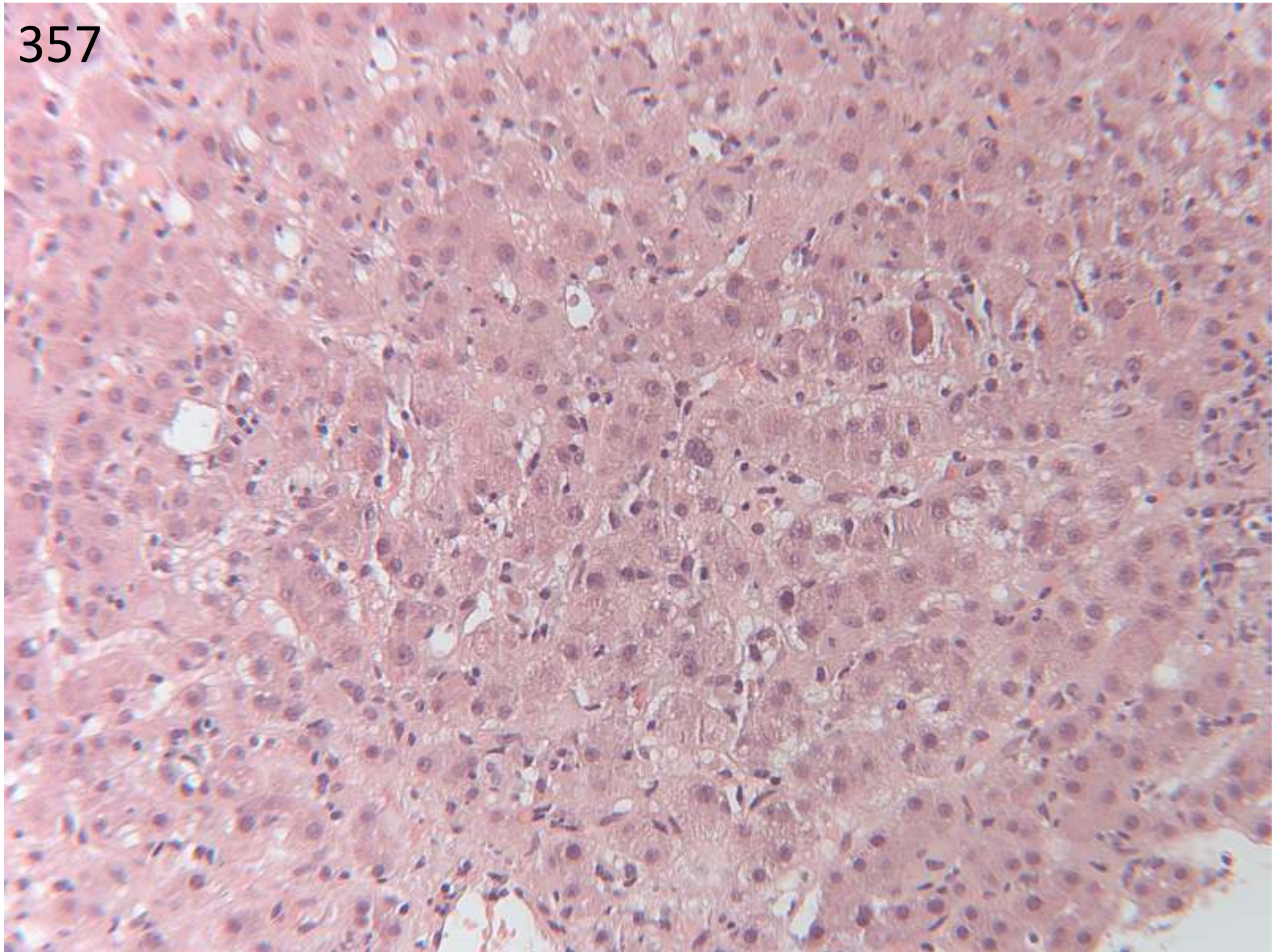
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## Case 357

18 acute hepatitis

31 acute hepatitis with bridging/confluent necrosis

30 frequent plasma cells

2 'acute liver injury'

5 hepatitis ? chronic

2 chronic hepatitis

1 portal fibrosis and inflammation, interface hepatitis

1 'PCs, neutrophils, mild lobular inflammation'

22 differential includes viral, drug, AIH – none favoured

17 AIH favoured, with differential including drugs/virus

11 c/w AIH, no differential given

10 no mention of autoimmune hepatitis:

4 ? drug related, no differential given

1 most likely drug. Exclude hep E

1 'c/w acute/subacute seronegative hepatitis'

1 drug/sepsis

1 drug/viral

2 no aetiology given

*Agreed scoring: lose 5 marks if not recognise that this is (or may be) acute, and 5 if not include AIH in differential.*

Case 356: submitting pathologist's diagnosis:

PBC

358

56/Female

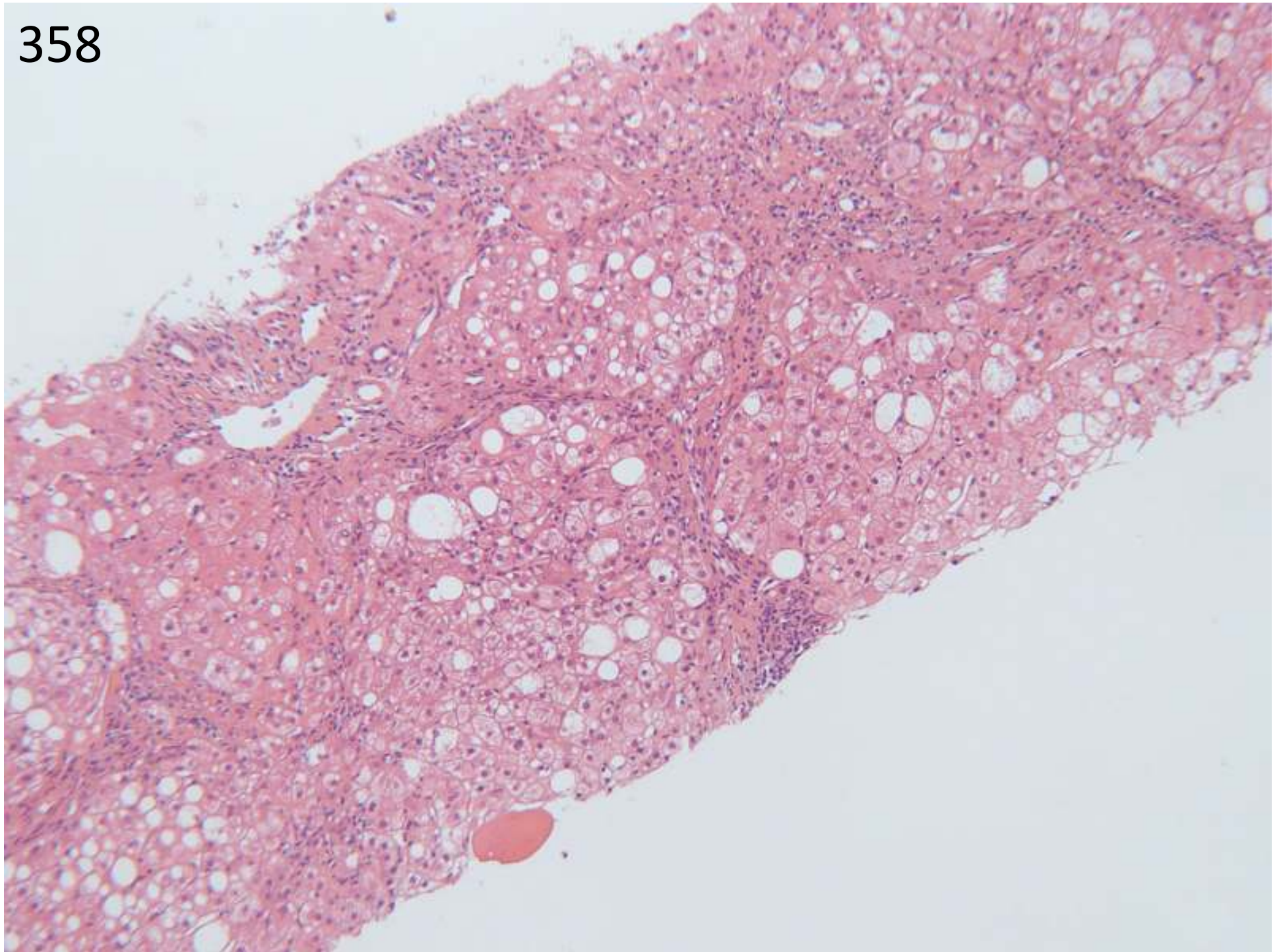
High BMI, diabetes, abnormal liver function tests, ultrasound showed steatosis, rectic and masson trichrome showed significant fibrosis and occasional small nodules

Liver needle biopsy - 4 cores combined length 43mm

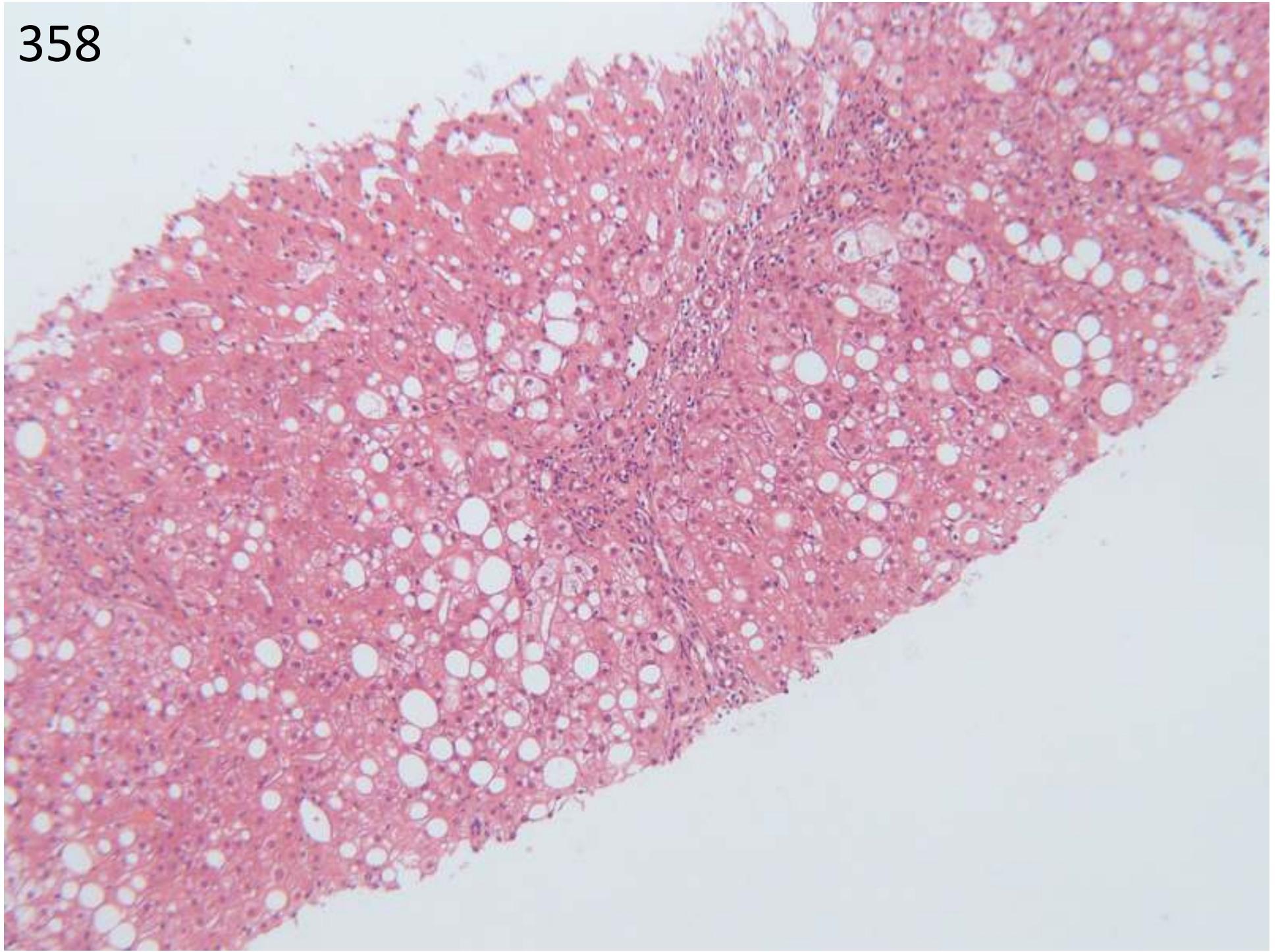
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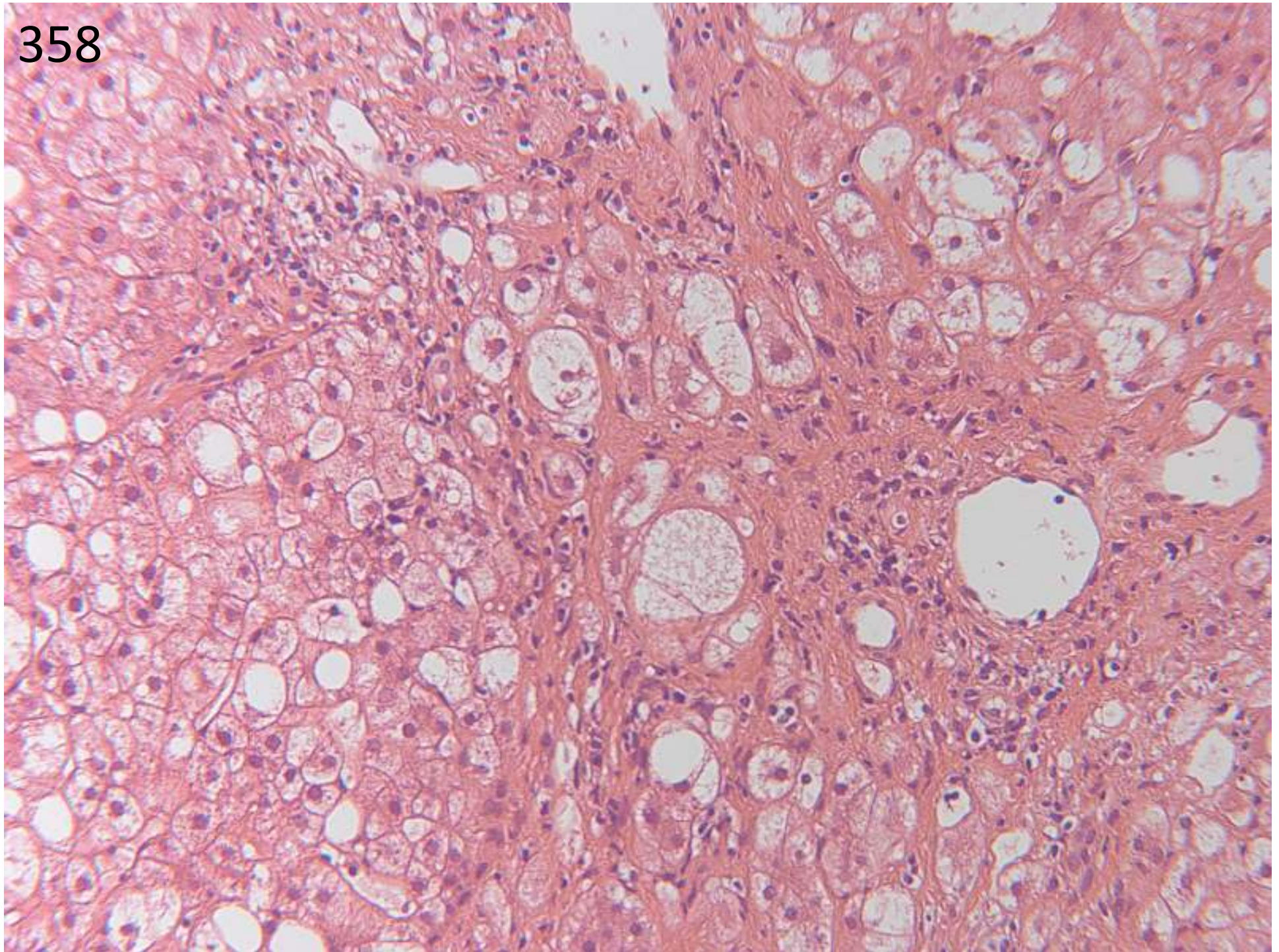
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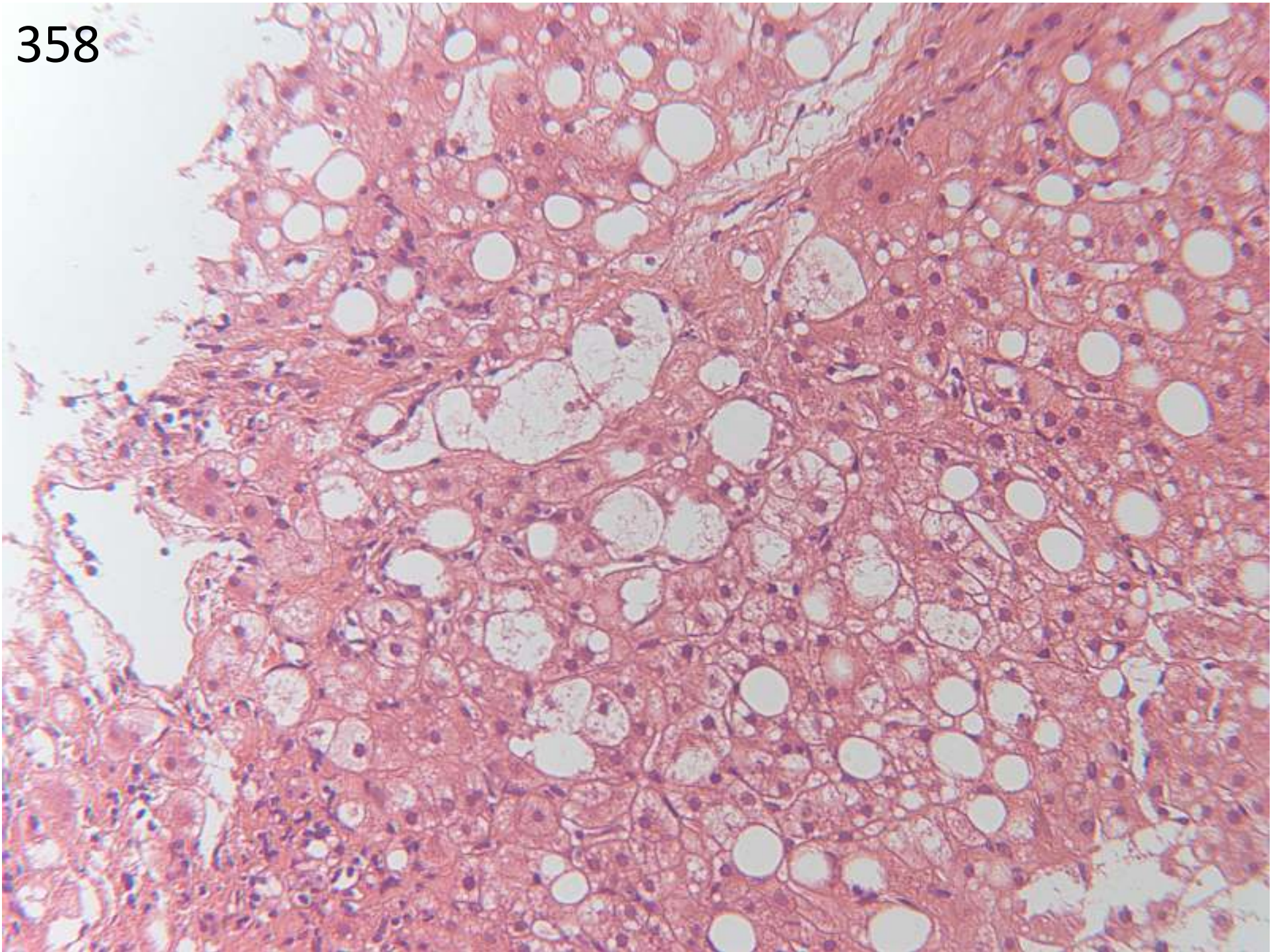
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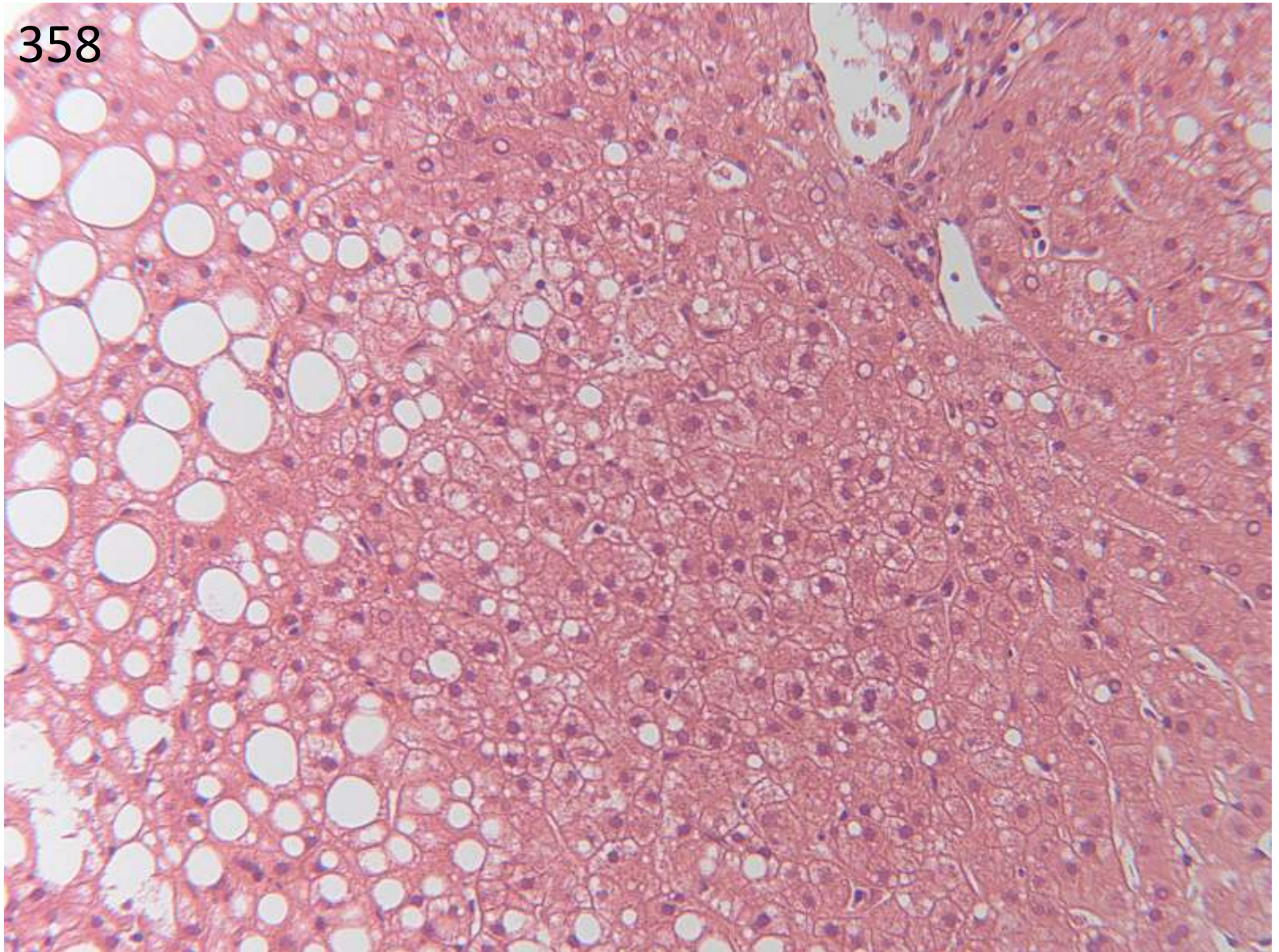
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358



358



## **Case 358**

57 steatohepatitis

**3 Steatosis**

8 cirrhosis (unequivocal)

40 developing/early cirrhosis

1 'bridging and nodularity'

1 nodules

11 fibrosis

1 perivenular sclerosis

36 NASH

15 NASH – exclude alcohol

**9 no aetiology**

*Suggested scoring: lose marks if not diagnosing steatohepatitis, and if no aetiology given. ? Deduct marks for not including at least developing cirrhosis, since fibrosis and occasional nodules on connective tissue stain is given information.*

*One written comment received – 'the proposal for deducting marks for not mentioning cirrhosis/developing cirrhosis is unreasonable' This was discussed – the clinical importance of the biopsy is to detect likely cirrhosis or incipient cirrhosis to plan appropriate follow up. However, there is insufficient consensus for scoring stage in this case (48/61 at least developing cirrhosis).*

Case 358: submitting pathologist's diagnosis:

non alcoholic steatohepatitis with significant  
fibrosis and early cirrhosis

359

50/Male

? cirrhosis ?cause

AST 183 ALP 376 IgG 18.2.

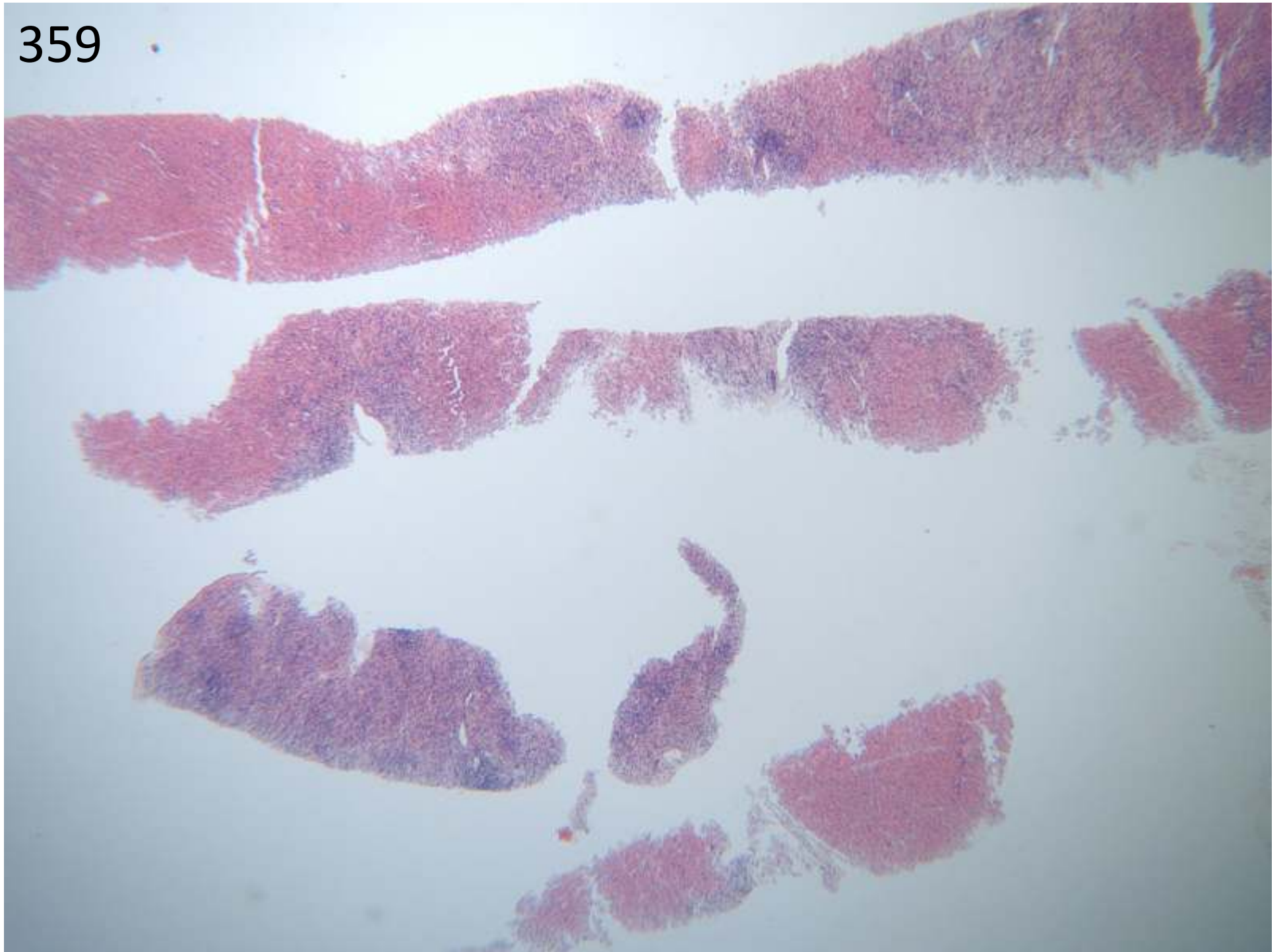
Previous IgG 37.26 and previously SMA positive, now negative.

Reticulin –collapsed areas, some elastin fibres also present (orcein).

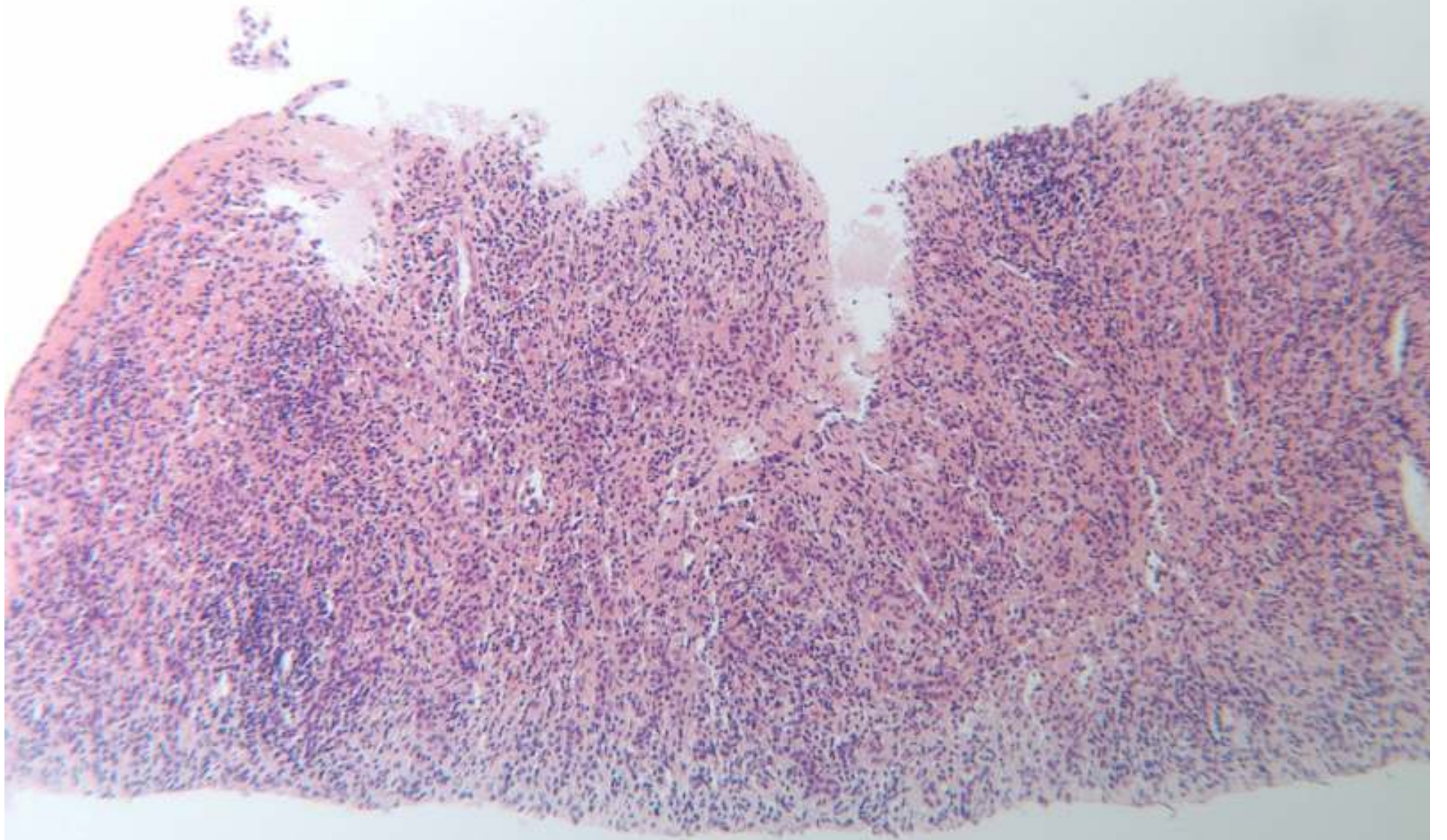
Tiny amounts of copper associated protein, nil else on specials

Liver biopsy - 15mm core and fragments

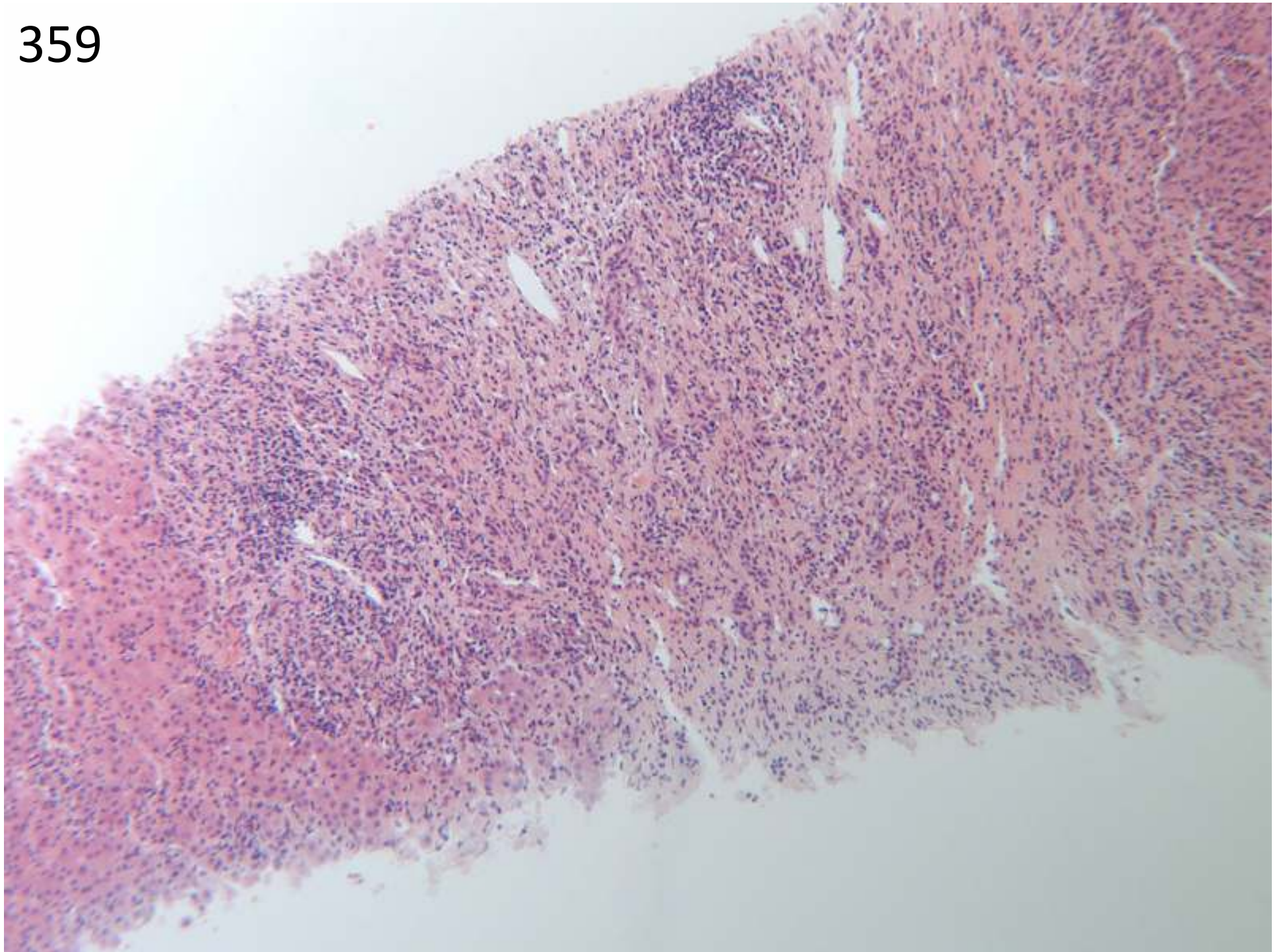
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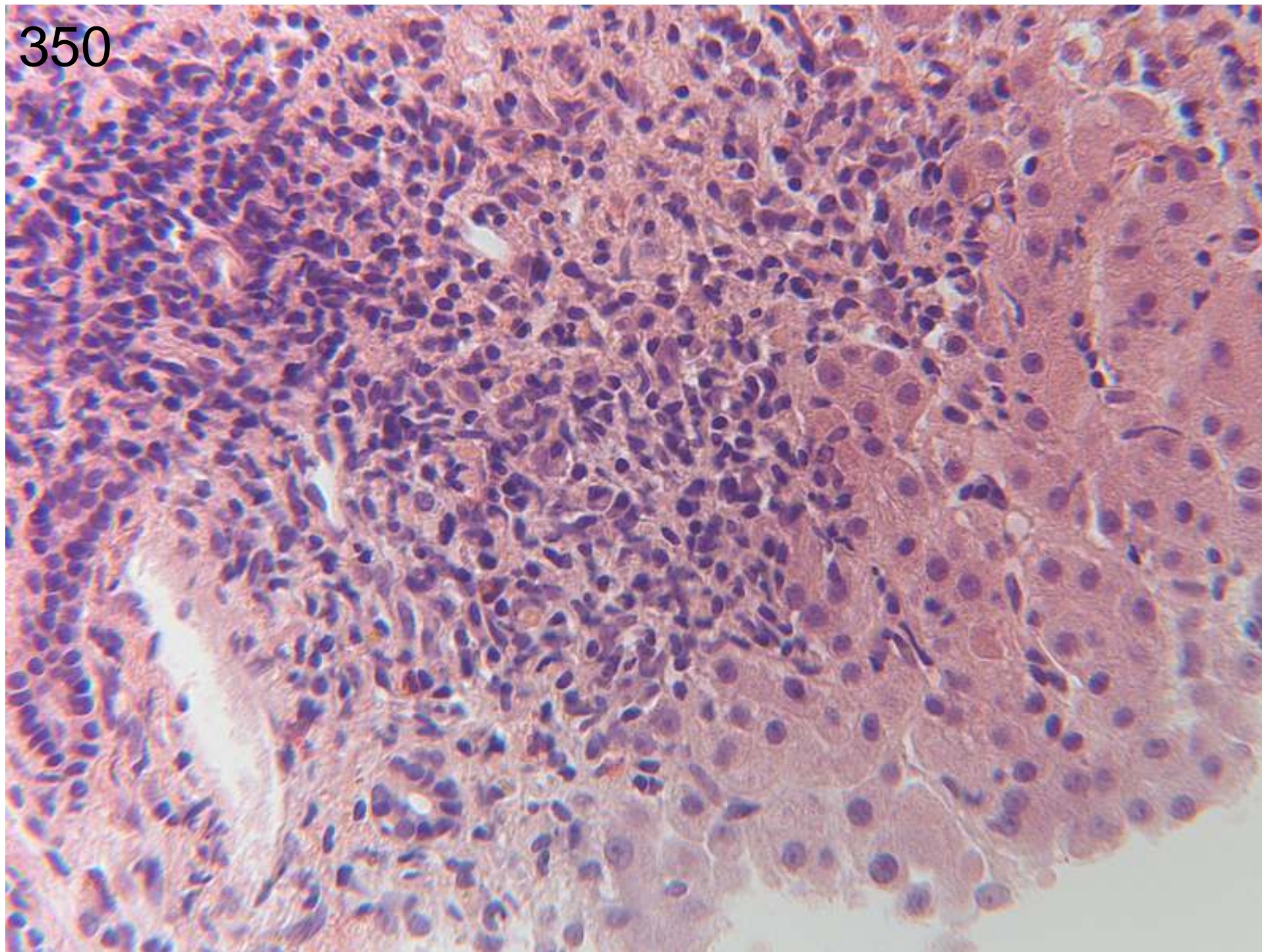
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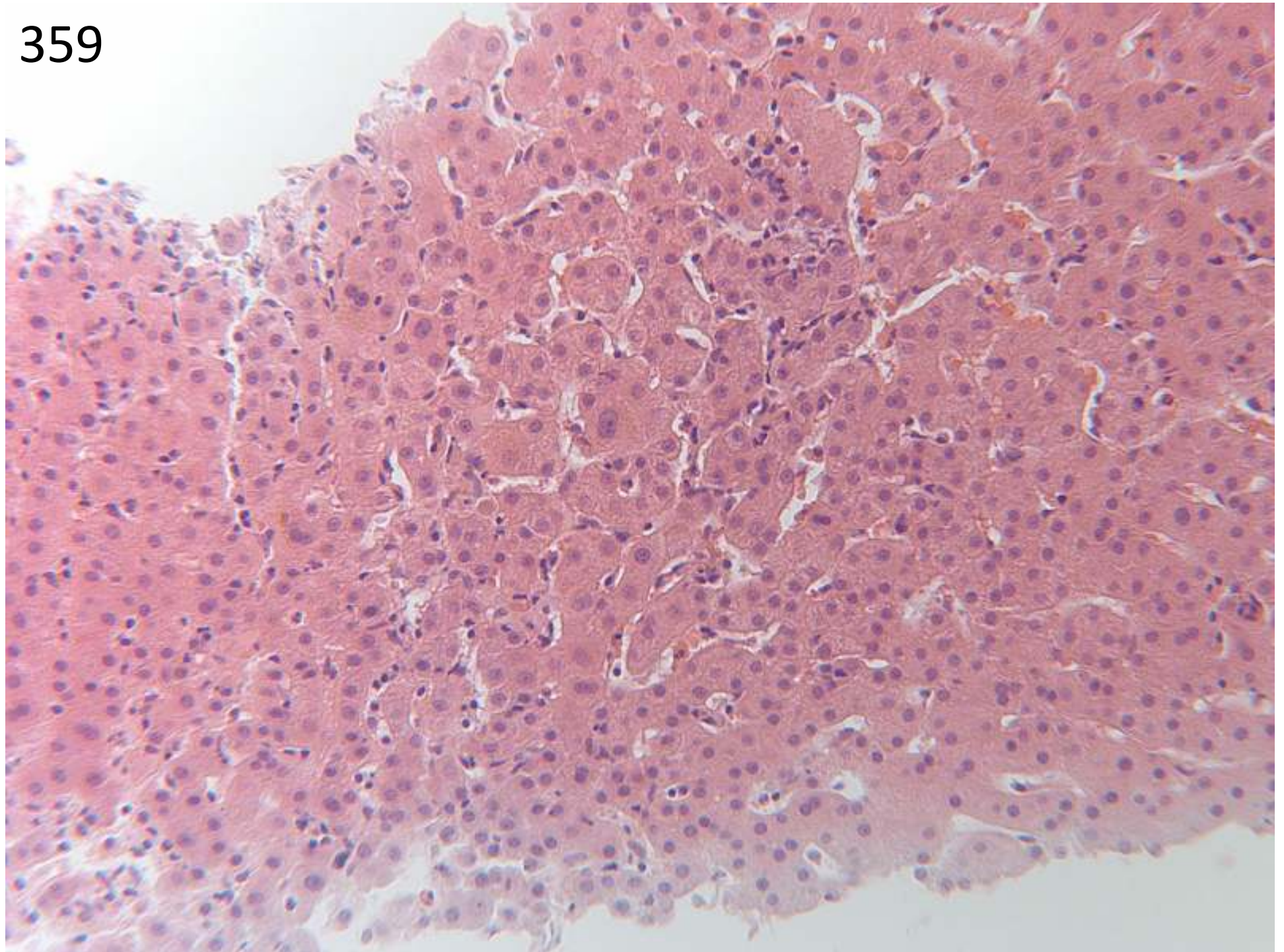
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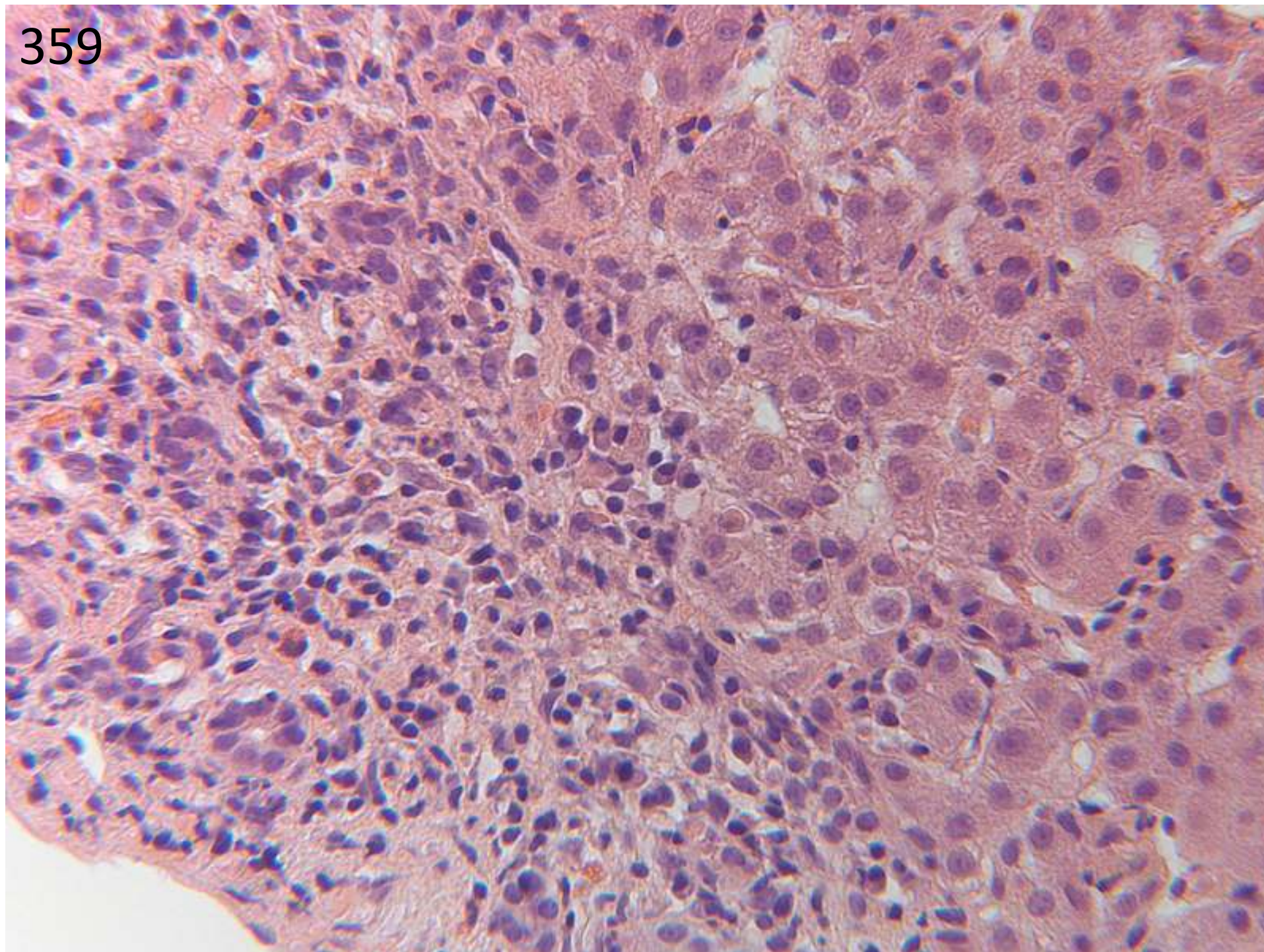
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359



359



## Case 359

39 hepatitis and confluent necrosis

22 frequent plasma cells

4 hepatitis

21 chronicity

8 cirrhosis

1 description only – ductular proliferation, inflammation, partial nodularity

45 favours AIH

10 differential of viral/drug/AIH (of which 1 includes Wilson's)

6 no mention of AIH:

2 differential viral/drug, no mention of AIH

1 no aetiology given

1 'massive hepatocellular necrosis with inflammation'

1 'cirrhosis ? drug ? parasitic ?? lymphoproliferative'

1 'chronic hepatitis, suggestive of biliary disease'

4 specifically made comments about copper associated protein indicating chronicity

*Agreed scoring: Duration acute/chronic is unclear, but lose 5 marks for description only that doesn't mention hepatitis, and 5 if no mention of AIH in this plasma cell rich severe hepatitis.*

Case 359: submitting pathologist's diagnosis:

severe acute on chronic hepatitis. Autoimmune

360

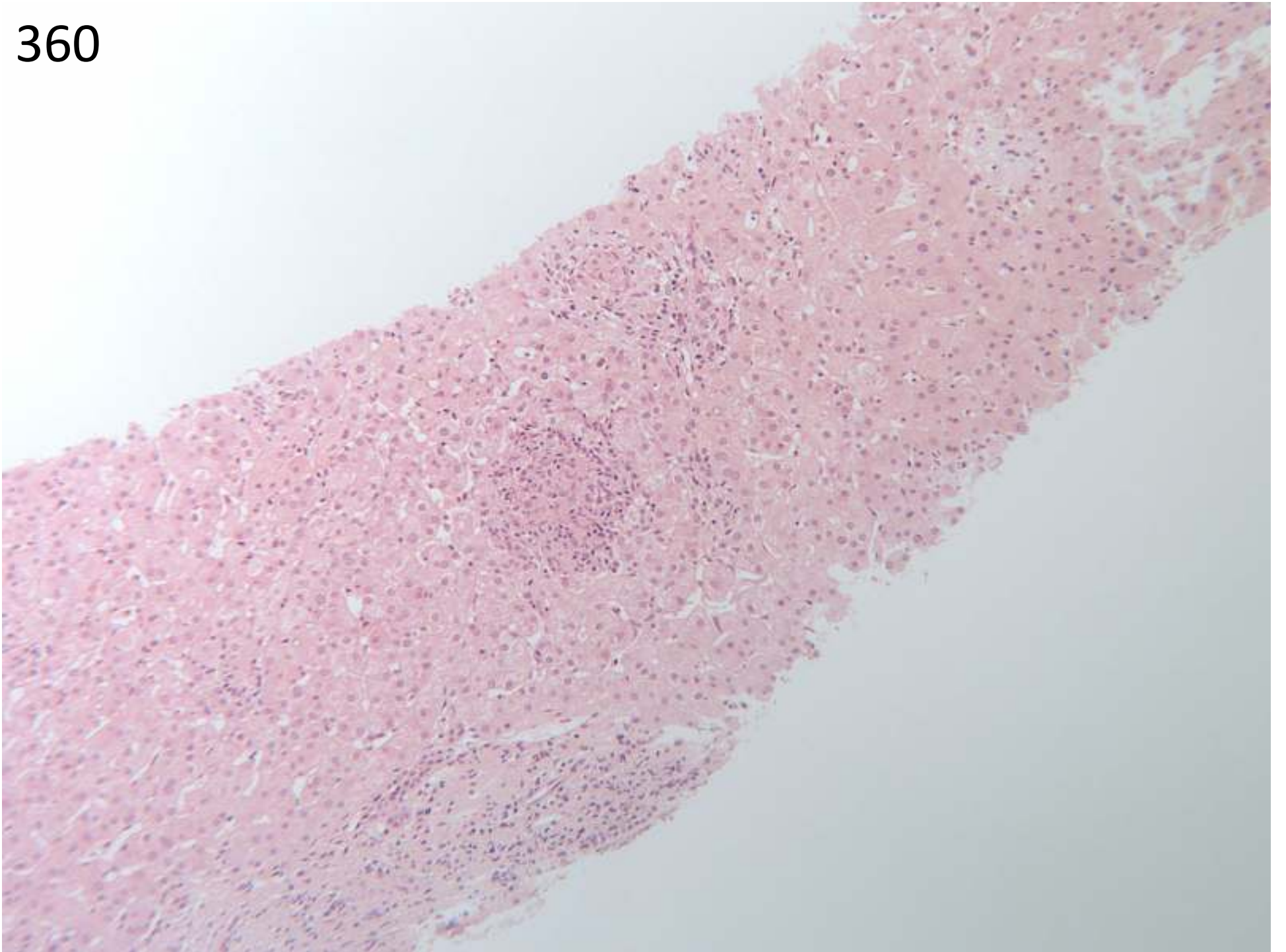
71/male

Abnormal LFT's, hepatosplenomegaly

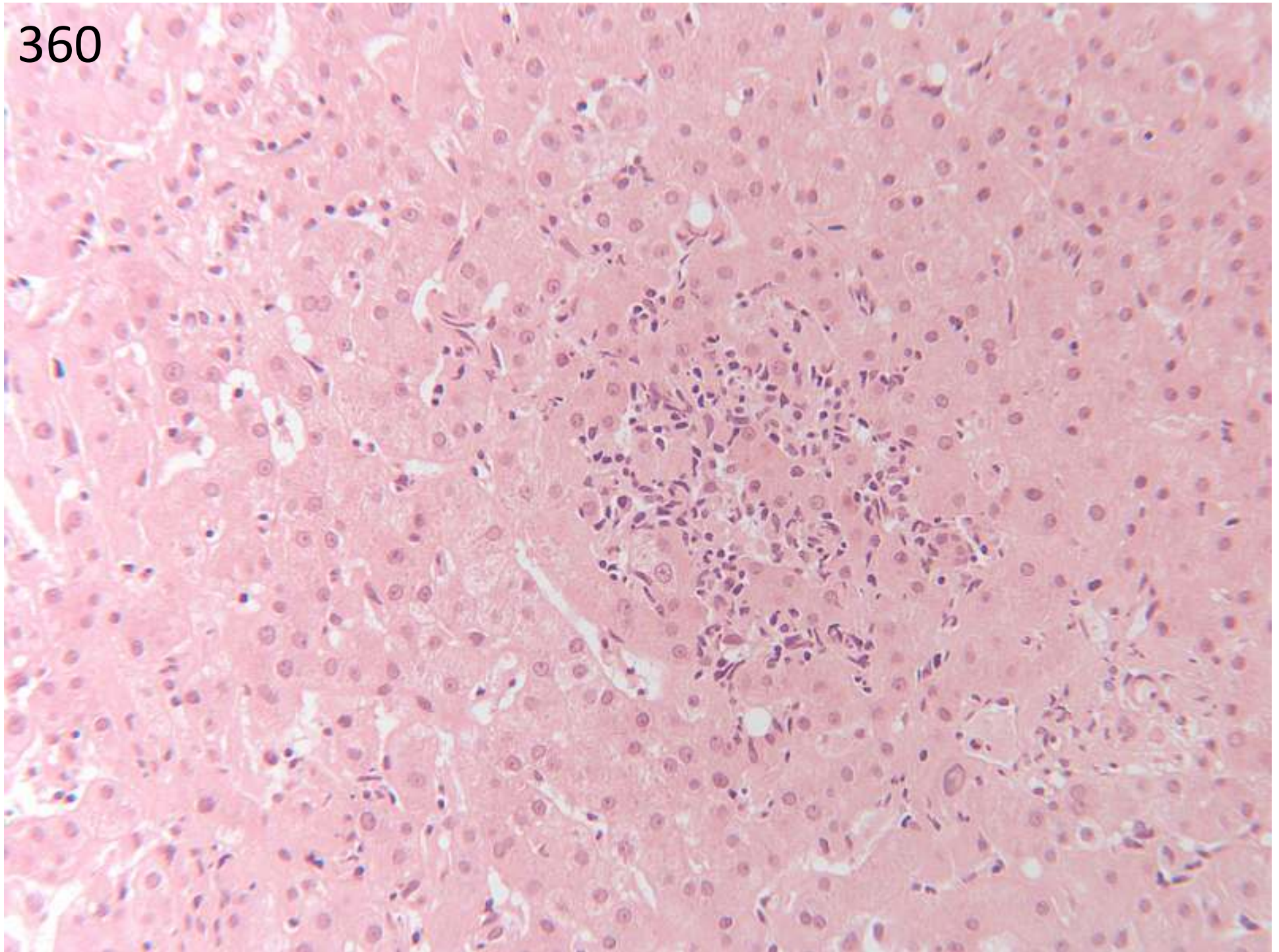
?Iatrogenic BCGosis, secondary to bladder cancer treatment.

Liver biopsy- Tan cores 15mm x 2

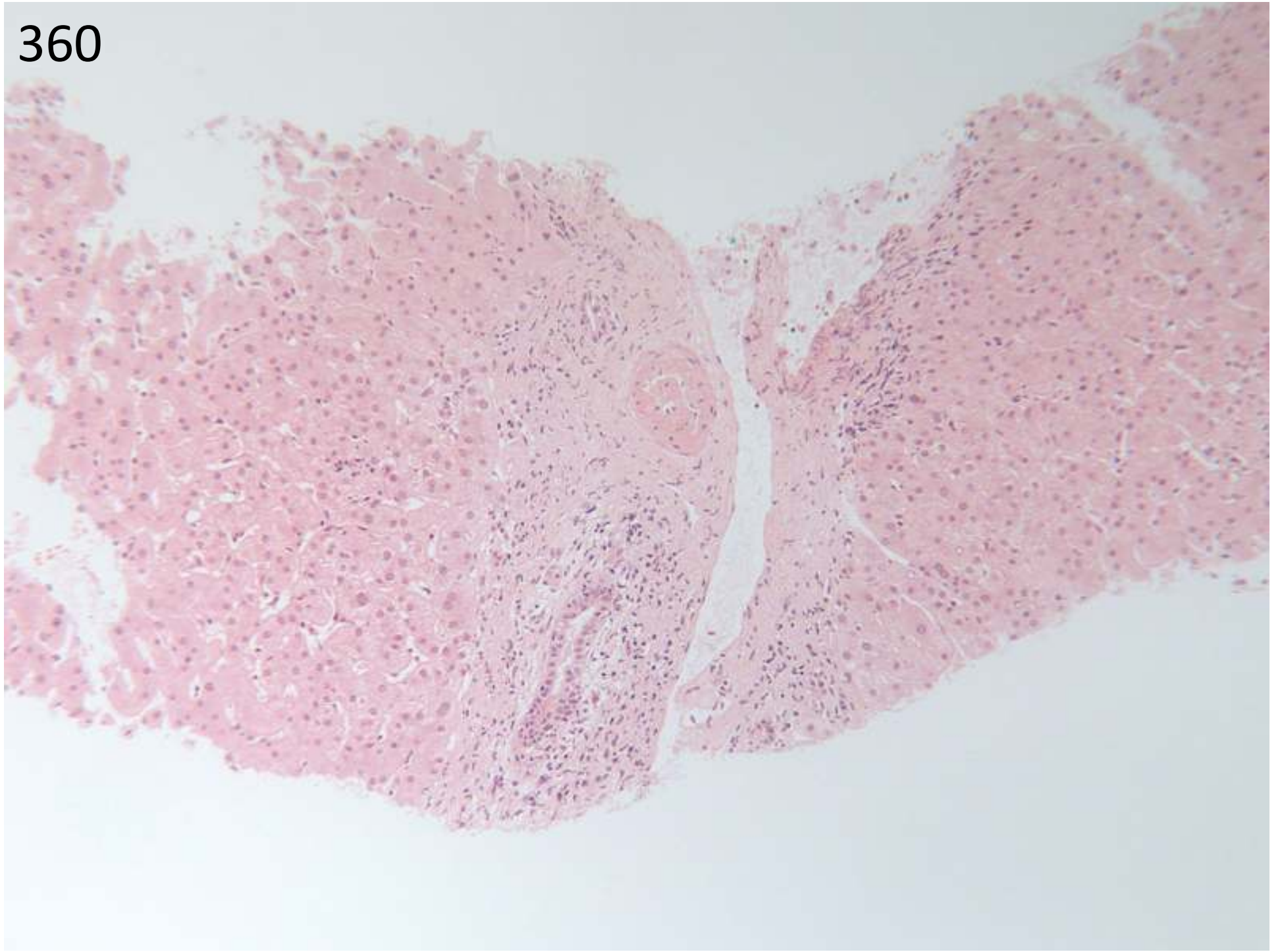
360



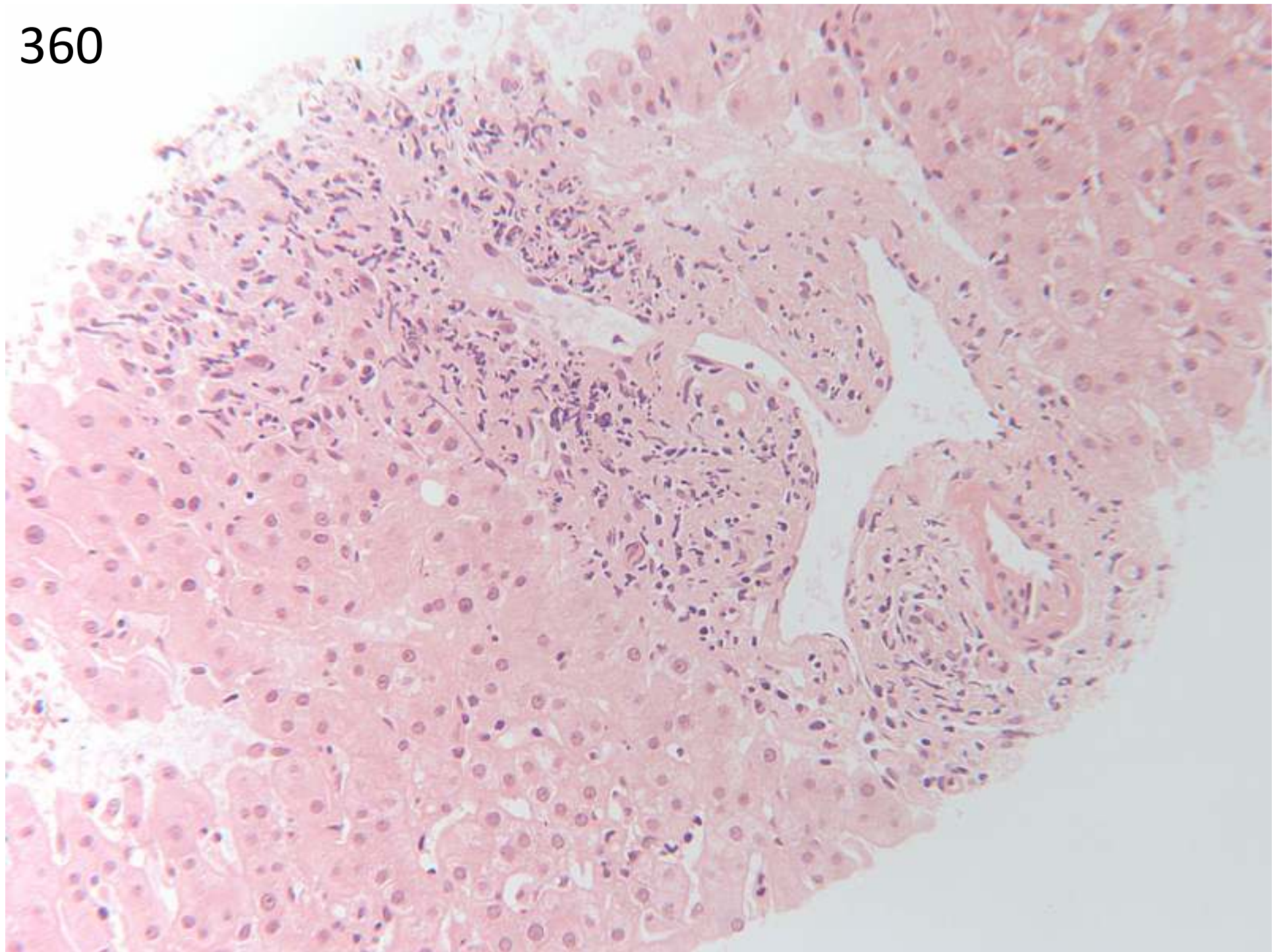
360



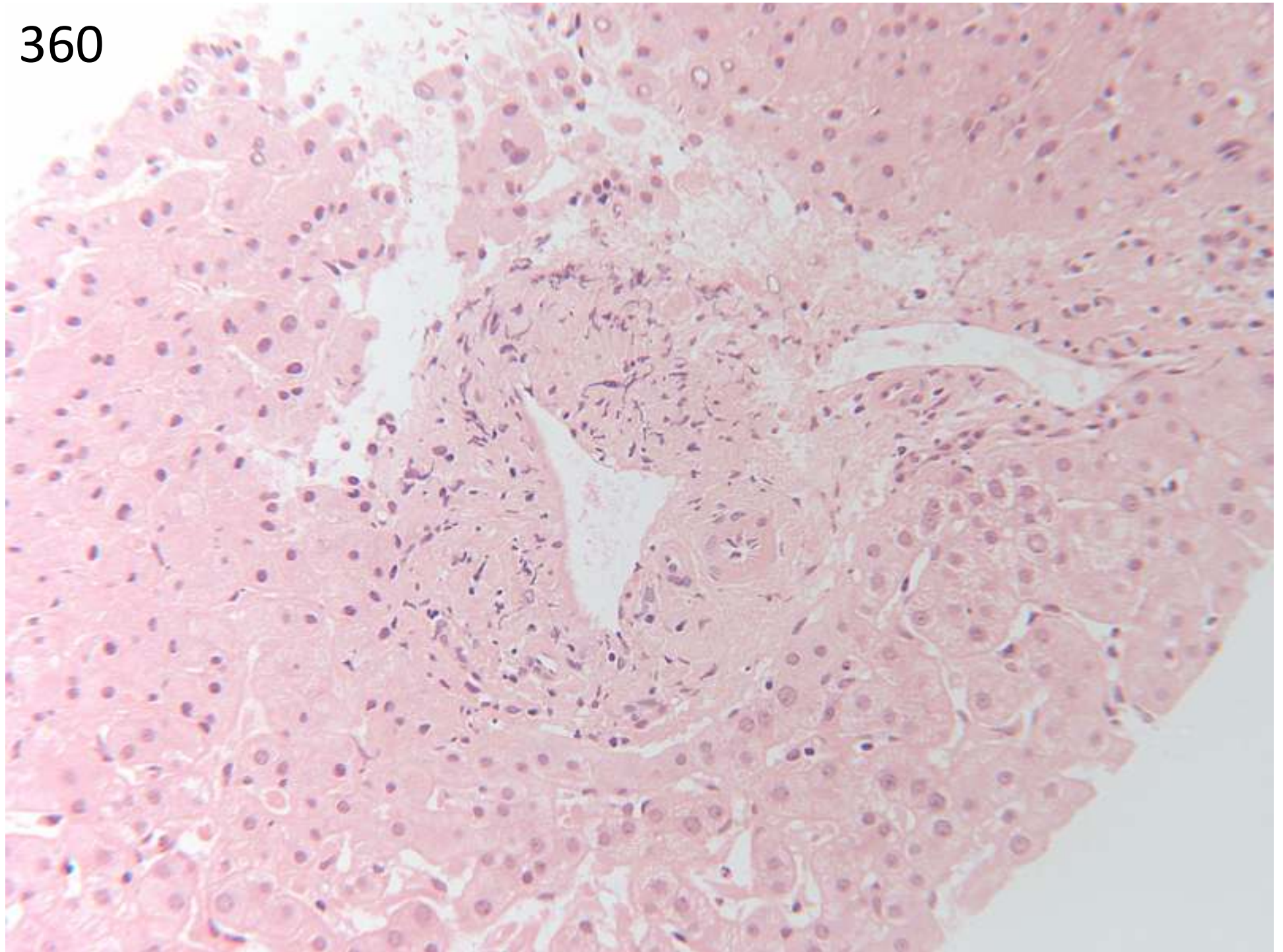
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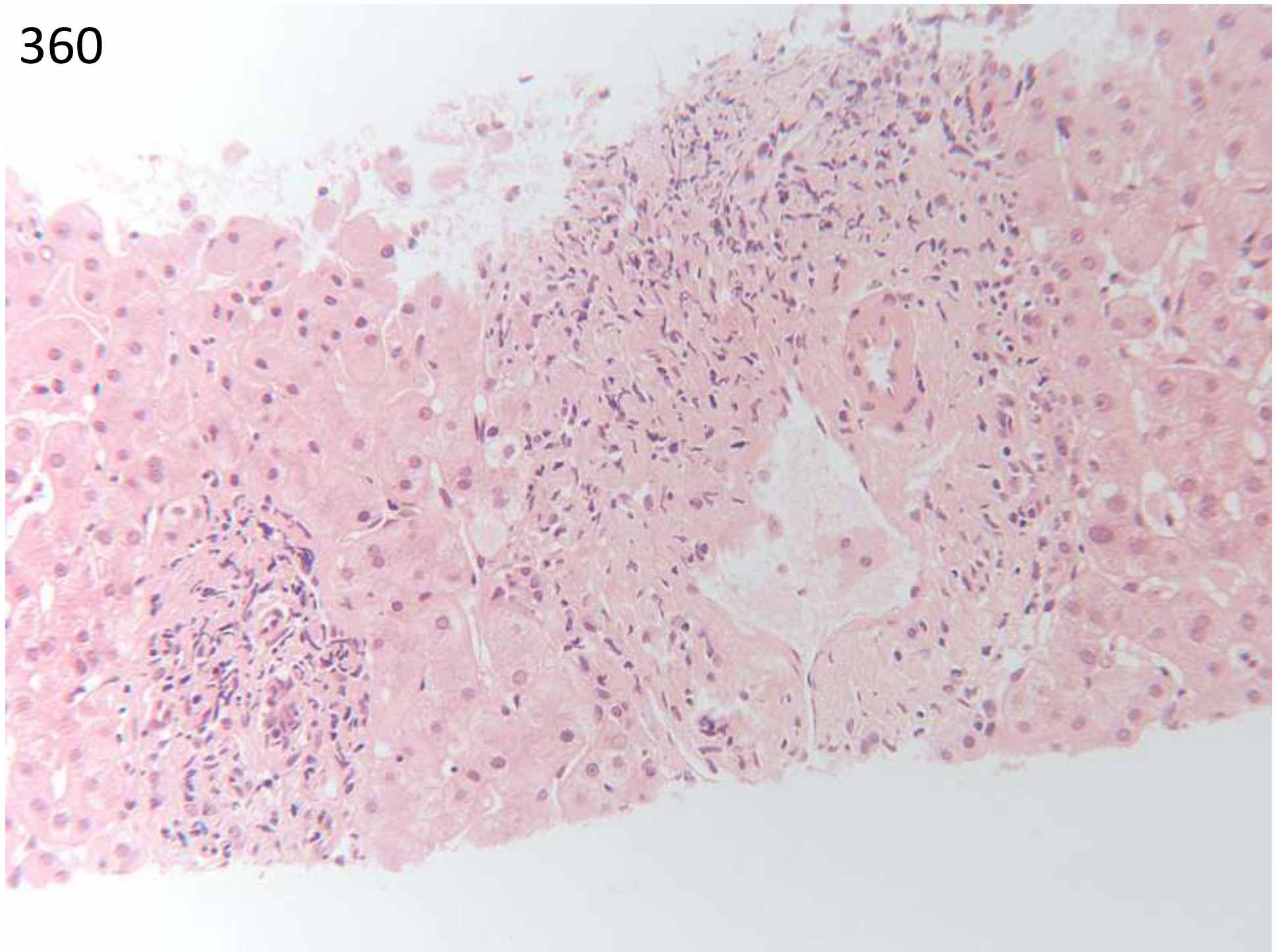
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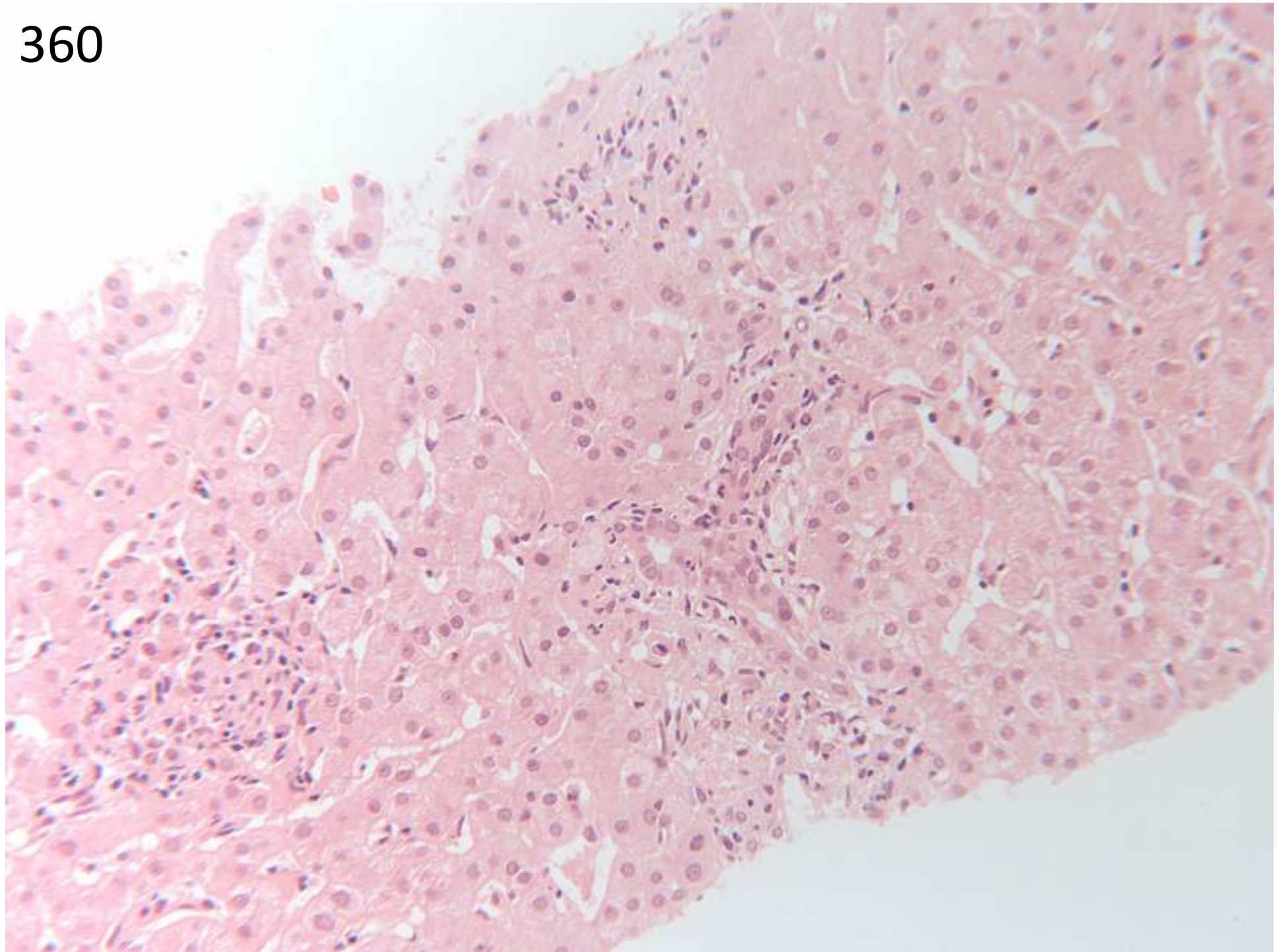
360



360



360



## Case 360

- 47 granulomas/granulomatous hepatitis
- 6 granulomas, including bile duct destruction
- 8 granulomas with lymphocytic cholangitis
- 1 chronic hepatitis (no mention of granulomas)

33 c/w BCG

19 BCG, consider differential diagnosis

2 differential TB, sarcoid, drugs, no mention of BCG

3 favour PBC over BCG

1 BCG, ? additional cause of duct loss

1 unlike BCG, ? sarcoid

3 no aetiology given

*Agreed scoring: lose marks if not recognised that BCG is a possible cause. The bile duct changes are interesting, - definitely there, and ? a recognised feature with BCG – not that we were aware of!*

Case 360: submitting pathologist's diagnosis:

Granulomatosis hepatitis consistent with recent  
BCG treatment. No chronic liver disease

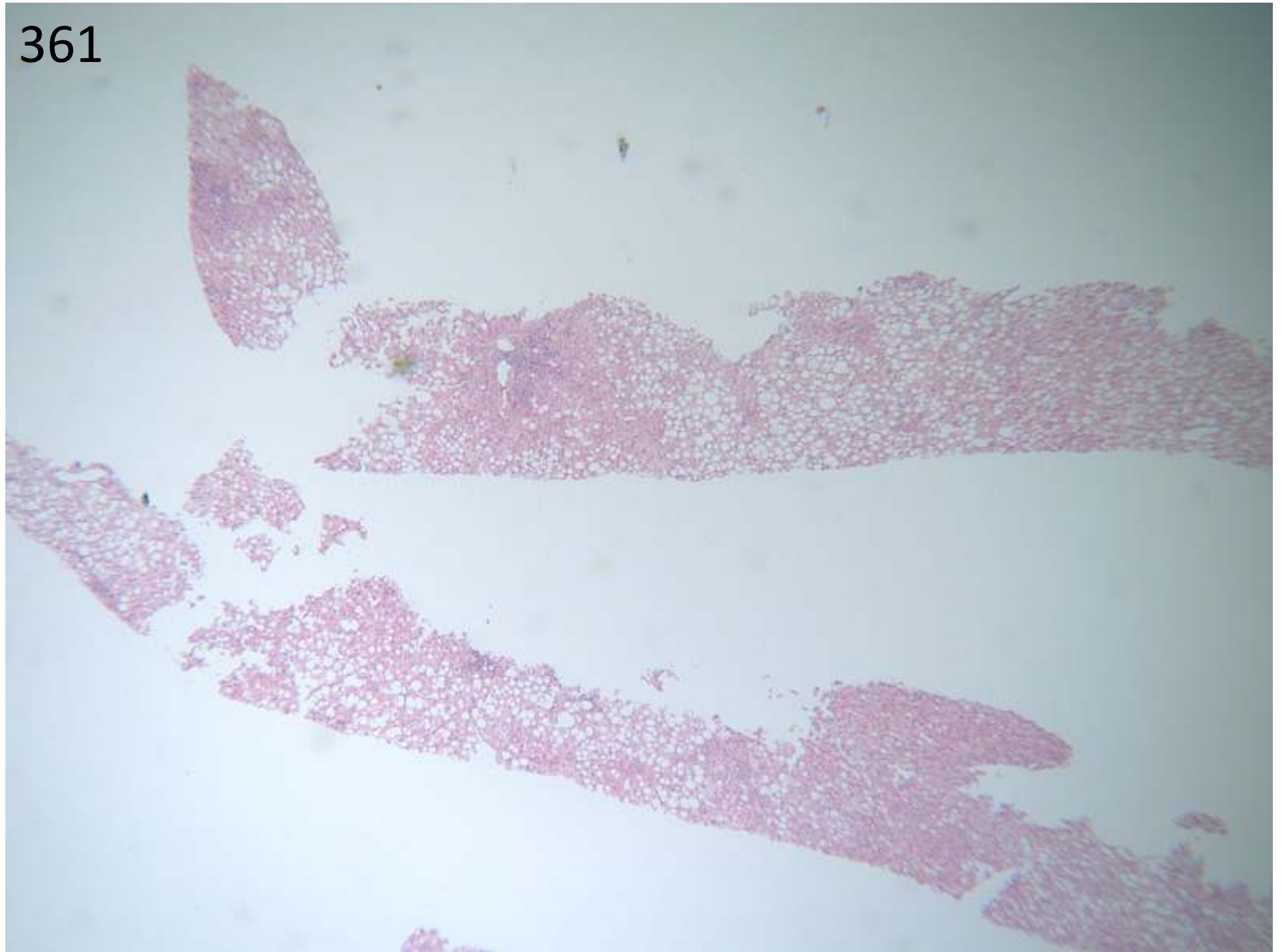
361

Male/54

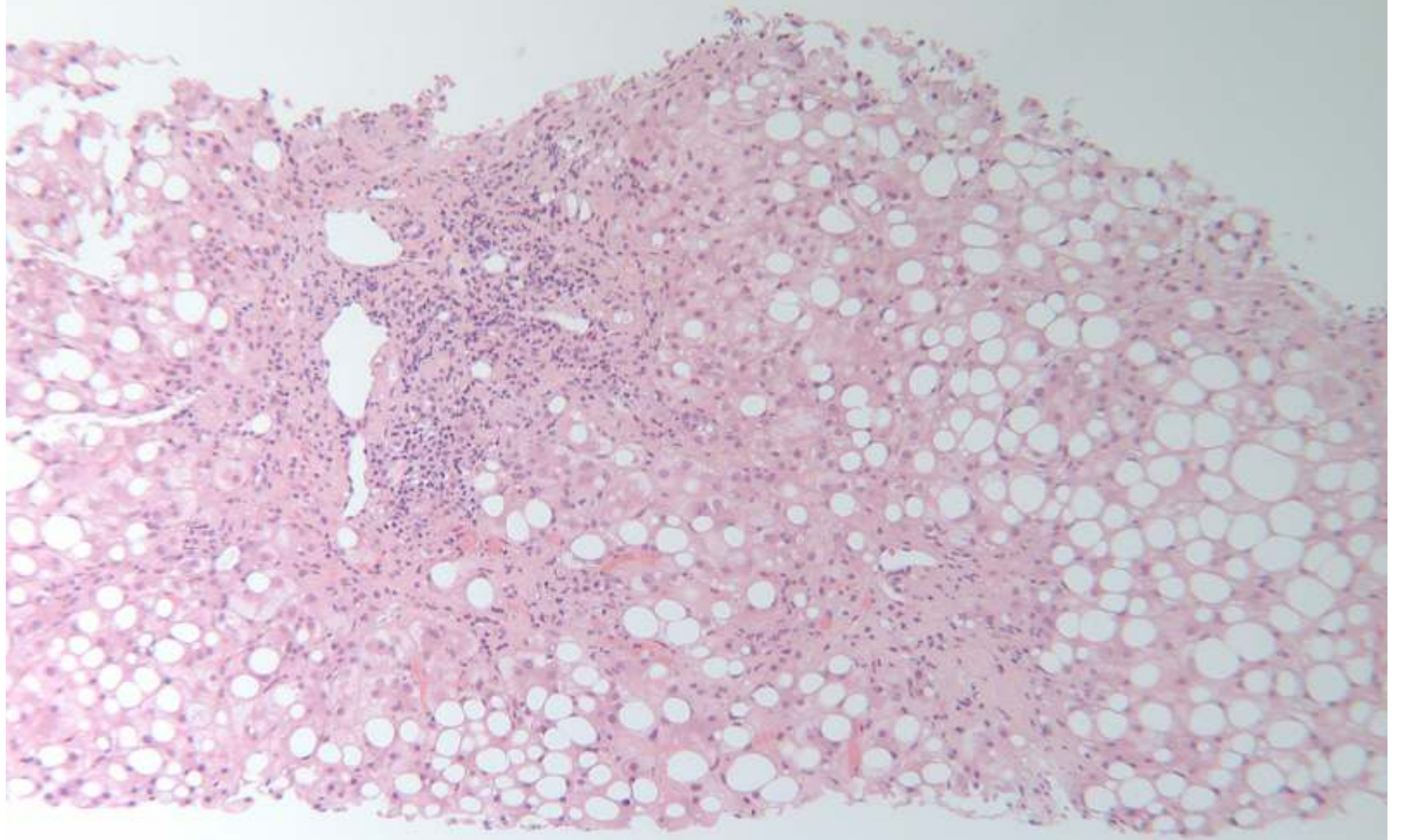
Alcohol access. Jaundice

Liver biopsy - Two cores of tissue up to  
15mm length

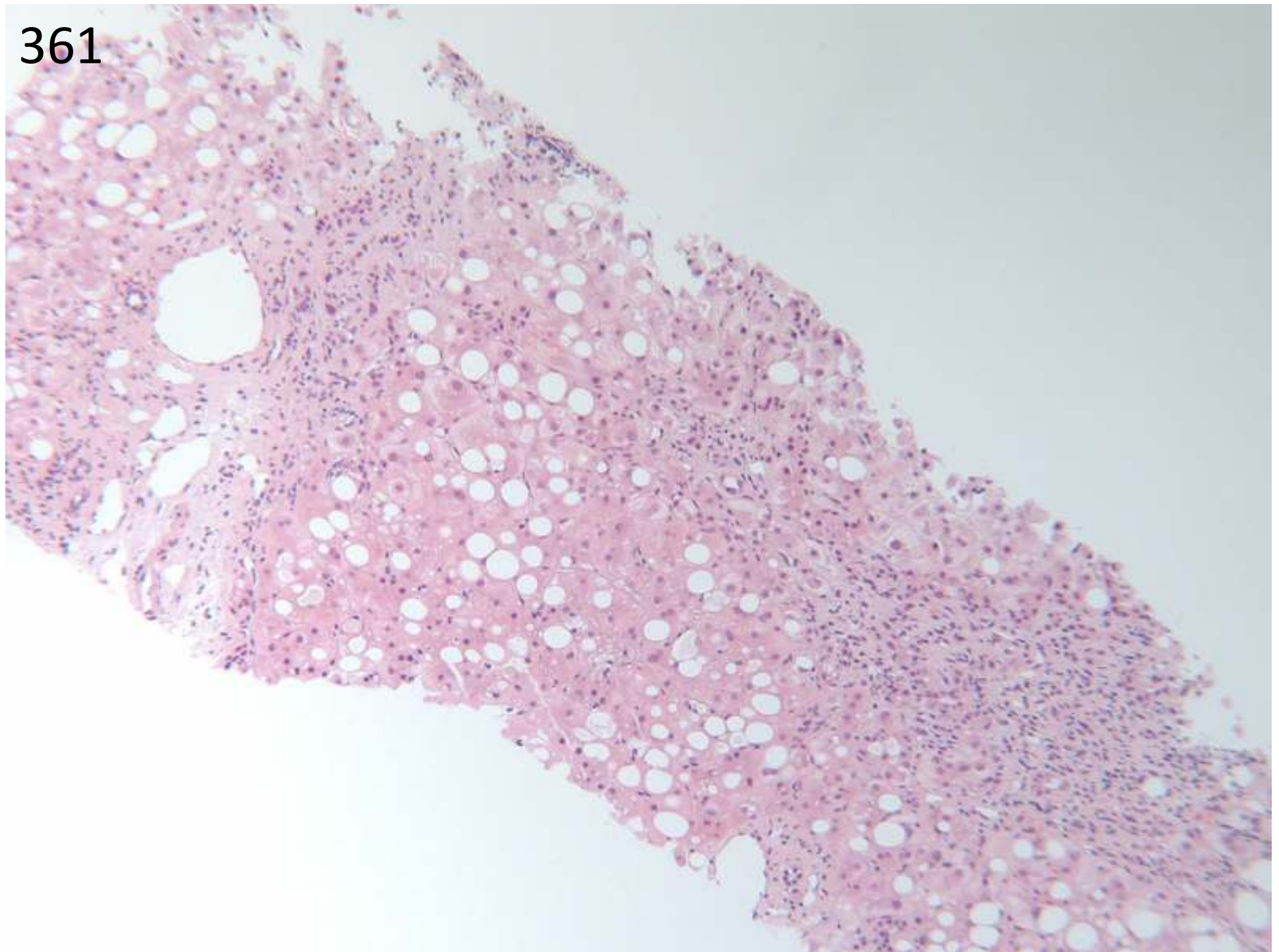
361



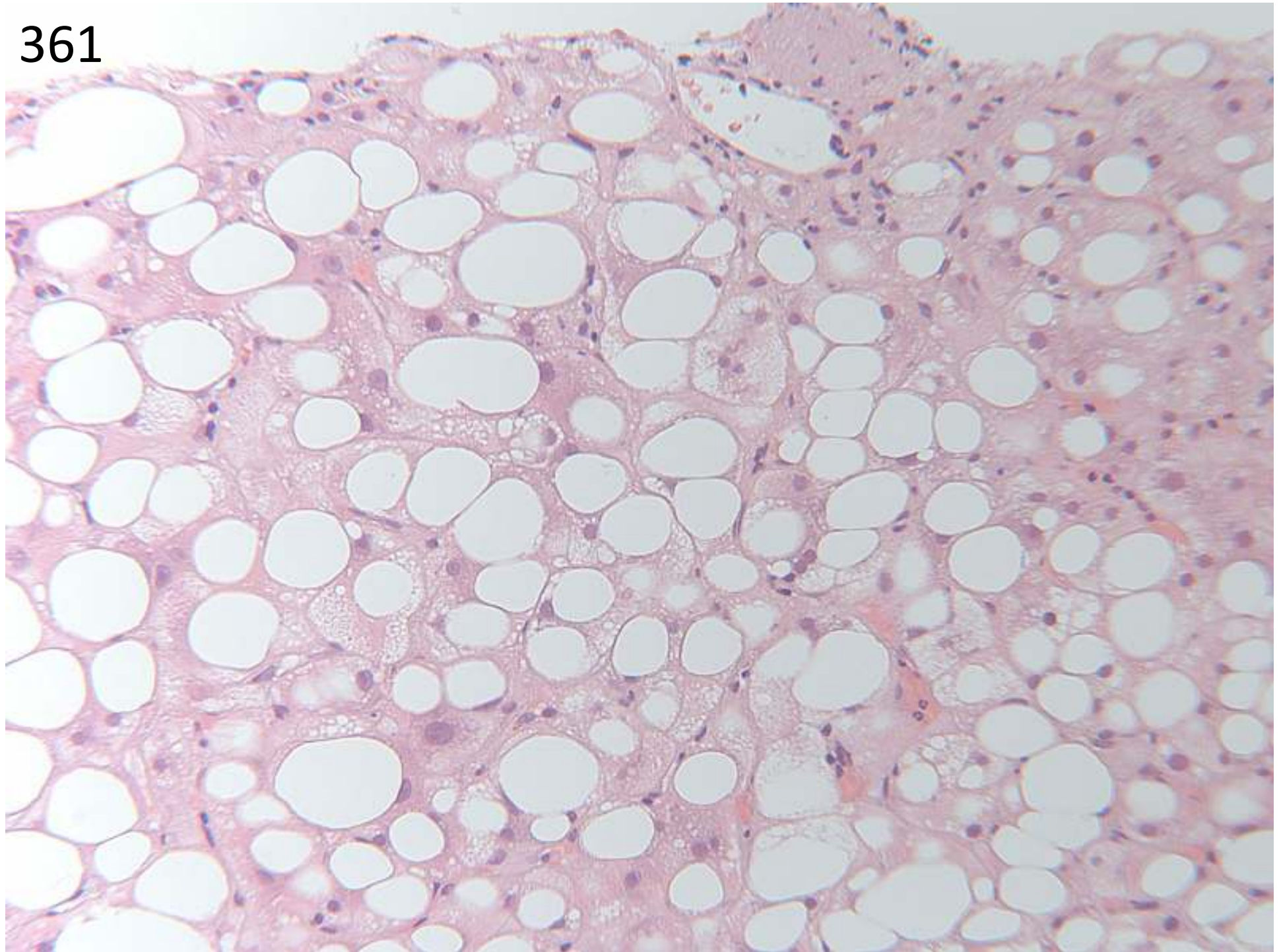
361



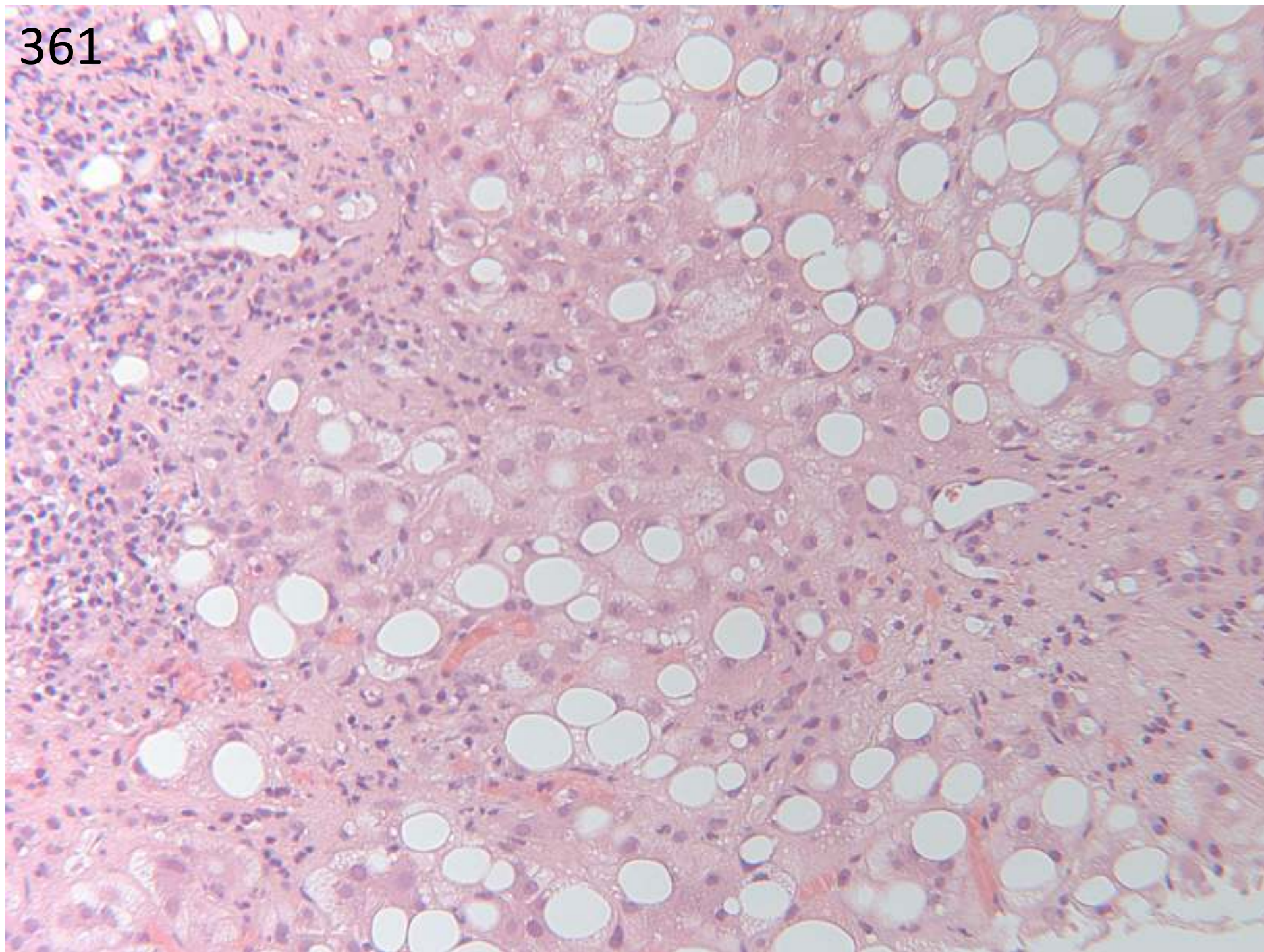
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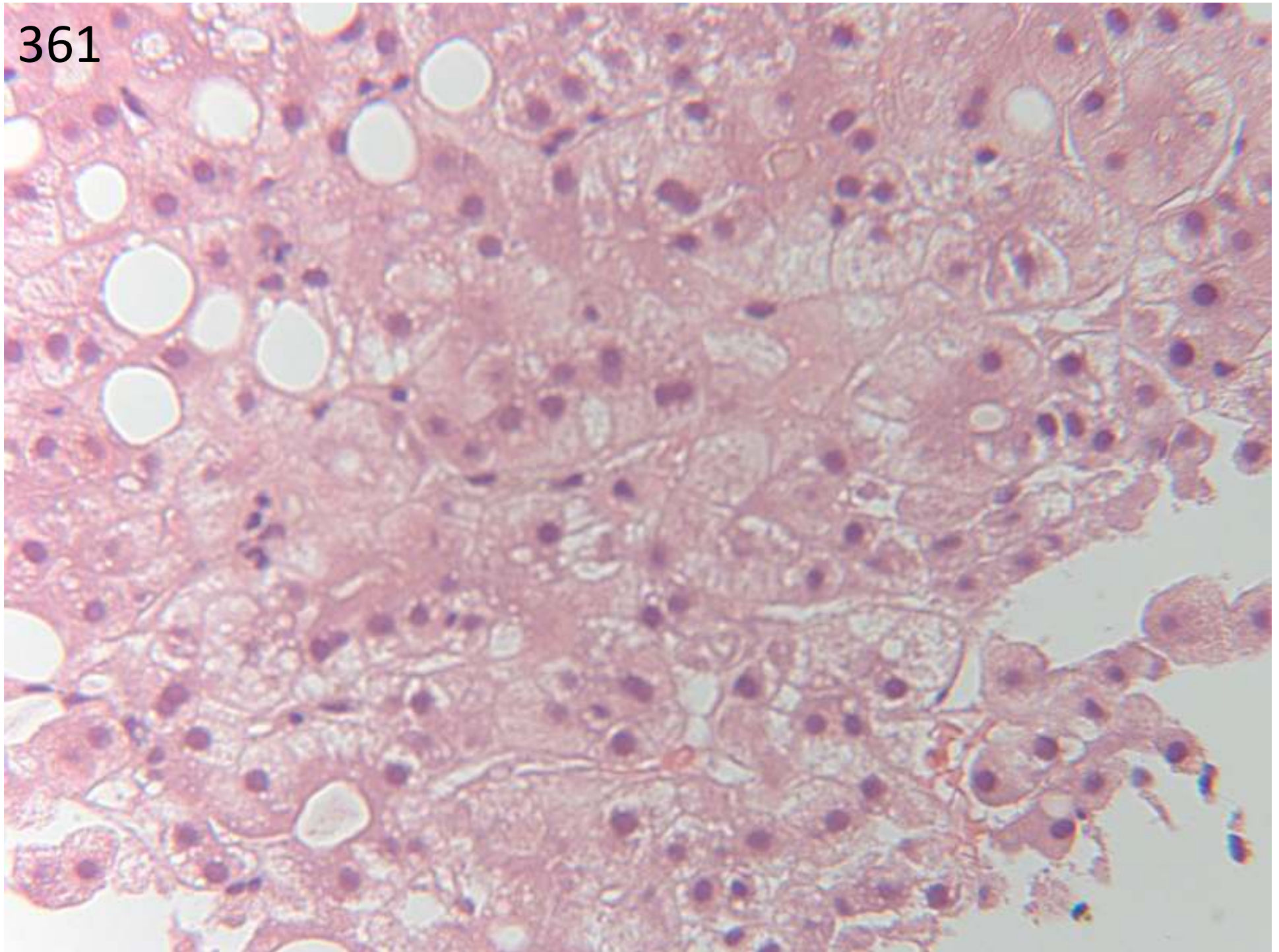
361



361



361



## Case 361

### morphology

- 54 steatohepatitis (+/- alcoholic)
- 3 alcoholic hepatitis (not including 'steatohepatitis')
- 3 steatosis, bilirubinostasis, fibrosis
- 1 acute hepatitis with confluent necrosis
- 38 cholestasis
- 21 no mention of cholestasis

### clinicopathological

- 56 c/w alcoholic
- 5 in addition, ? also drug/sepsis i.e. consider additional cause for cholestasis
- 1 exclude LBDO, drugs – no mention of alcohol
- 3 no mention of alcohol, no aetiology given

*Agreed scoring: lose marks if not recognise that this is steatohepatitis. OK to use alcoholic hepatitis as morphological terminology? Members felt this was OK although not the preferred terminology for a morphological diagnosis.*

*Lose 5 marks if don't include alcohol aetiology.*

- 2 'many people have access to alcohol.....'

Case 361: submitting pathologist's diagnosis:

steatohepatitis with acute cholestasis + bridging  
fibrosis

*The end.*