

# Liver Histopathology EQA Scheme

Circulation E1

Autumn 2011

Circulation E1:

44 responses by deadline collated and circulated to members.

Another 15 electronic responses and 1 paper response since = total 60. (59 included here).

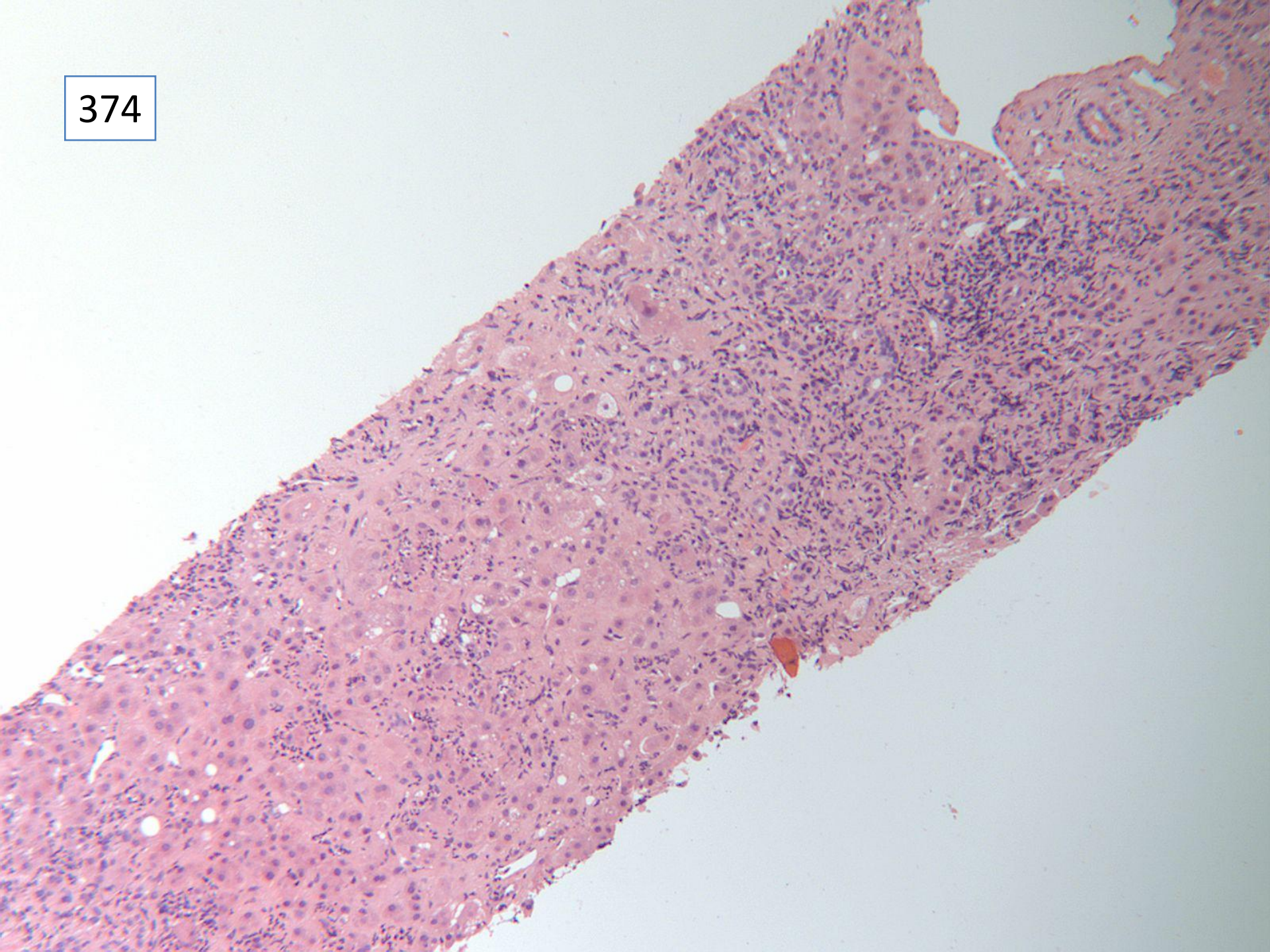
## **Case number 374**

Female 61 years

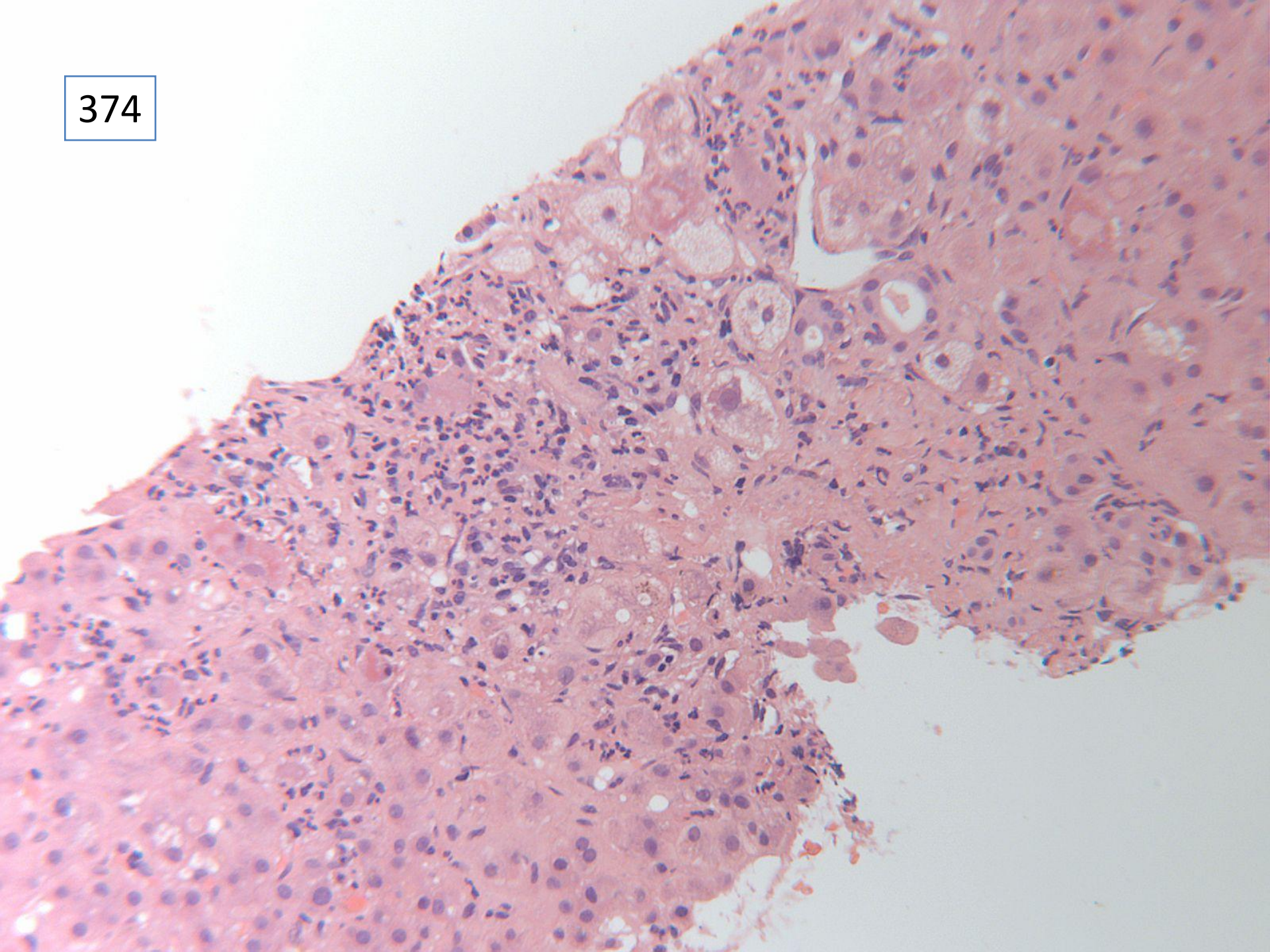
Painless jaundice, Alcohol excess.

Liver biopsy: Single core of liver tissue, 20mm long

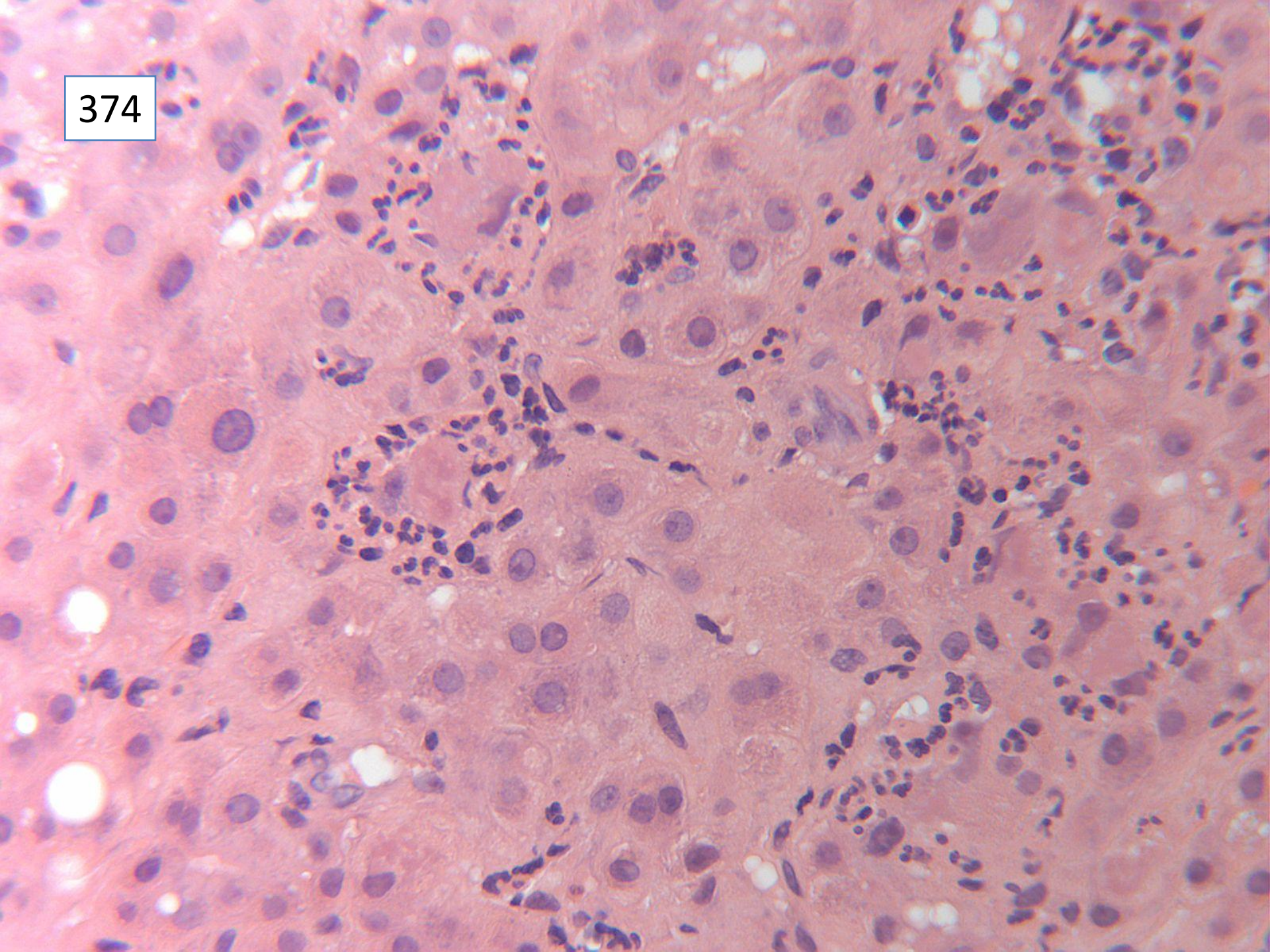
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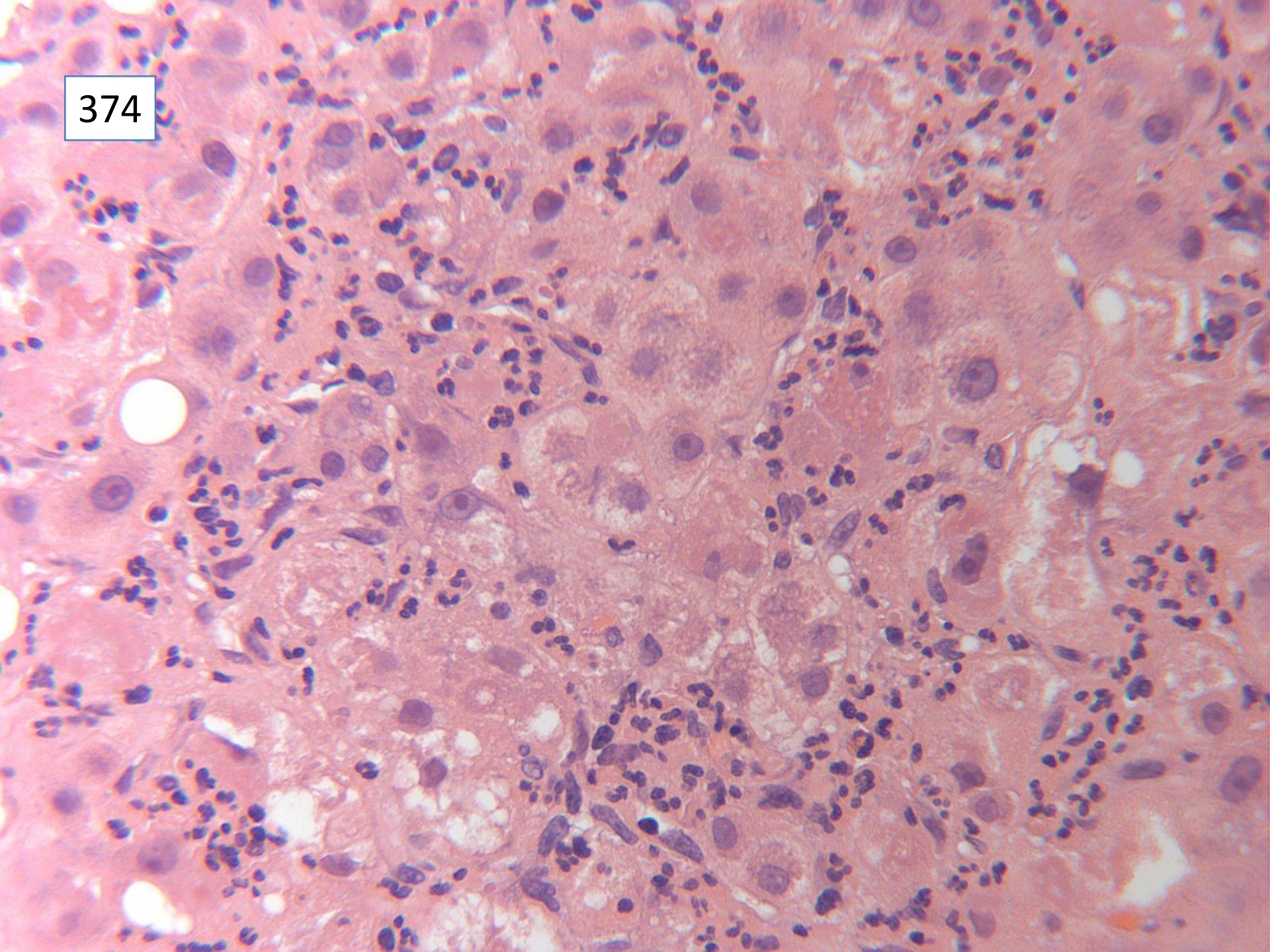
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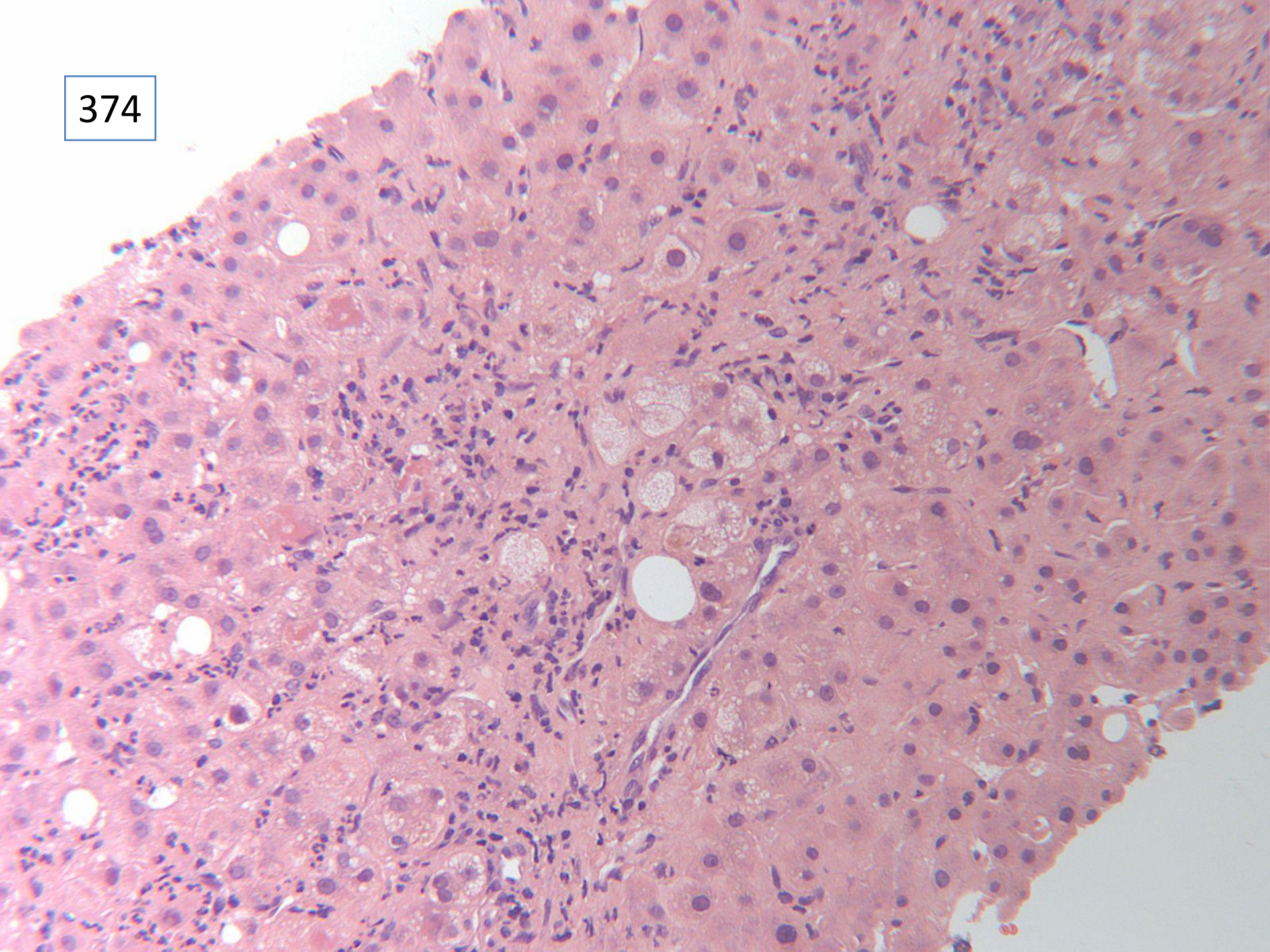
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## Case number 374

### Discussion during meeting:

steatohepatitis – large numbers of polymorphs as here are seen in alcoholic steatohepatitis, but not NASH. There can be little or occasionally no fat present, as here.

Submitting pathologist's diagnosis: Alcoholic hepatitis with early Cirrhotic changes

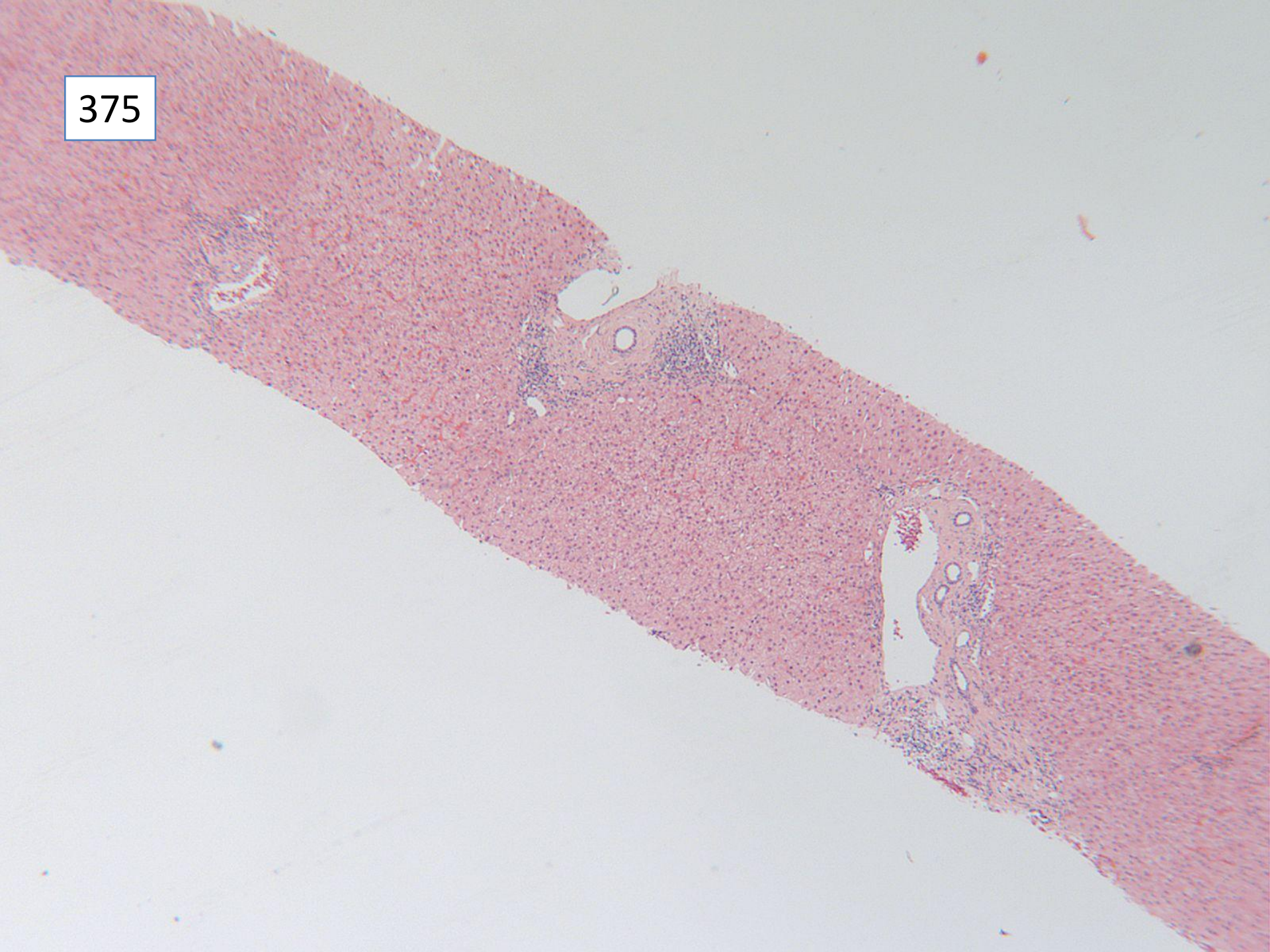
## Case number 375

Male 47 years

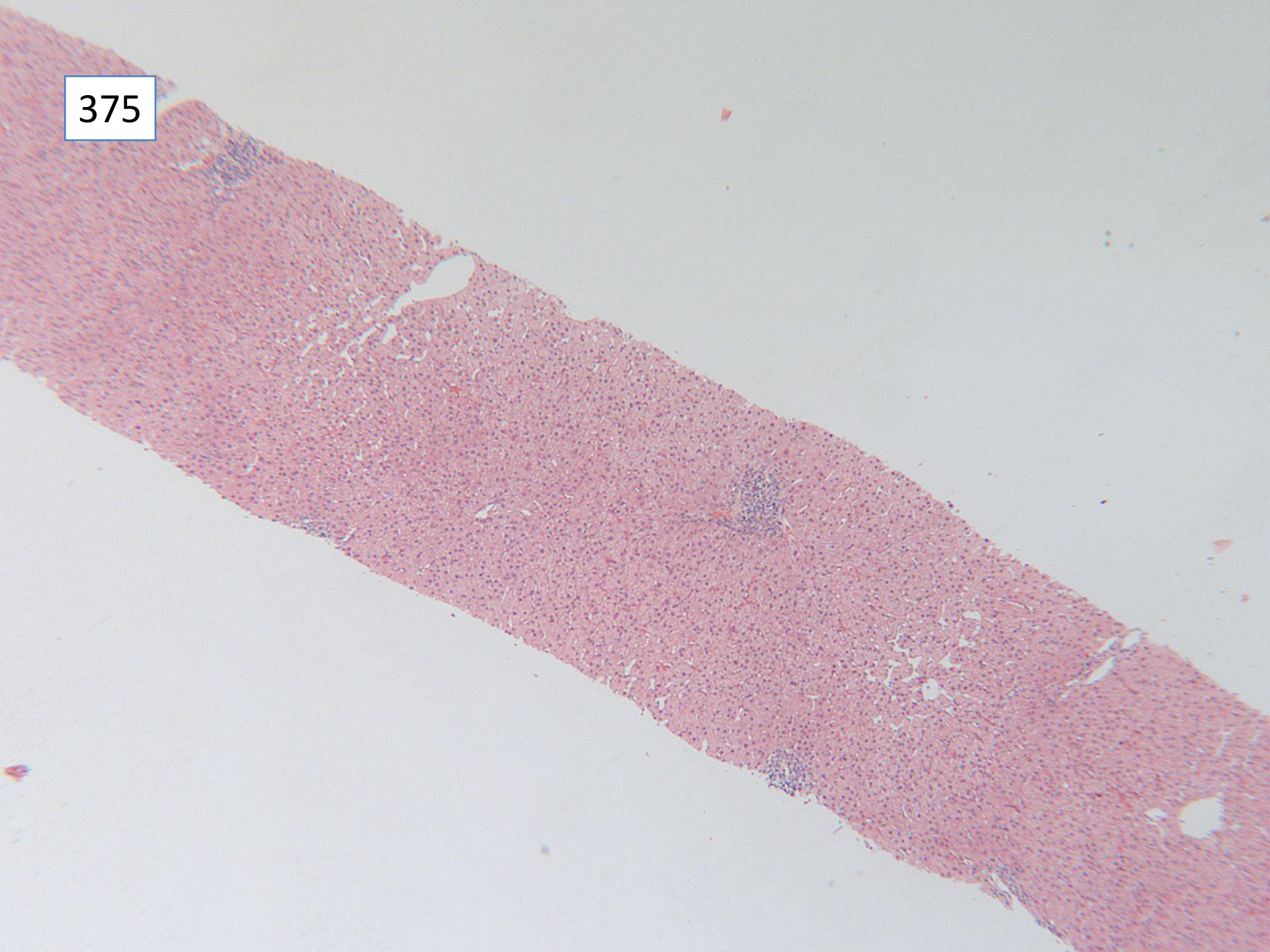
Chronic hepatitis C. ?Cirrhosis.

Liver biopsy: H&E and MSB

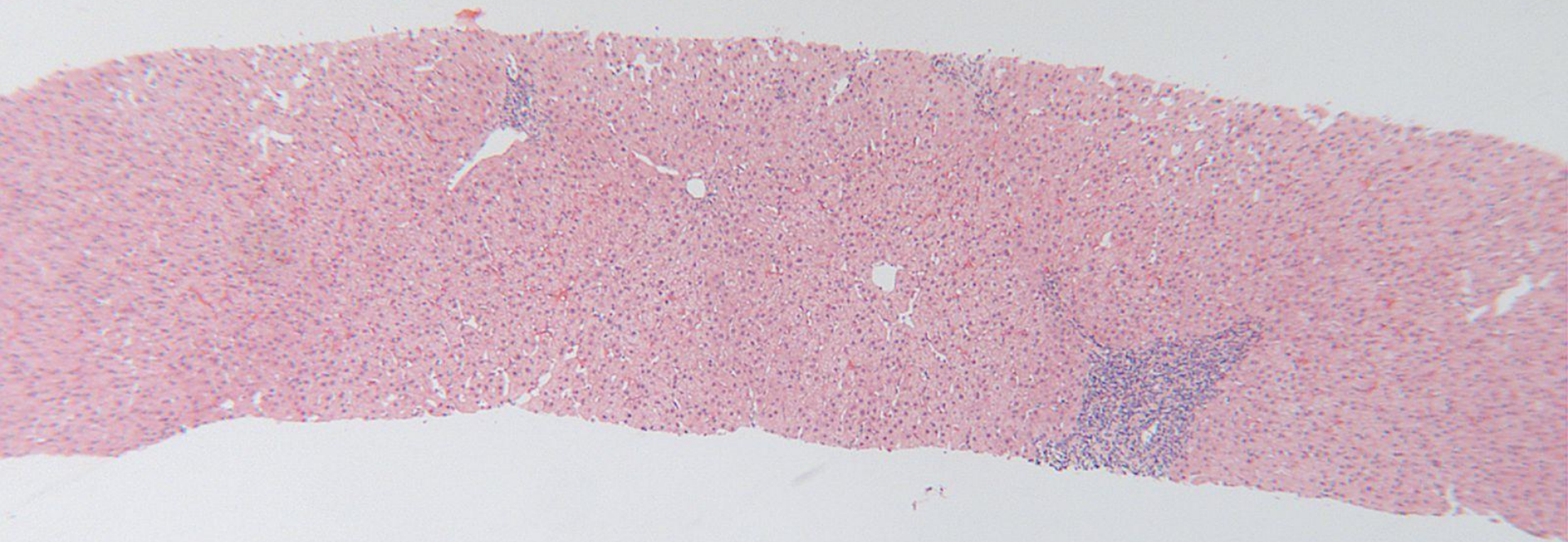
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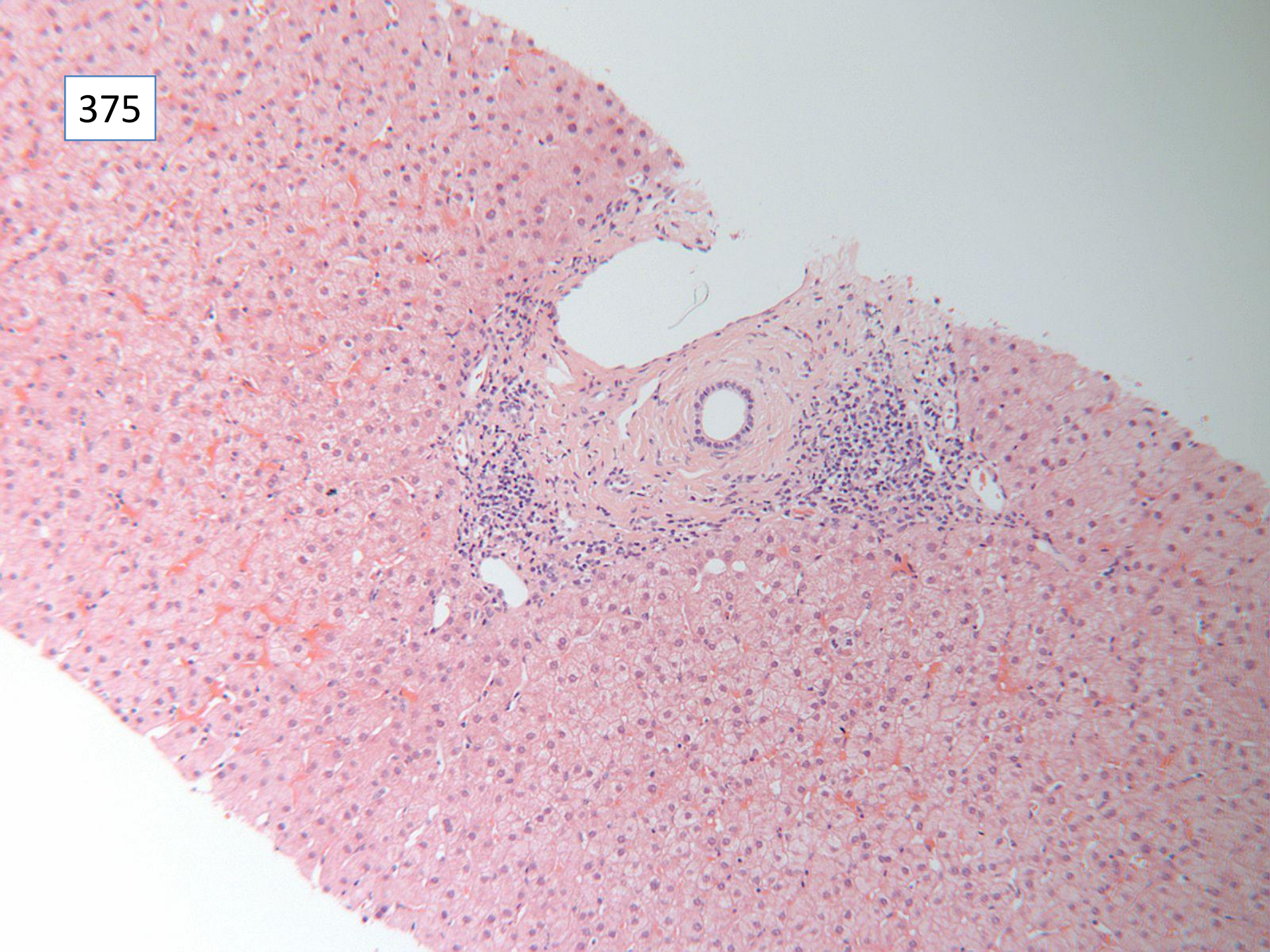
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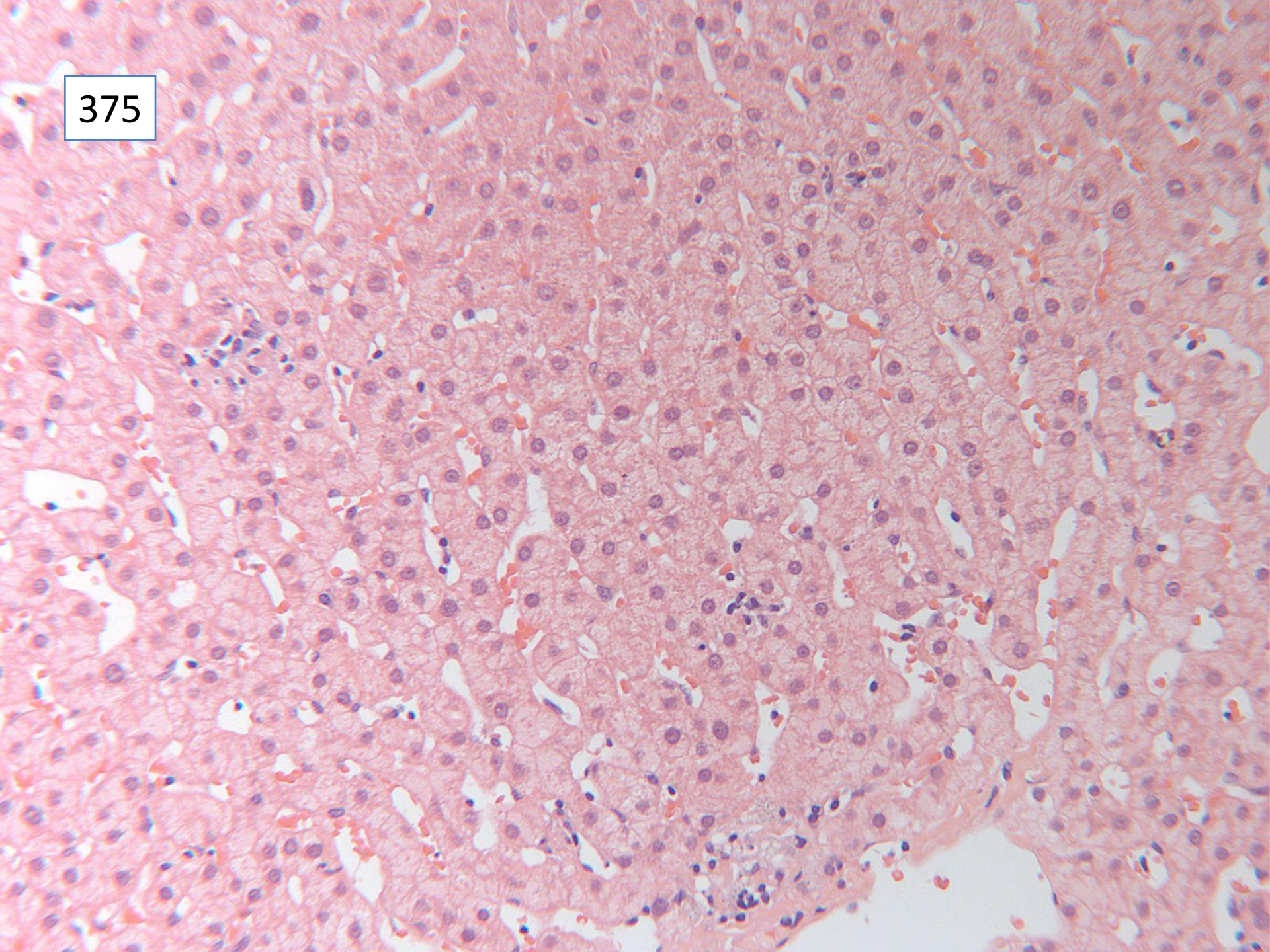
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## Case number 375

### Results:

3 hepatitis C not mentioned in report

56 description of chronic hepatitis, consistent with hepatitis C

Of these:

All 59 some comment on fibrosis stage

54 some comment on grade/activity

5 no comment on grade/activity

3 ? also vascular outflow obstruction

1 macrophages suggest previous IVDU

1 changes suggestive of NCPHT (not chronic hepatitis, hep C not mentioned)

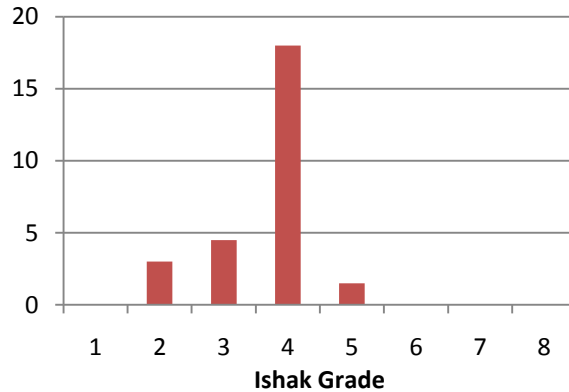
### Suggested scoring:

The reason for biopsy is to assess severity of chronic hepatitis C. From previous EQA discussions – for 10 points, need features consistent with hepatitis C, and a comment on stage and activity/grade.

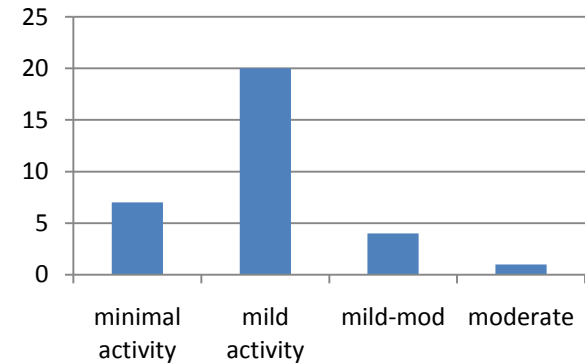
## Extra information:

Another opportunity for participants to compare their assessment of grade/stage with the whole group:

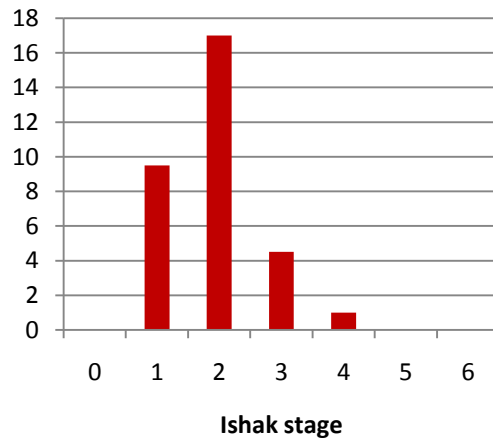
frequency of Ishak grade (n=27)



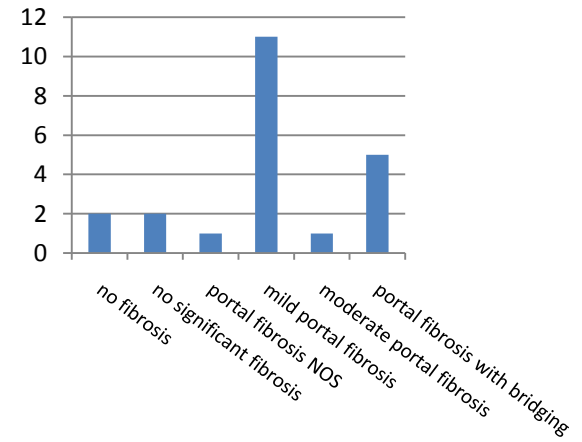
frequency of activity descriptors (n=32)



Frequency of Ishak stage (n=32)



frequency of stage descriptors (n=22)



## Case number 375

### Submitting pathologist's diagnosis:

Chronic hepatitis with mild activity and minimal fibrosis in keeping with hepatitis C viral infection. No evidence of cirrhosis.

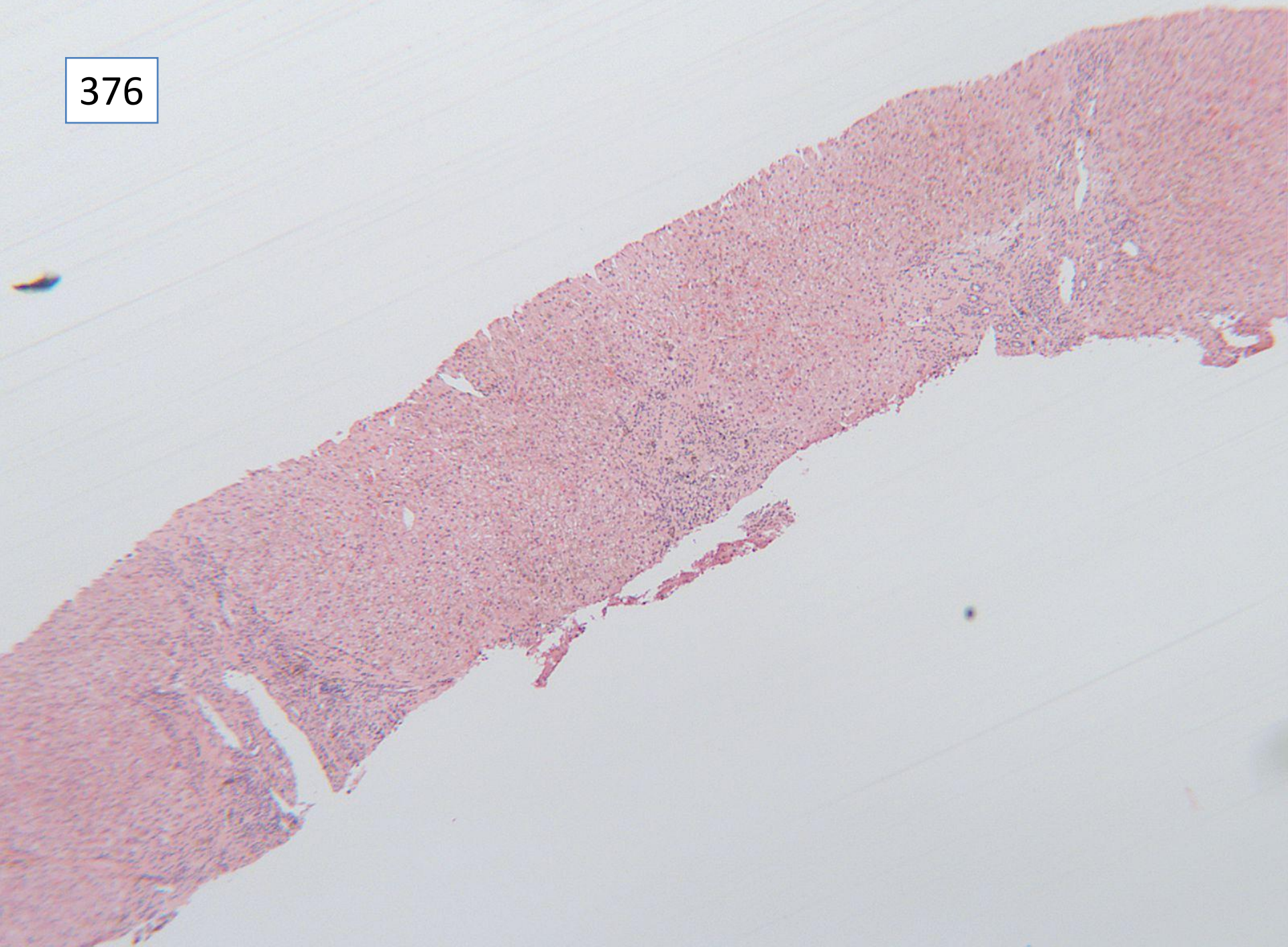
## Case number 376

Female 58 years

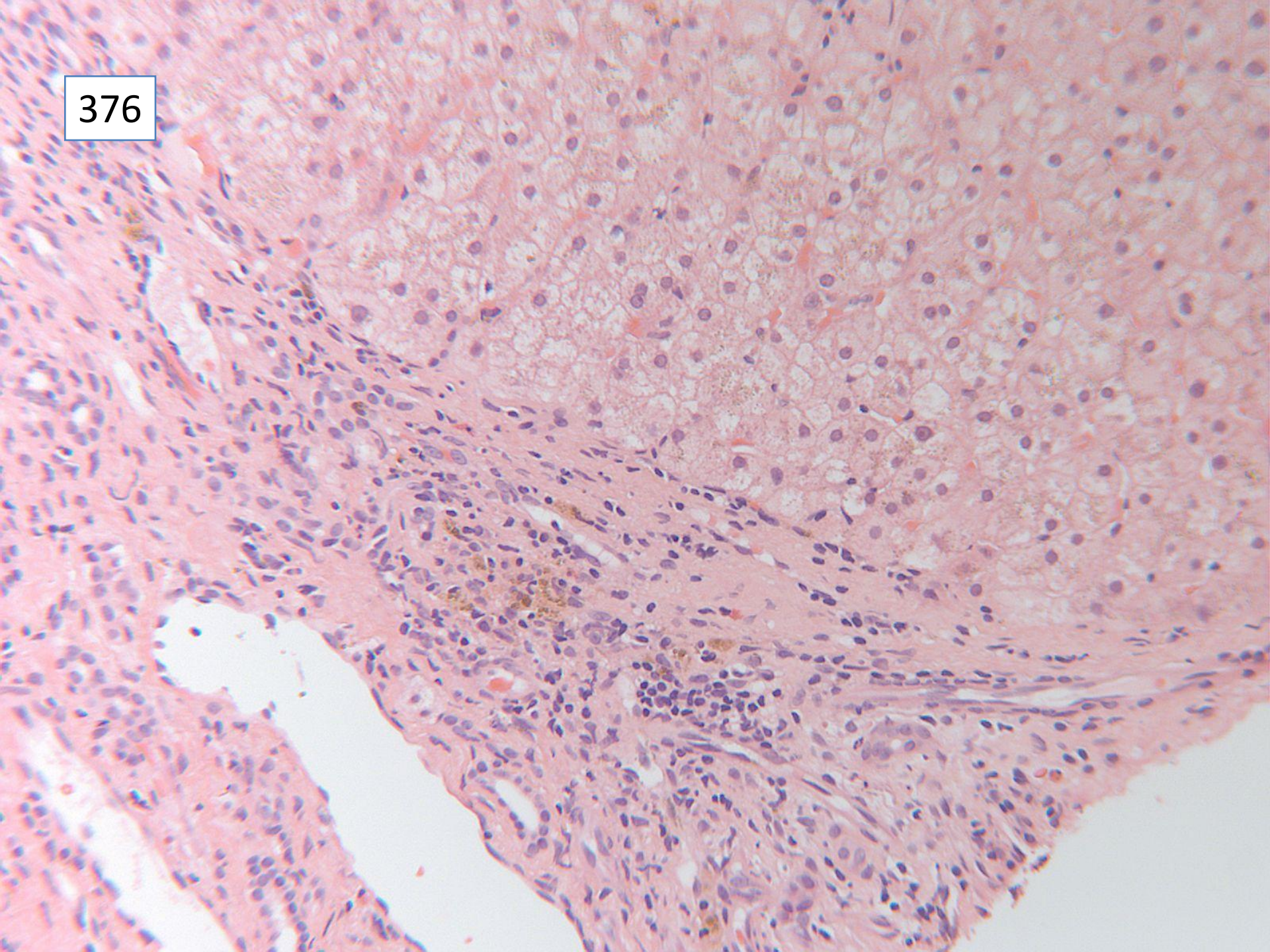
Known alcoholic liver disease. Now off alcohol. ?Cirrhosis.

Liver biopsy. H&E,MSB, Perls

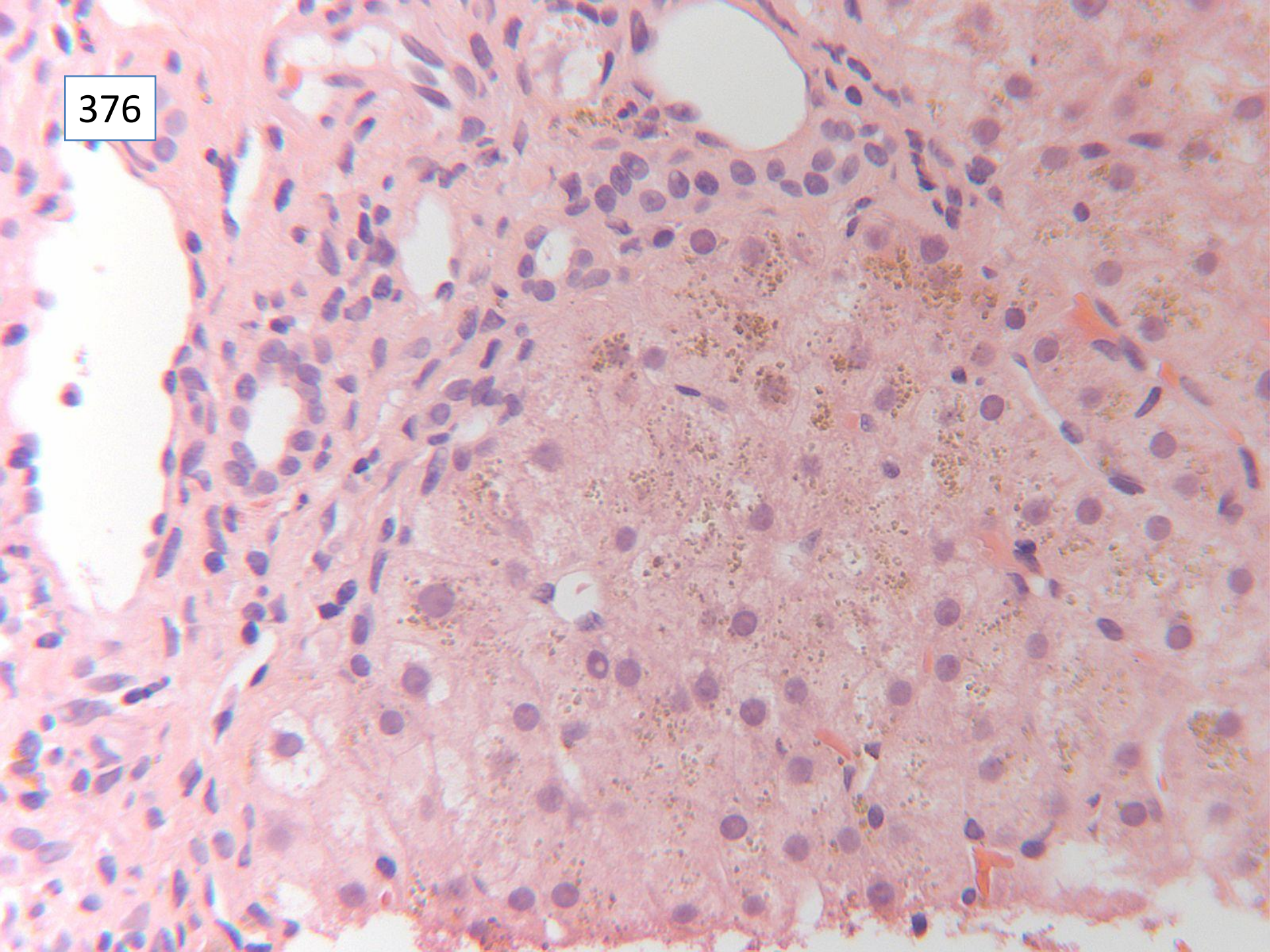
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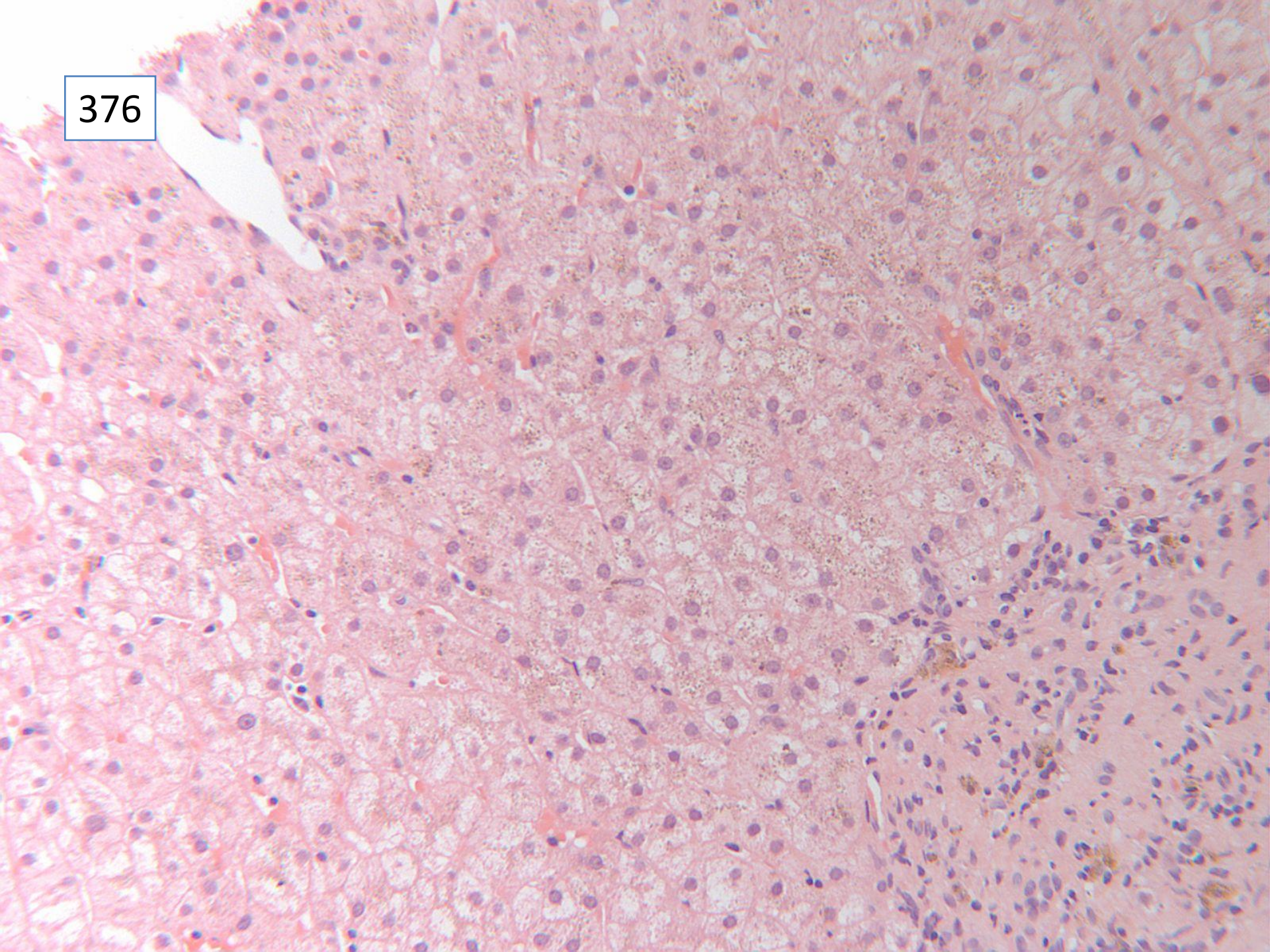
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## Case number 376

### Results

#### Stage

- 8 cirrhosis
- 7 cirrhosis not excluded/possible cirrhosis
- 16 no cirrhosis
- 26 fibrosis with bridging
- 7 fibrosis not bridging
- 2 mild portal fibrosis
- 1 fibrosis NOS
- 2 fibrosis not mentioned

11 siderosis 'a lot', not graded

#### Grade of iron:

- 8 grade 3
- 8 grade 3-4
- 17 grade 4
- 10 haemochromatosis – as diagnosis with no qualification
- 45 genetics to investigate for haemochromatosis
- 2 haemochromatosis not mentioned

28 no evidence of recent alcohol

8 fibrosis consistent with previous alcohol

11 ? siderosis due to alcohol

9 alcohol not mentioned

2 'chronic hepatitis with haemosiderin'

1 'minimal chronic hepatitis with primary or secondary siderosis, Ishak stage 2 fibrosis'

### Suggested scoring:

For 10 points, responses should include a comment on iron and alcohol.

Fibrosis stage – on discussion it was agreed not to deduct marks for stage of fibrosis, since there was no clear consensus.

Iron – comment on large amount, with at least the possibility of haemochromatosis

Alcohol – given in clinical information; some comment about the role it may have played.

### Other comments:

2 used Ishak stage to indicate the degree of fibrosis – should this only be used in the context of a diagnosis of chronic hepatitis?

## Case number 376

Discussion during meeting: collagen stain provided but still no consensus about fibrosis stage. Next year EQA members will be invited to participate in a web-based study applying evidence based medicine principles to try to improve reproducibility of diagnosis.

### Submitting pathologist's diagnosis:

Significant, moderate to severe fibrosis. As yet falls short of cirrhosis on this biopsy but cirrhosis cannot be absolutely excluded. Moderate to severe iron deposition raising possibility of genetic haemochromatosis. No fatty liver disease thus no evidence of ongoing alcohol excess.

## **Case number 377**

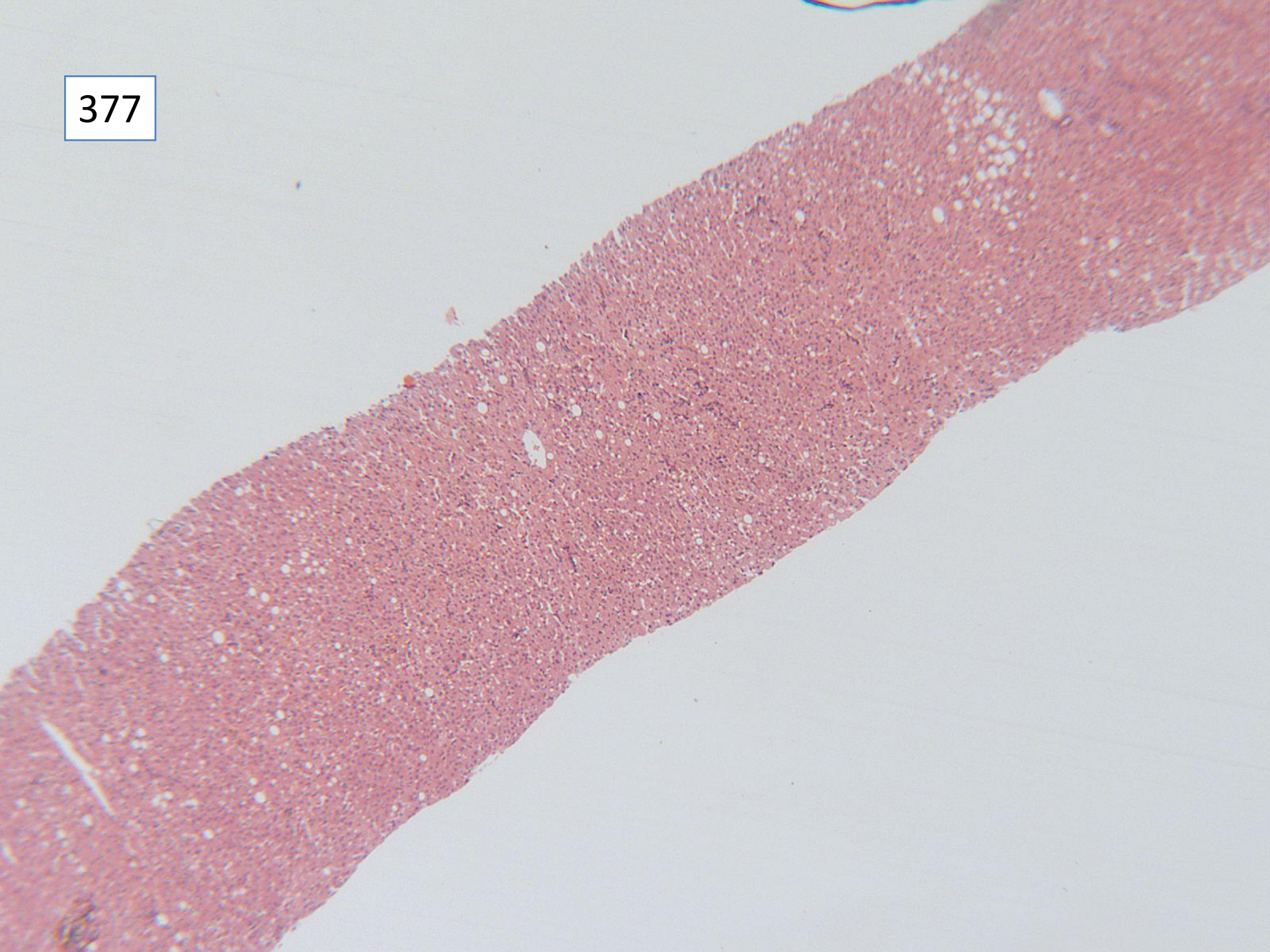
Male 65 years

Chronic myeloid leukaemia, previous Hepatitis B infection,

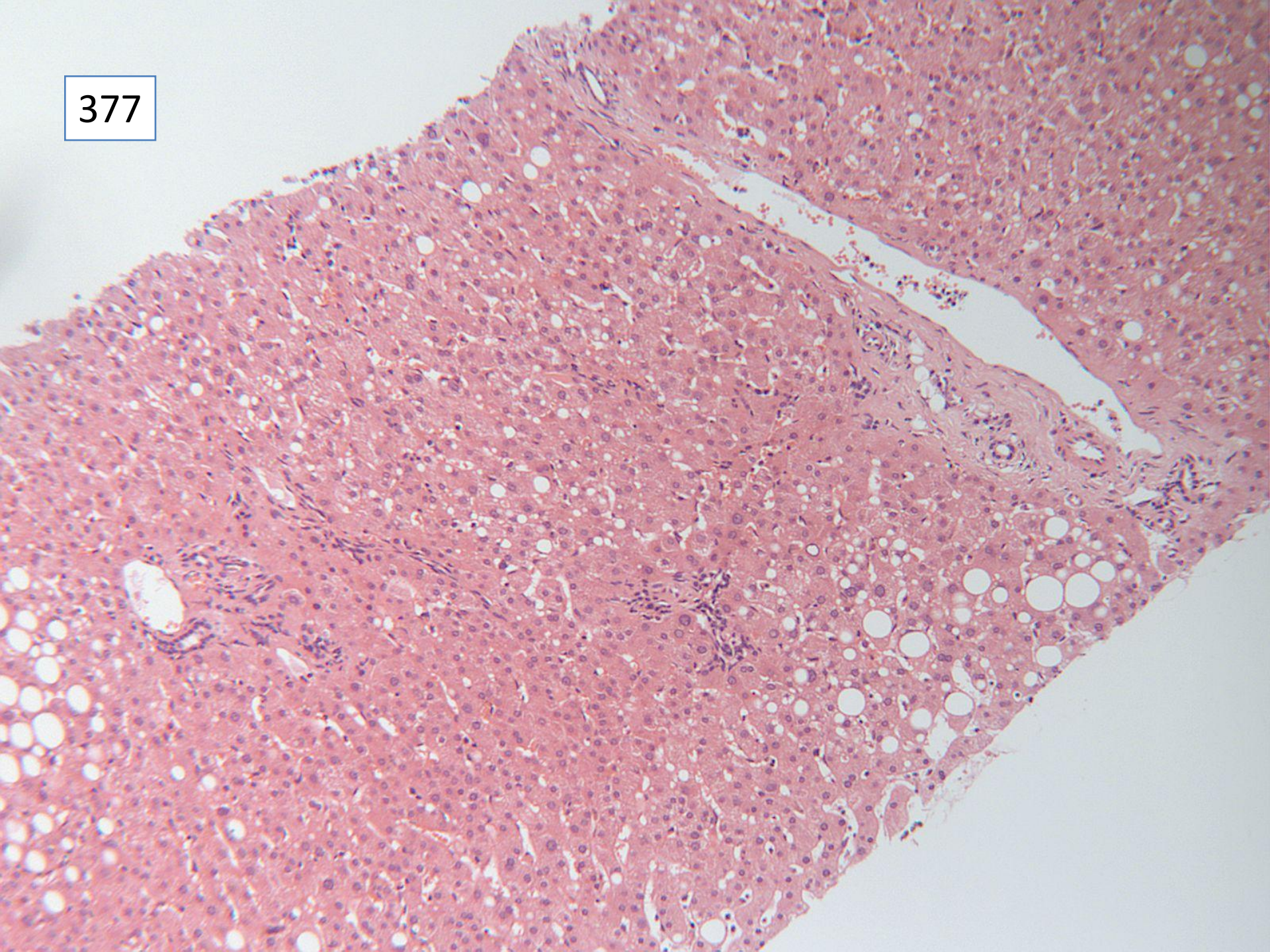
Abnormal LFTs.

Liver biopsy: One Core 14mm

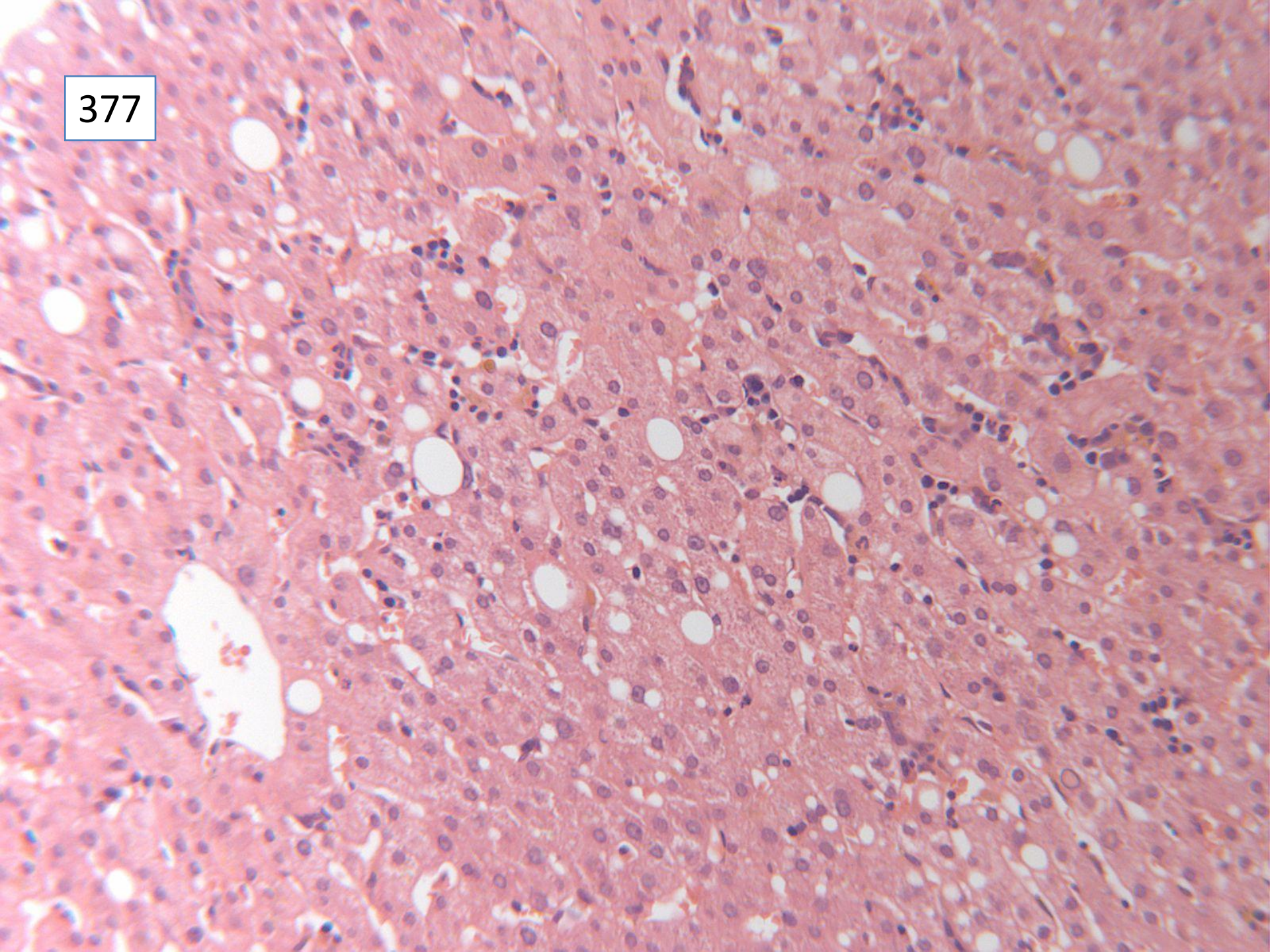
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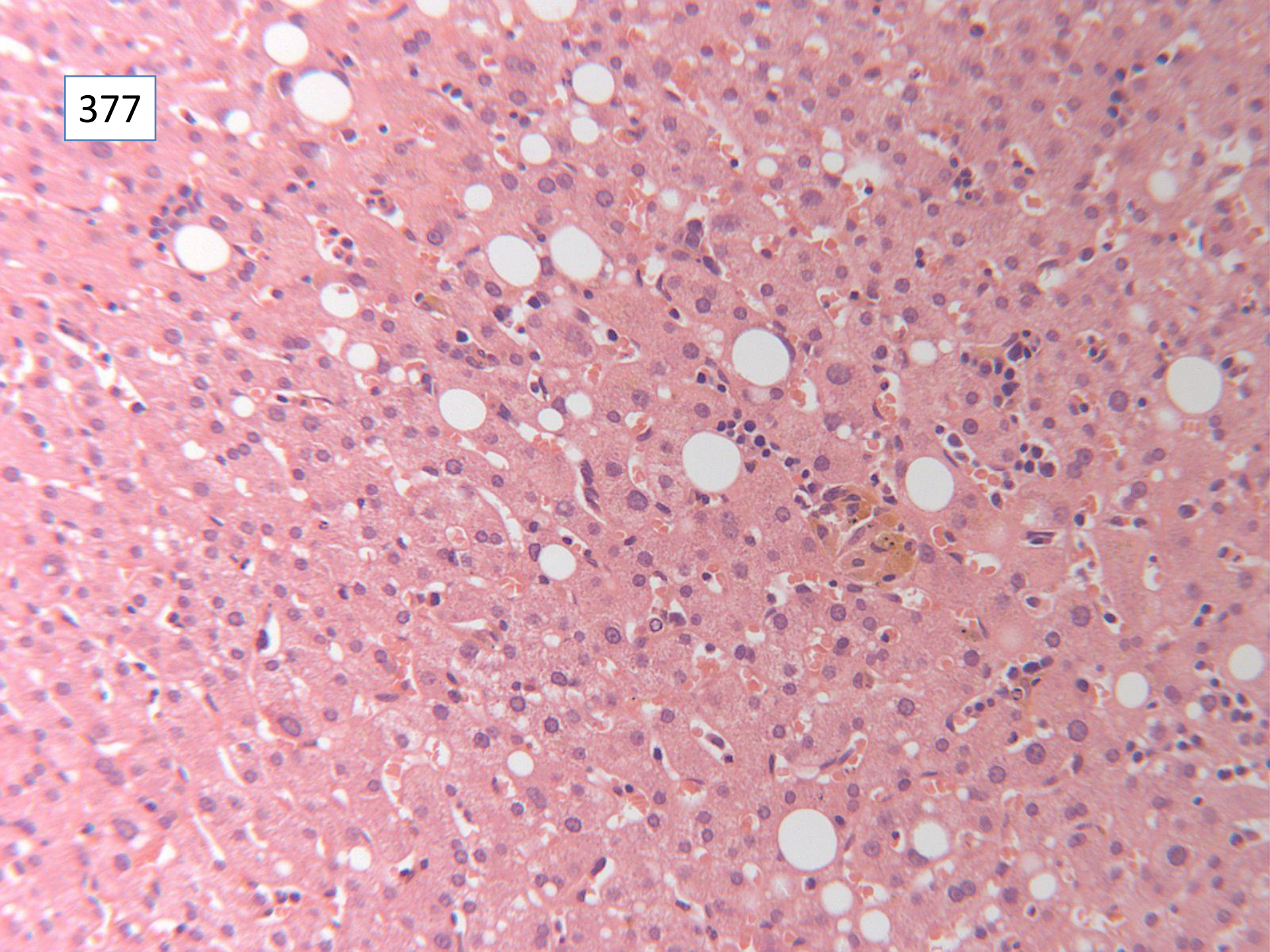
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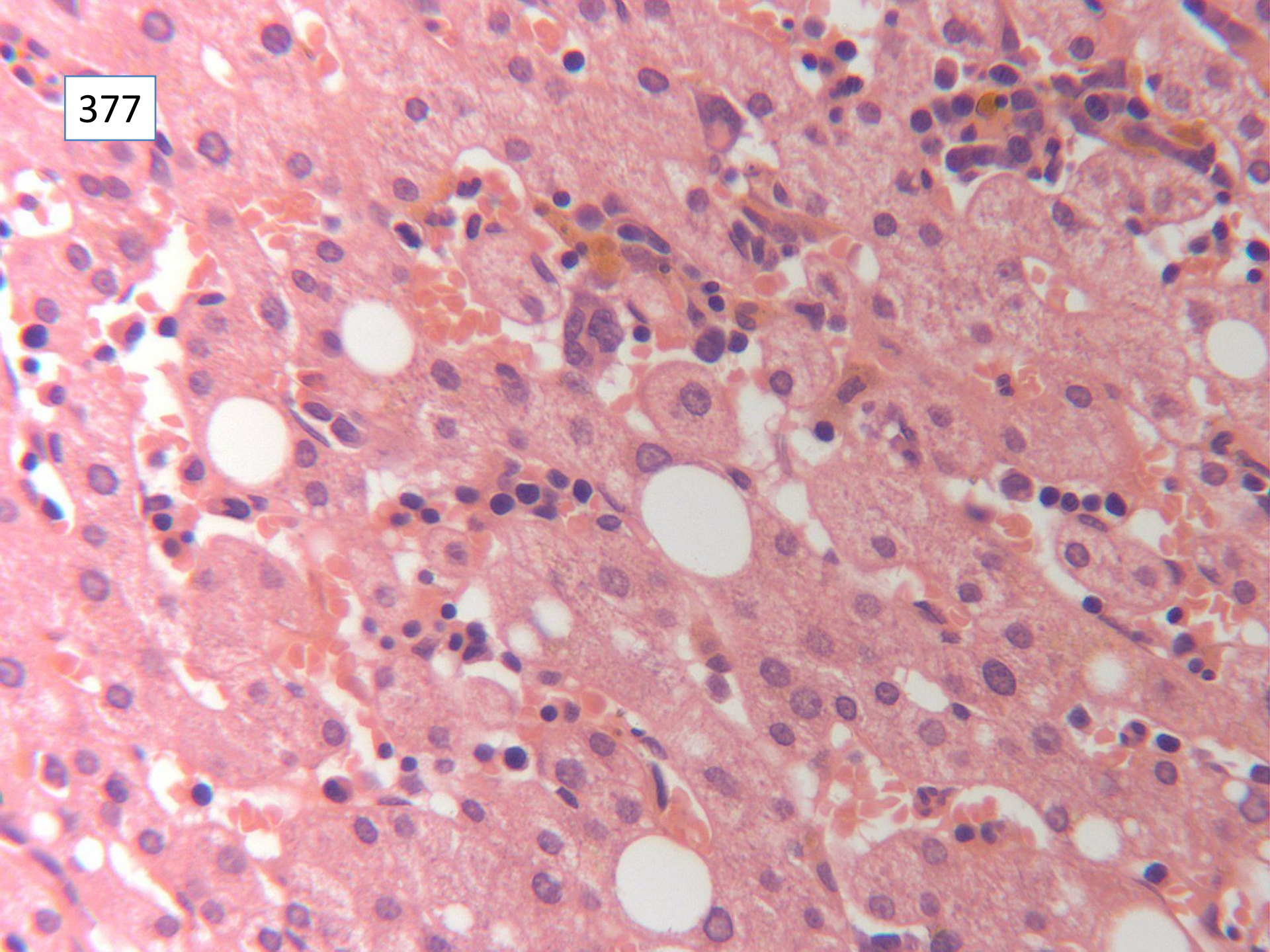
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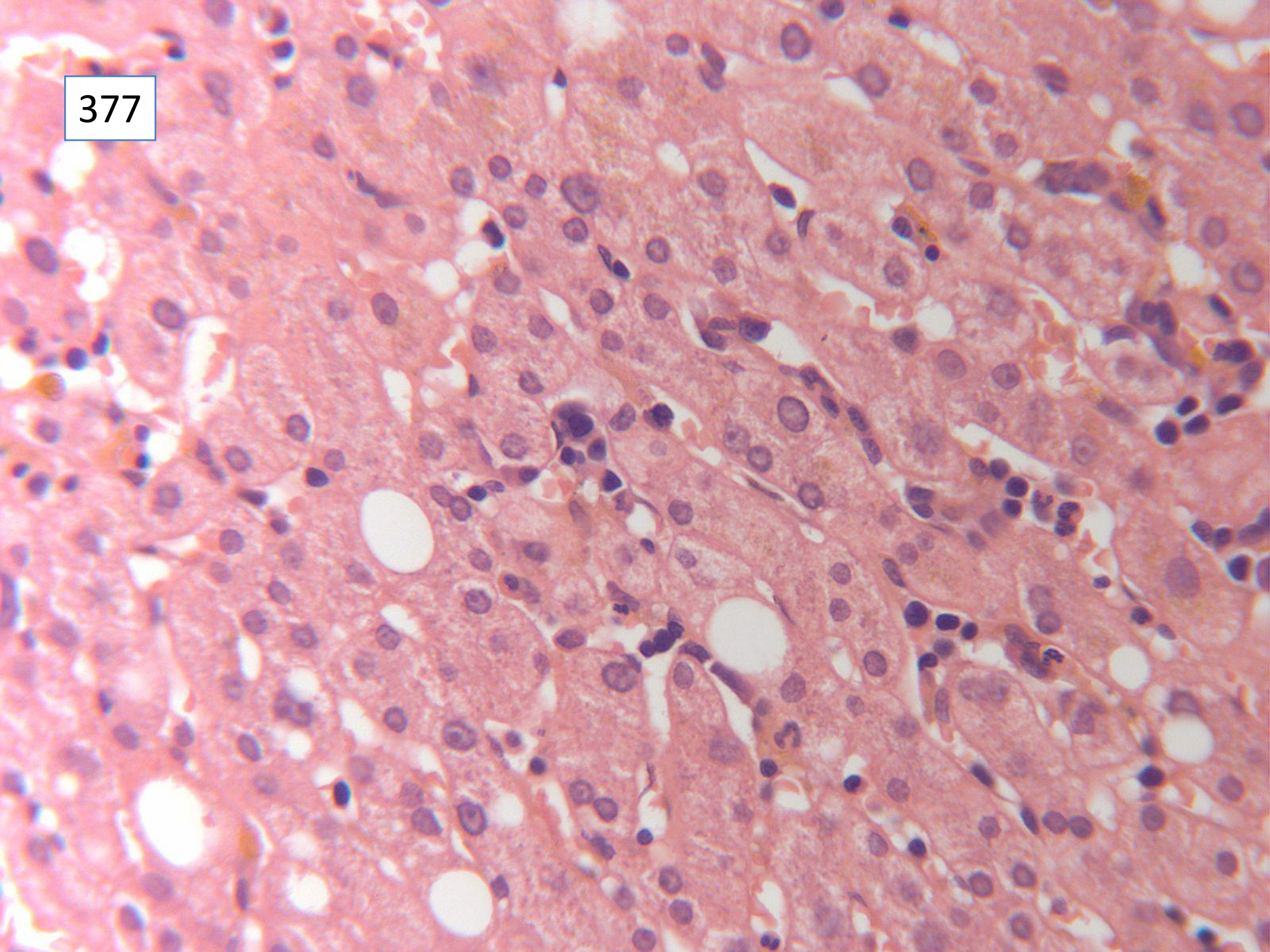
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## Case number 377

### Results:

- 43 extramedullary haematopoiesis and/or
- 30 comment on possibly leukaemic/CML
- 15 'CML in liver' without qualification
- 5 no mention of CML
- 7 no mention of extramedullary haematopoiesis
- 43 steatosis
- 13 steatosis not mentioned
  
- 29 comment on absence of chronic hepatitis, and/or absence of evidence of hepatitis B
- 1 evidence of hepatitis B – ground glass hepatocytes
- 7 need additional stains to exclude hepatitis B
- 28 siderosis
- 24 siderosis not mentioned
- 6 cholestasis
- 19 some comment on stage (architecture normal, no fibrosis, needs stains.  
1 = focal bridging fibrosis
- 31 stage not mentioned

### Suggested Scoring:

- Either – too much diversity, unsuitable for scoring
- Or - score 0 if no indication of extramedullary haematopoiesis.
- Other components of the diagnosis have insufficient consensus for scoring.

### Other comments:

- A complete report would have all 5 elements – comment on EMH and consider how it's related to CML, steatosis, siderosis, absence of evidence of chronic hepatitis B or fibrosis.
- ? role of cases like this in the EQA scheme.
- In this case, the main pathology achieves consensus even though the other components don't.

## Case number 377

Submitting pathologist's diagnosis: Extramedullary haematopoiesis and iron overload, consistent with history of CML. No evidence of a primary chronic liver disease, specifically of chronic hepatitis, steatosis, or drug related hepatitis or cholestasis.

### Follow up information

Has had CML since 2002, and previous stem cell transplant.

Currently stable

Discussed with haematopathologist – EMH but couldn't diagnose CML without history.

'Unusual to see so much erythroid component - a bit odd.'

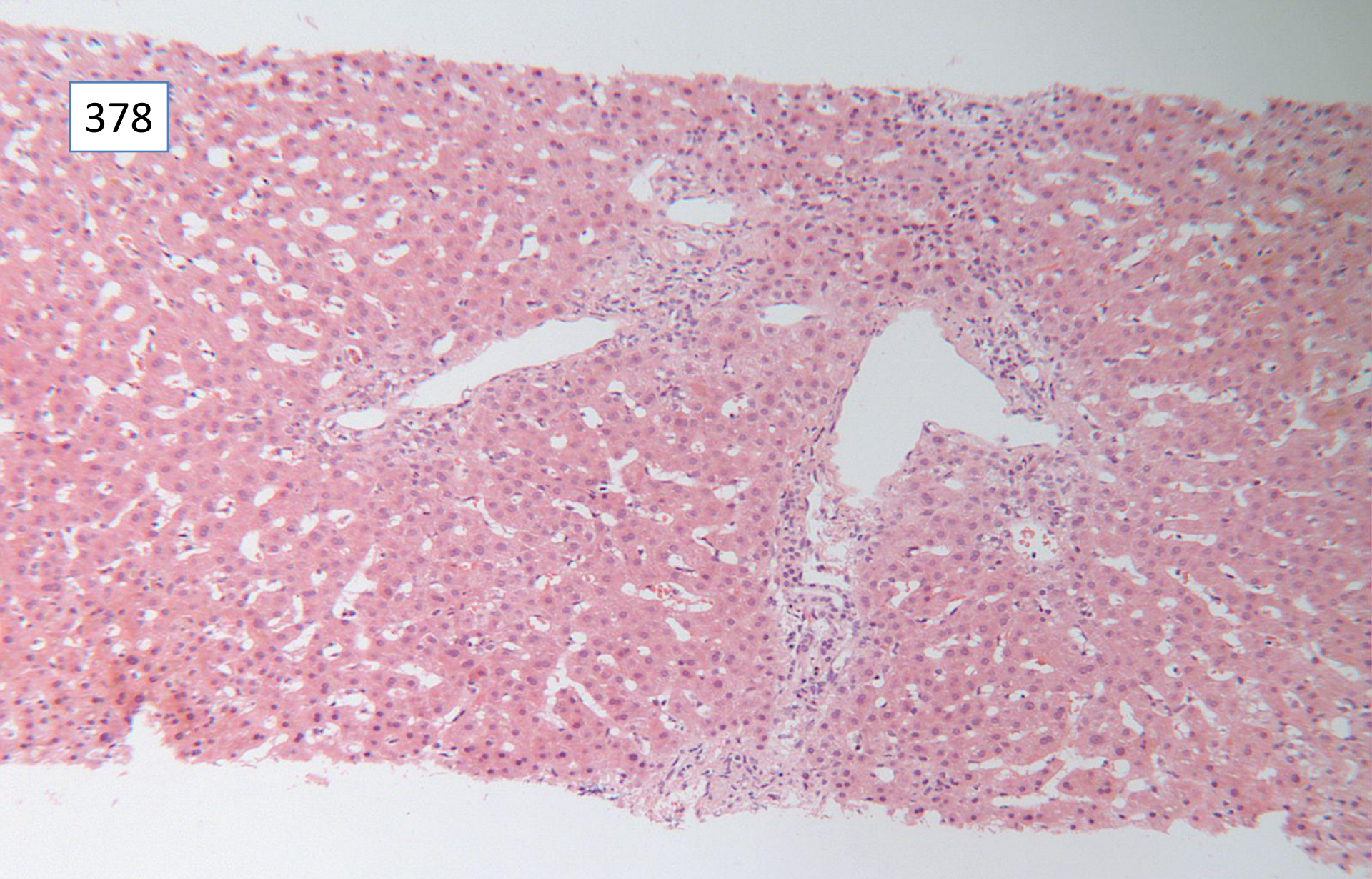
## Case number 378

Male 34 years

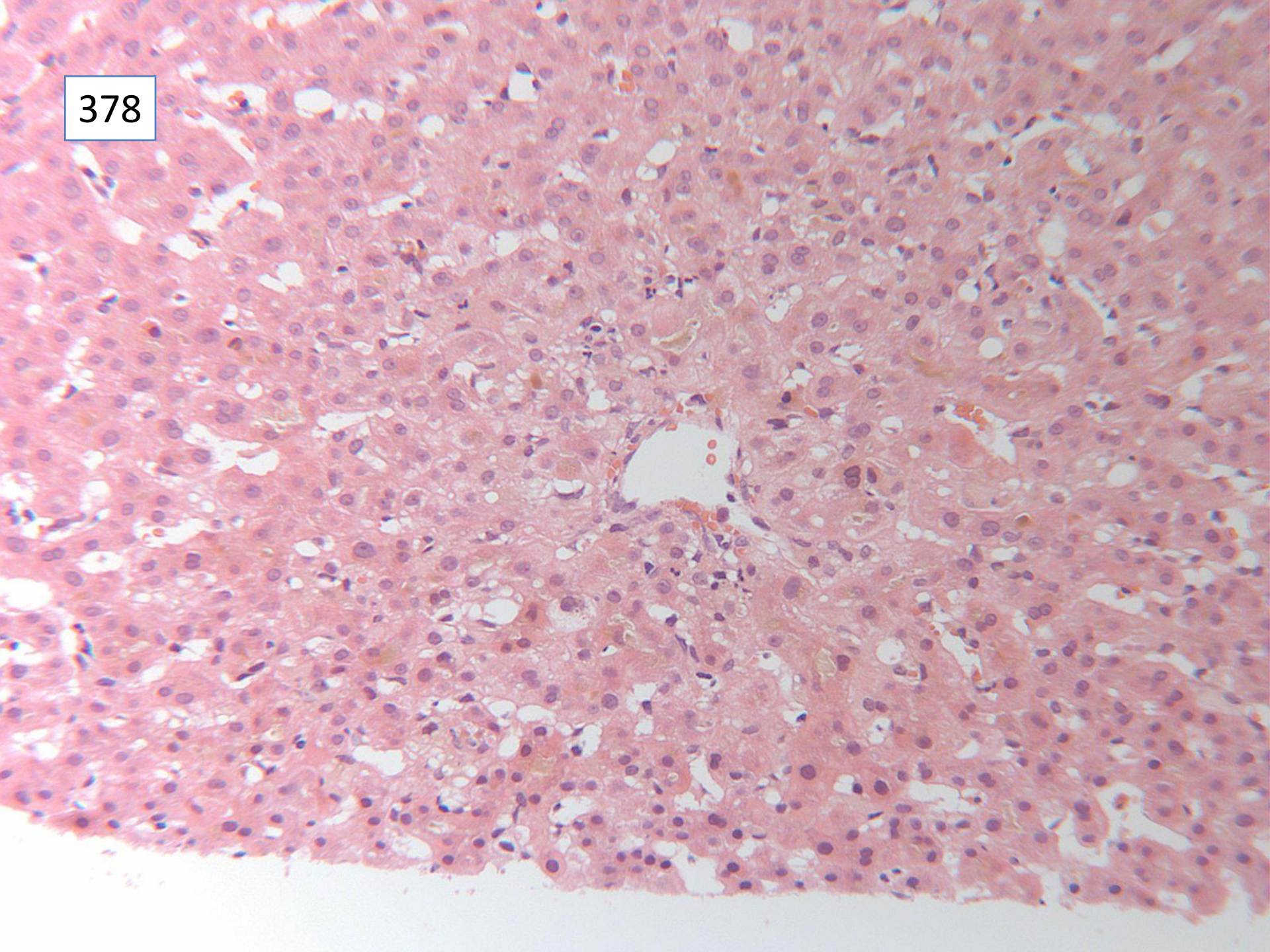
Cholestatic picture, painless jaundice, no obstruction, anabolic steroid use.

Core biopsy: One core of tissue, 21mm long

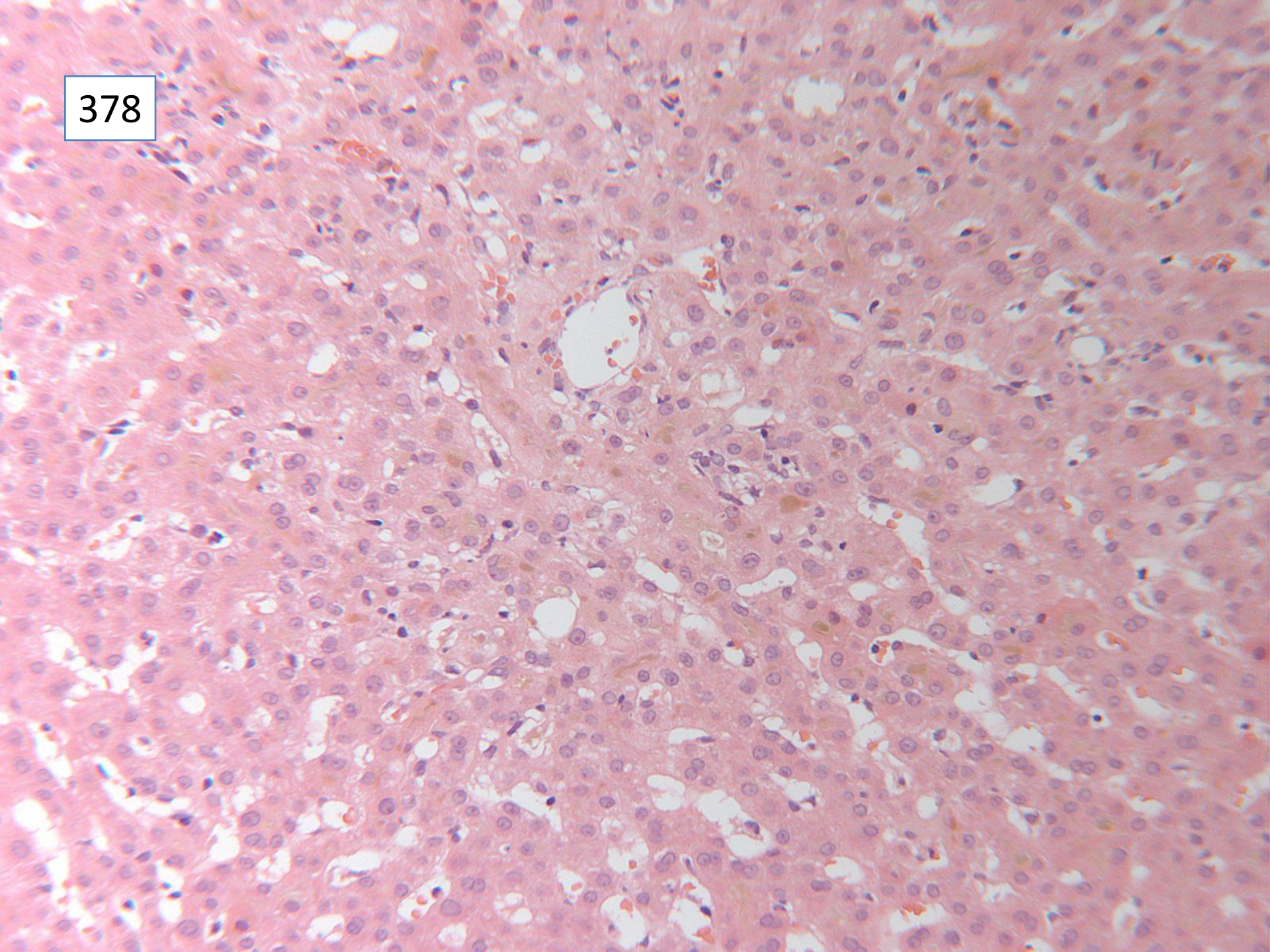
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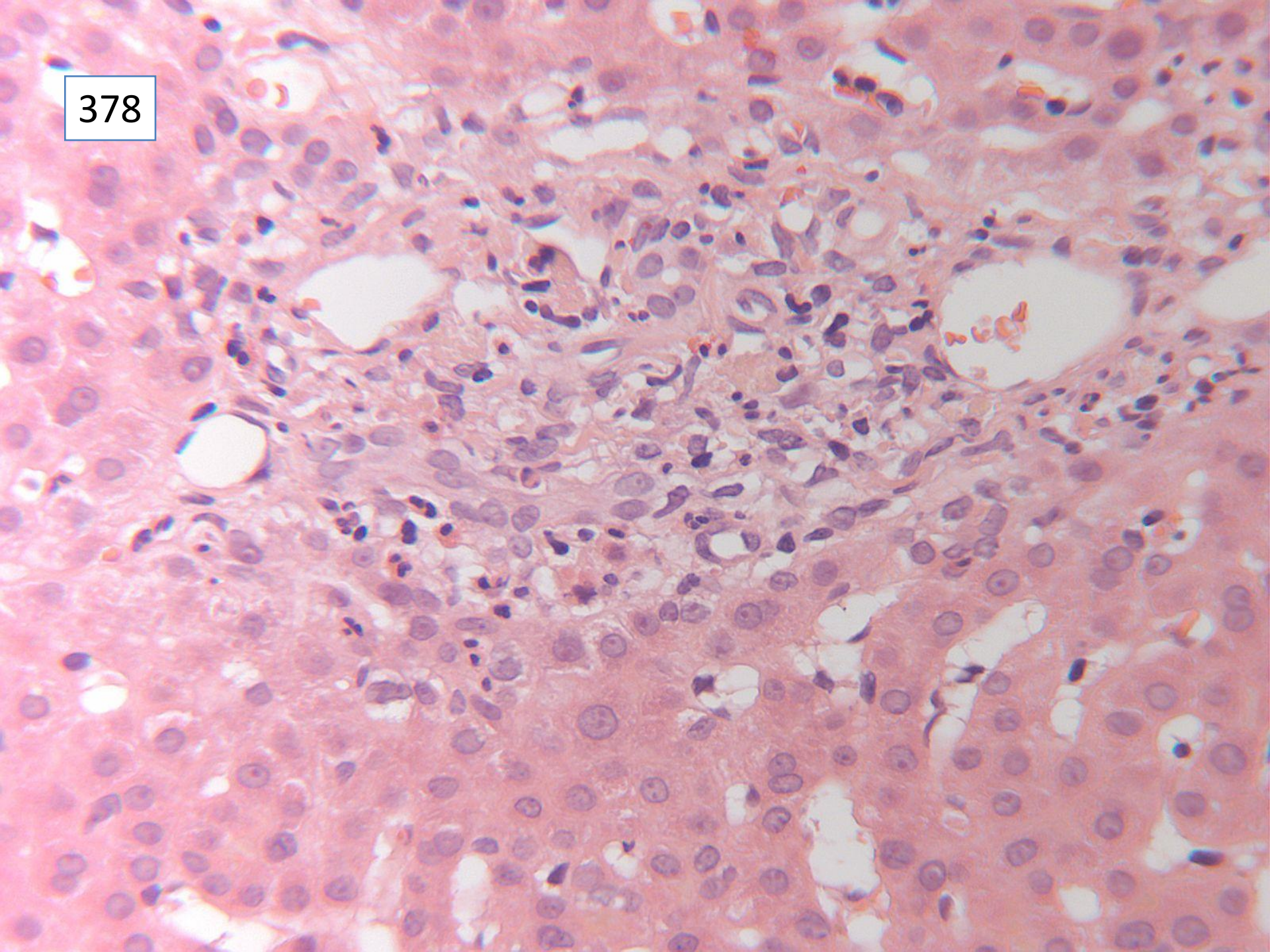
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## Case number 378

### Results:

57 cholestasis

Of which 10 = 'cholestatic hepatitis'

6 – possible ductopaenia/check CK7

1 'pigment suggestive of bile. Sinusoidal dilatation, small amount of steatosis'

59 related to drug/steroid

Of which 4 included any differential

### Suggested scoring:

For 10 points should include confident diagnosis of cholestasis and relation to drug

## Case number 378

Discussion during meeting: when to use 'cholestatic hepatitis' rather than 'cholestasis' in drug related injury? – implies a different mechanism, with bile as a consequence of liver cell injury, but can be difficult when prolonged cholestasis has resulted in consequent hepatocyte injury. This case was felt to be cholestasis, the characteristic pattern associated with anabolic steroids

Ductopaenia, present here, can occur in drug related cholestasis and is associated with delayed recovery, but does not imply another ductopaenic disease.

Submitting pathologist's diagnosis: Cholestatic hepatitis with ductopaenia, possibly secondary to anabolic steroid ingestion

## **Case number 379**

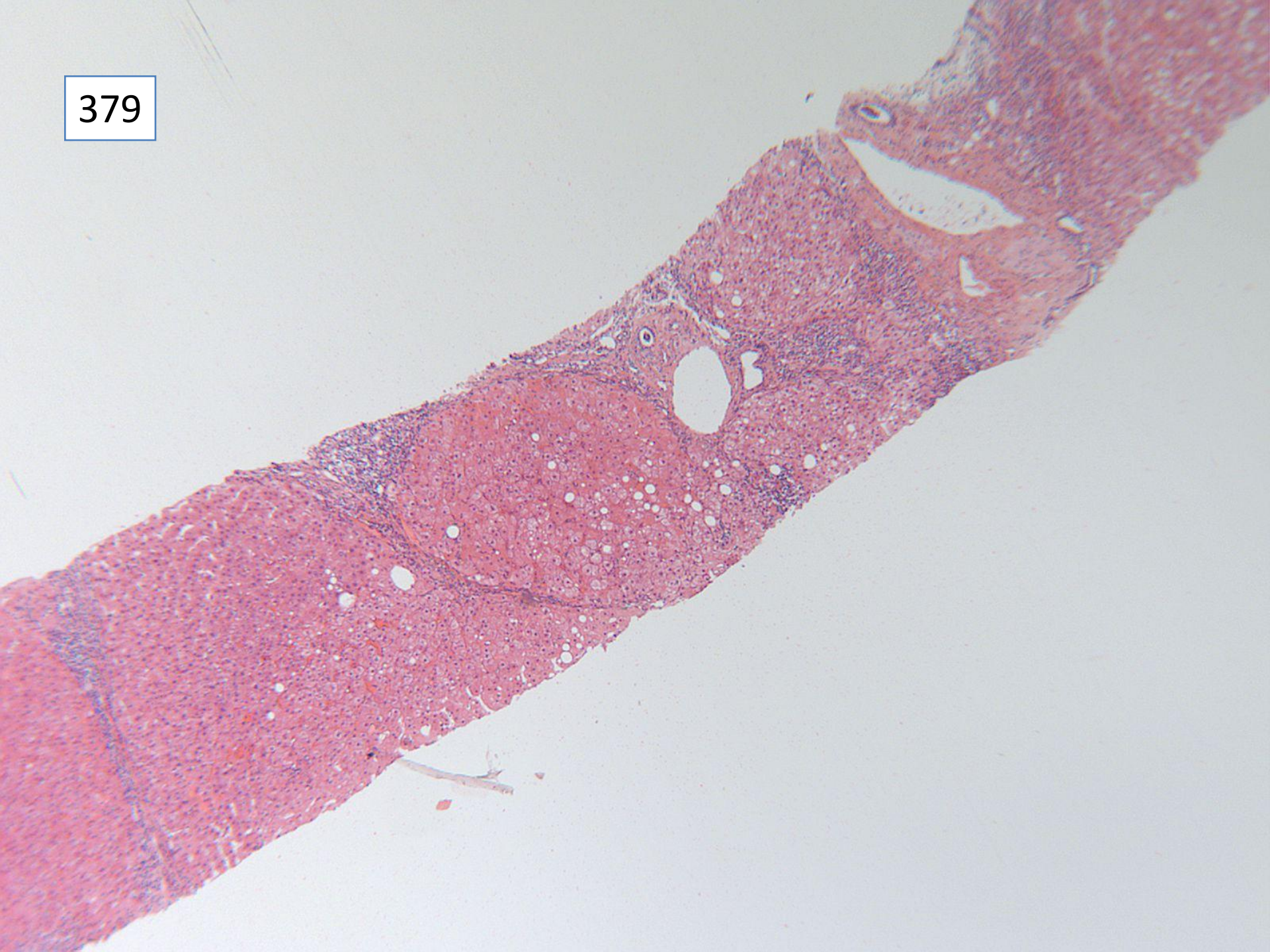
Female 56 years

HCV positive.

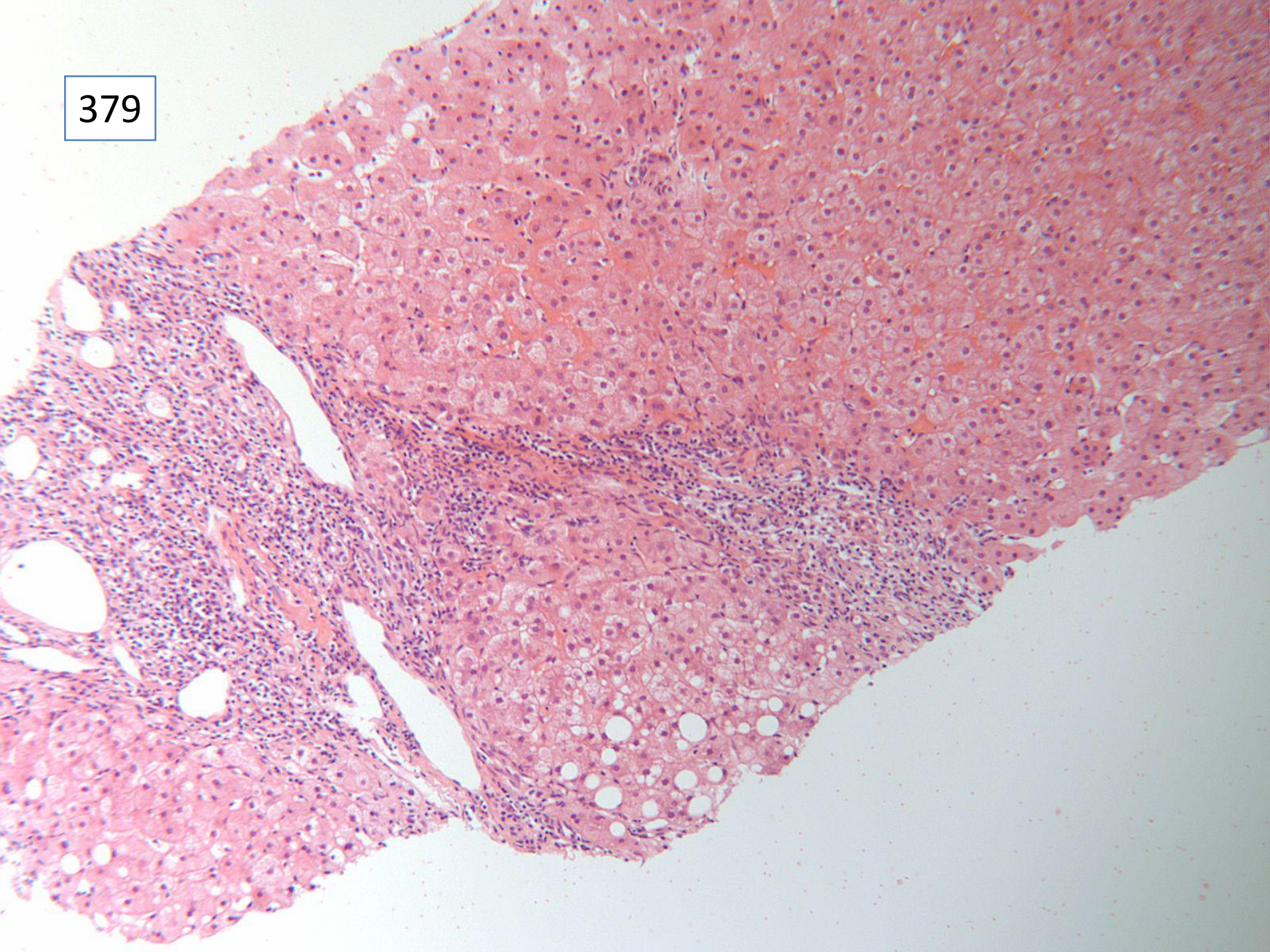
Liver biopsy for assessment for consideration for treatment.

Liver biopsy: 4 cores combined length 25mm on slide

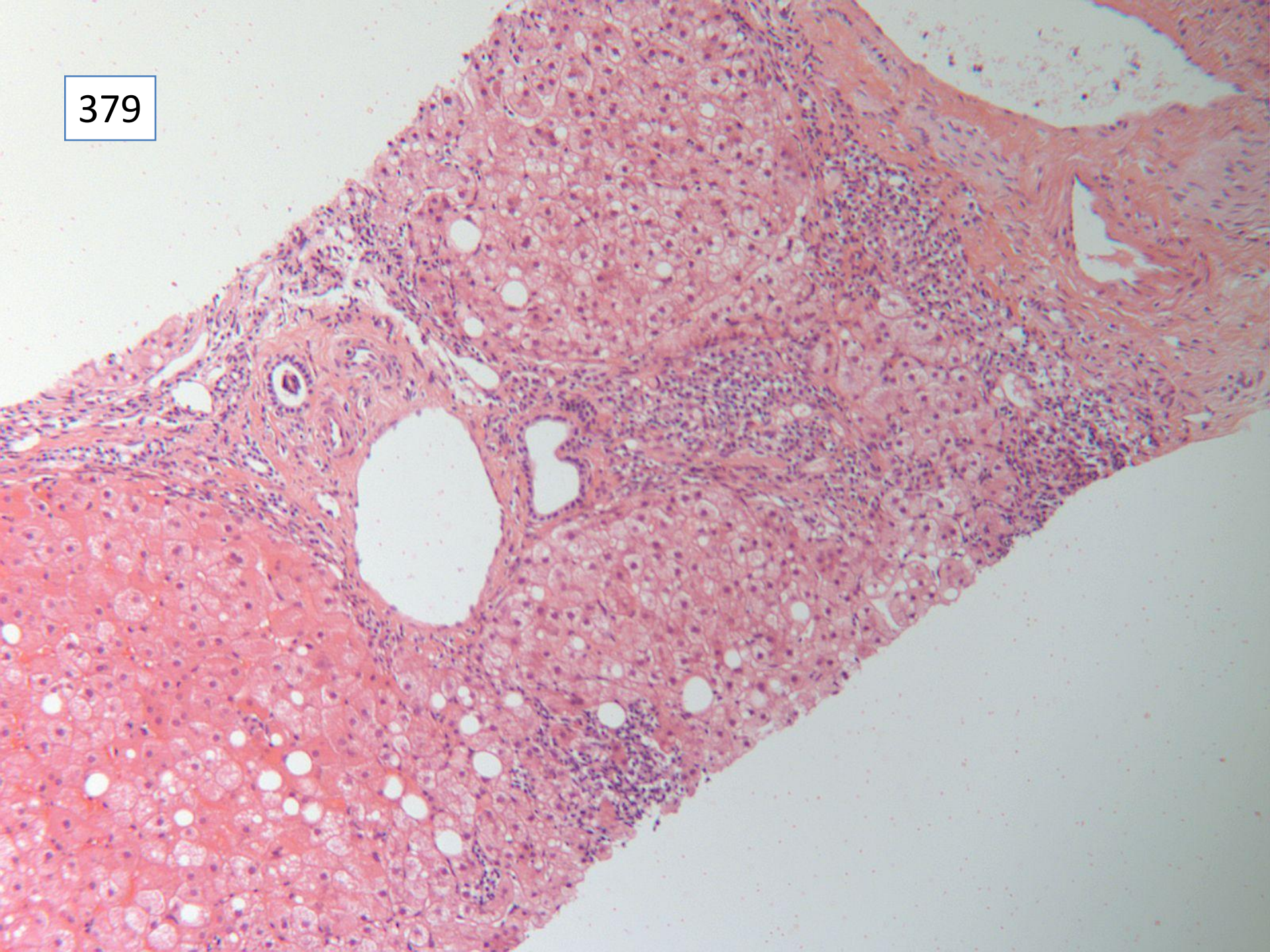
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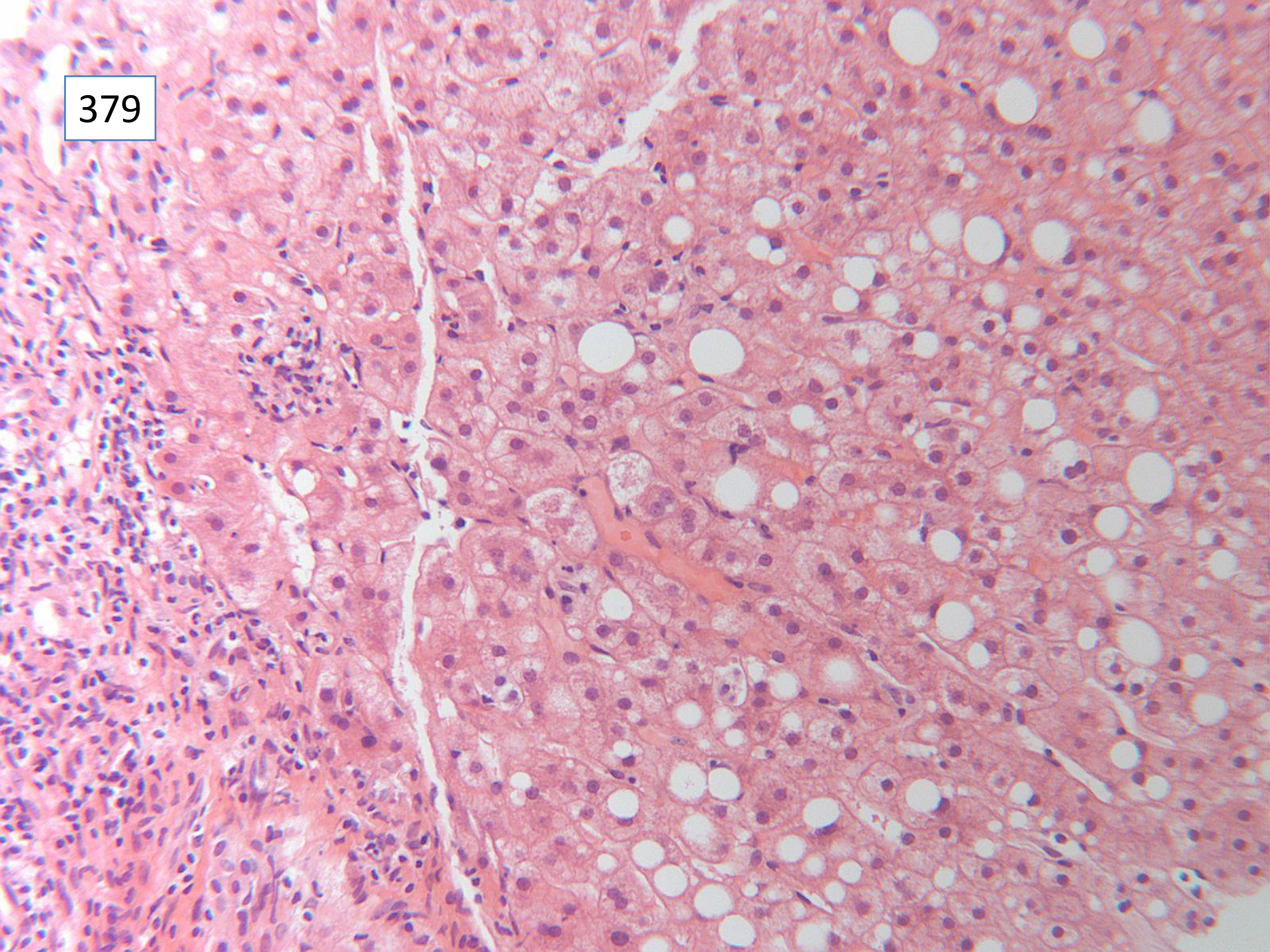
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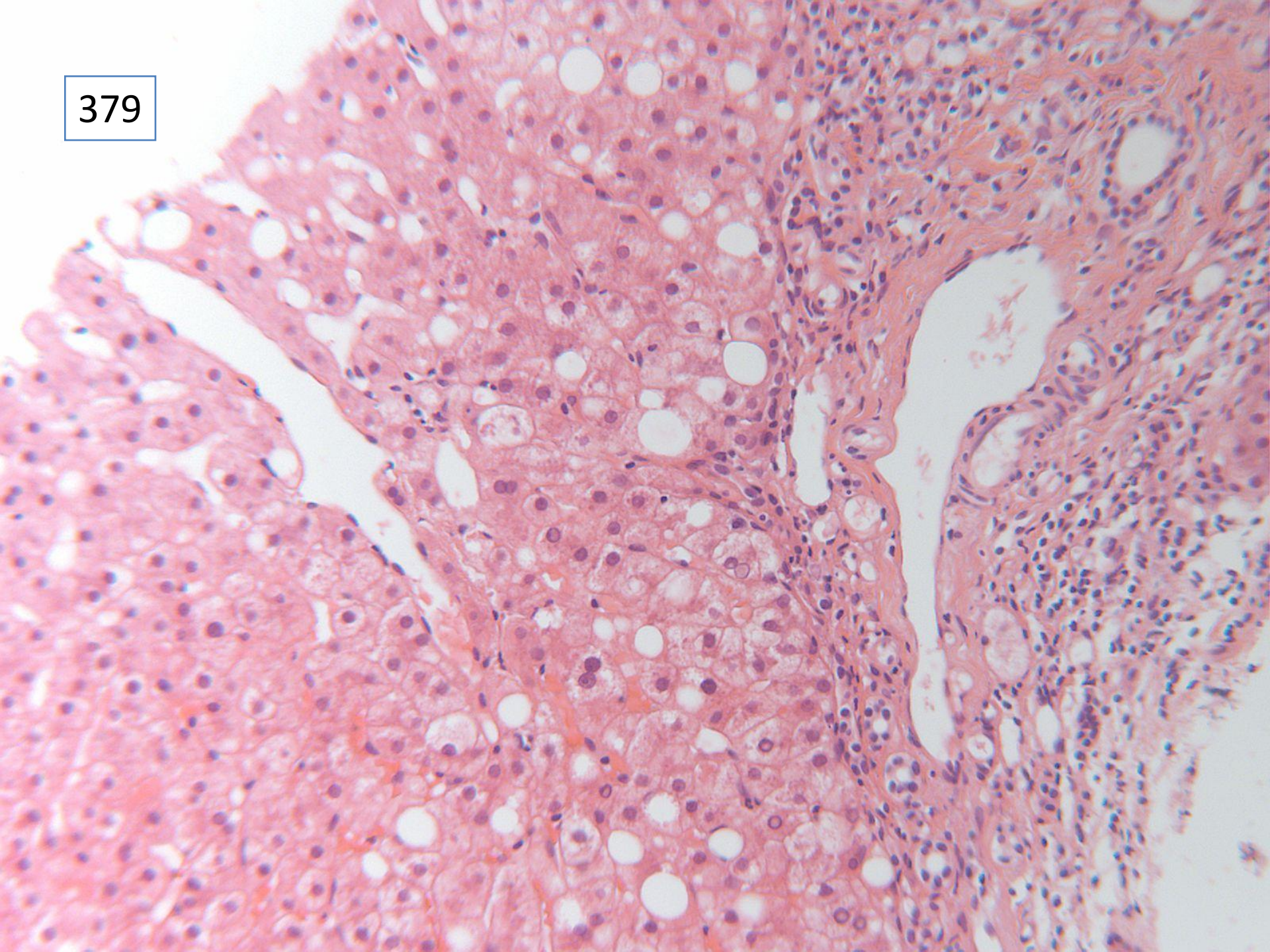
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## Case number 379

### Results:

3 hepatitis C not mentioned in report

56 description of chronic hepatitis, consistent with hepatitis C

Of these:

All 59 some comment on fibrosis stage

48 some comment on grade/activity

11 no comment on grade/activity

53 some comment on steatosis/steatohepatitis

Of which 34 steatosis

9 steatohepatitis

14 consider an additional cause e.g. alcohol, NAFLD

6 steatosis not mentioned

### Suggested scoring:

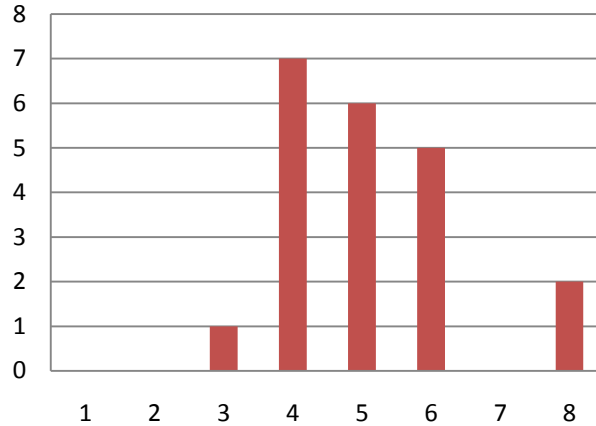
The reason for biopsy is to assess severity of chronic hepatitis C. From previous EQA discussions – for 10 points, need features consistent with hepatitis C, and a comment on stage and activity/grade.

Discussed whether points should be deducted for not commenting on steatosis – consensus was no – but noted that there should be a comment on steatosis in the path report, since it can affect progression and treatment response.

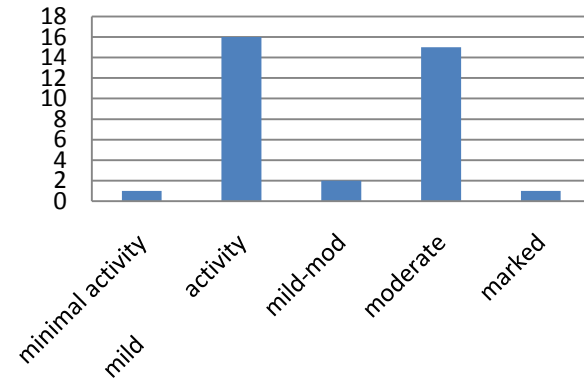
Case number 379: Extra information:

Another opportunity for participants to compare their assessment of grade/stage with the whole group:

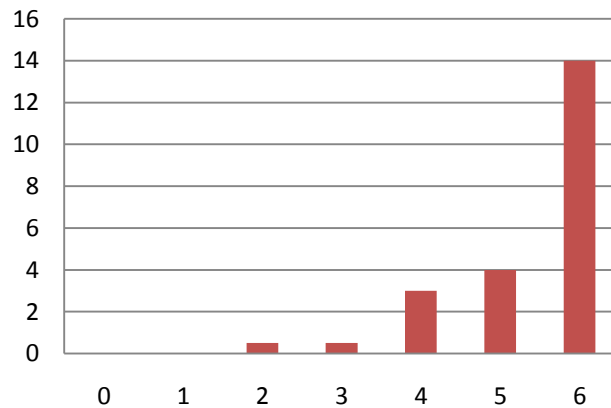
frequency of Ishak grade (n=21)



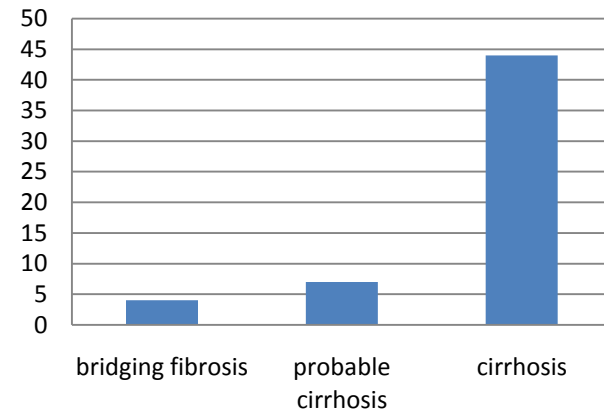
frequency of activity descriptors (n=35)



frequency of Ishak stage (n=22)



frequency of stage descriptors (n=55)



## Case number 379

### Submitting pathologist's diagnosis:

Chronic HCV. Moderate necroinflammatory score (Ishak = 6) and micronodular cirrhosis (architecture Score =6)

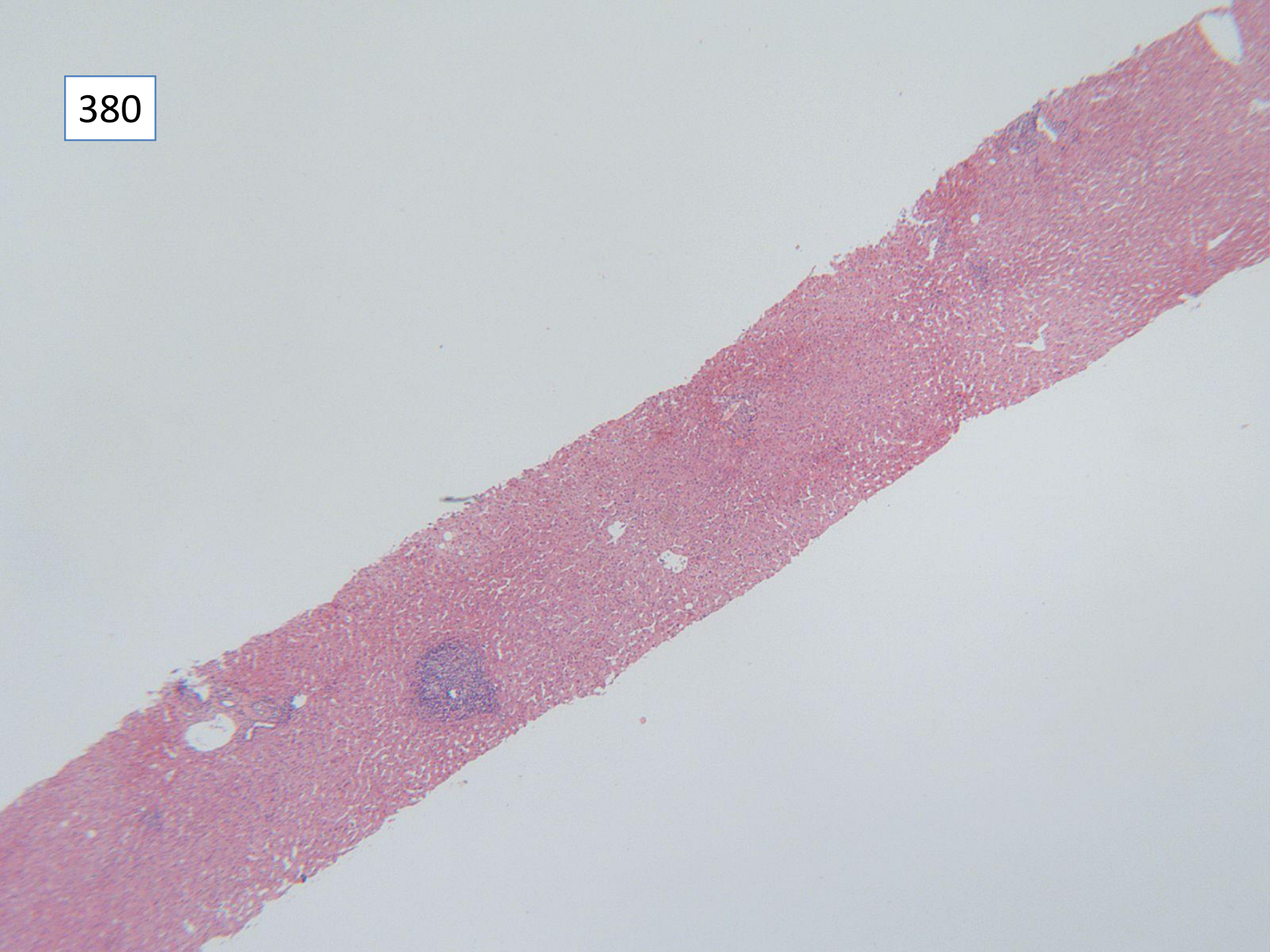
## Case number 380

Female 64 years

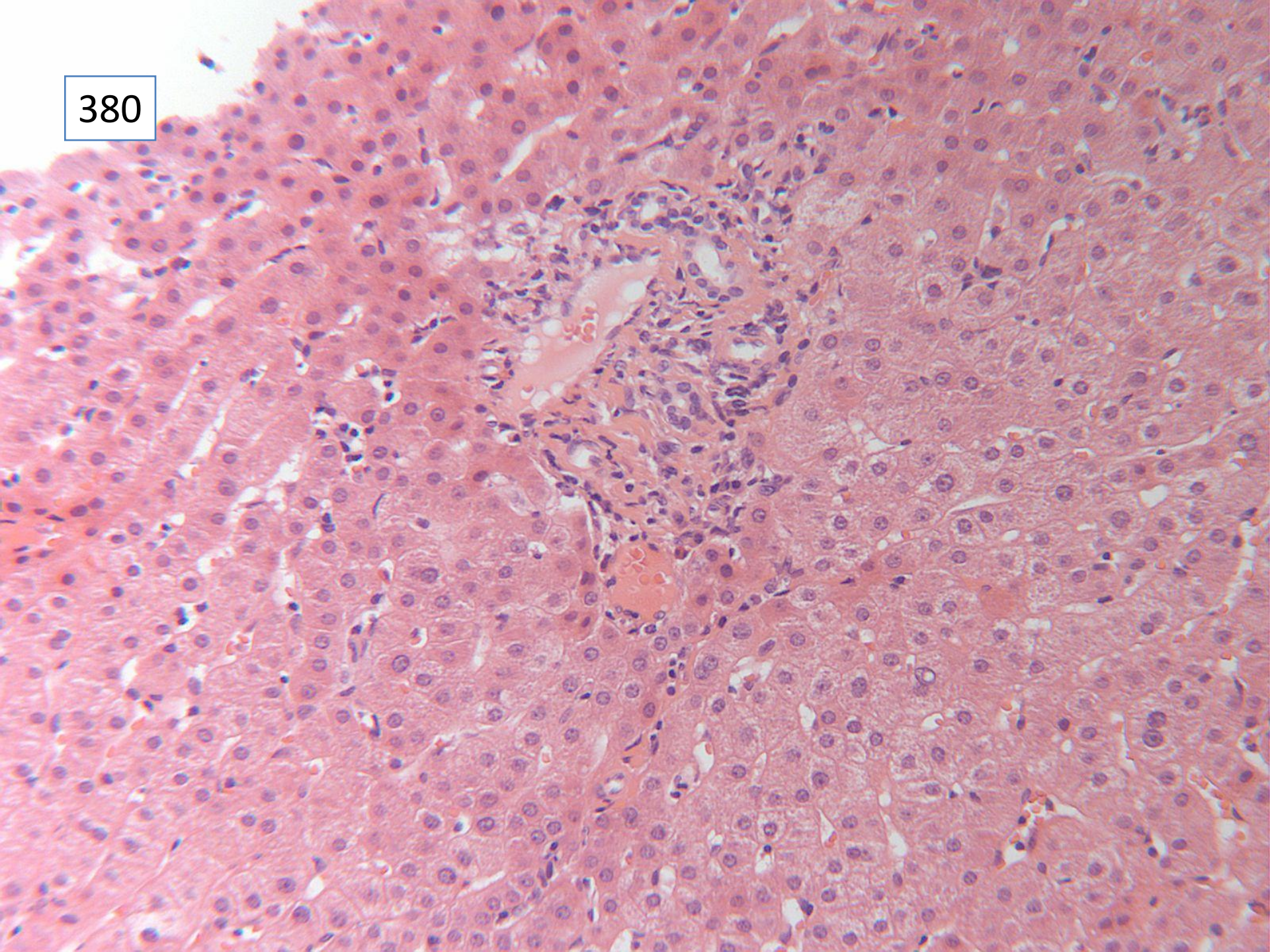
Alk phos 194 (normal range 40-129), GGT 260 (normal 10-55),  
AST 41 (normal 7-40), Bilirubin 10, ALT 66 (normal 7-35).

Core biopsy: One core of tissue, 20mm long.

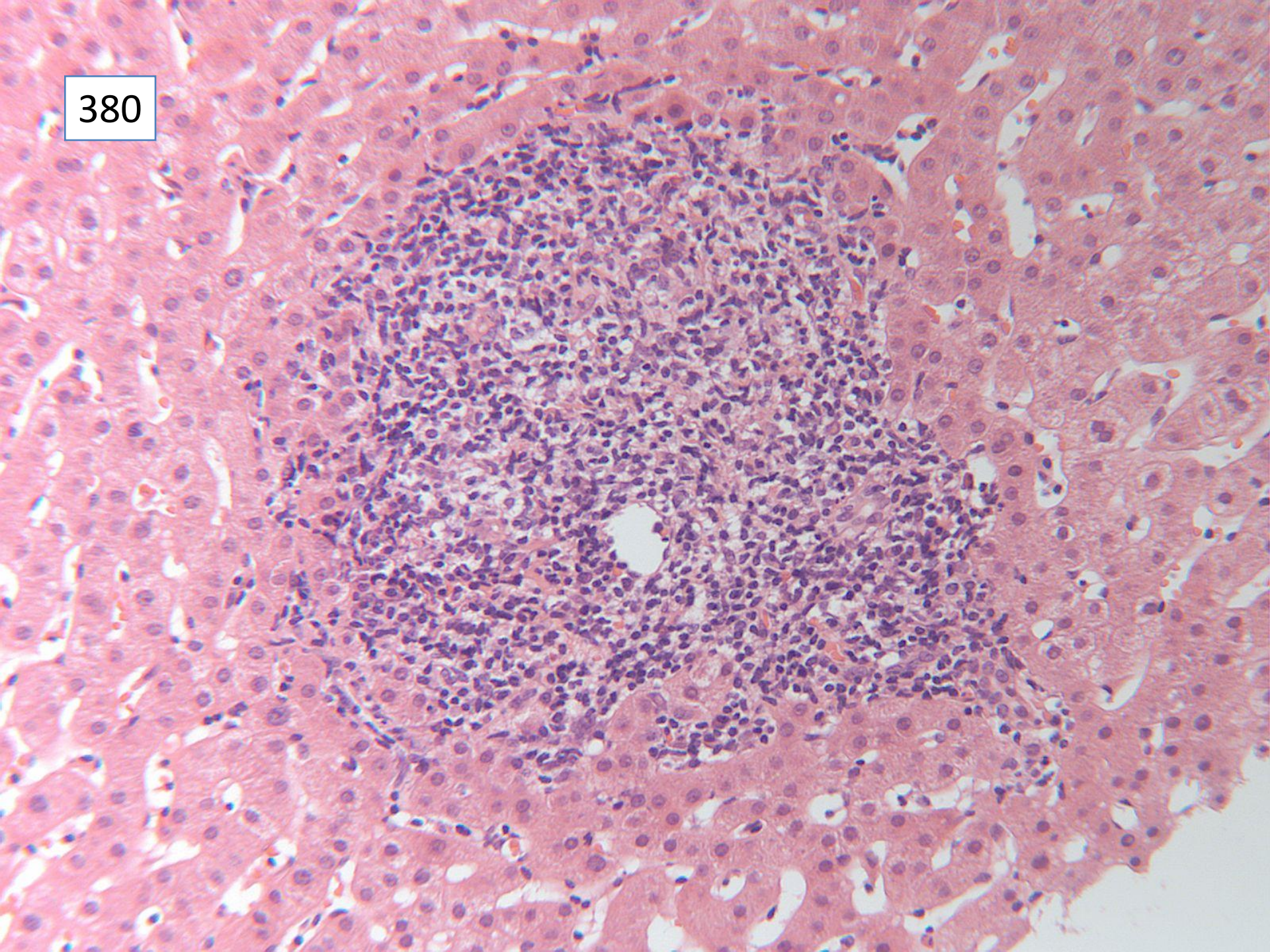
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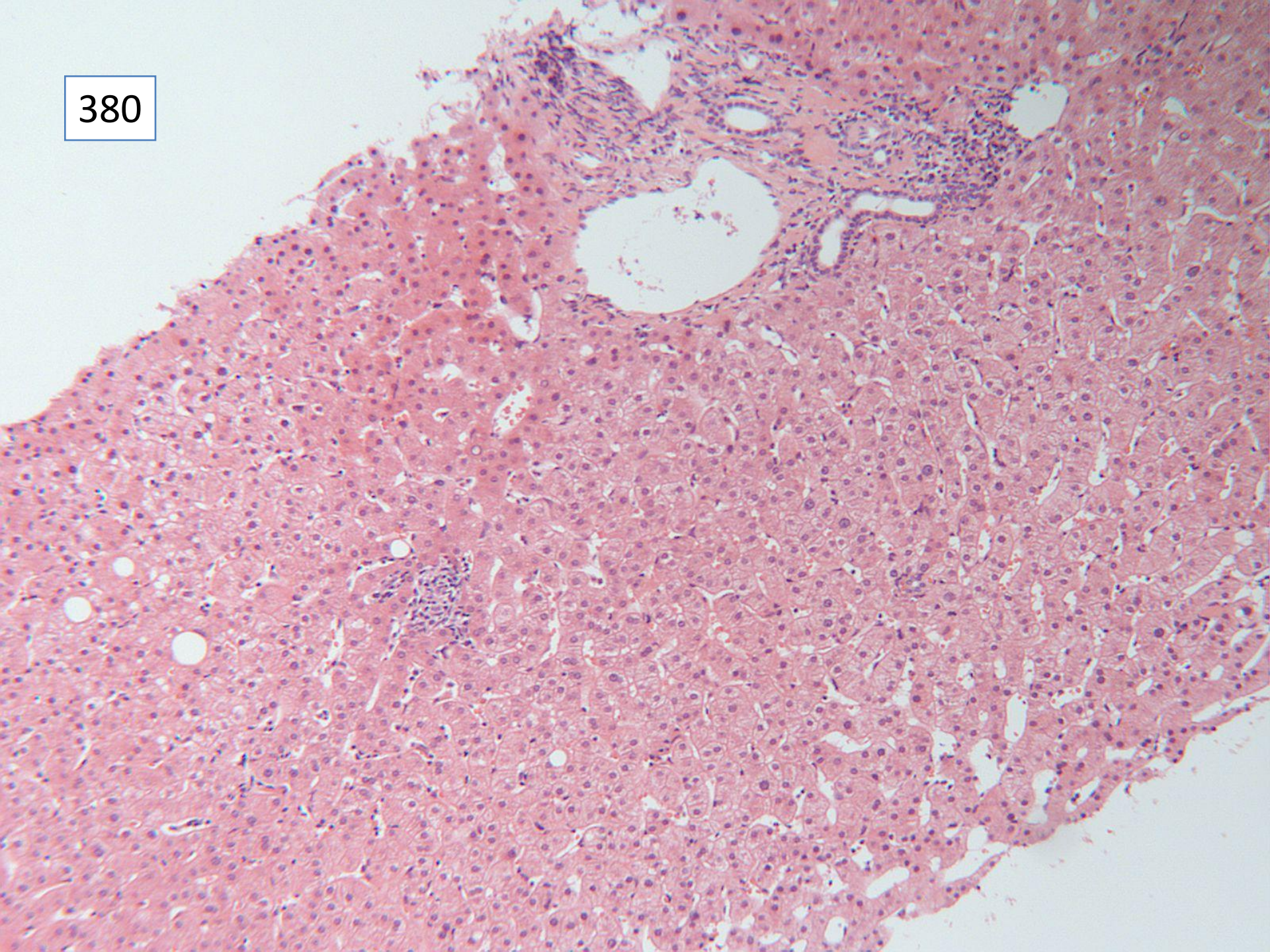
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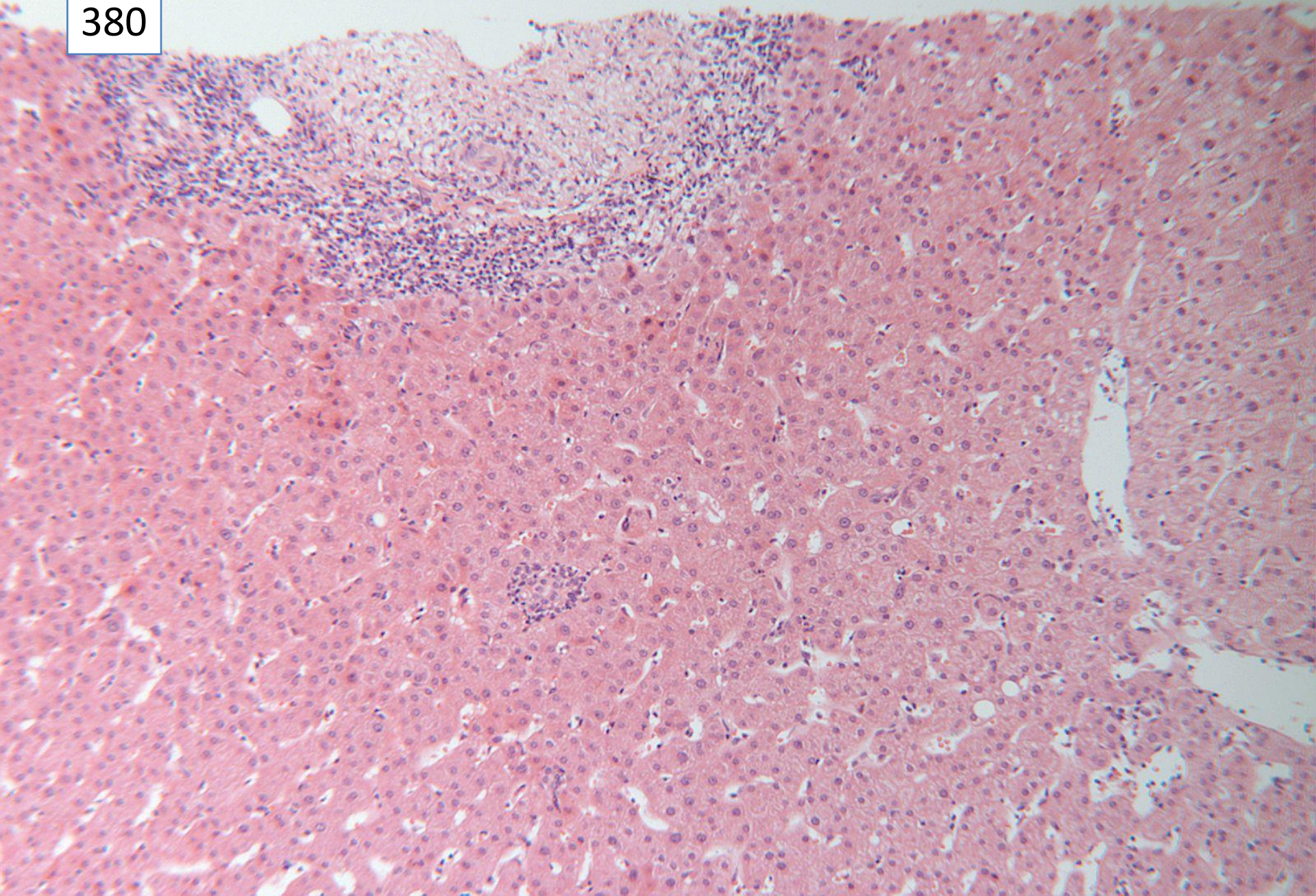
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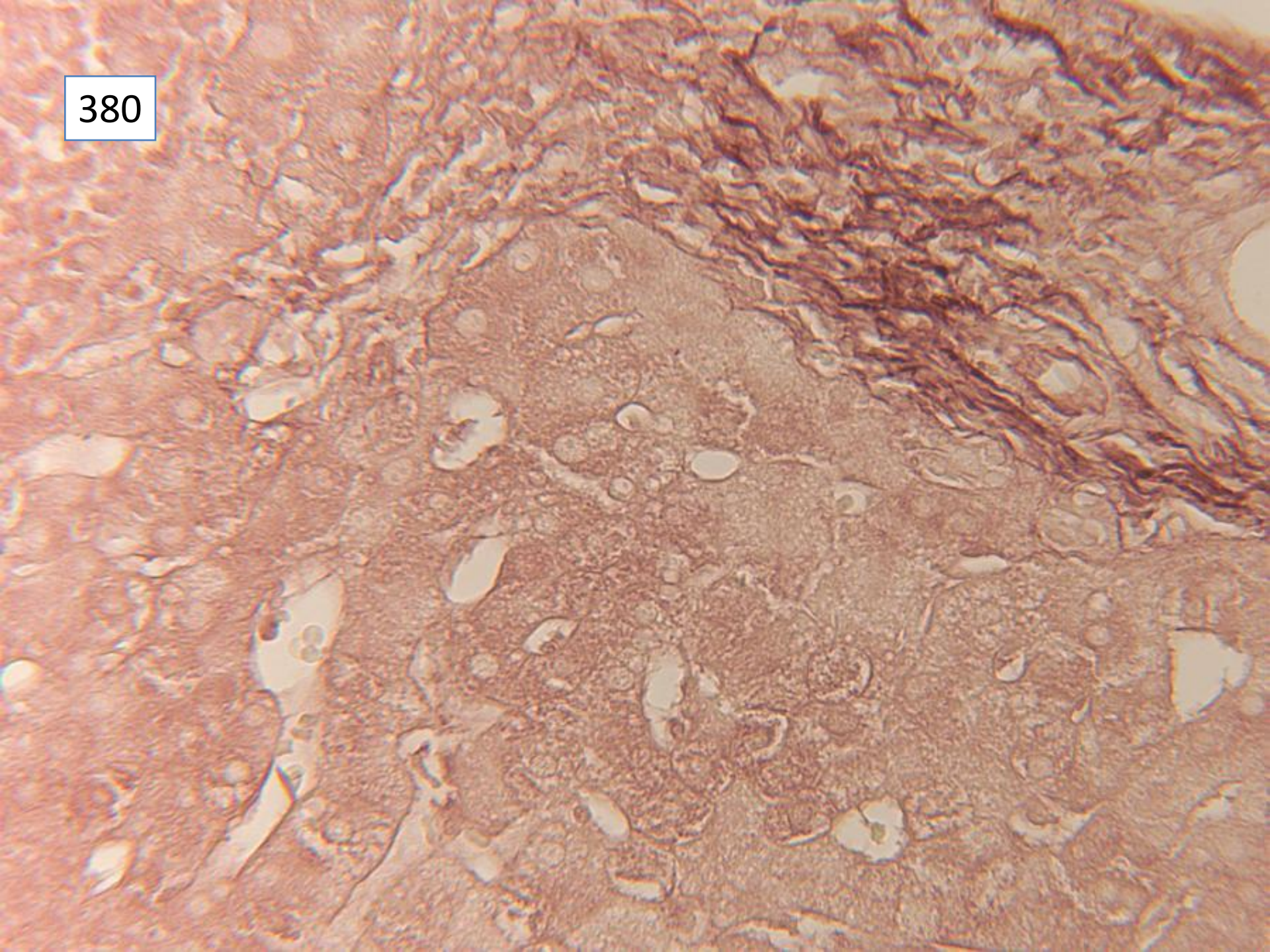
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## Case number 380

### Results:

#### Morphology

- 48 portal based inflammation
- 5 portal and lobular inflammation
- 1 cholangiopathy
- 1 'microgranuloma and eosinophils'
- 1 no description 'PBC stage 2' as diagnosis
  
- 29 comment on bile duct inflammation/damage
- 8 this comment includes ductopaenia
  
- 25 granuloma
- 11 no granuloma mentioned
- 9 eosinophils
  
- 30 Shikata stain -ve
- 8 Shikata stain +ve or ?+ve
- 1 can't interpret Shikata
- 5 no comment on Shikata
- 1 Shikata - ? hep B

### Aetiology:

- 6 PBC, unqualified
- 29 differential diagnosis among which PBC seems favoured
- 13 differential diagnosis, PBC is included but not favoured
- 2 PBC unlikely
- 9 PBC not mentioned
- 2 granulomatous hepatitis
- 2 chronic hepatitis
  
- 36 require AMA/autoantibodies/serology
- 2 require MRCP
- 3 do CK7
- 3 drug reaction
- 1 PSC
- 1 'granulomatous hepatitis TB/sarcoid/drugs'
- 1 'mild active hepatitis ? drugs - serology screen to exclude vasculitis e.g. Wegener's'
- 1 'LBDO, differential diagnosis AIH + PBC'

### Suggested scoring:

Unsuitable for scoring - no consensus.

## Case number 380

Discussion at meeting – agreed unsuitable for scoring.

Submitting pathologist's diagnosis:

Primary Biliary Cirrhosis/ Autoimmune hepatitis  
overlap

## Case number 381

Female 41 years

Joint pain and abnormal LFTs. Not Jaundiced.

ALT 217, GGT 400.

Previous Laparoscopic cholecystectomy. Normal Duct on USS.

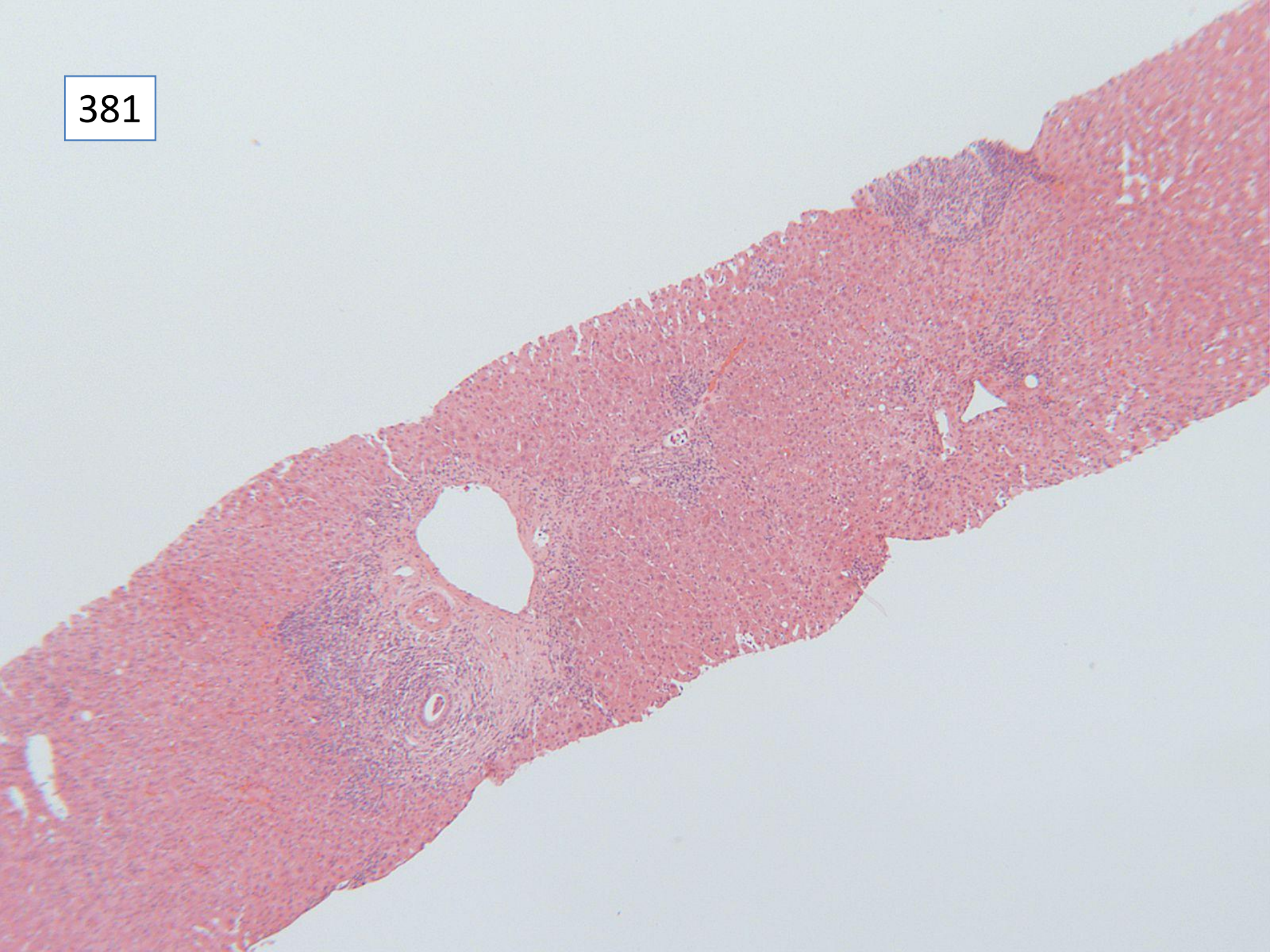
Fibroscan 6.1 kPa.

IgG 26, ANA 6400, SMA strong pos, AMA neg

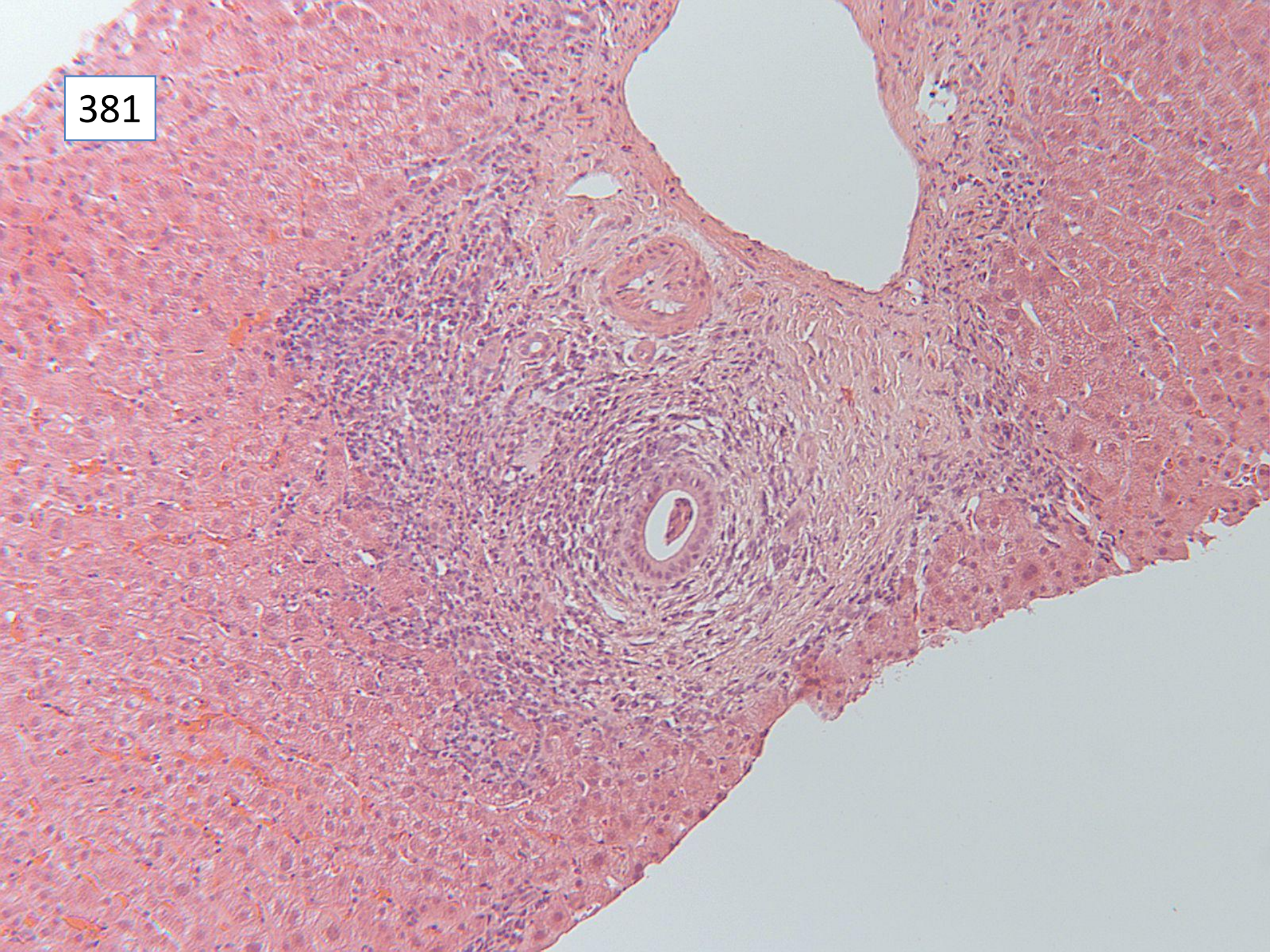
?Hepatitis ?Auto-immune.

Liver biopsy: 2 cores of liver 20 and 16 mm

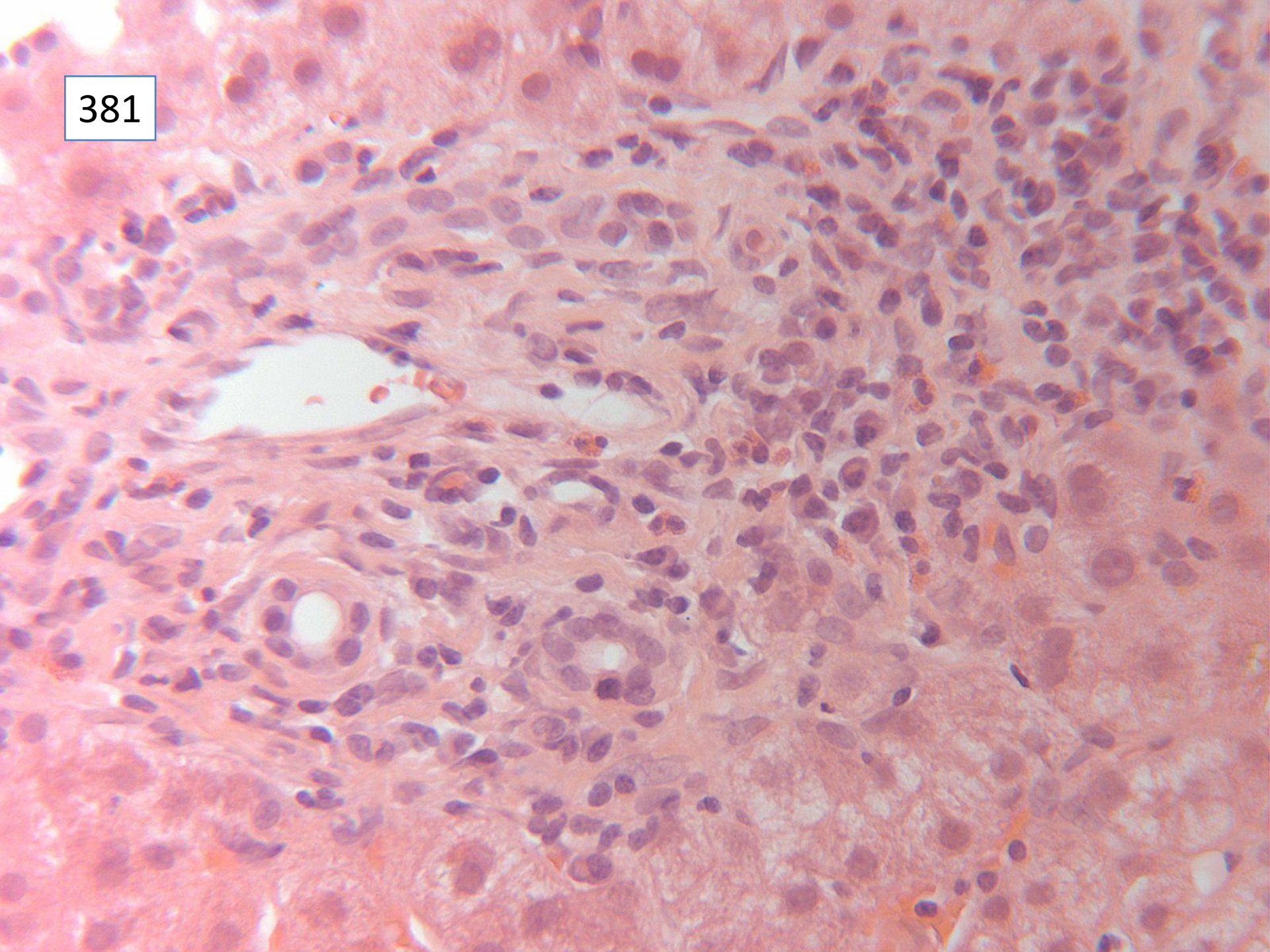
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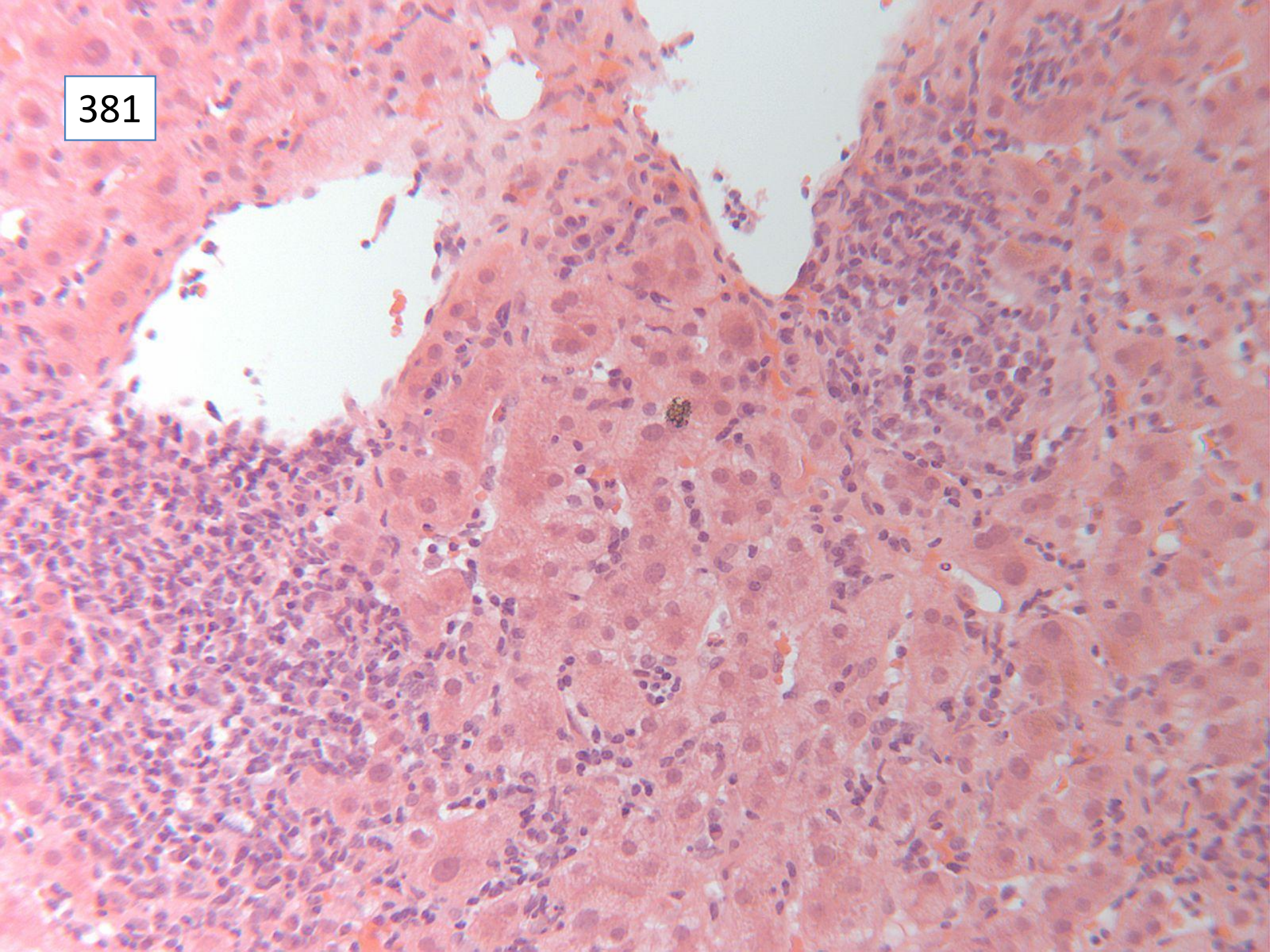
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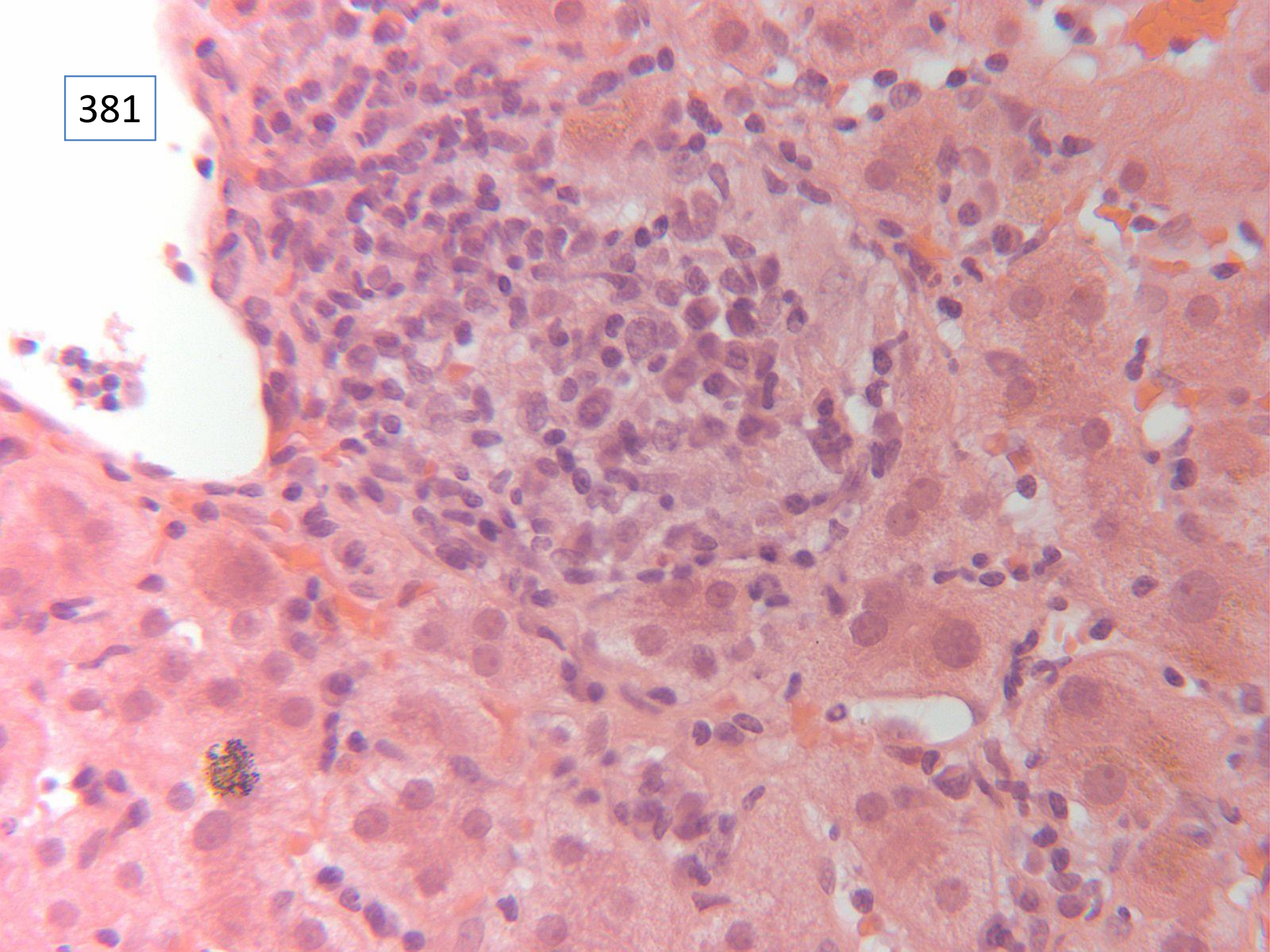
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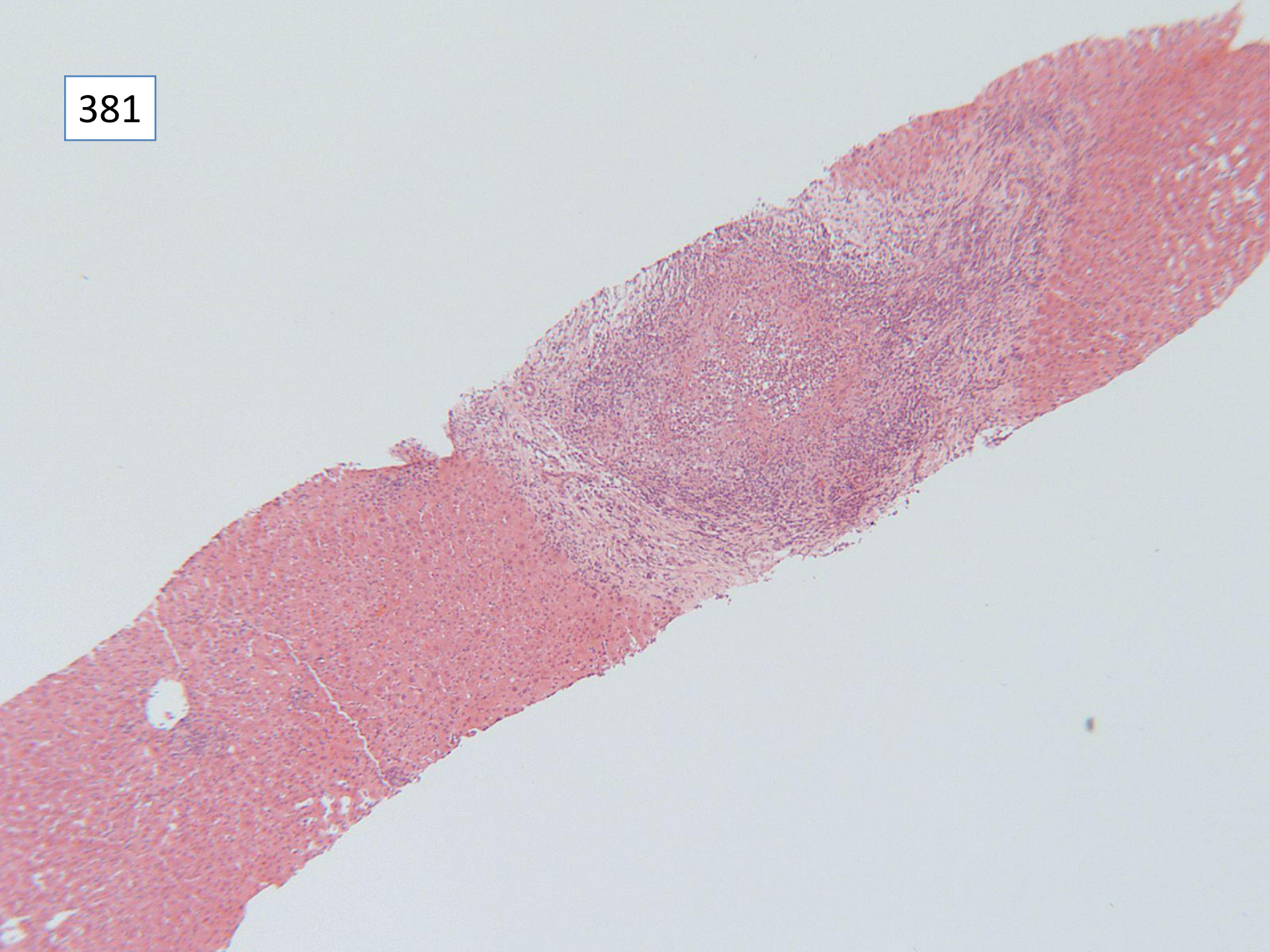
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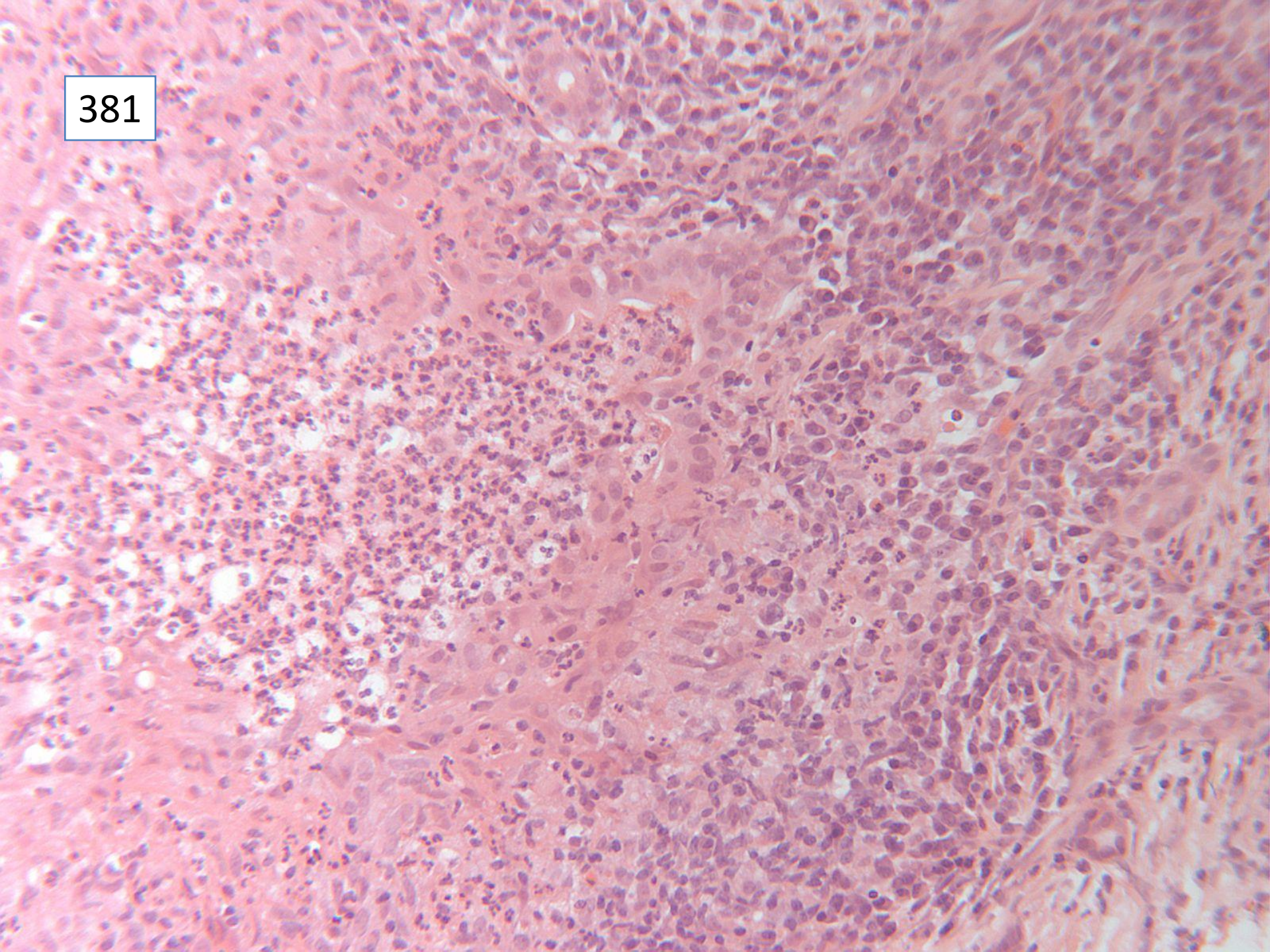
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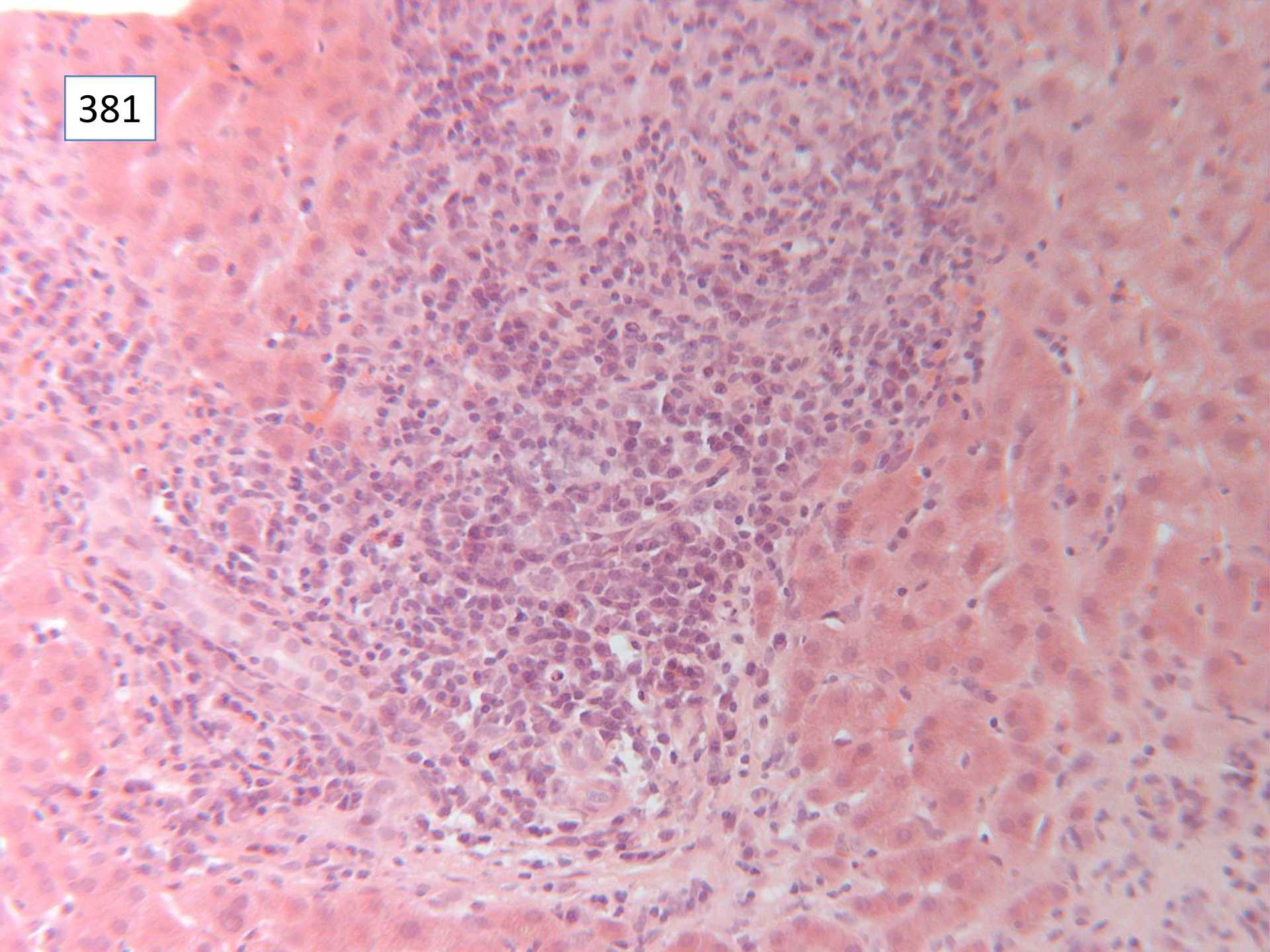
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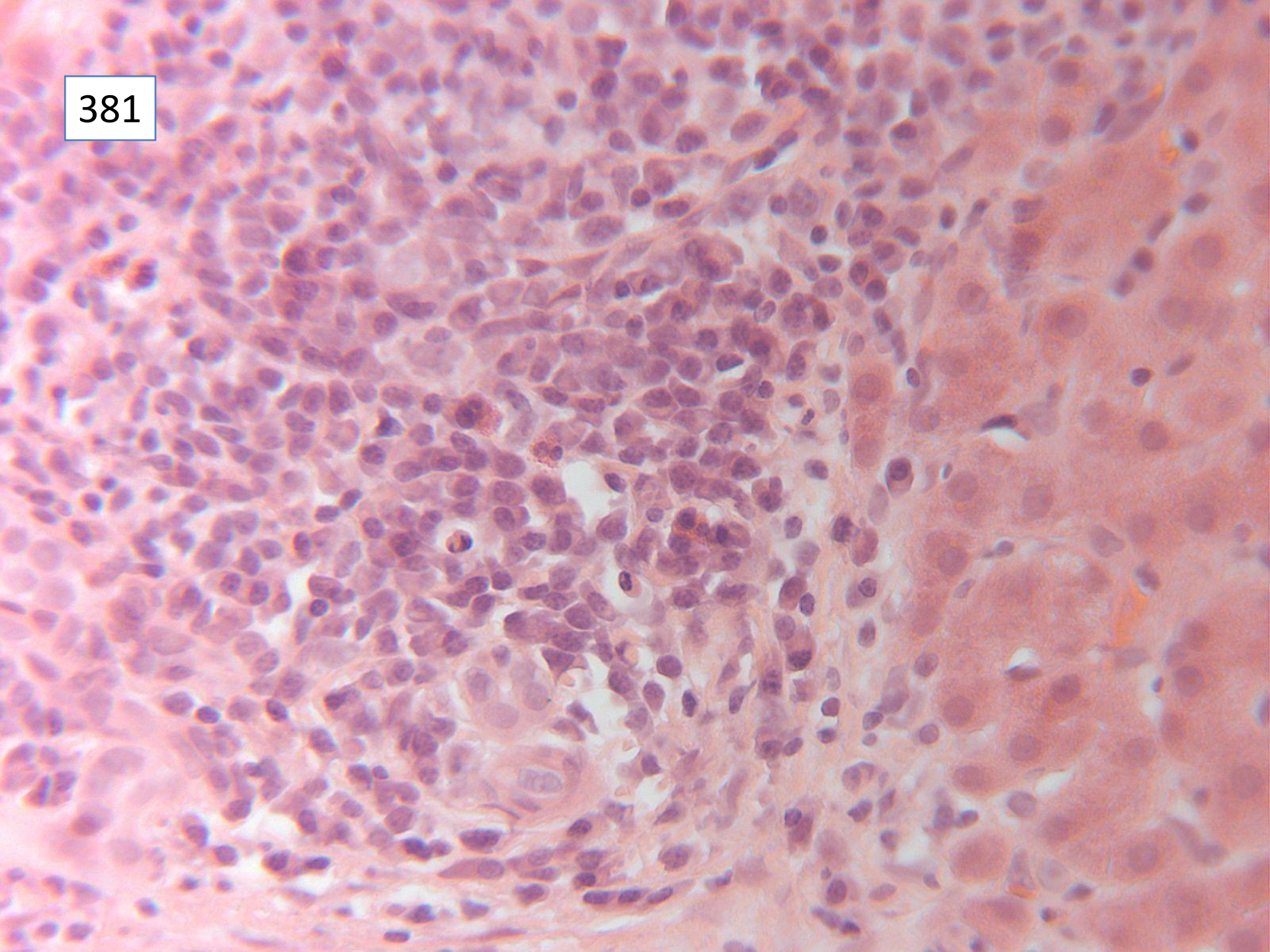
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## Case number 381

### Results:

#### Morphology

- 48 granuloma
- 38 bile duct injury
- 44 plasma cells
- 32 interface hepatitis
- 24 lobular inflammation
- 8 eosinophils
- 2 no description, just 'PBC'

### Aetiology:

- 39 any mention of overlap AIH and biliary disease
- 9 responses use the term 'autoimmune cholangitis'
- 5 responses using the term 'AMA -ve PBC'
- 17 overlap not mentioned or implied

- 4 ?IgG4 disease
- 1 chronic and granulomatous hepatitis
- 1 bile duct damage and cholangitis, due to bile duct injury, not autoimmune
- 1 AIH + complication of cholecystectomy
- 1 granuloma due to duct rupture/PSC/ascending cholangitis
- 1 exudative granulomatous inflammation in parenchyma ? infectious
- 1 granulomatous hepatitis – TB/sarcoid/other infection

### Suggested scoring:

Insufficient consensus for scoring.

Needs discussion of appropriate terminology for overlap syndromes!

## Case number 381

Discussion during meeting: this is primarily autoimmune hepatitis, all the features are present. There is also some form of biliary component, so 'AIH with biliary features' would be appropriate, and becoming preferred terminology. Please see presentation by Stefan Hubscher, which can be accessed from the meeting material on the CPD liver page.

Submitting pathologist's diagnosis: Autoimmune Cholangitis (PCB) and Hepatitis

Follow up information:

Despite some mixed features on biopsy, she is being managed as an AIH due to serological and radiological evidence all favouring AIH. Responded well to immunosuppression.

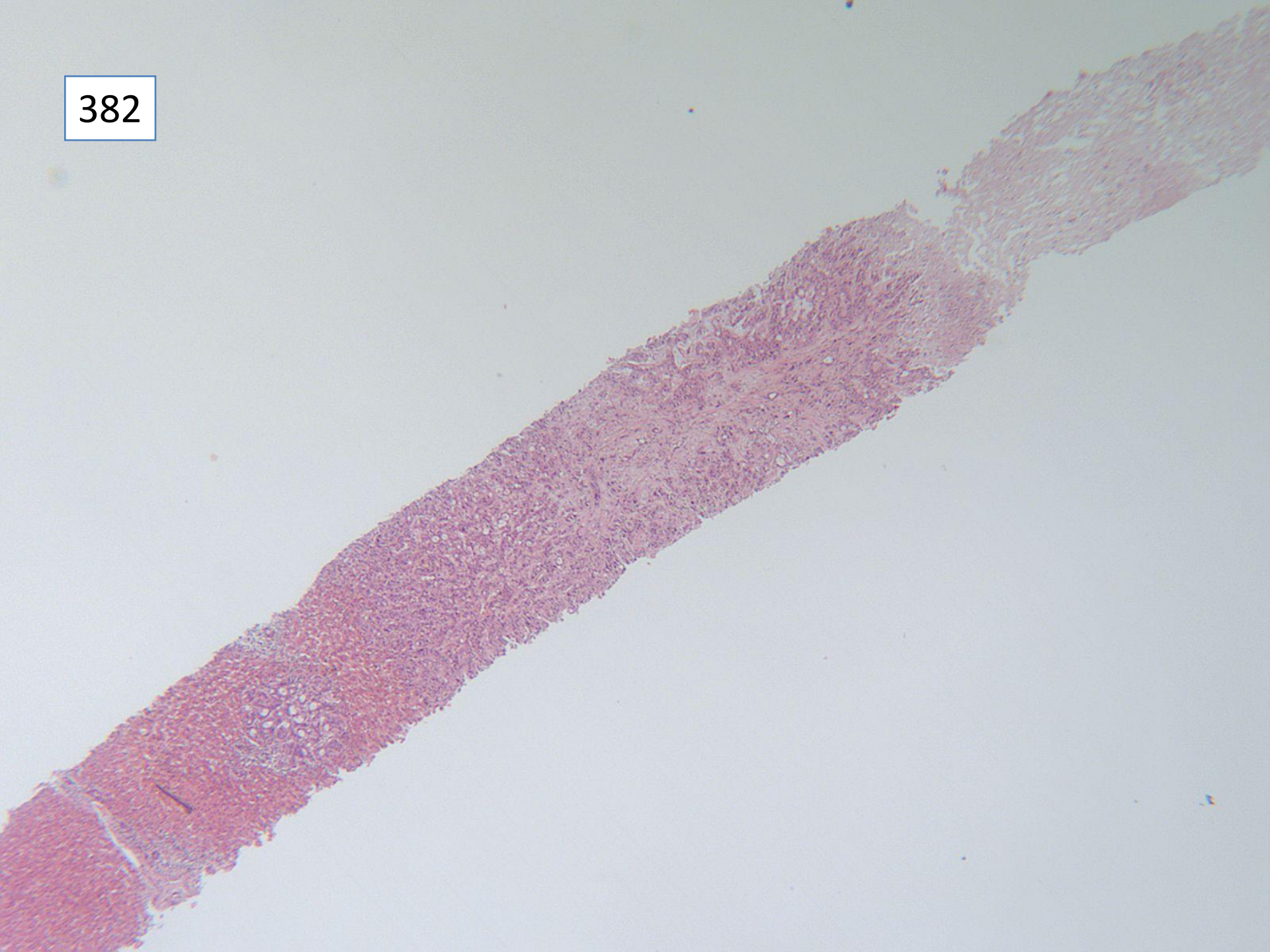
## Case number 382

Male 53 years

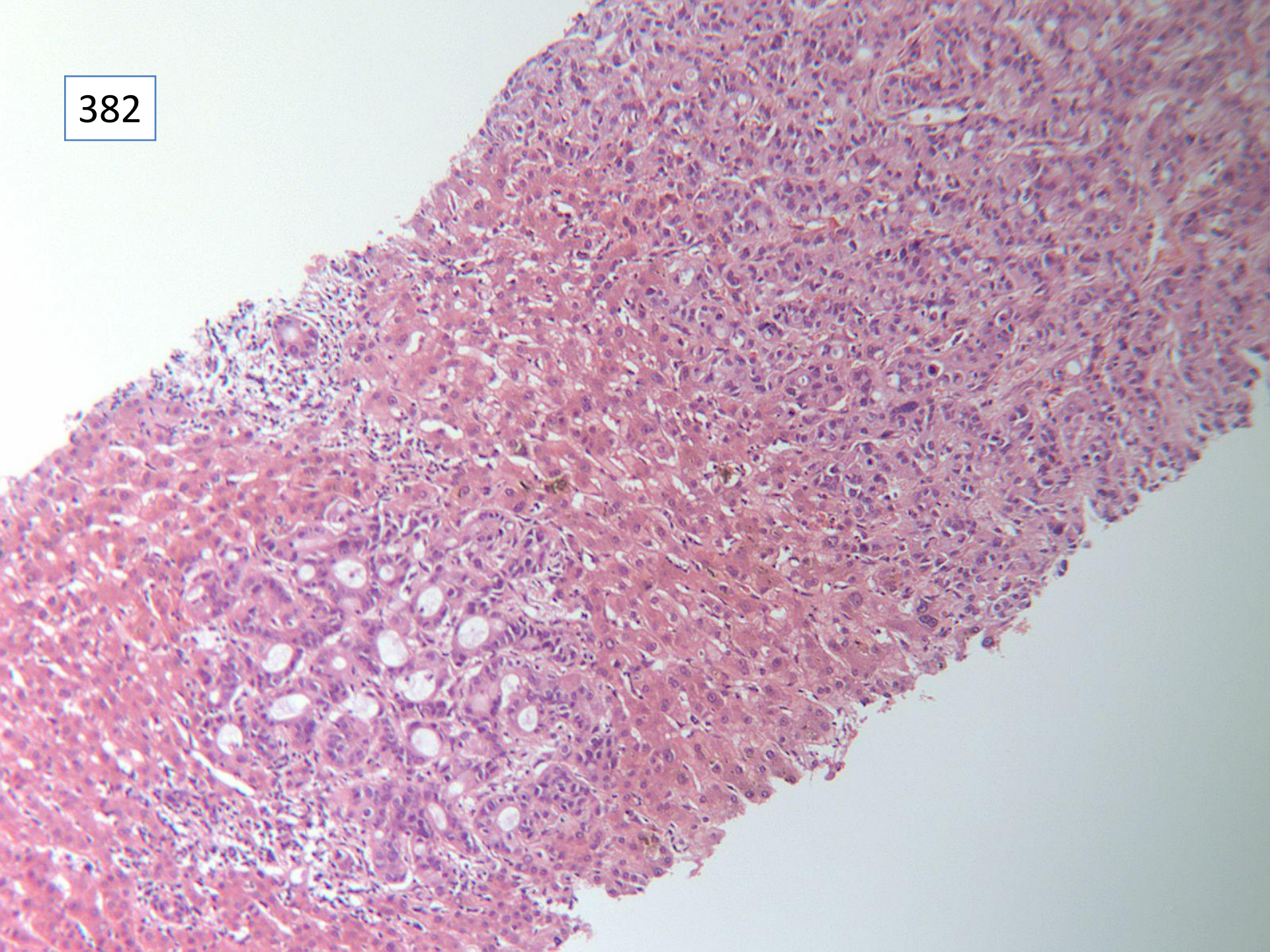
Radiological diagnosis of pancreatic cancer.  
Liver lesion biopsied.

Liver Mass Biopsy: 2 cores 20mm

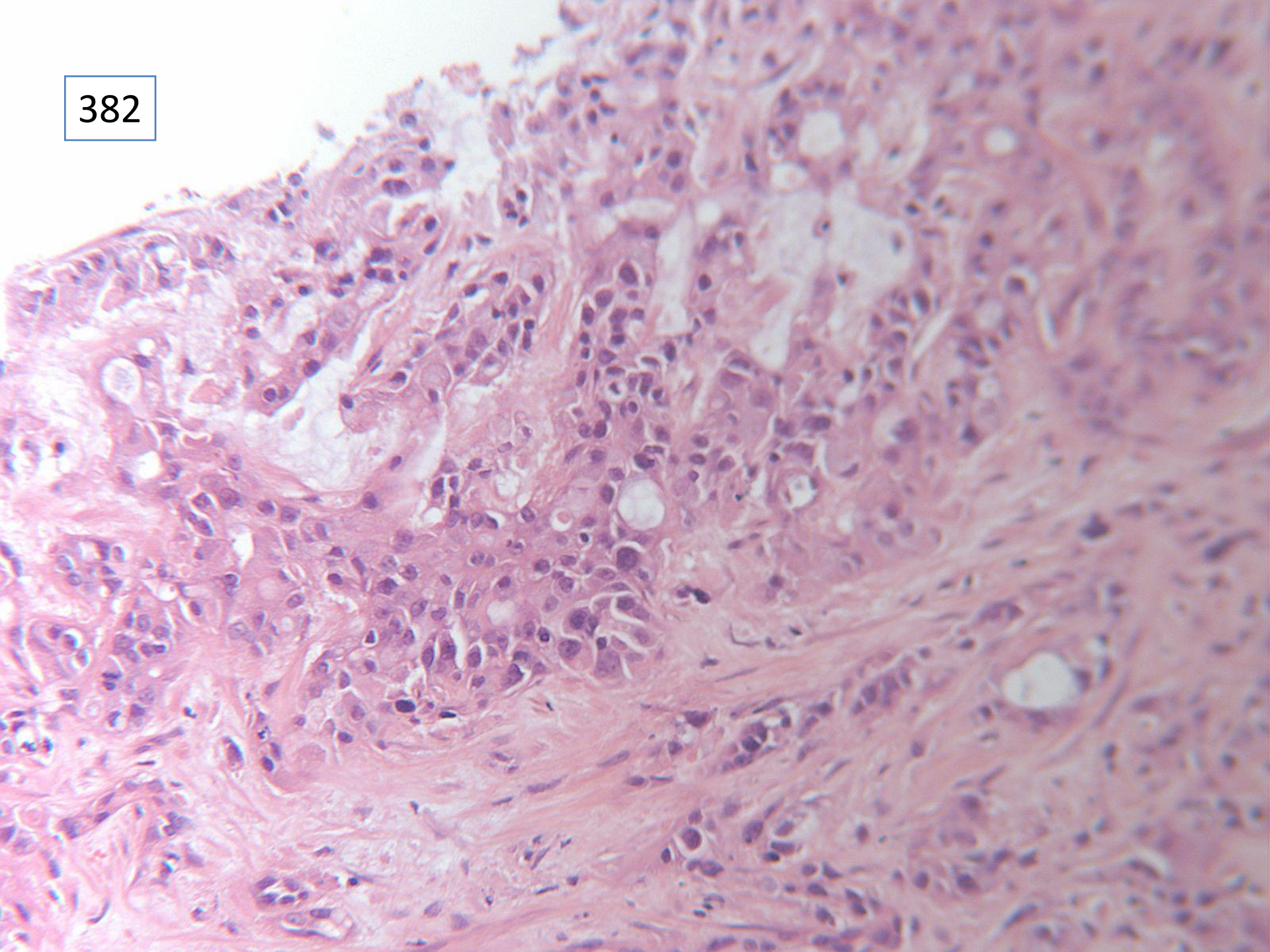
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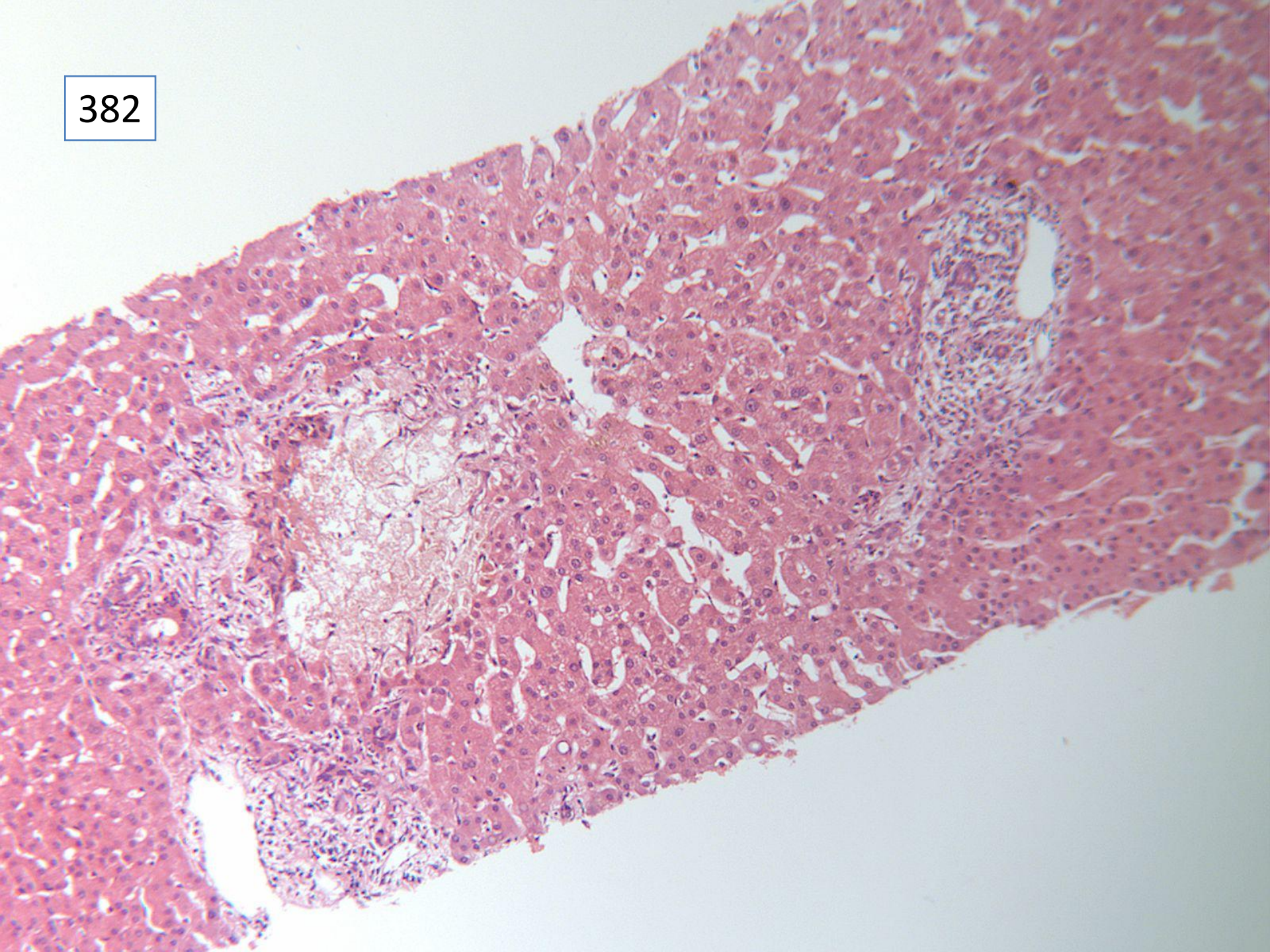
382



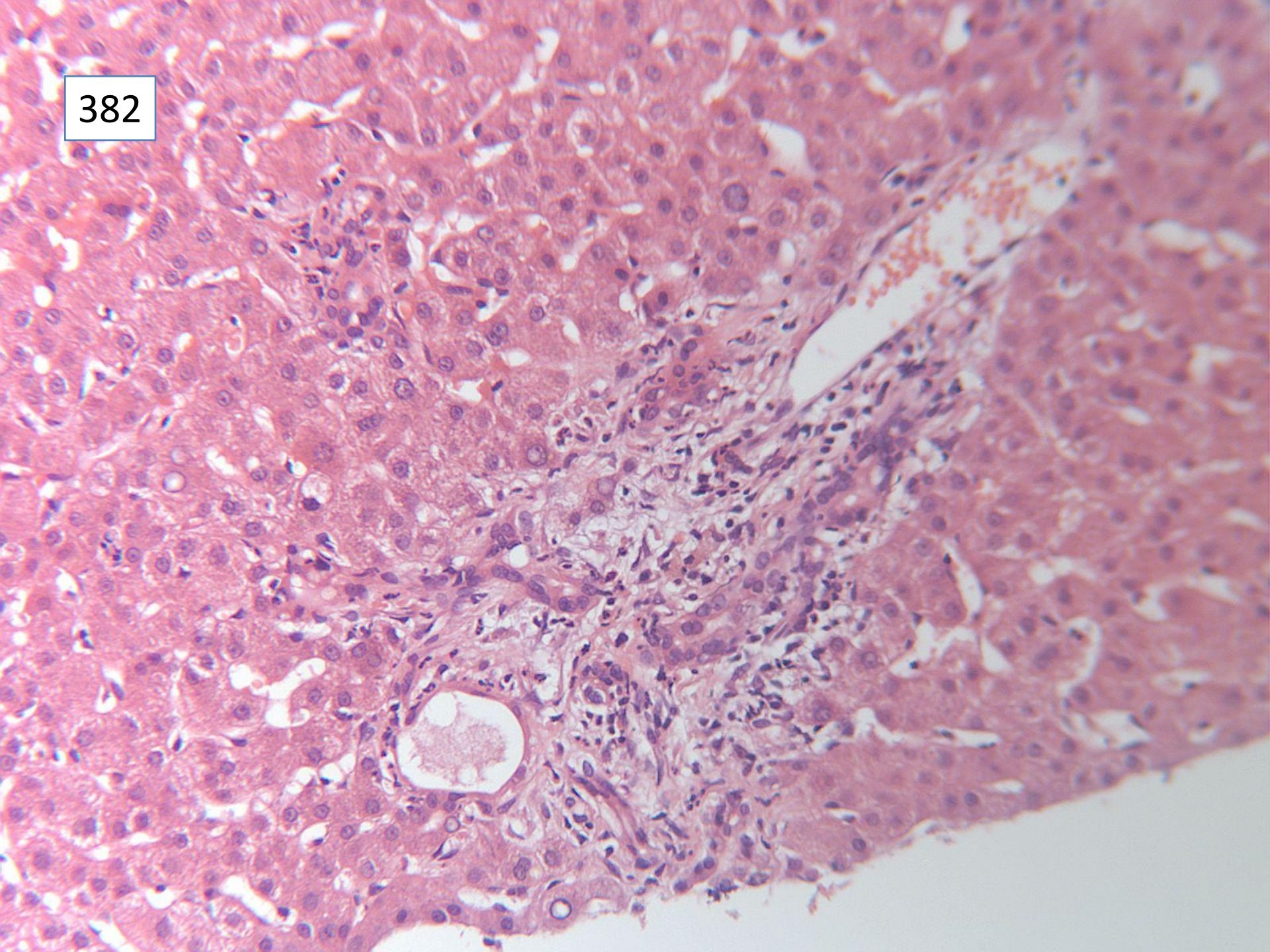
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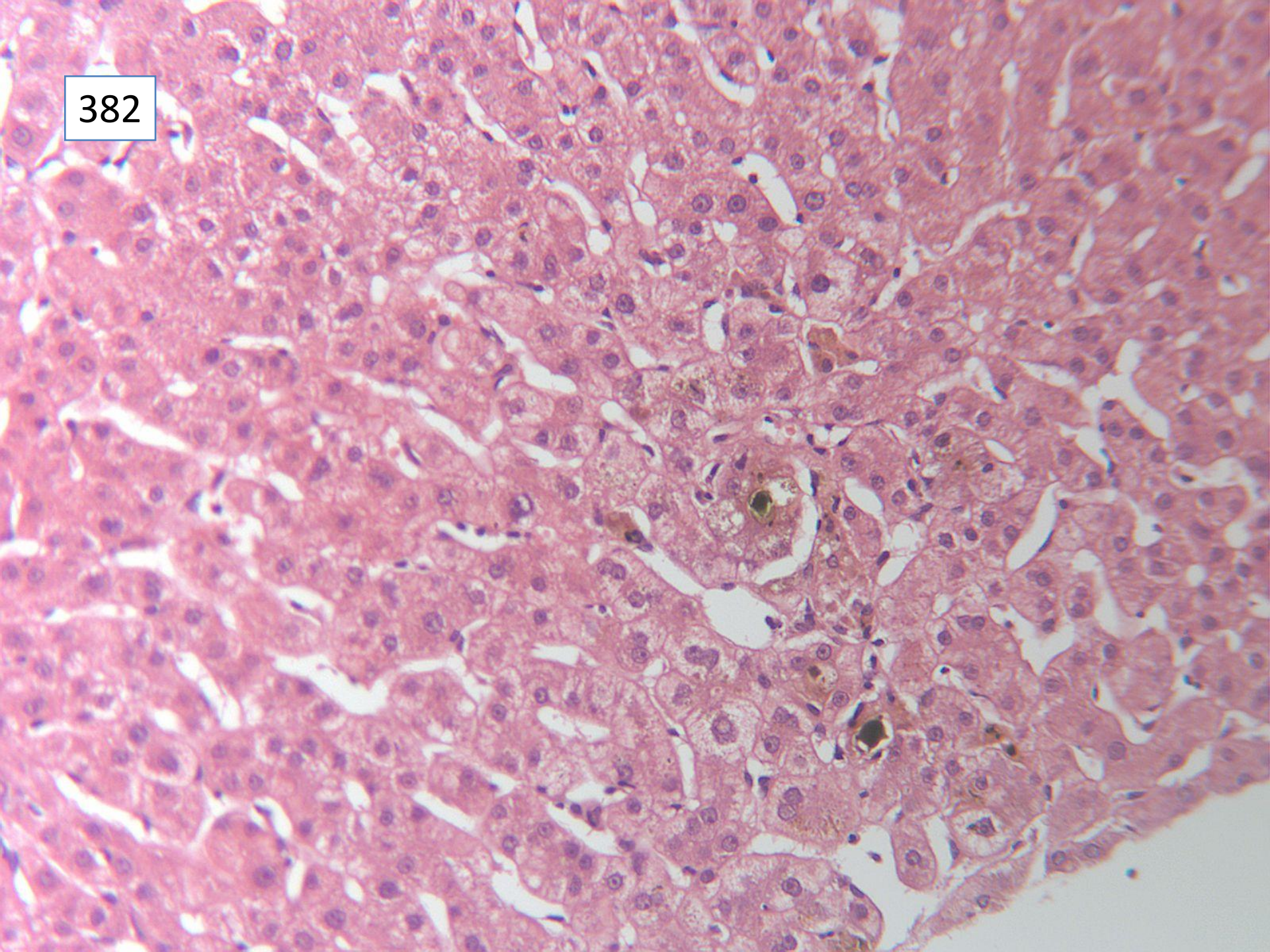
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## Case number 382

### Results:

55 adenocarcinoma

Of which 50 consistent with pancreatic

15 suggest immunos

2 no mention of origin

2 favour HCC

1 consistent with LBDO due to pancreatic cancer (no mention of the cancer in the biopsy)

Comment on background liver:

25 cholestasis

14 bile infarct

26 features of large bile duct obstruction

18 no mention of background liver histology

9 specifically associated duct obstruction likely due to pancreatic primary

2 adenocarcinoma with adjacent space occupying lesion changes +/- cholestasis

### Suggested scoring:

For 10 points, adenocarcinoma, consistent with primary site in pancreas.

Insufficient consensus on background liver for scoring

### Comment:

Discussion on use of immunohistochemistry in this context – 15 responses would do immunos, up to 6 different ones.

## Case number 382

Discussion during meeting: how many of us would do immunohistochemistry? – wide variation in practice. Those in favour cited instances of lung mets. thought to be from GIT but uncovered by TTF1. In practice, it depends with close link to clinical and imaging information.

Submitting pathologist's diagnosis: metastatic adenocarcinoma, consistent with pancreatic primary. Evidence of large bile duct obstruction.

## Case number 383

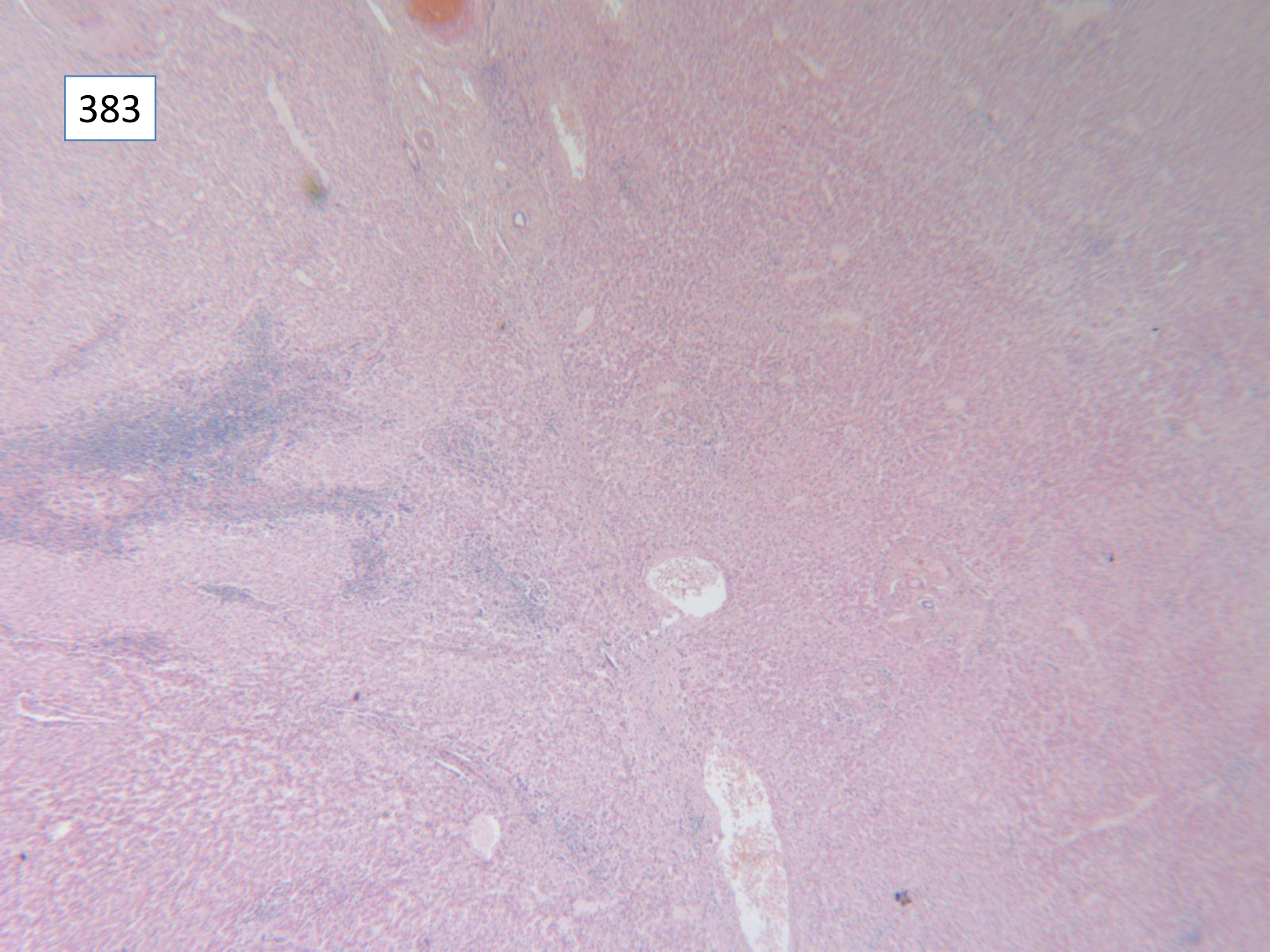
Female 24 years

Severe epigastric pain.

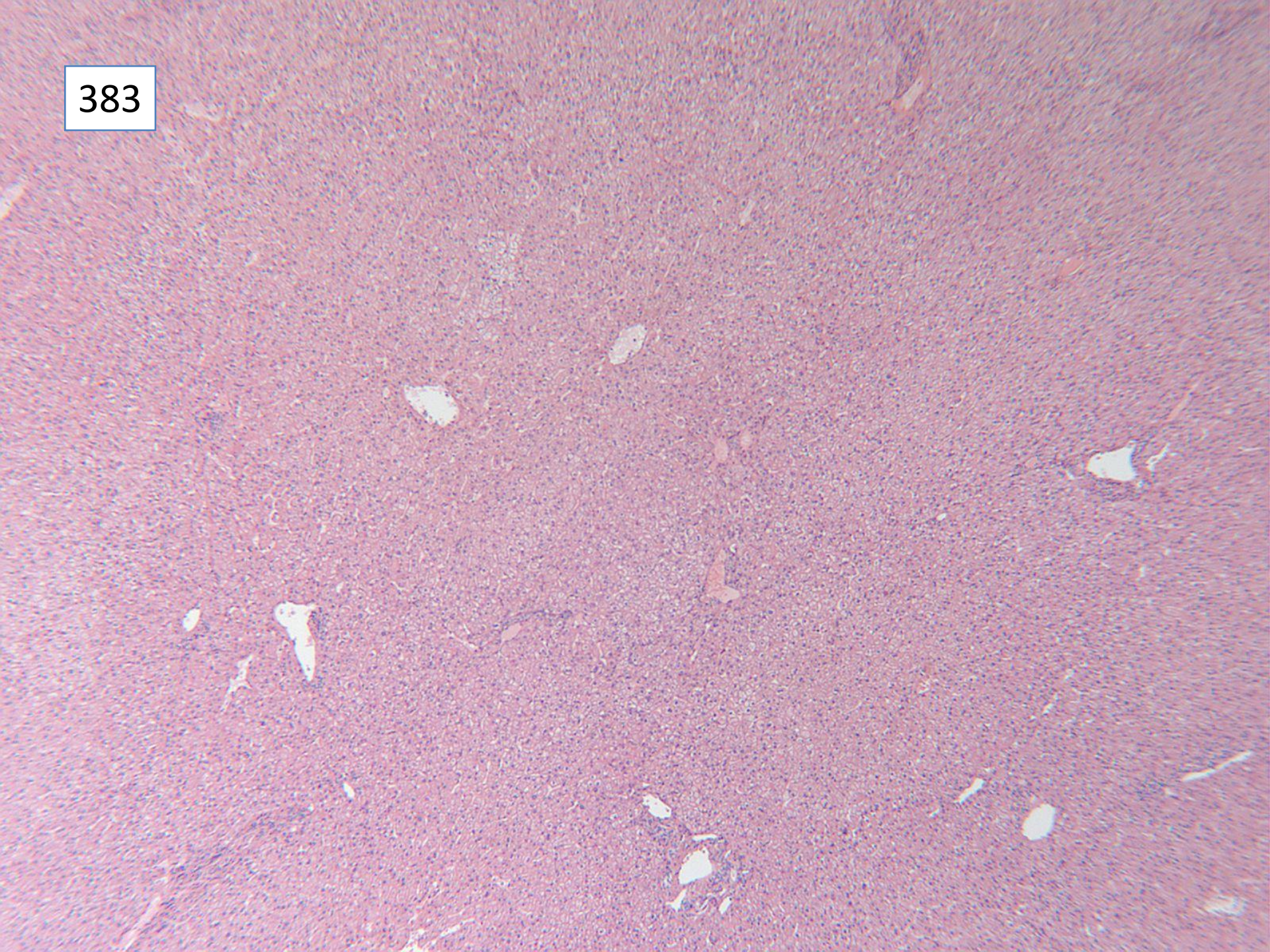
Soft exophytic mass arising from inferior surface of liver.

Liver: Wedge of non-cirrhotic liver with circumscribed multinodular mass measuring 110mm in maximum dimension

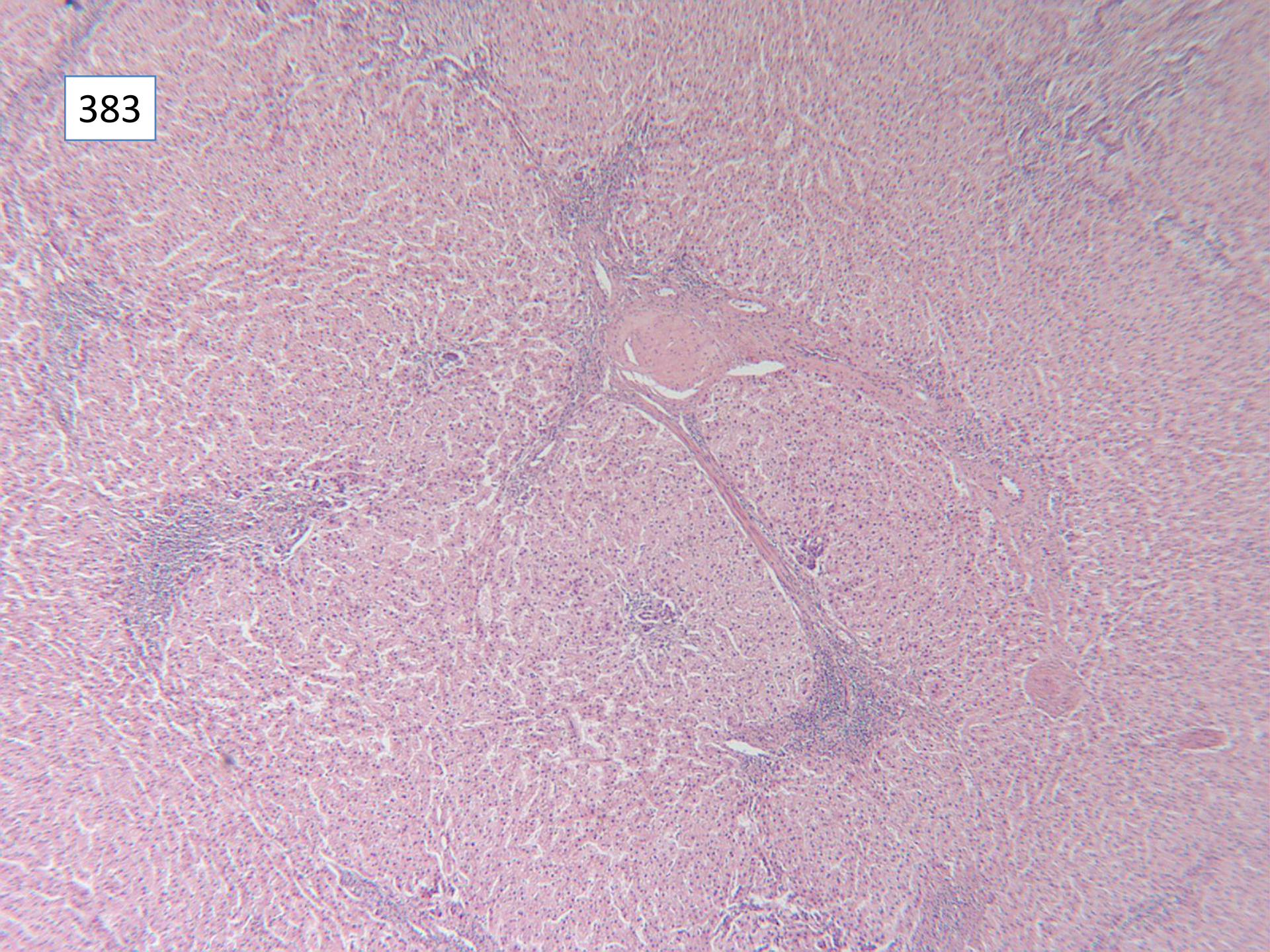
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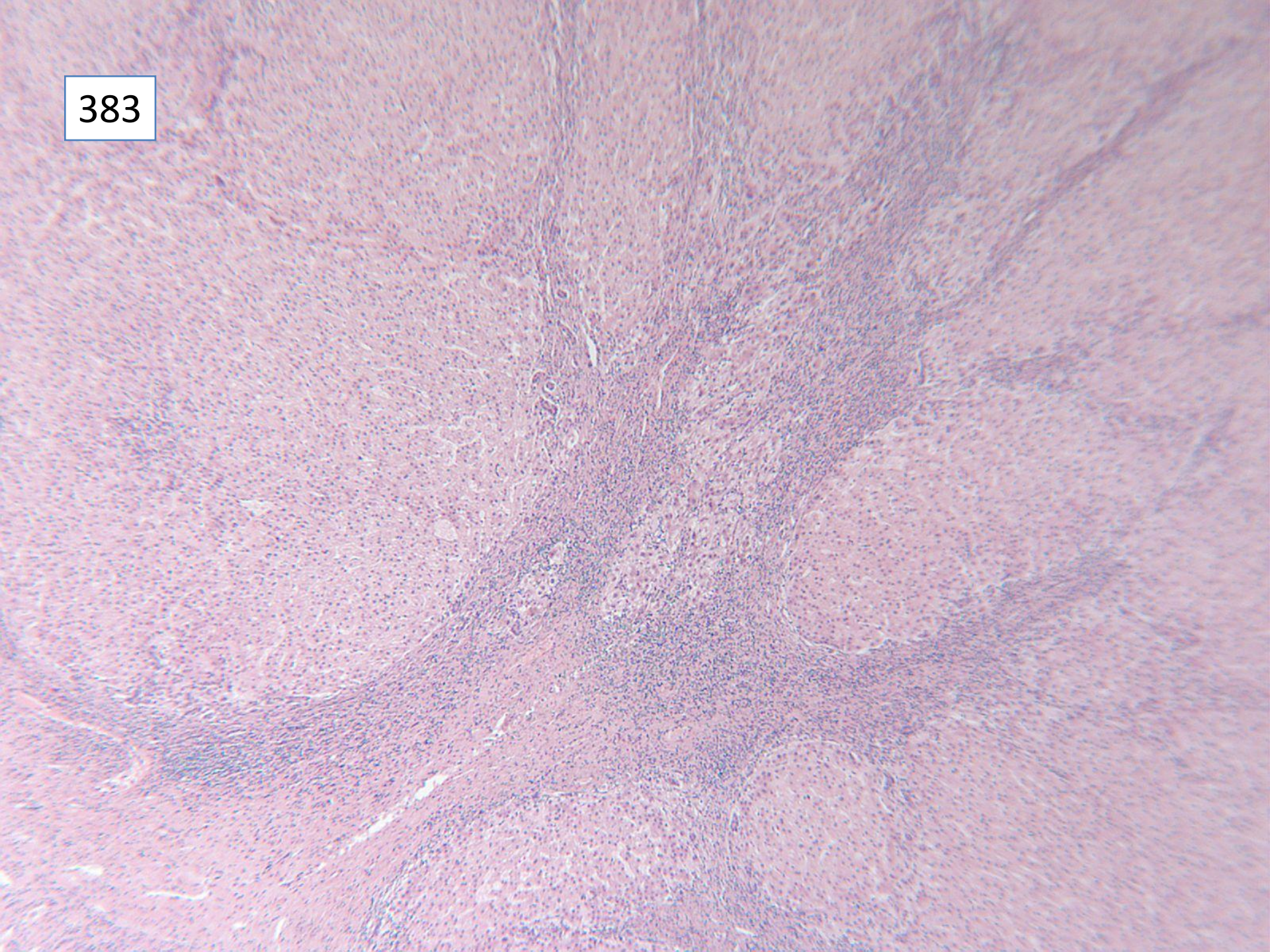
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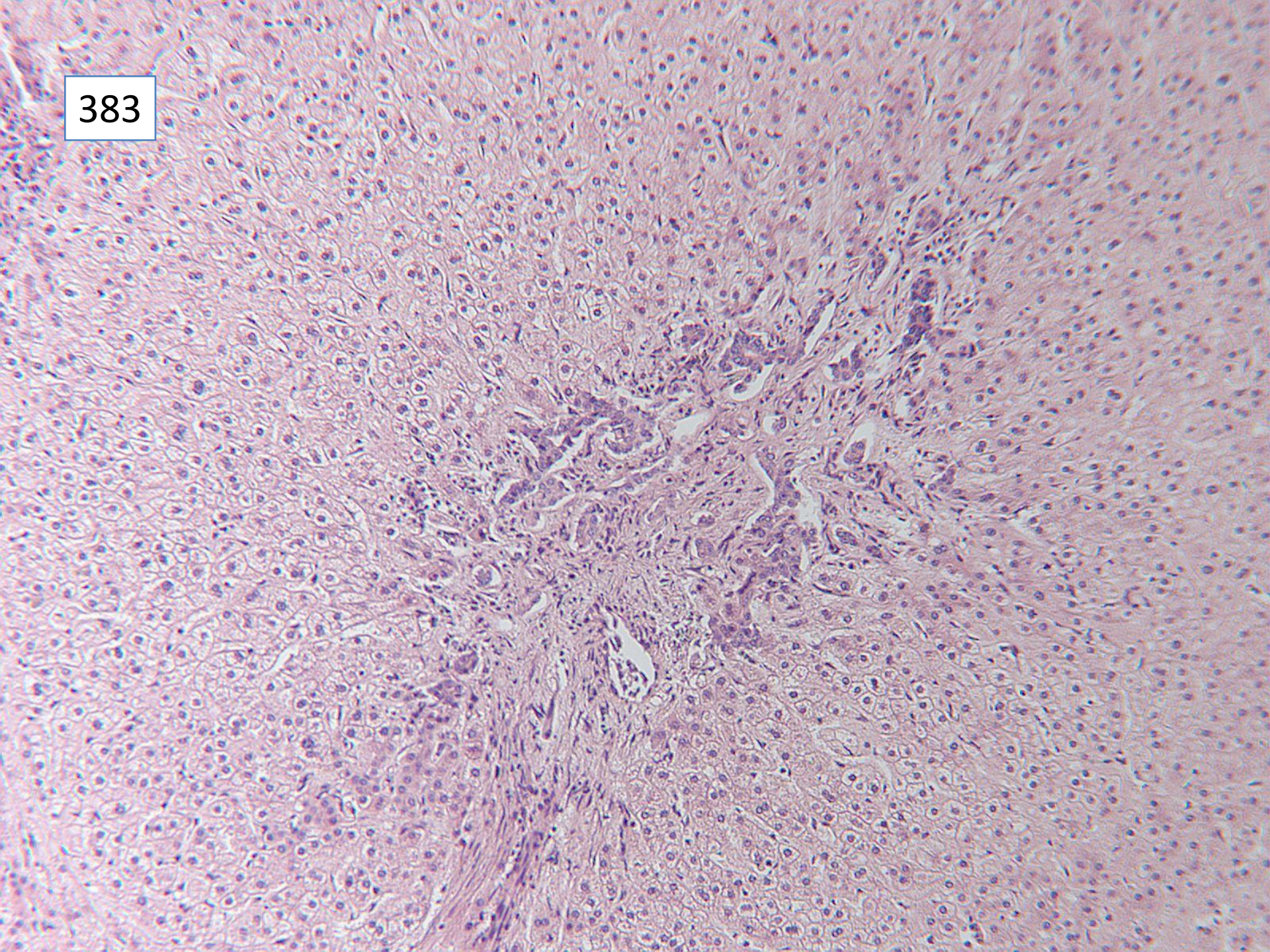
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## Case number 383

### Results:

58 Focal nodular hyperplasia

1 FNH, differential diagnosis nodular regenerative hyperplasia

5 comment on surrounding liver – 4 normal, 1 with septa

### Suggested scoring:

For 10 points clear diagnosis of focal nodular hyperplasia

Submitting pathologist's diagnosis: Focal nodular hyperplasia

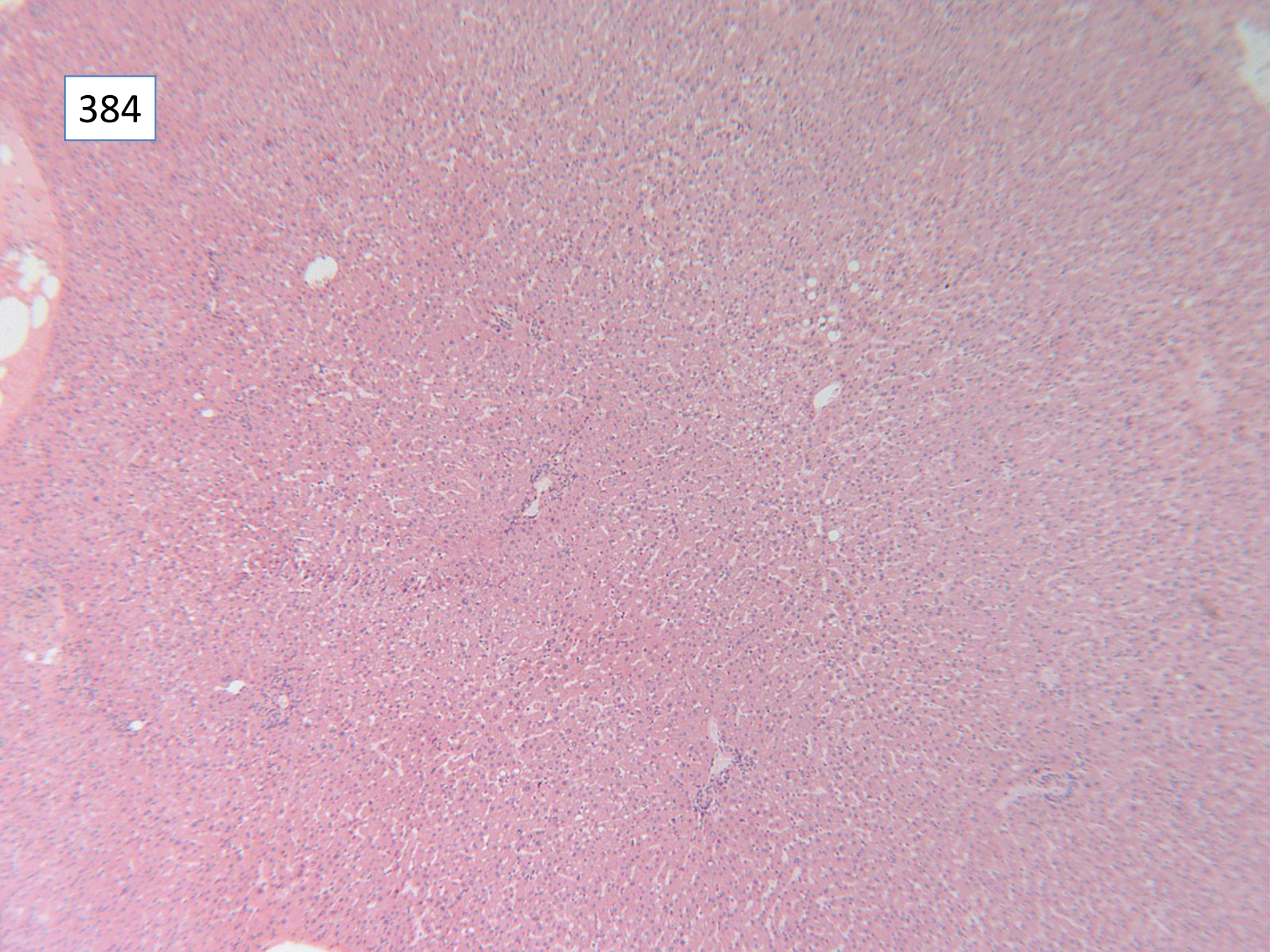
## Case number 384

Male 66 years

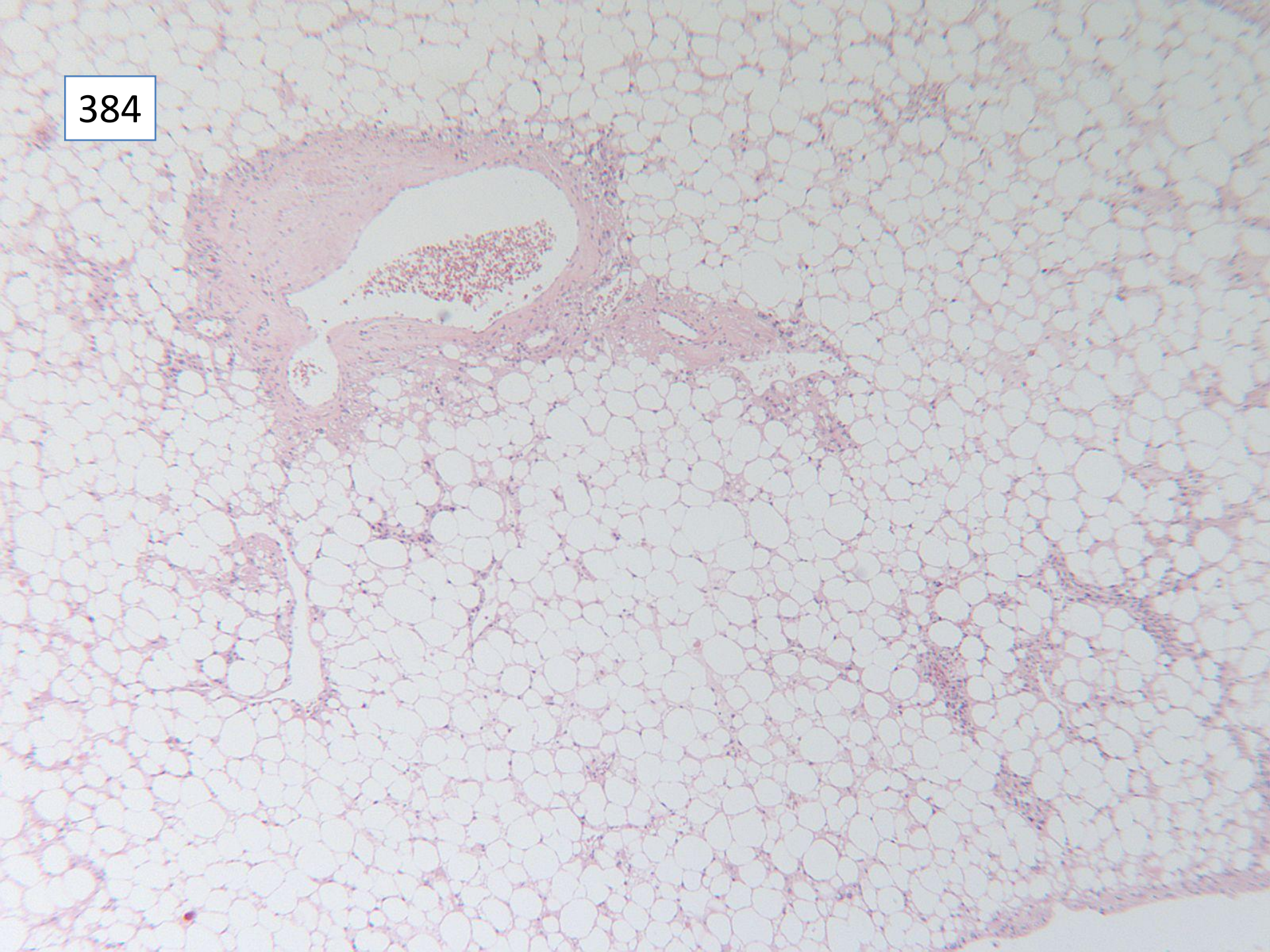
Massive tumour. HMB45 positive.

Left hemihepatectomy: 1400g left lobe liver with  
19cm fatty tumour

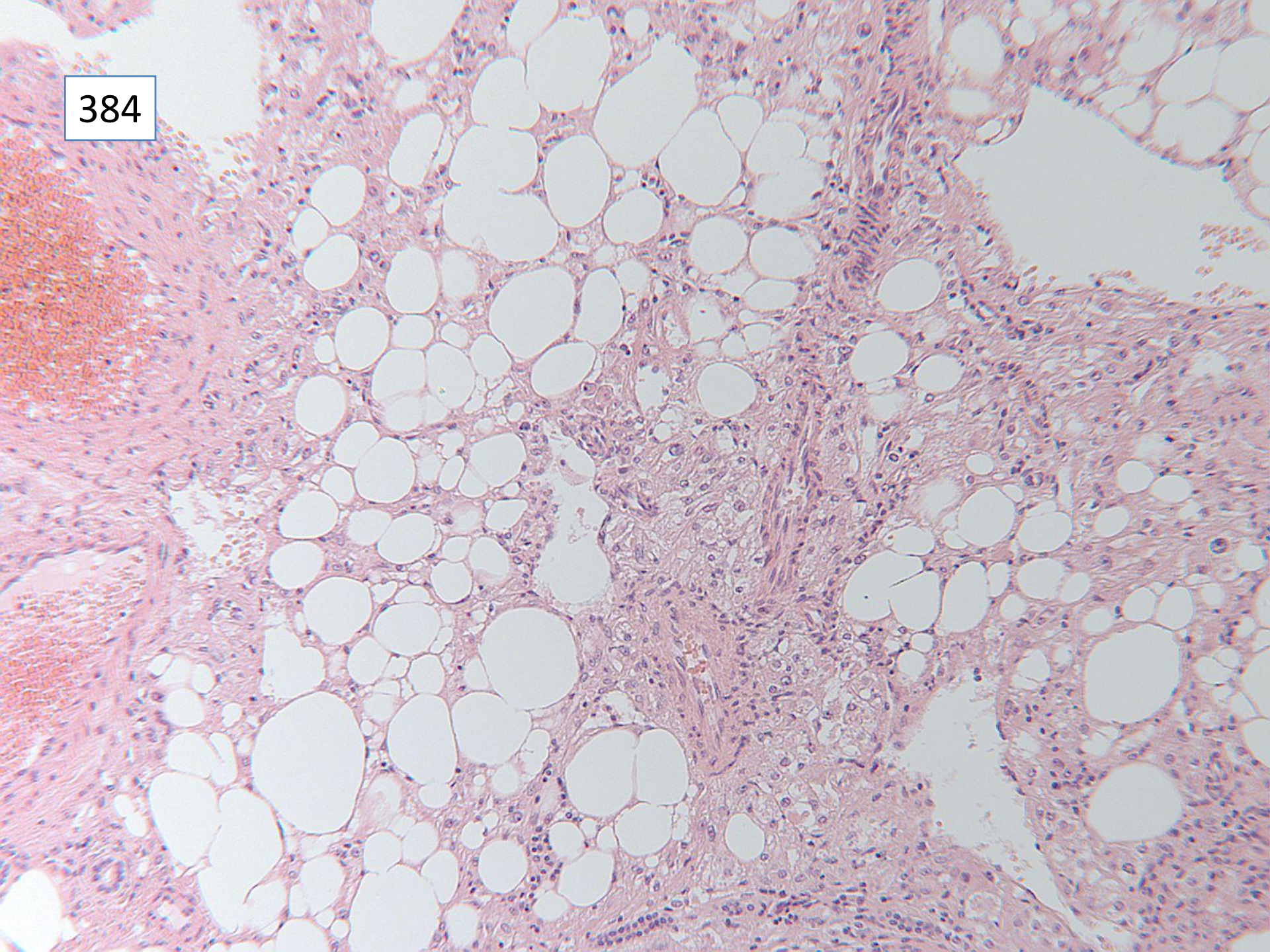
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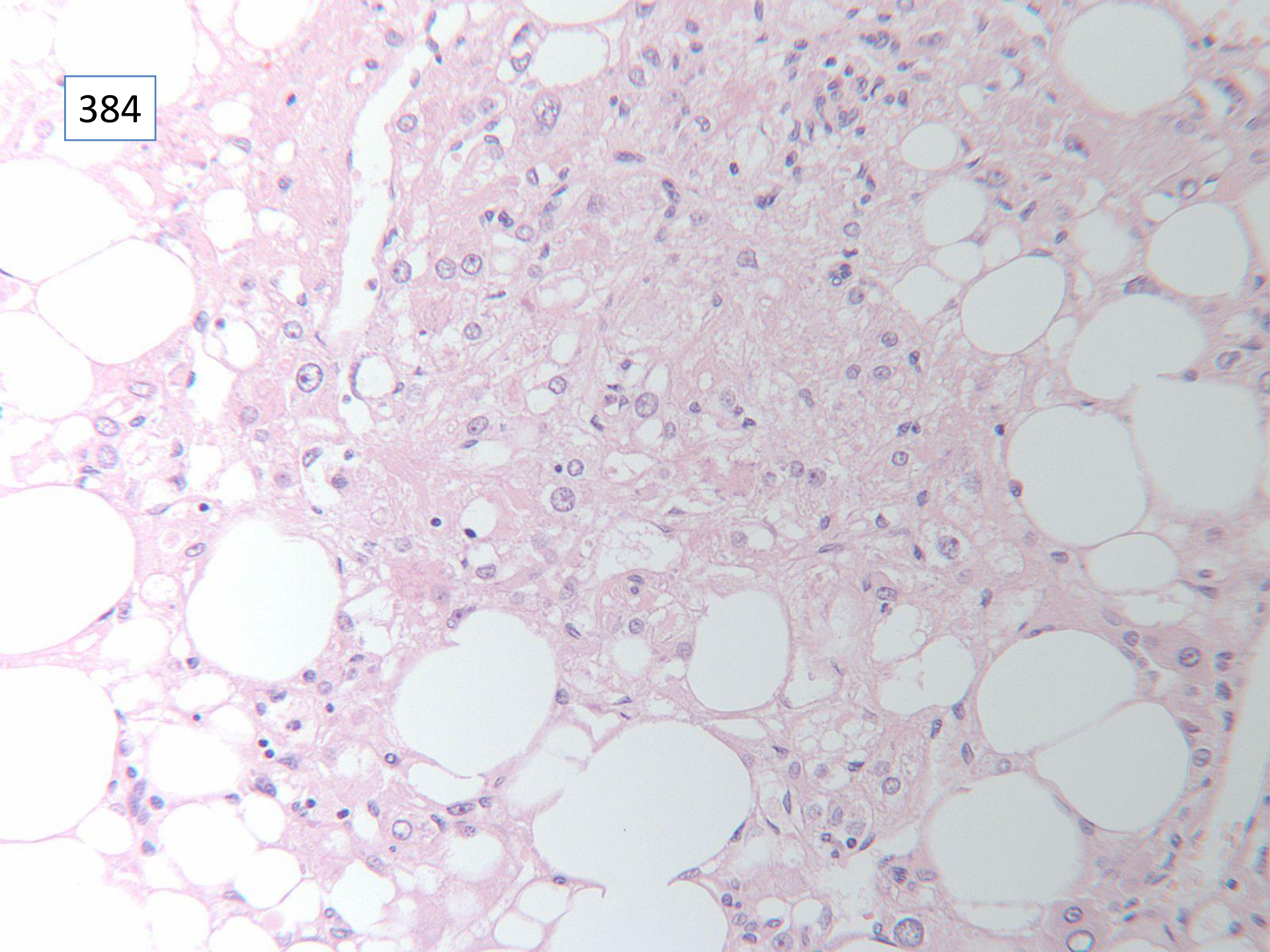
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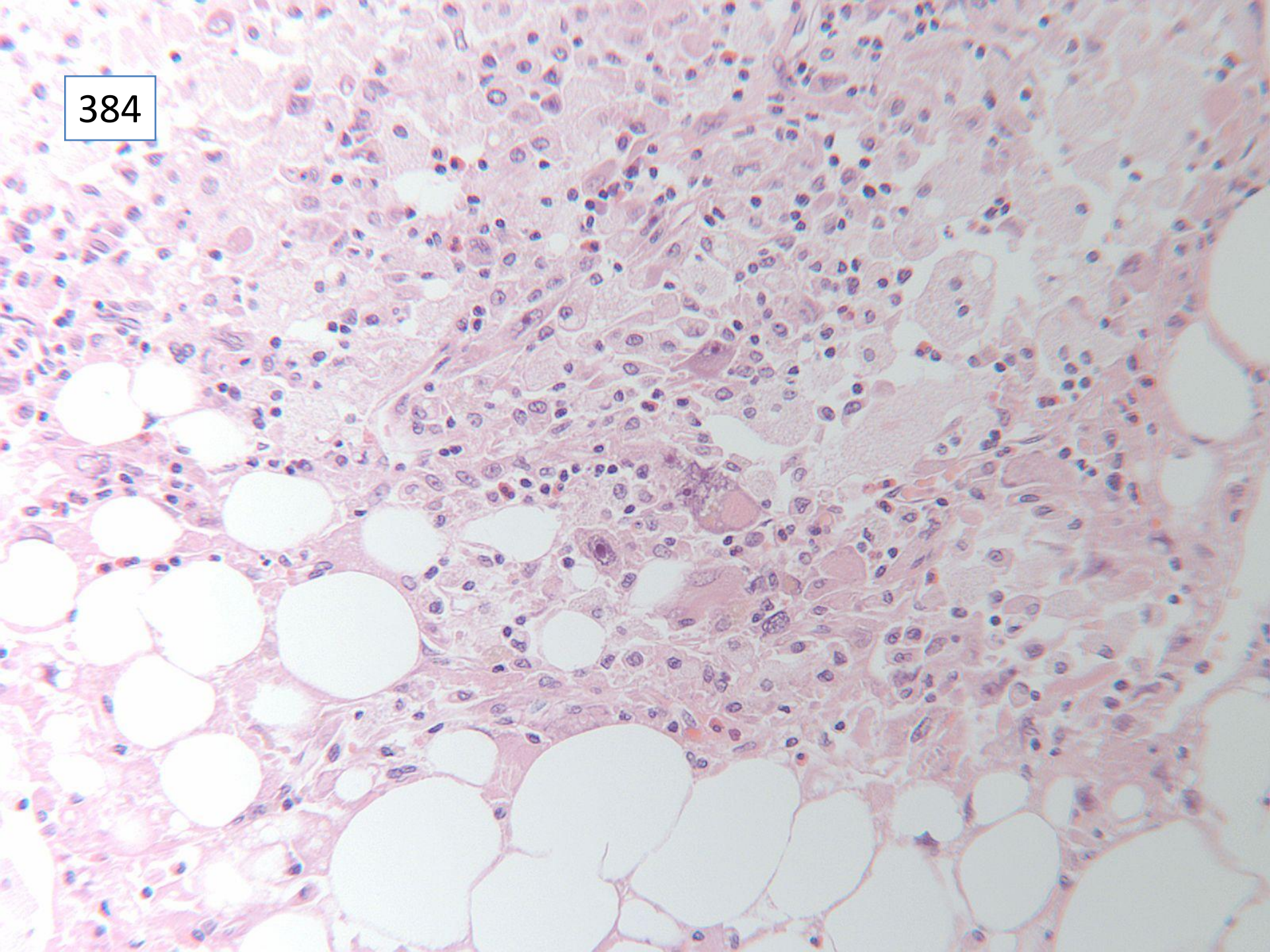
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## Case number 384

### Results:

56 angiomyolipoma

1 suggestive of degenerate HCC, differential diagnosis  
angiomyolipoma, liposarcoma, metastatic melanoma,  
additional immunos required

1 atypical lipomatous tumour/low grade liposarcoma

1 liposarcoma

### Suggested scoring:

As indicated. Good consensus!

Submitting pathologist's diagnosis: angiomyolipoma

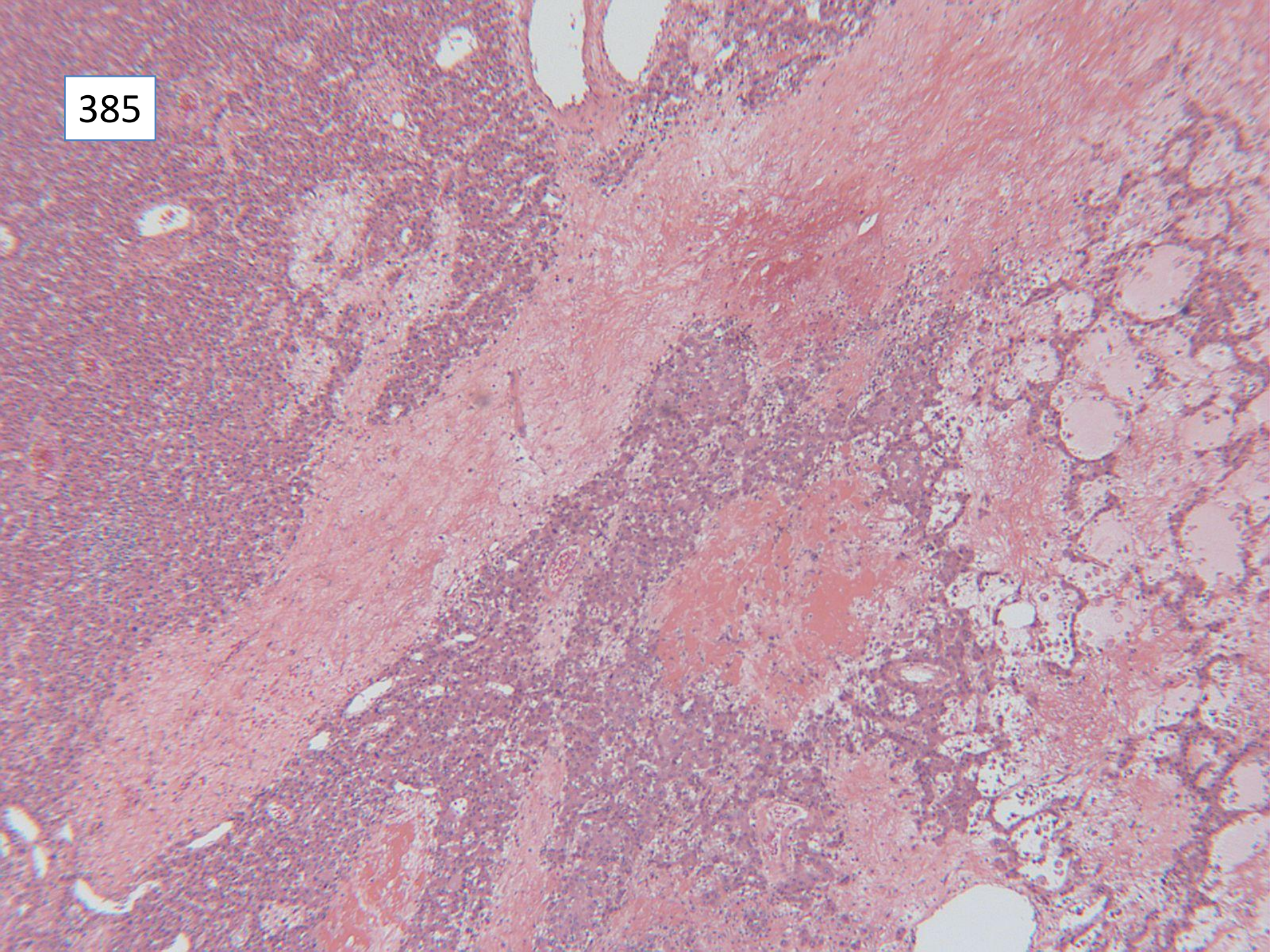
## Case number 385

Female 40 years

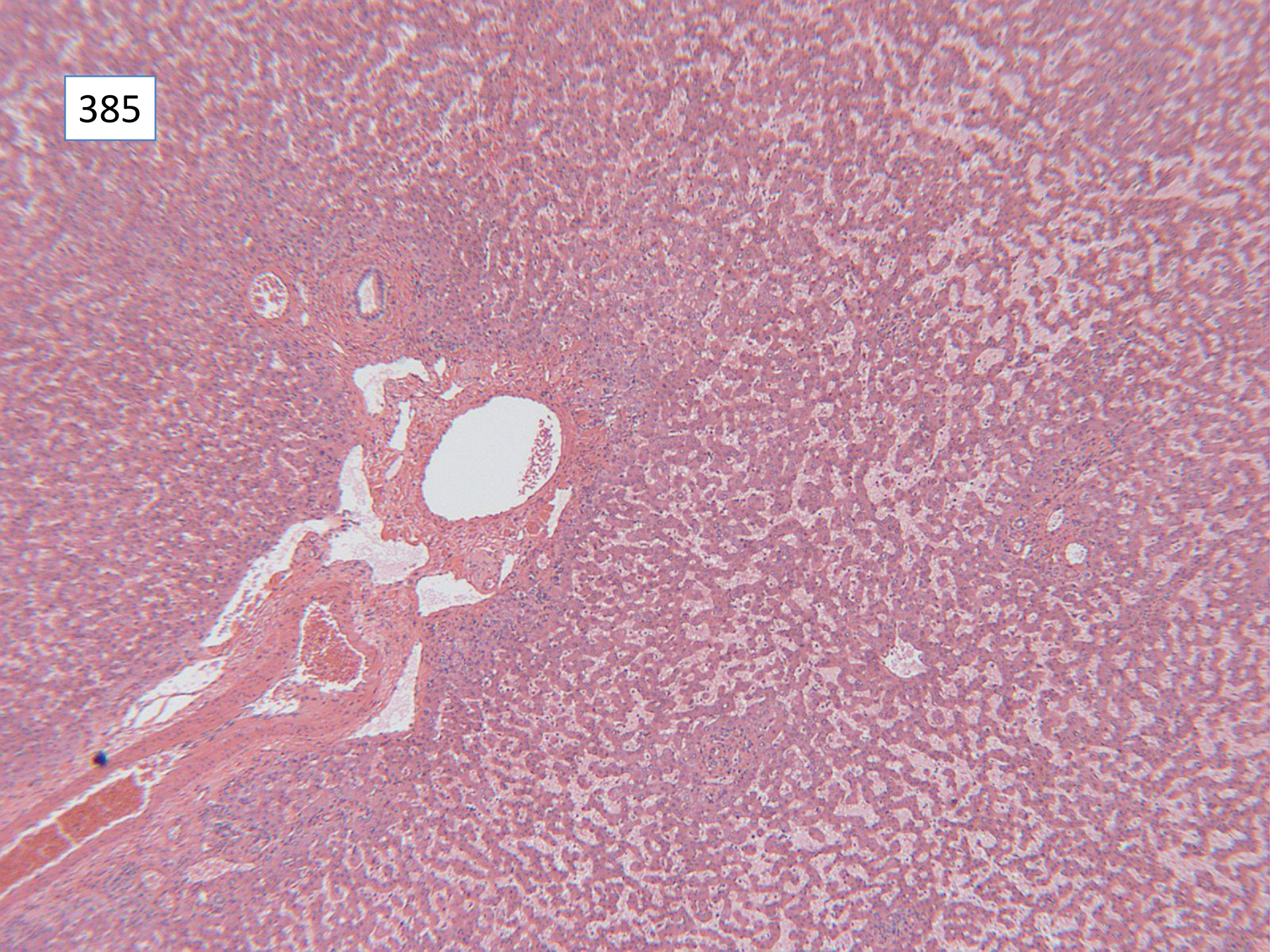
Large lesion right lobe of liver, recently stopped norethisterone therapy.

Right hepatectomy: Right lobe of liver, 1160g 24 x 16 x 8 cm containing circumscribed haemorrhagic lesion 10 x 9 x 7cm

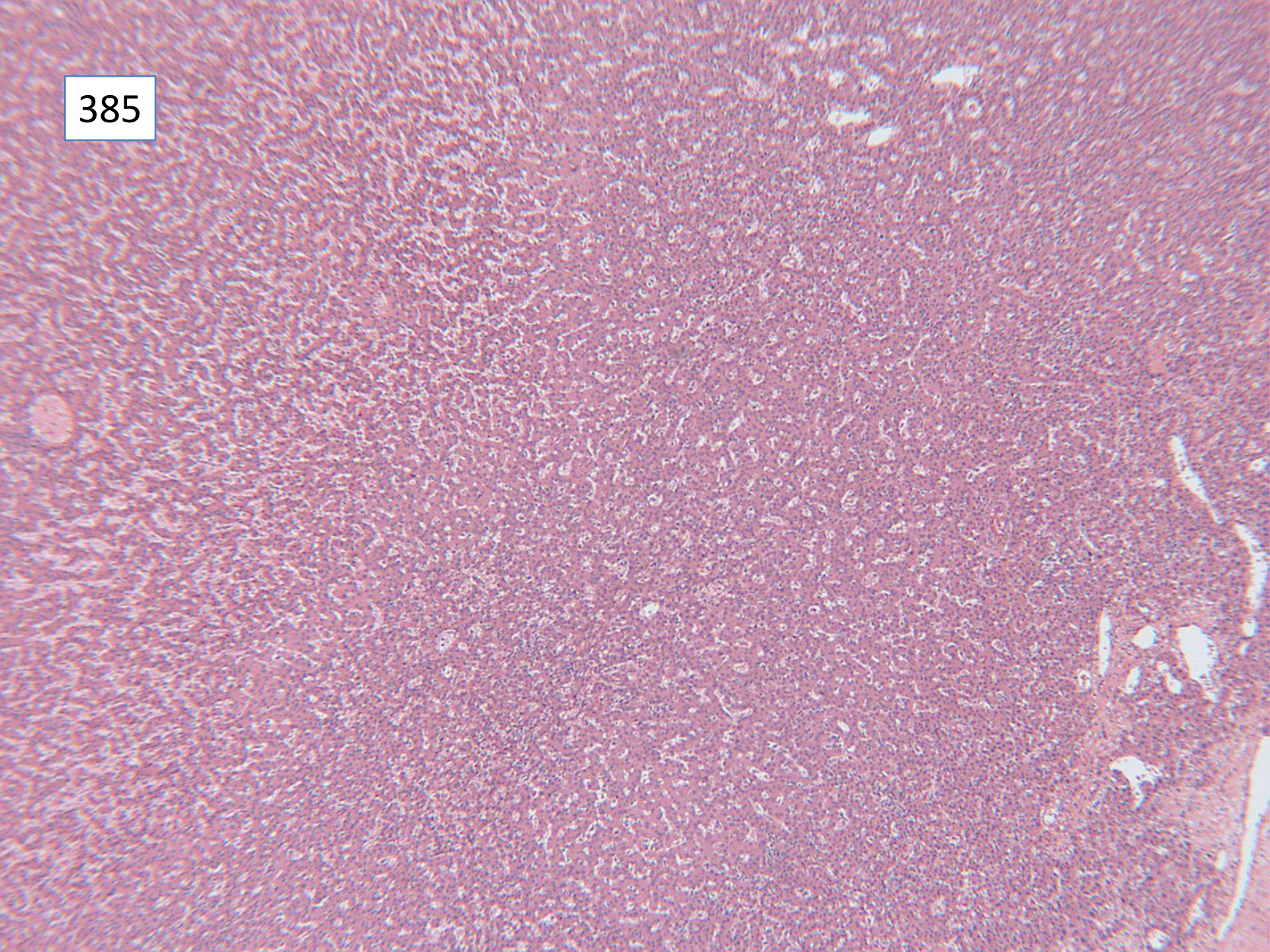
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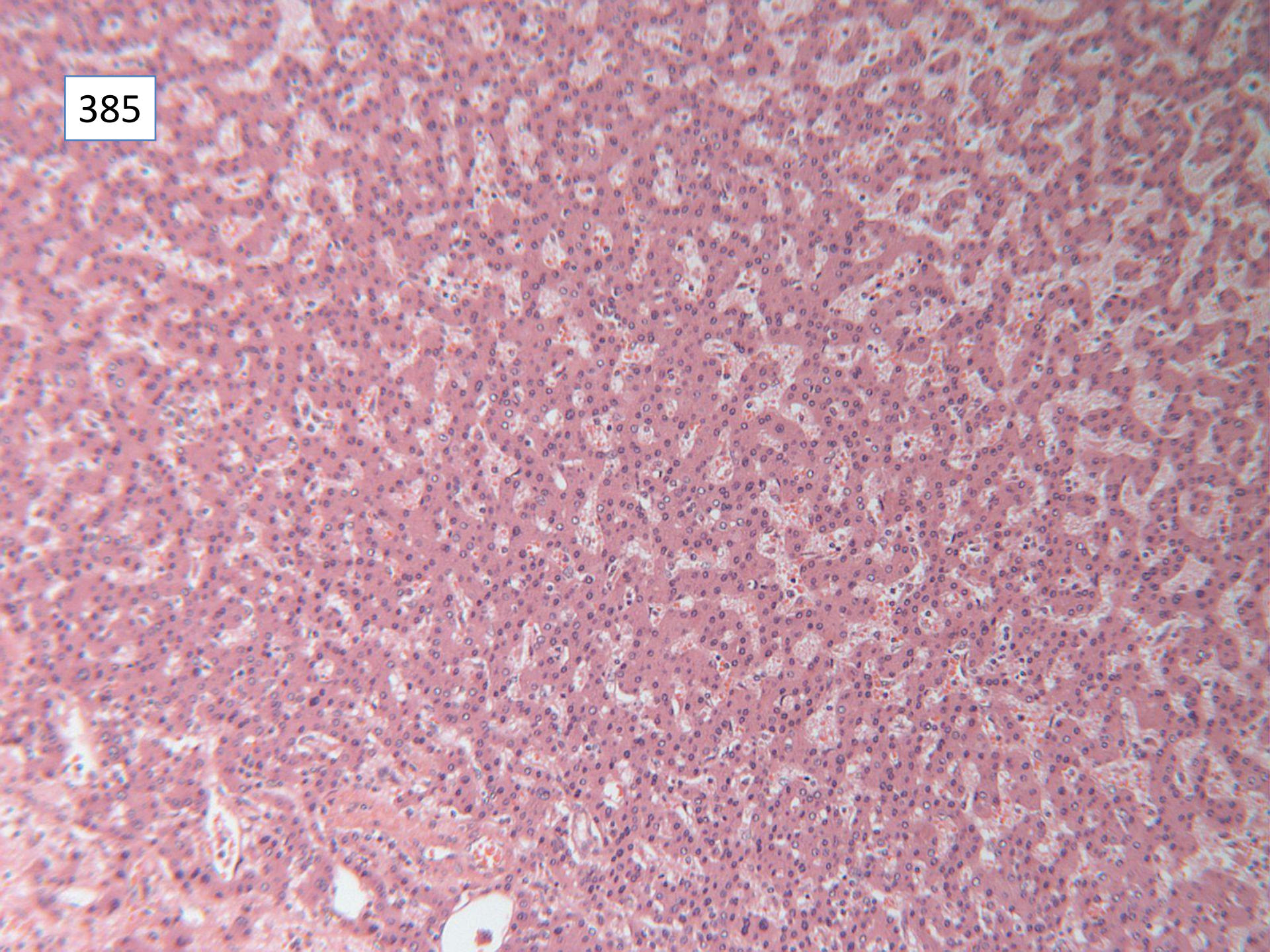
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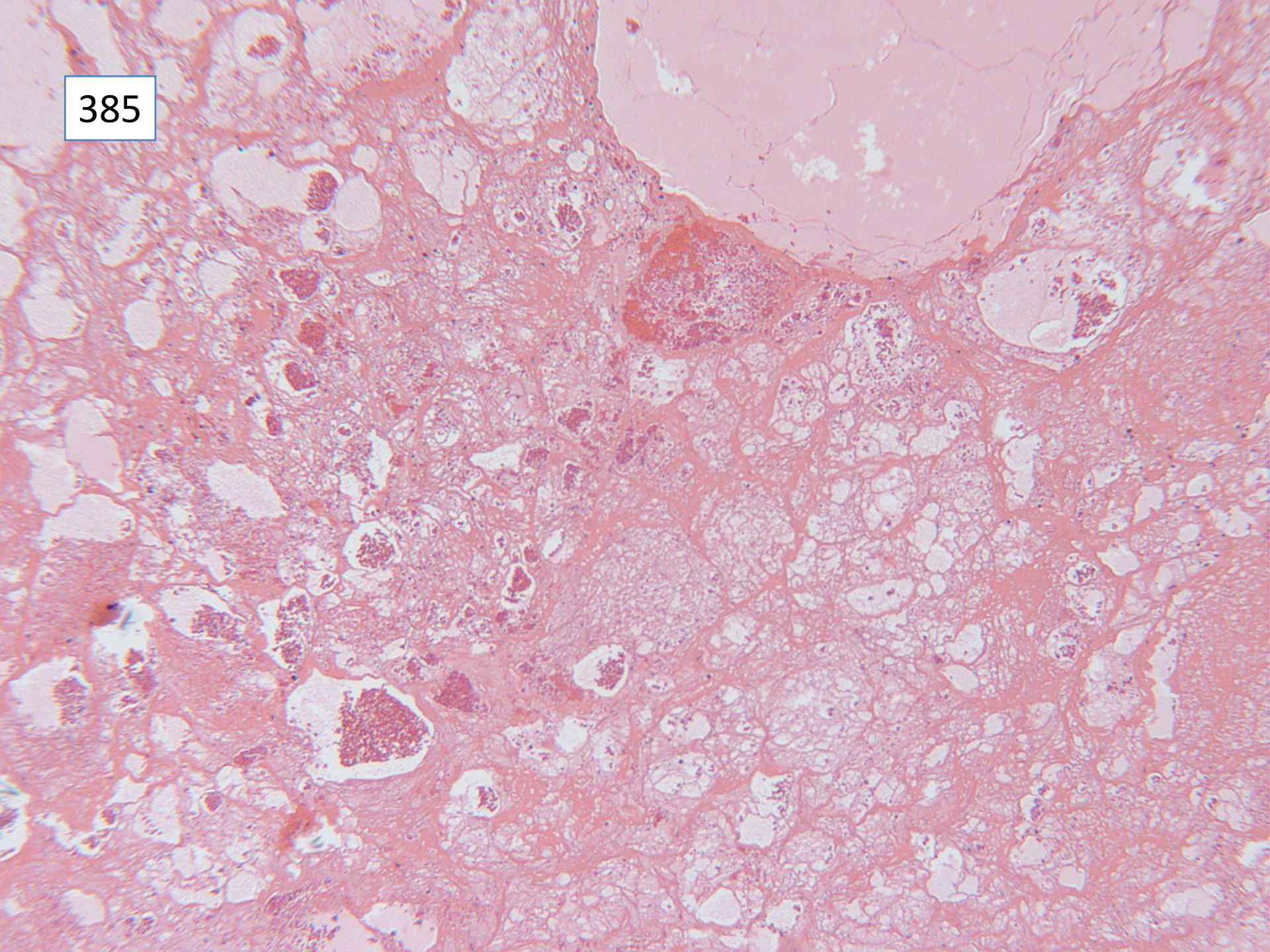
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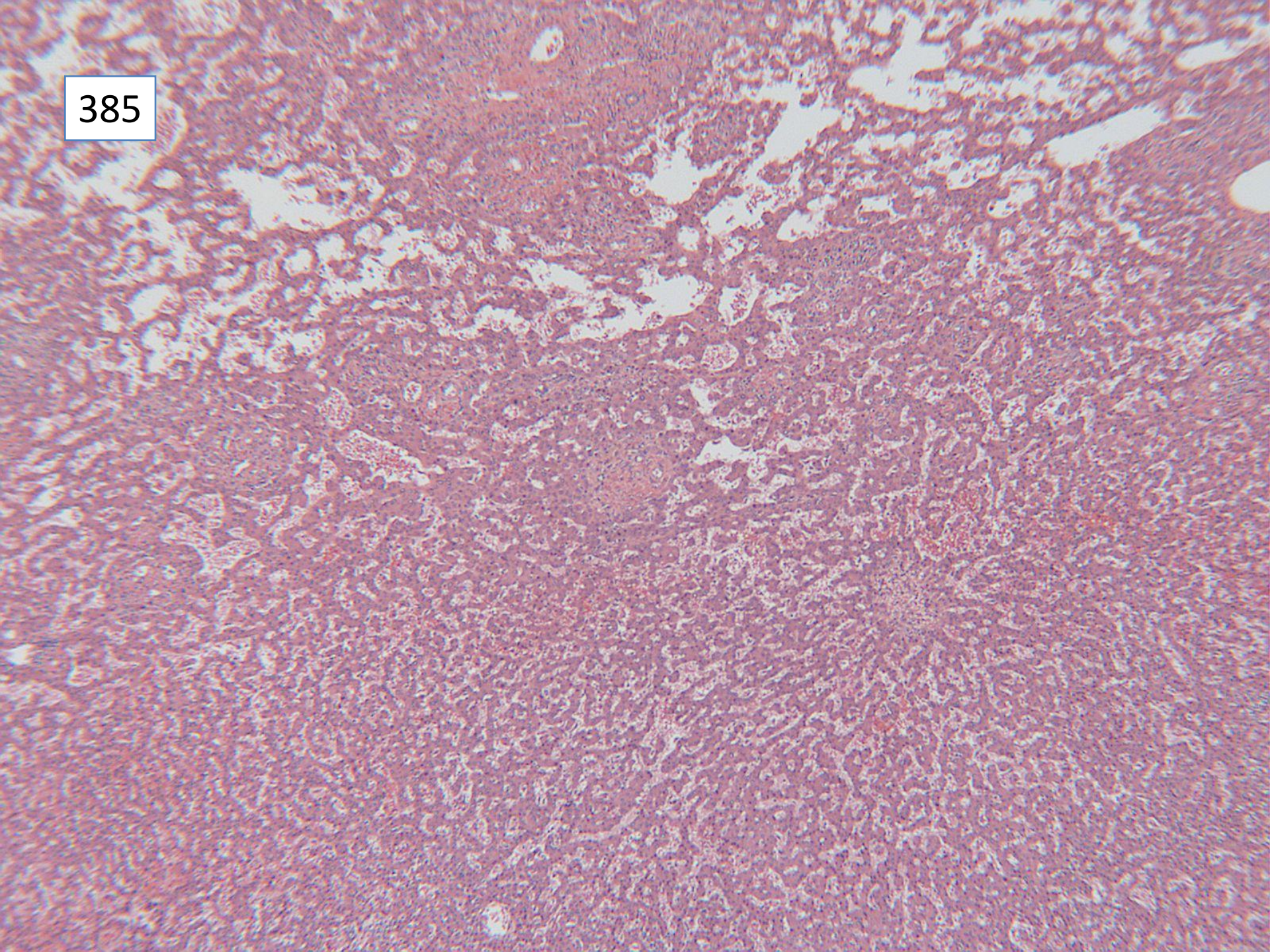
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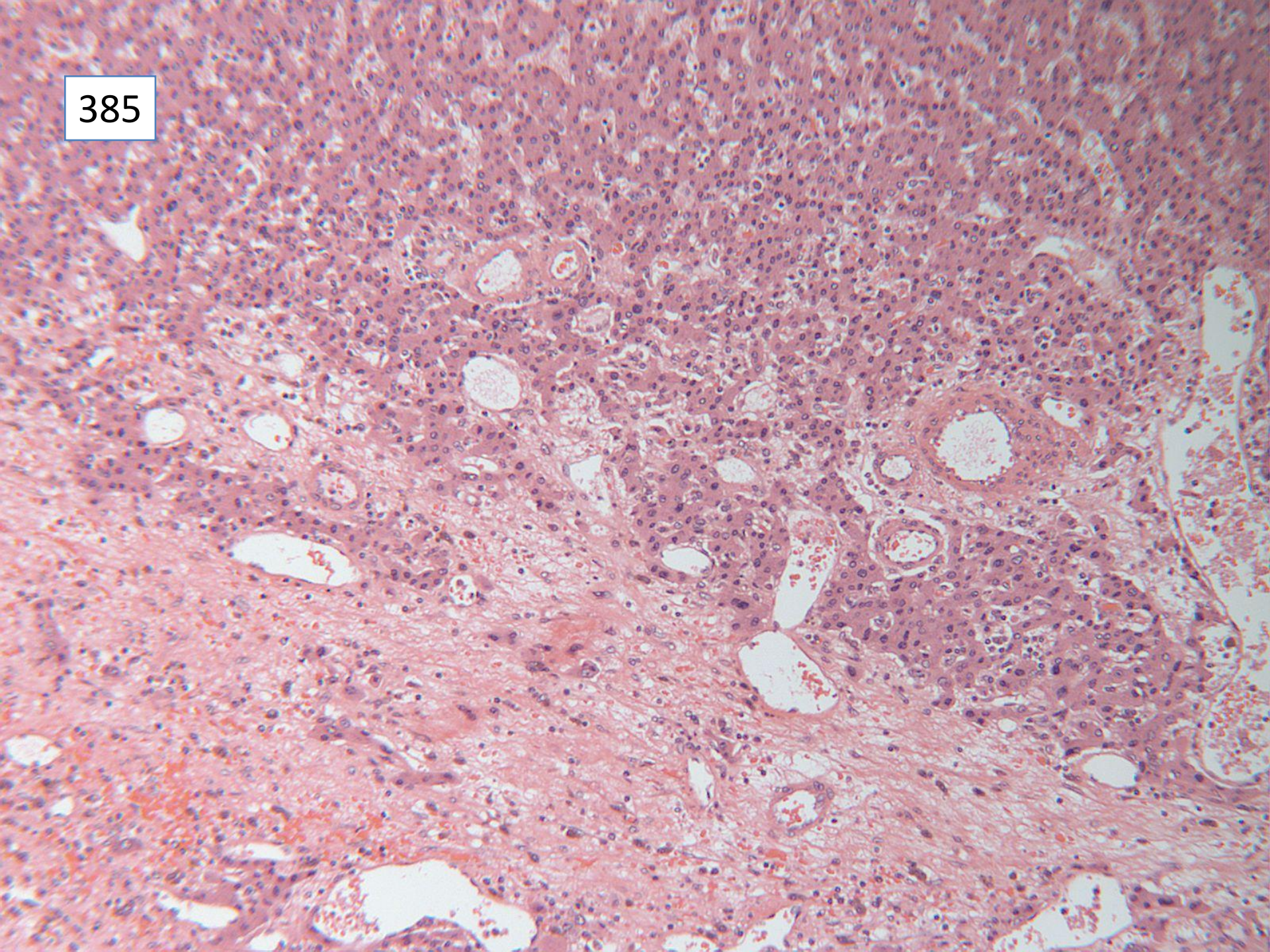
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## Case number 385

### Results:

29 adenoma NOS

10 adenoma – telangiectatic

8 adenoma – inflammatory

These include 6 with main diagnosis adenoma, additional stains to exclude HCC

1 ? telangiectatic FNH

5 focal lesion not mentioned - describe telangiectasis etc. included in 'background' below

21 background of telangiectasis/peliosis

3 background normal

24 background not mentioned

13 pill effect

1 'adenoma with differential diagnosis of peliosis

1 HCC rather than adenoma – req. CD34 and glutamine synthetase

1 peliosis, ? underlying hepatocellular lesion

1 infarcted vascular tumour – immunos to confirm

1 necrotic nodules with haemorrhage due to veno-occlusive disease due to pill, no evidence of neoplasia

1 degenerated haemangioma/  
haemangioendothelioma, needs CD31, CD34.

### Suggested scoring:

For 10 points, recognise that main lesion is some sort of adenoma

## Case number 385

### Discussion during the meeting:

Liver cell adenomas can now be classified according to morphology and immunohistochemistry, see presentation by Chris Bellamy (powerpoint available on liver CPD page).

This is an example of an inflammatory adenoma, of which telangiectasis can be a feature – originally recognised as adenoma by molecular studies demonstrating clonal genetic abnormality in what had previously been identified as ‘telangiectatic FNH’.

# Circulation E1

The end