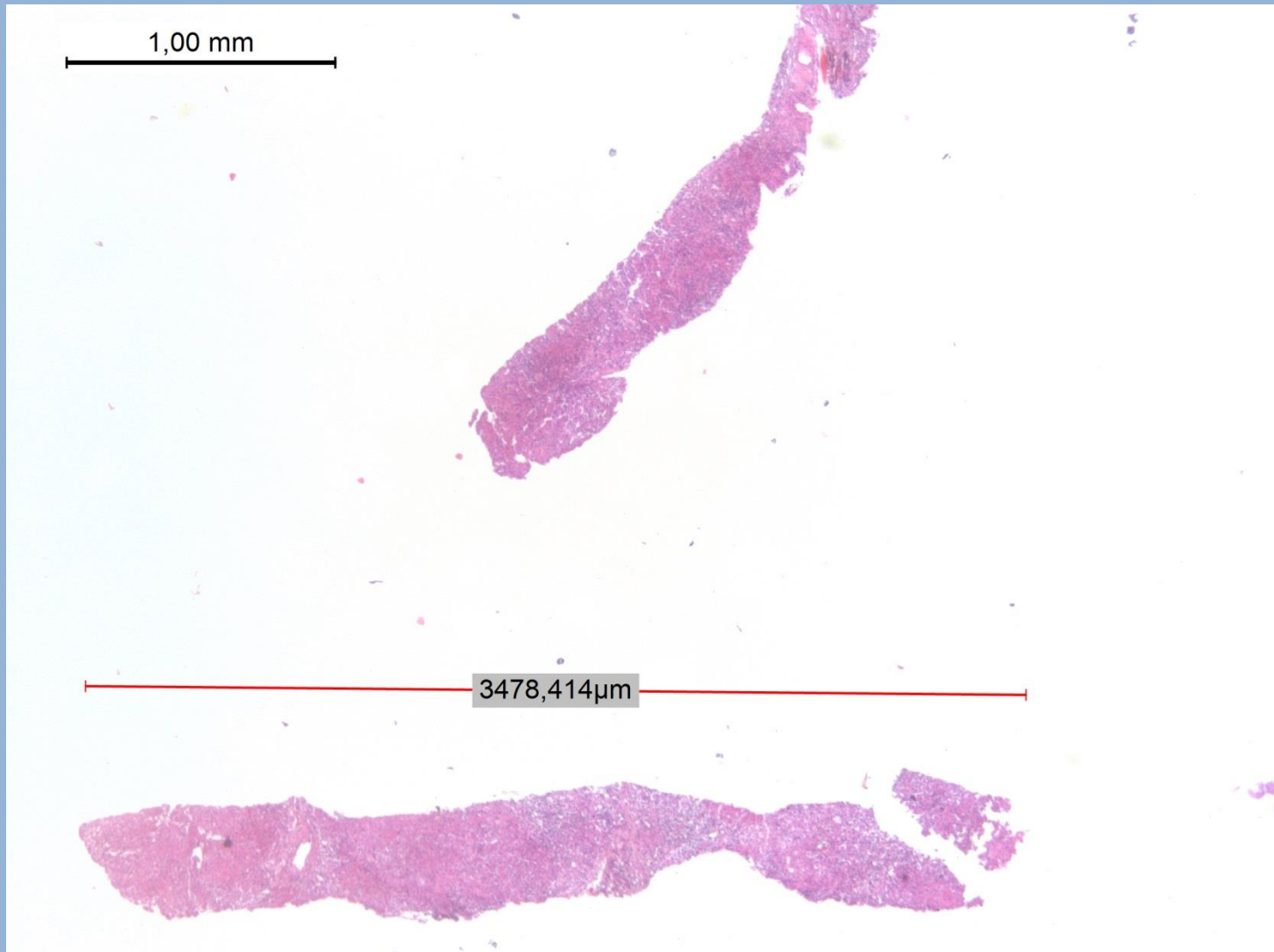


## Case Report AK 07.07.2005

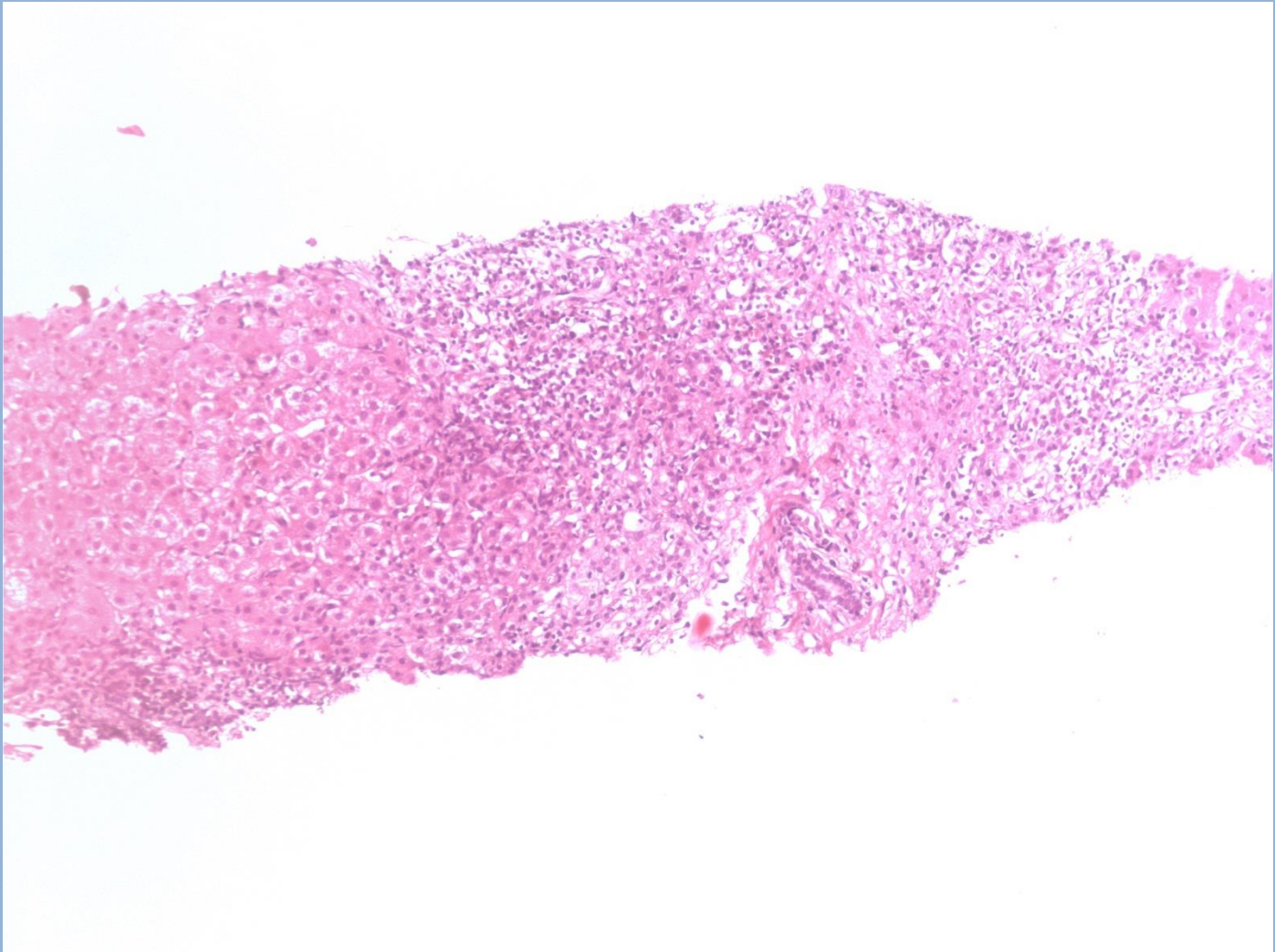
### Liver biopsy

- total length 6 mm
- suggestiv for
  - autoimmune hepatitis
  - Steroid-induced hepatitis
  - Toxic hepatitis

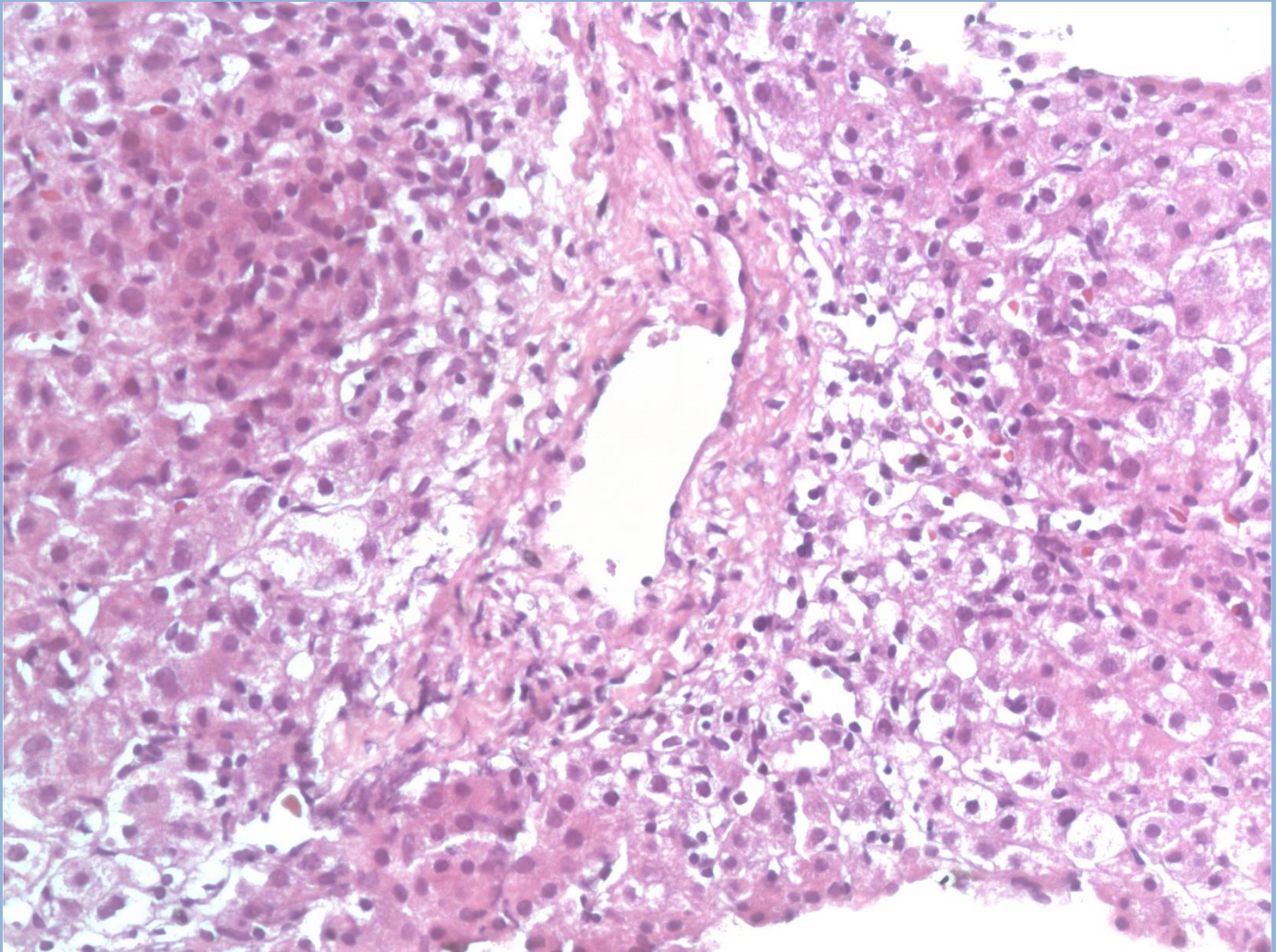
Case Report AK 07.07.2005 ♀



Case Report AK female 07.07.2005

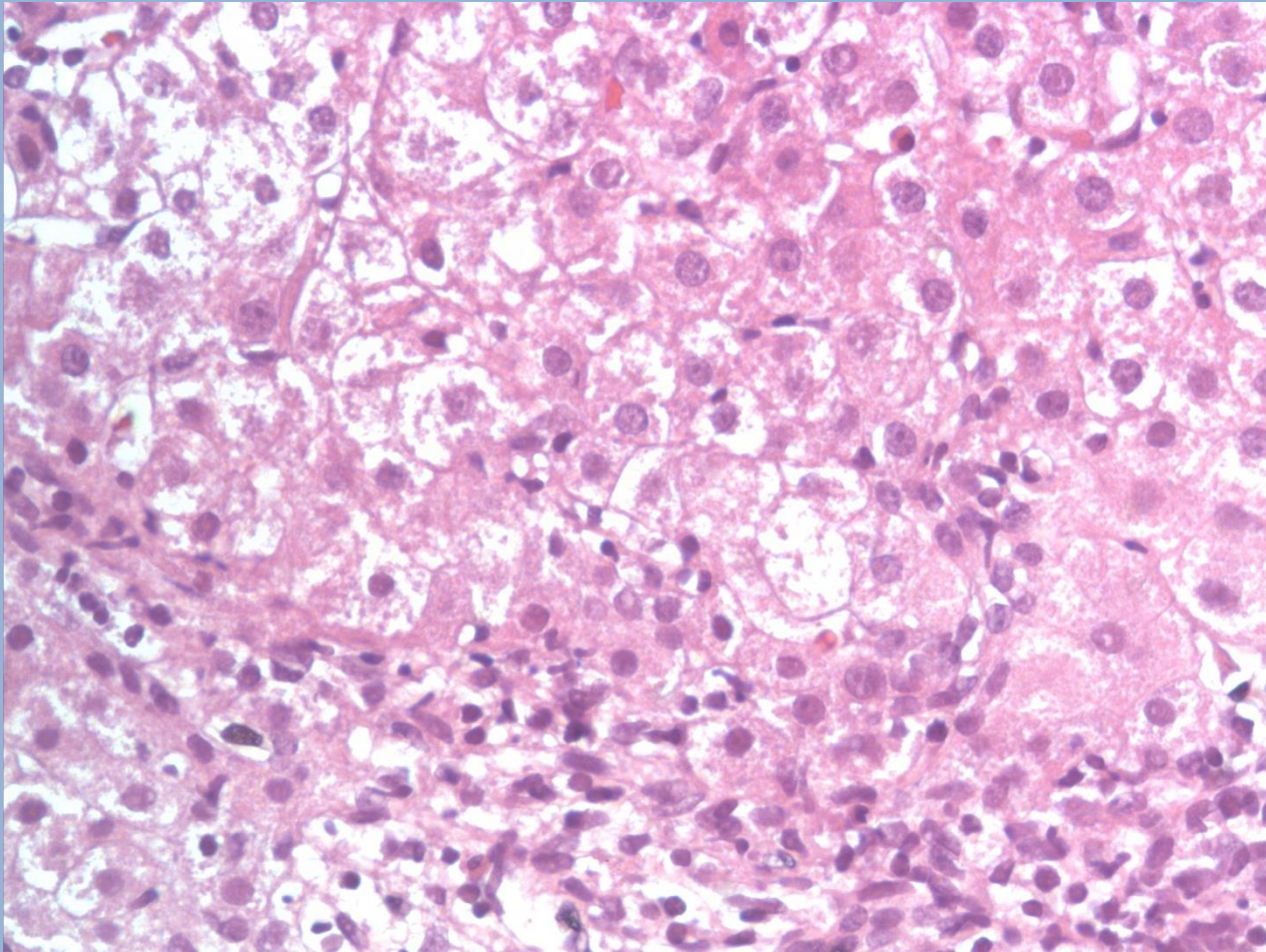


Case Report AK female 07.07.2005

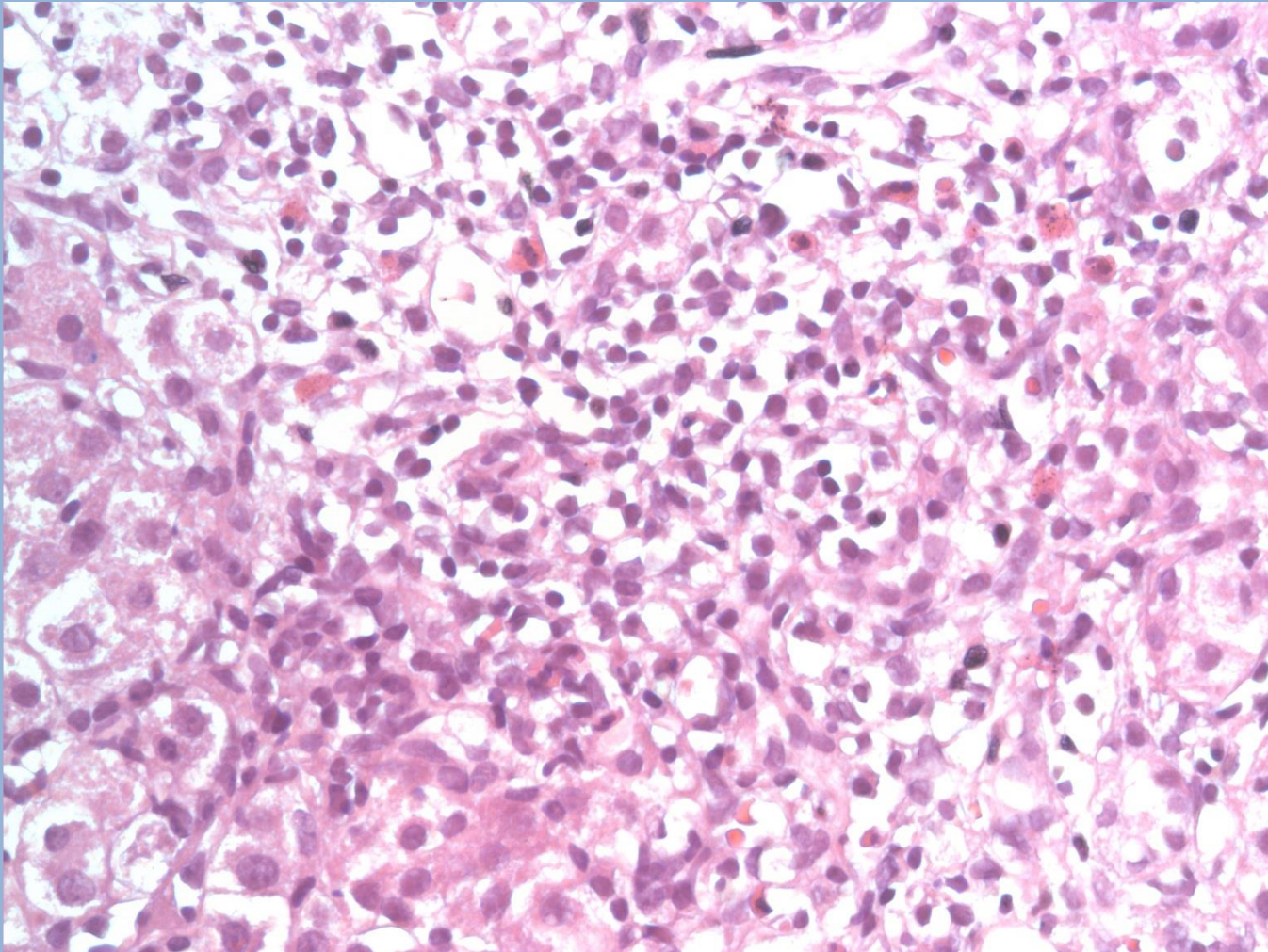




Case Report AK female 07.07.2005

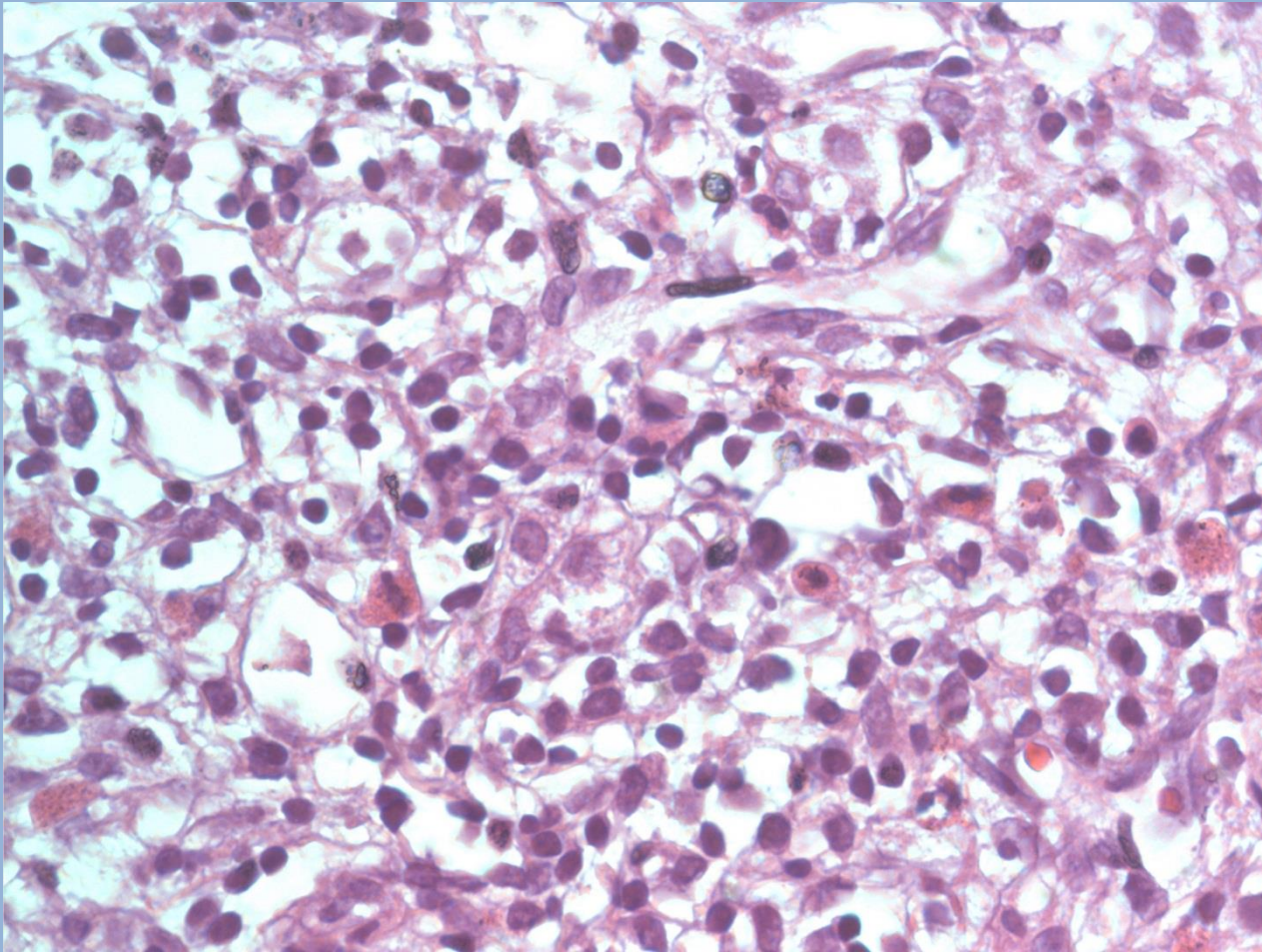


Case Report AK female 07.07.2005

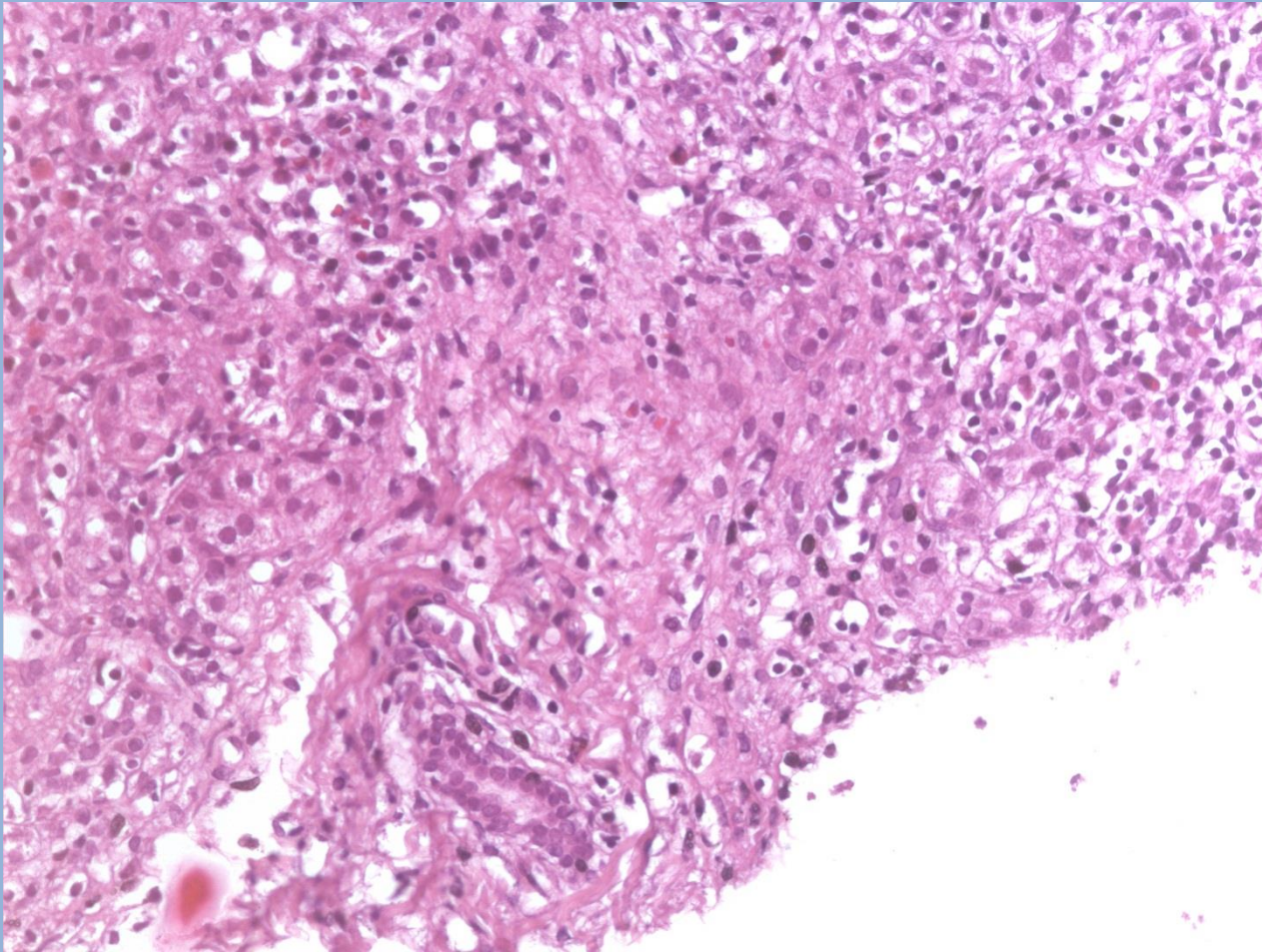




Case Report AK female 07.07.2005

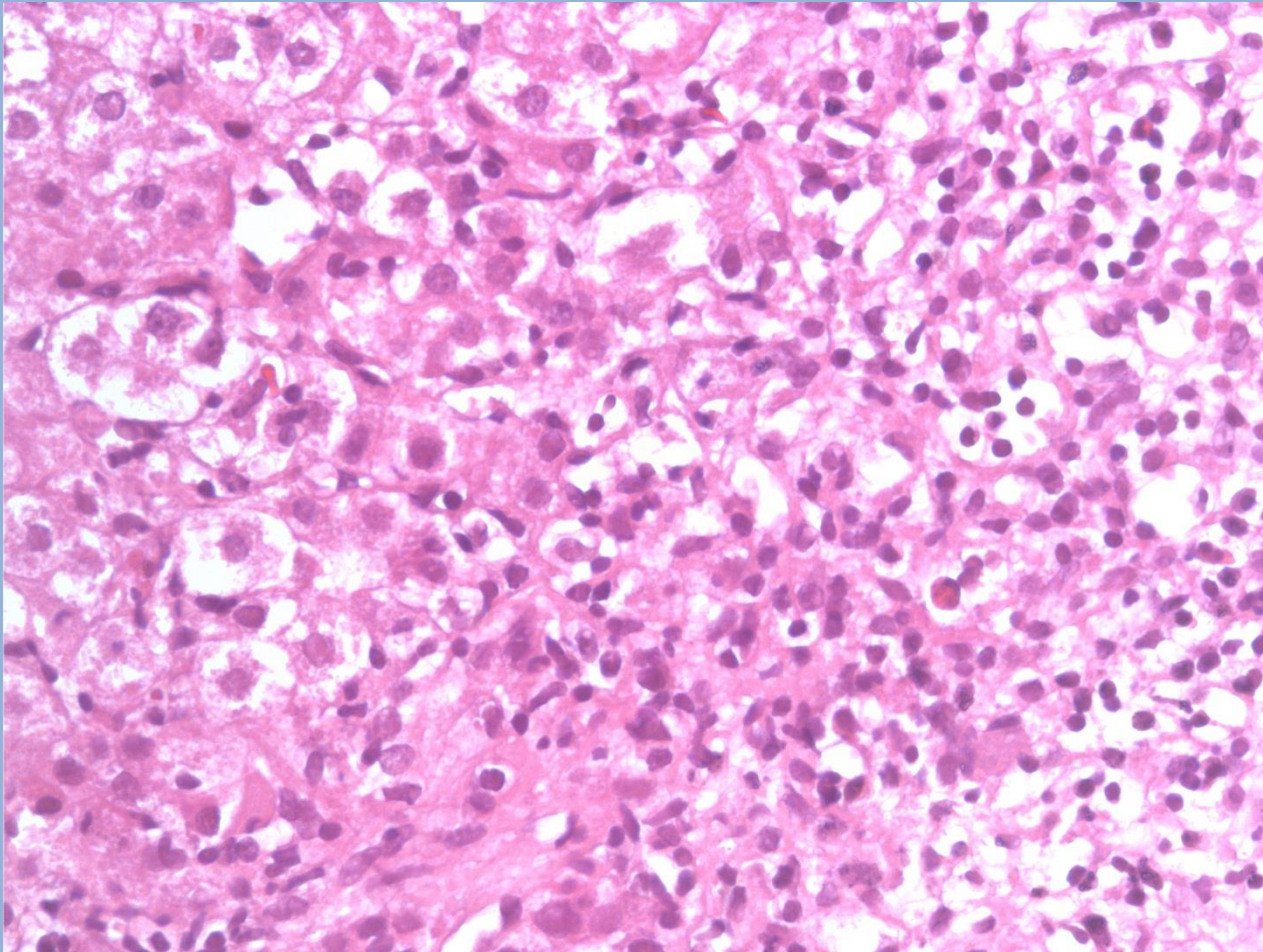


Case Report AK female 07.07.2005

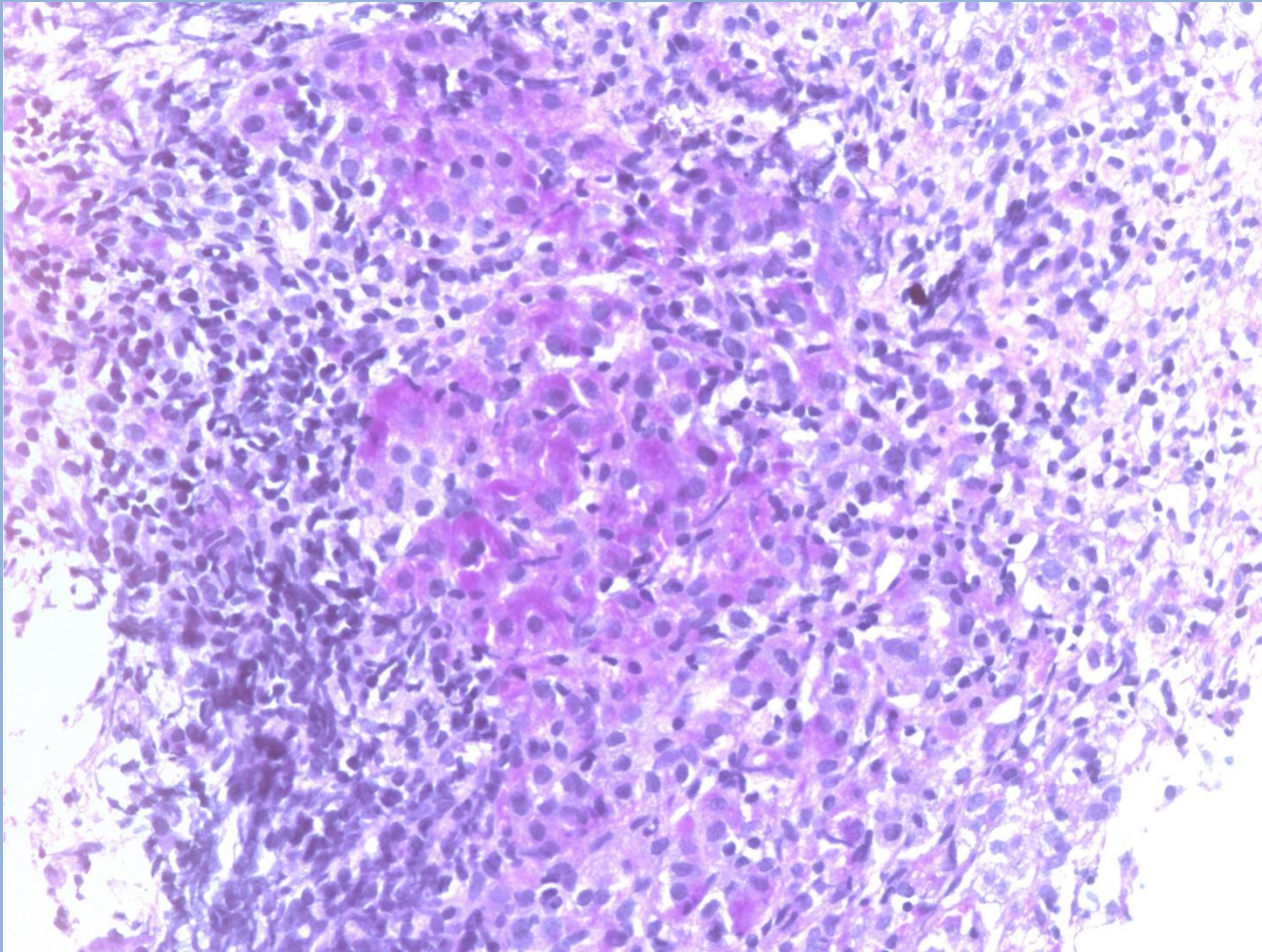




Case Report AK female 07.07.2005



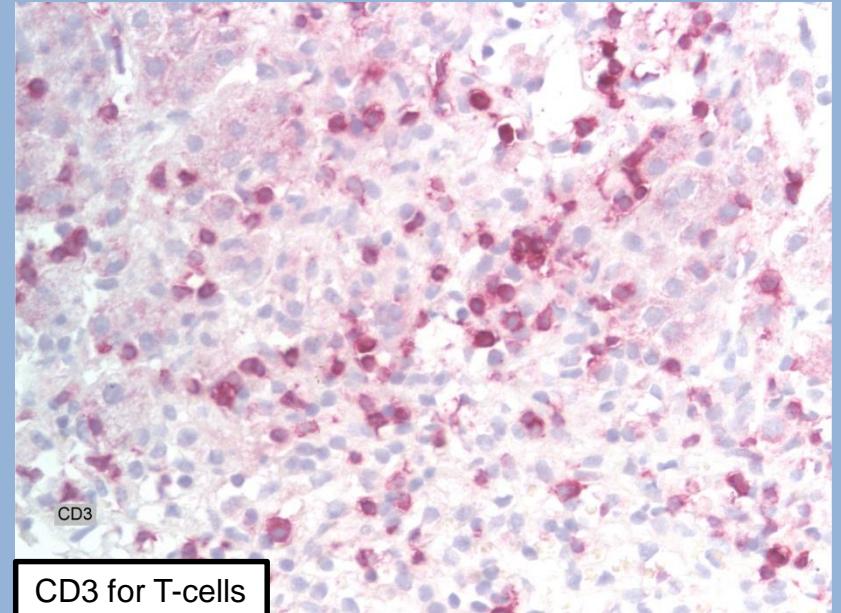
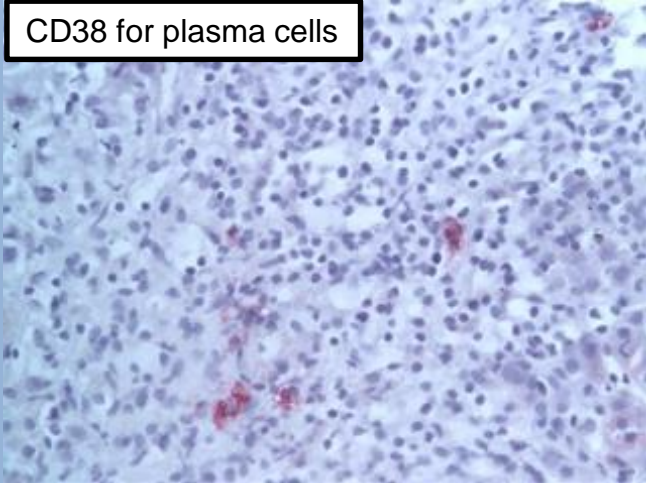
Case Report AK female 07.07.2005



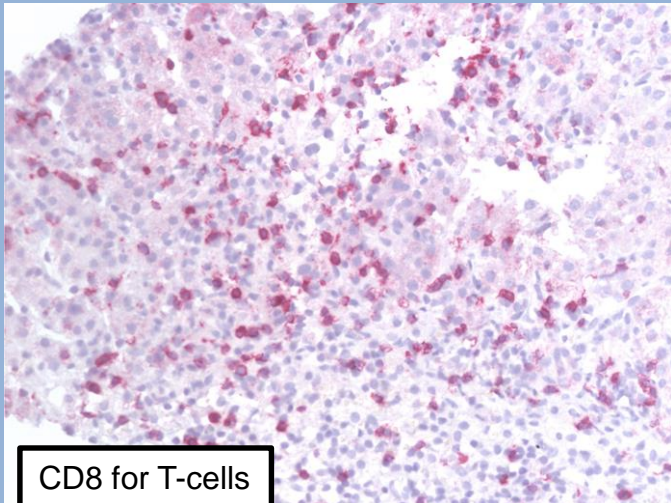


# Immunohistochemistry for CD38-positive plasma cells and CD3-positive and CD8-positive T-cells

CD38 for plasma cells



CD3 for T-cells



CD8 for T-cells

Case Report AK female 07.07.2005

differentiation between  
autoimmune hepatitis  
and  
drug-induced liver damage on basis of  
morphology without clinical data

**not possible**



Having knowledge of total clinical data  
presented by the clinician:

Morphological diagnosis:

Highly suggestive for Drug-induced liver injury (DILI)  
after steroid exposure some months before therapy

Preexisting autoimmune hepatitis  
not to be excluded  
(a form of overlap-syndrom AIH/DILI ?)

## Suggestive mechanisms and targets of toxic liver injury

1. Membrane lesion
2. Transport mechanism (pump)
3. Endoplasmatic reticulum
4. Triggering of T-cell reaction by membrane targeting
5. Activation of apoptotic pathway by TNF-alpha-factor
6. Mitochondrial damage



# Pathogenetical classification of drug-induced liver injury

## 1. Intrinsic mechanism

- Direct injury of hepatocytes (dosis-dependent)
- Indirect injury of hepatocytes (dosis-dependent)

## 2. Idiosyncratic mechanism

- Immunologic mechanism – allergic reaction, fever, exanthema, eosinophilia
- Metabolic mechanism – mostly via covalent bindings to proteins induce an immunological reaction

# Drug-induced liver injuries

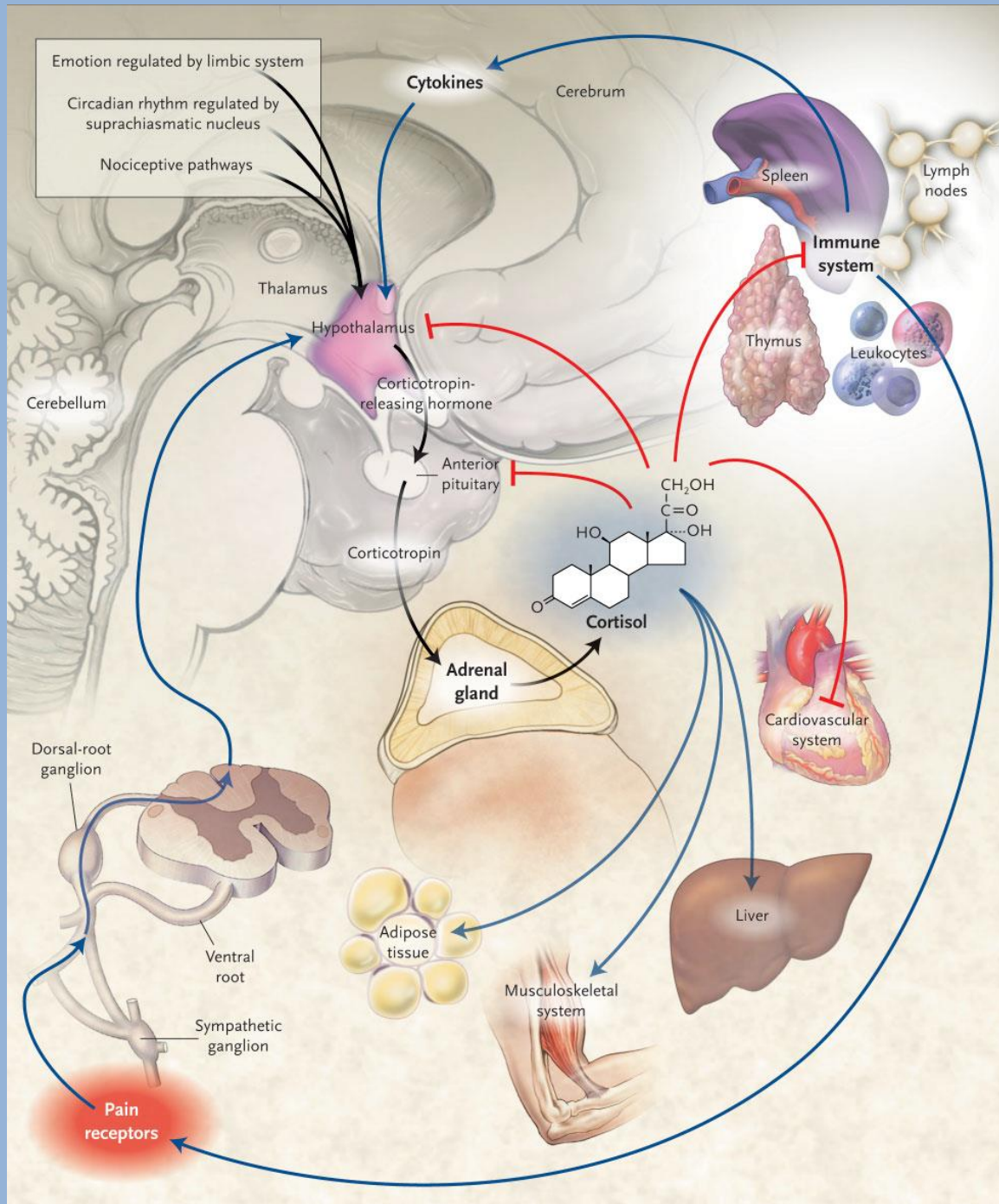
## **Highly variable changes of liver tissue**

- Minimal changes in portal tracts or intralobular
- Severe changes in portal tracts or intralobular
- Non-alcoholic steatohepatitis
- Autoimmune hepatitis
- Acute and chronic inflammation of the liver
- Cholestasis
- Acute liver failure
- cirrhosis

# Drug-induced liver injuries

- No specific pattern of injury of the liver tissue
- Difficult differential diagnosing
- Histologically great resemblance to viral induced hepatitis
- Occasional occurrence of antibodies (e.g. ANA, SMA)





from:  
 Rhen T, Cidlowski JA  
 N Engl J Med (2005)  
 353, p 1713

possible clinical course and  
suggestion:

primary mild autoimmune hepatitis

— followed by

corticoid-therapie

— followed by

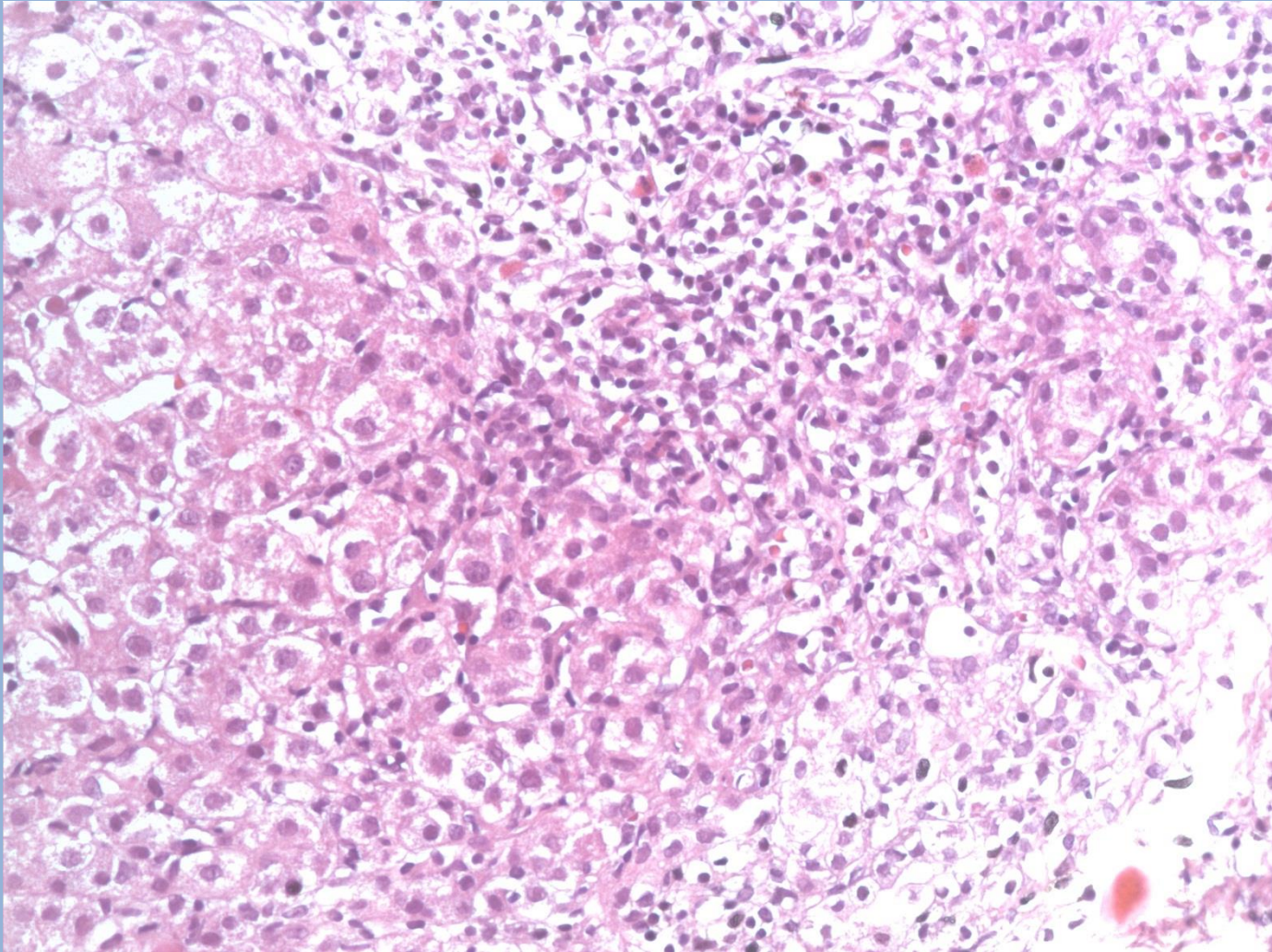
severe drug-induced liver injury

(„overlap-syndrom AIH/DILI“)

Hepatitis-E can not be excluded

???

Case Report AK female 07.07.2005





Case Report AK female 07.07.2005

