

Liver of Horse

2017-2-1

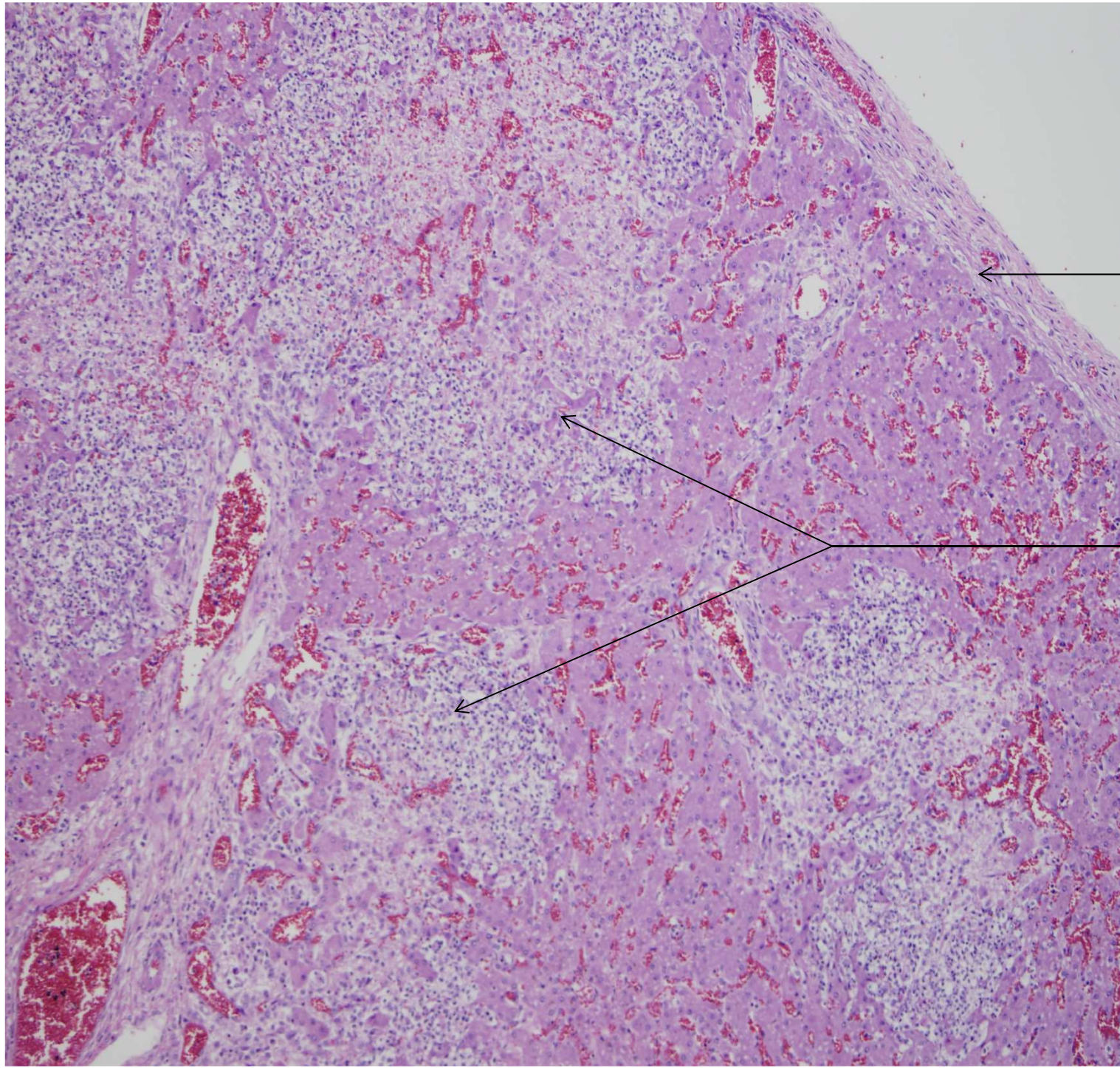
Sandi Htein Linn

Contributor: Oklahoma State University, USA

Signalment: 1- month old, intact female, Thoroughbred horse
(*Equus caballus*)

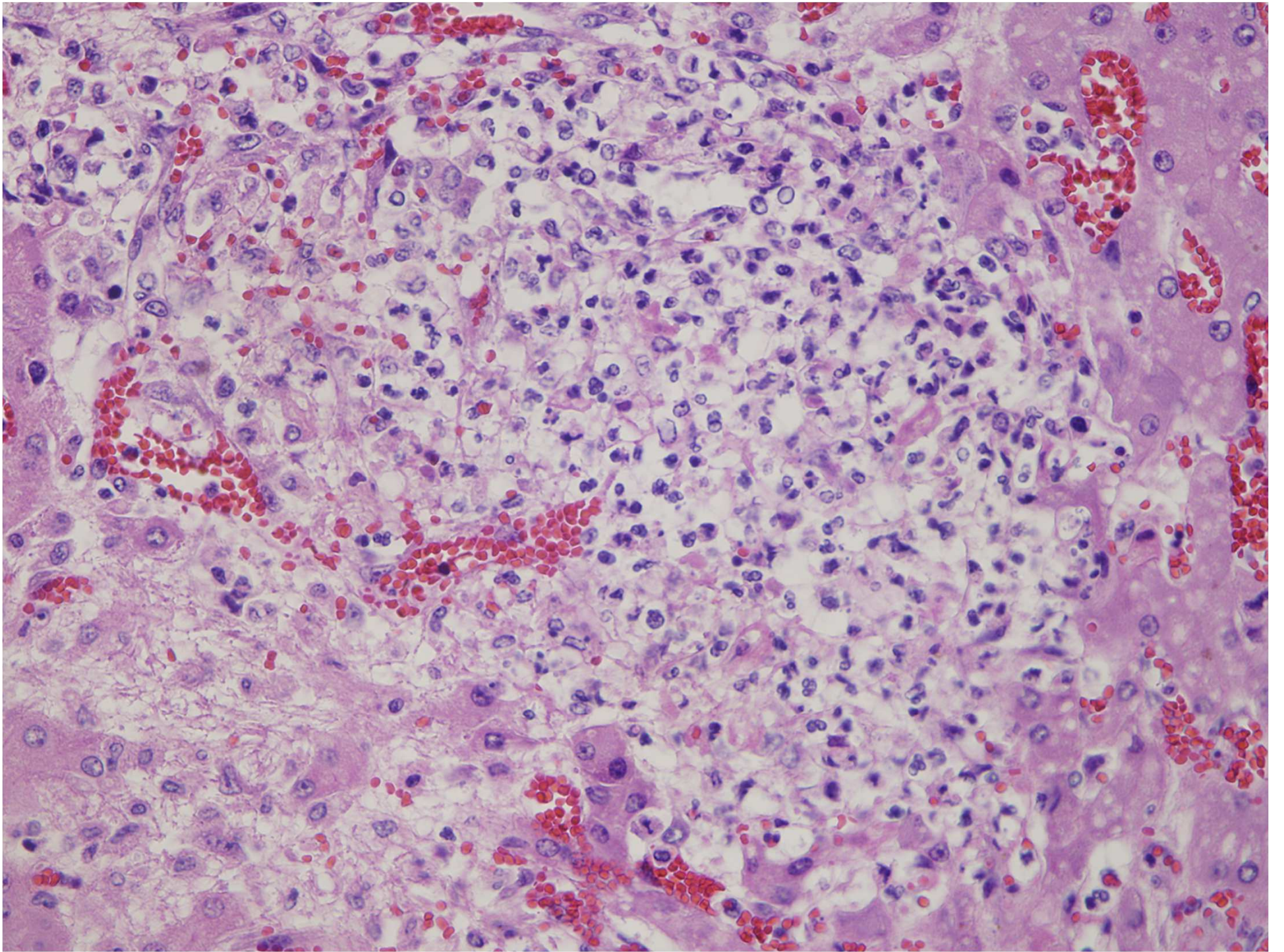
History: The owner found her dead in the stall
She was behaving normally the night before

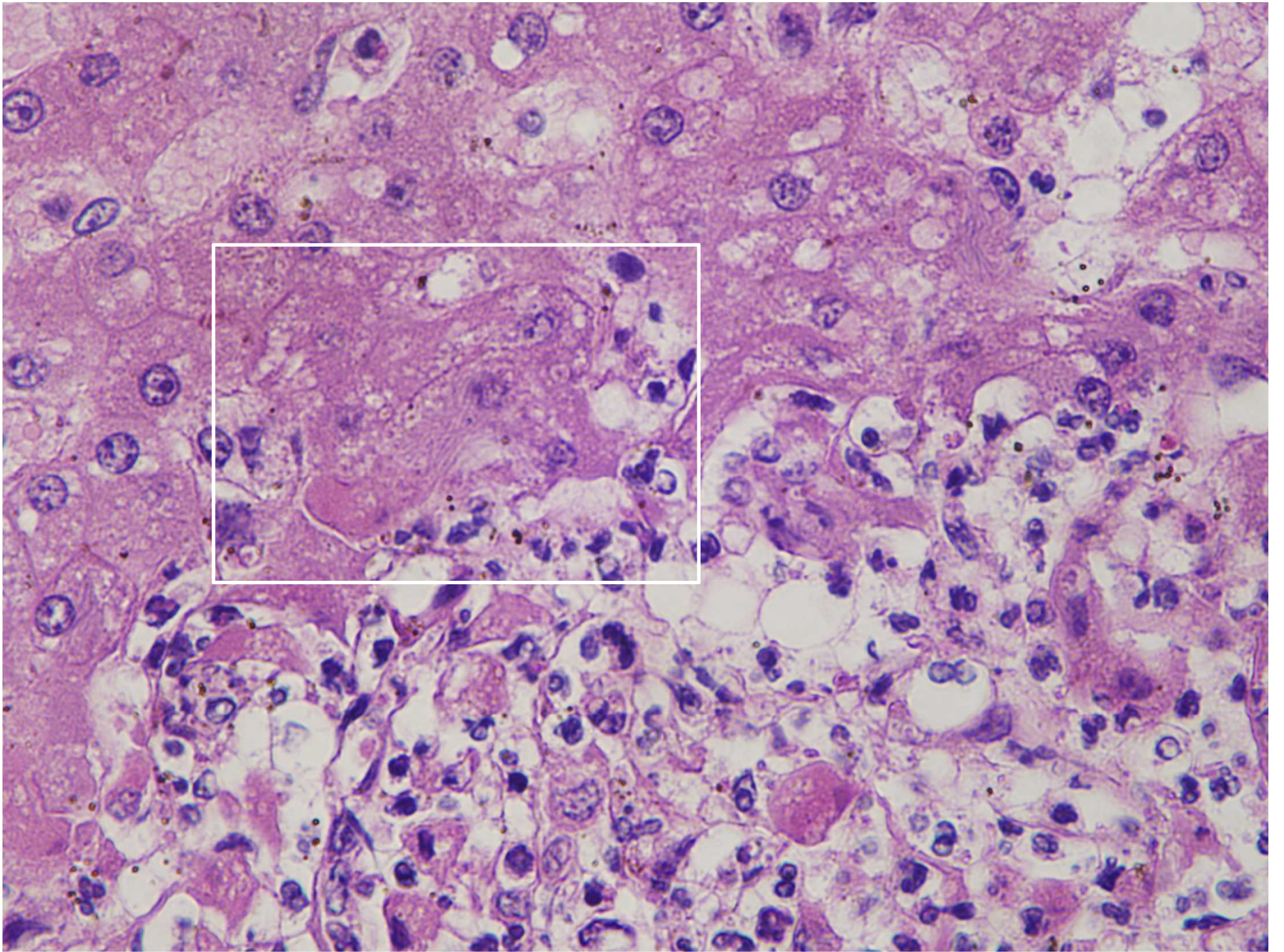
Gross pathology: The conjunctiva, sclera, and adipose tissue are yellow
The liver is enlarged and skeletal muscle is pale



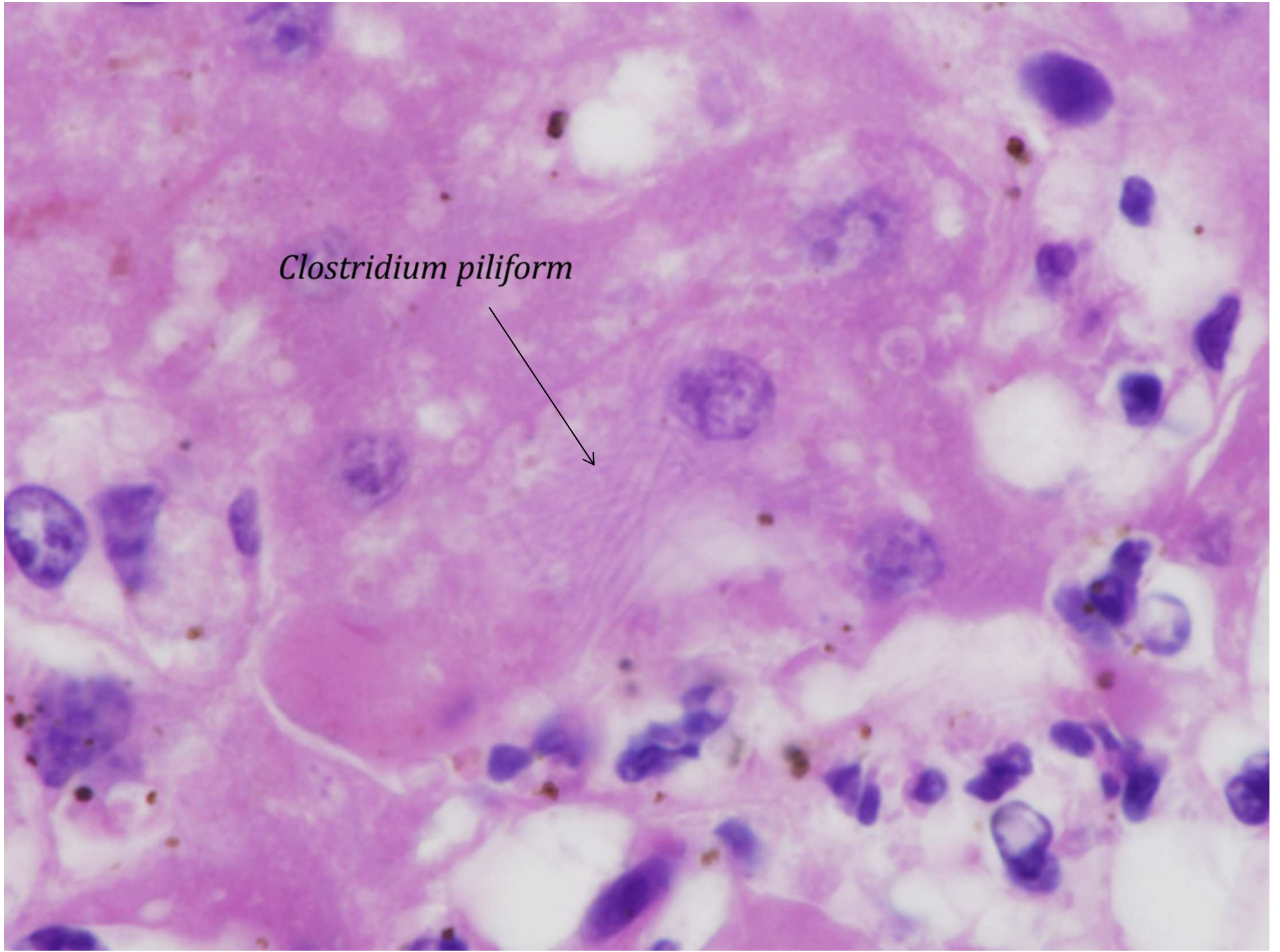
Liver capsule

Necrosis area

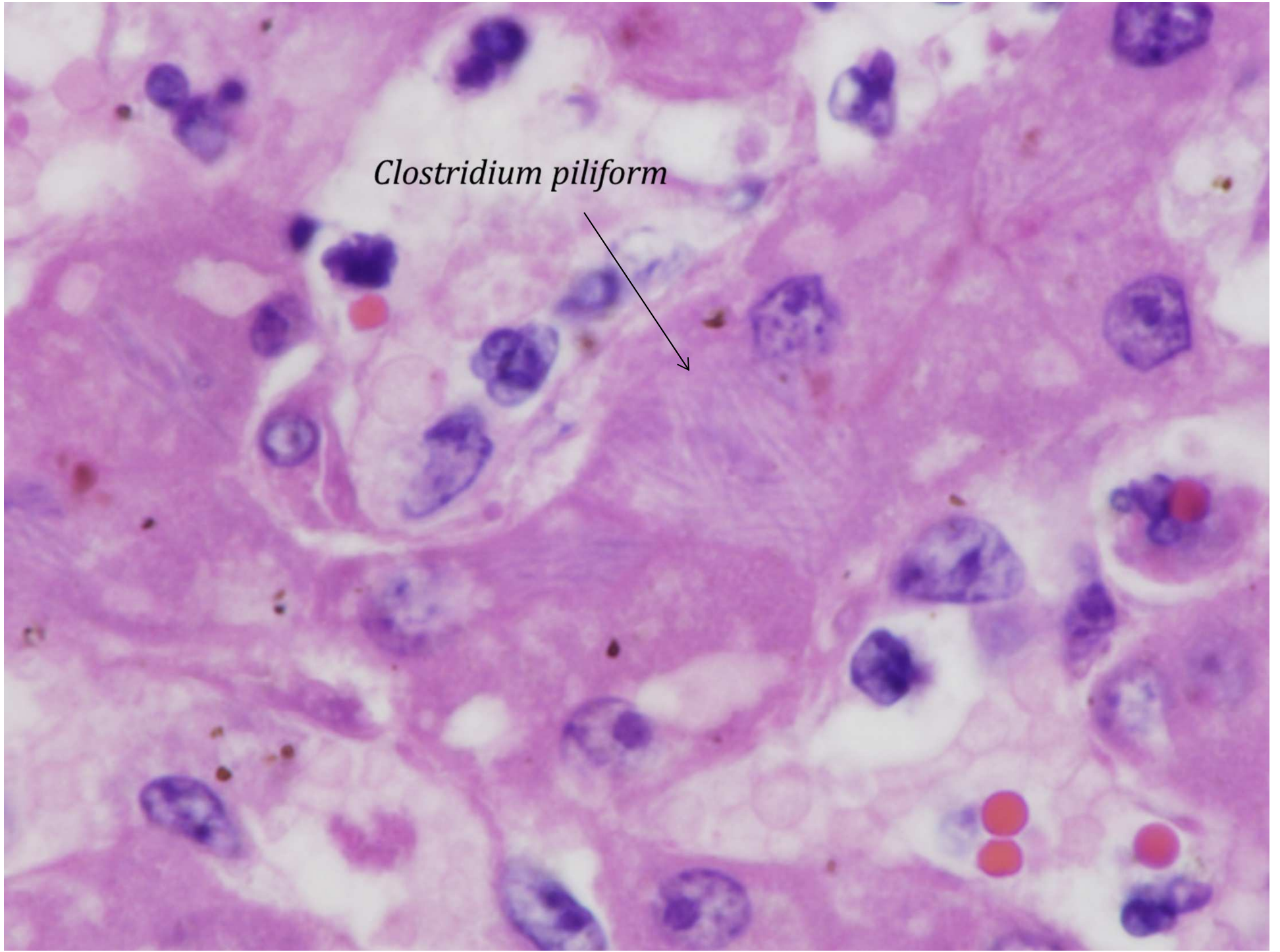
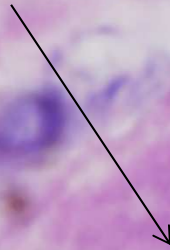


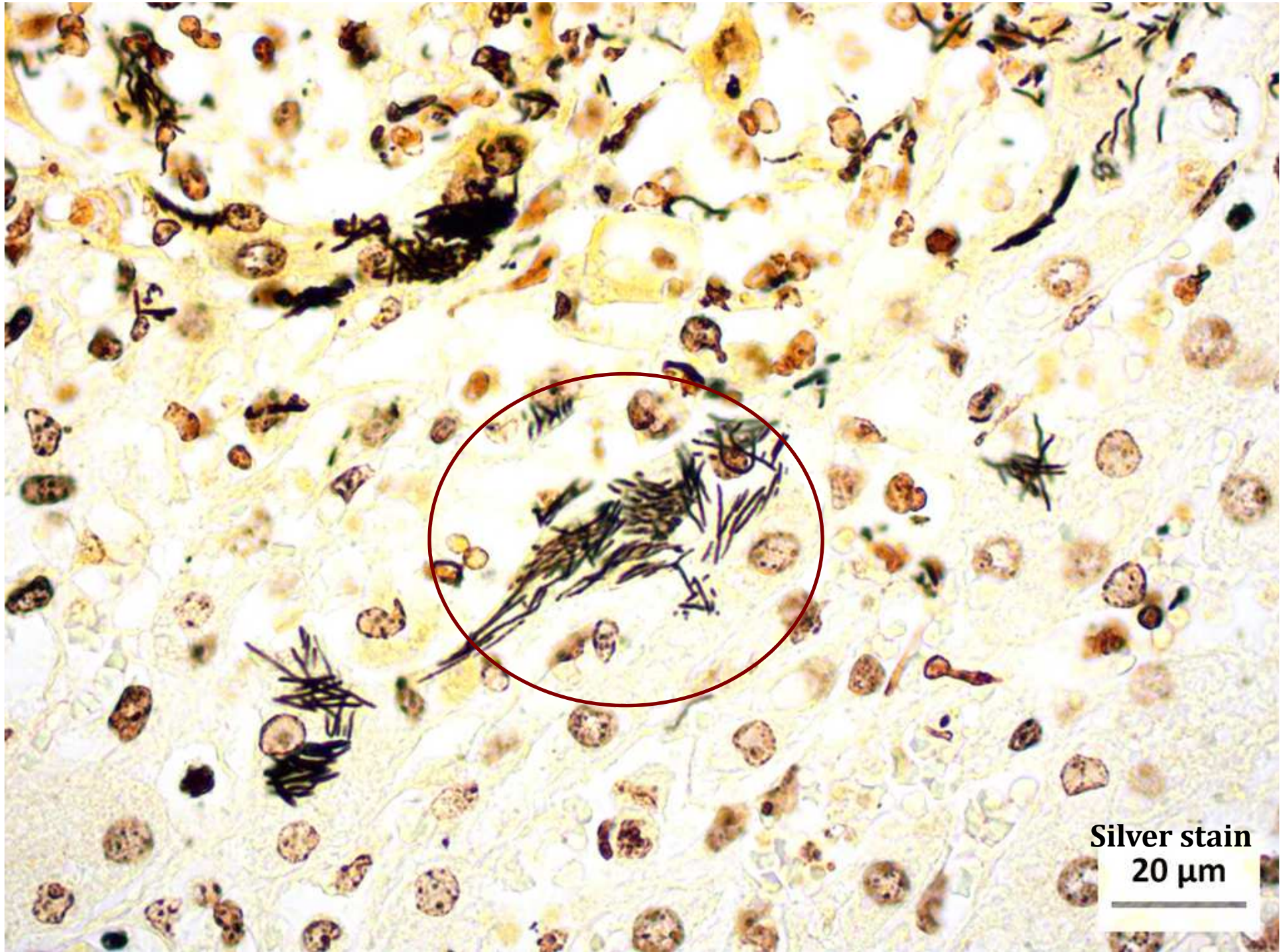


Clostridium piliforme



Clostridium piliform





Silver stain
20 μm

Contributor's Diagnosis:

Liver: Severe, acute, multifocal to coalescing, random, necrosuppurative hepatitis with intracellular bacilli and moderate bile stasis

JPC Diagnosis:

Liver: Hepatitis, necrotizing, multifocal to coalescing, random, marked with numerous intracytoplasmic bacilli, thoroughbred equine

Contributor's comment

- caused by *Clostridium piliform*
(filamentous, spore forming, gram negative, argyrophilic, obligate intracellular bacterium)
- occur in under 6 weeks of foals
- display non-specific signs for 24-48 hours before death
- In younger foals, usually dead without signs of illness
- Icterus is a common sequel of hepatic damage
- Inflammatory cells are found in necrotic lesions
- Silver stain confirm the diagnosis of *Clostridium piliform* such as intracellular black bacilli are bundle within the hepatocytes at the periphery of necrotic foci.

Conference comment

This disease is resulting in;

- Multifocal necrosis of the liver
- Acute necrotizing of hepatitis
- Coagulative necrosis
- Prominent inflammatory cells in necrotic lesion

Differential diagnosis with the following diseases;

- Equine herpesvirus-1
- *Actinobacillus equuli*
- Septicemia due to *Salmonella* sp. and *E.coli*