

PM No 20718

- Patient: K, 39yrs Female,
- Date of admission:12/6/05;
- Date of death: 14/6/05.
- Partial autopsy.
- She had generalized oedema.
- Excess of yellow-colored fluid in bilateral plural cavities ~ 240 mL
and peritoneal cavity ~ 500 mL.

Colon



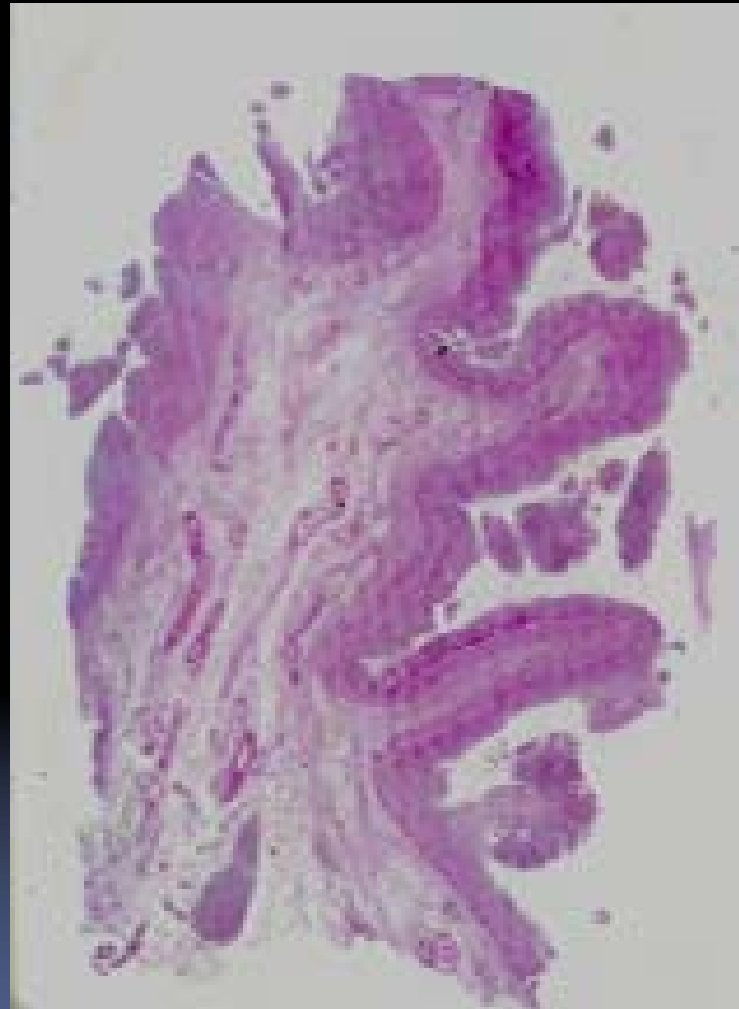
I C junction

Terminal ileum

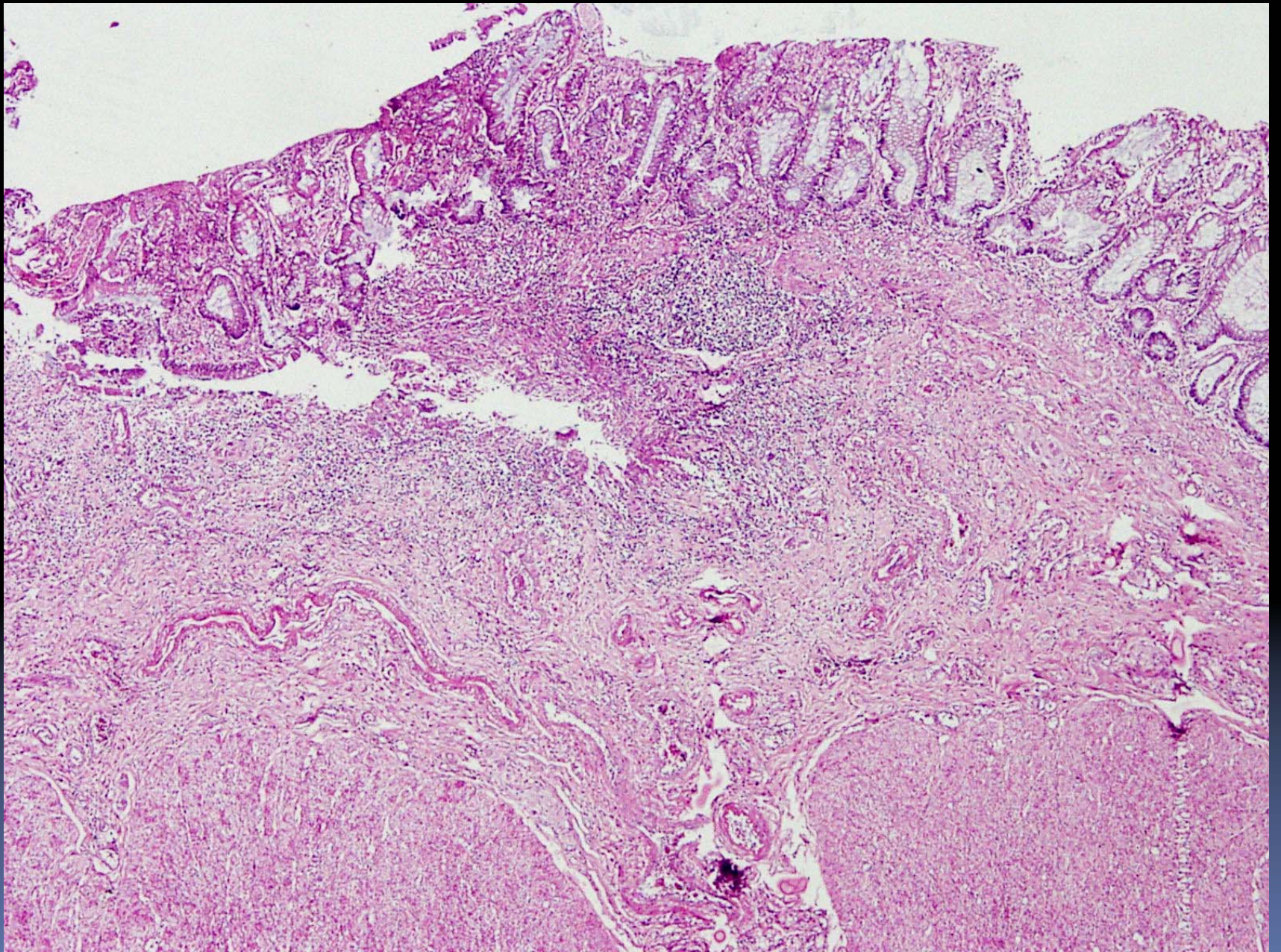


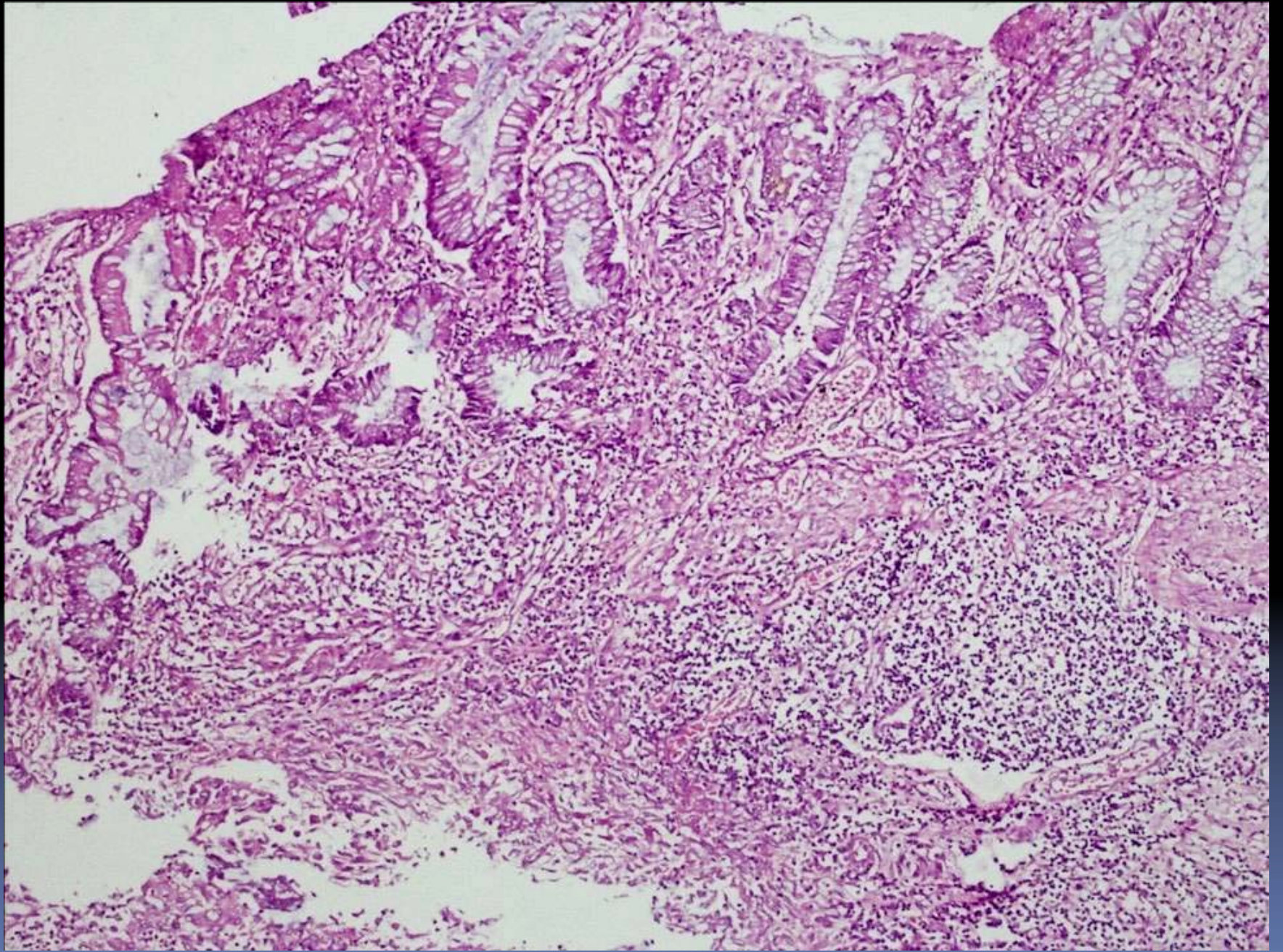


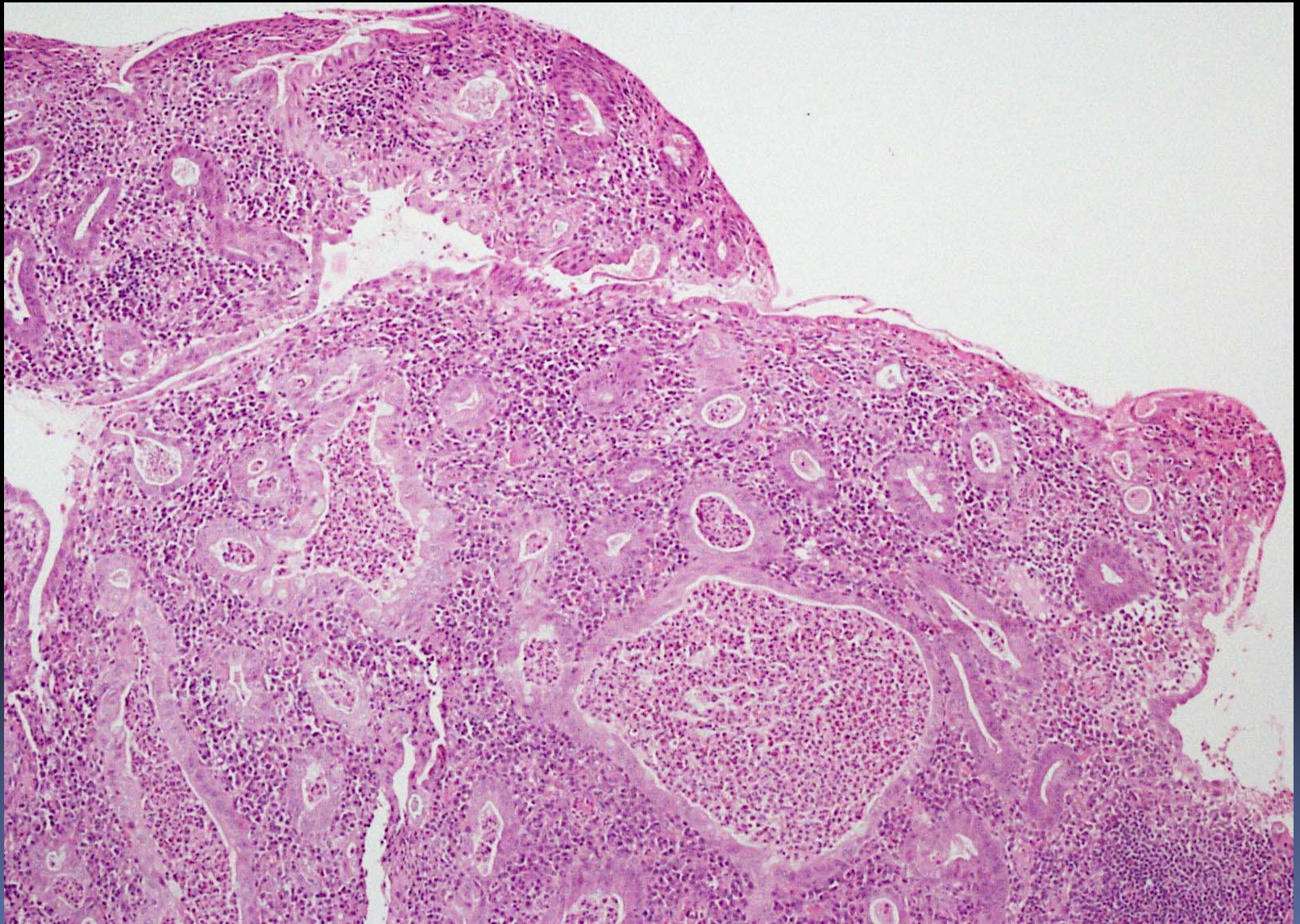


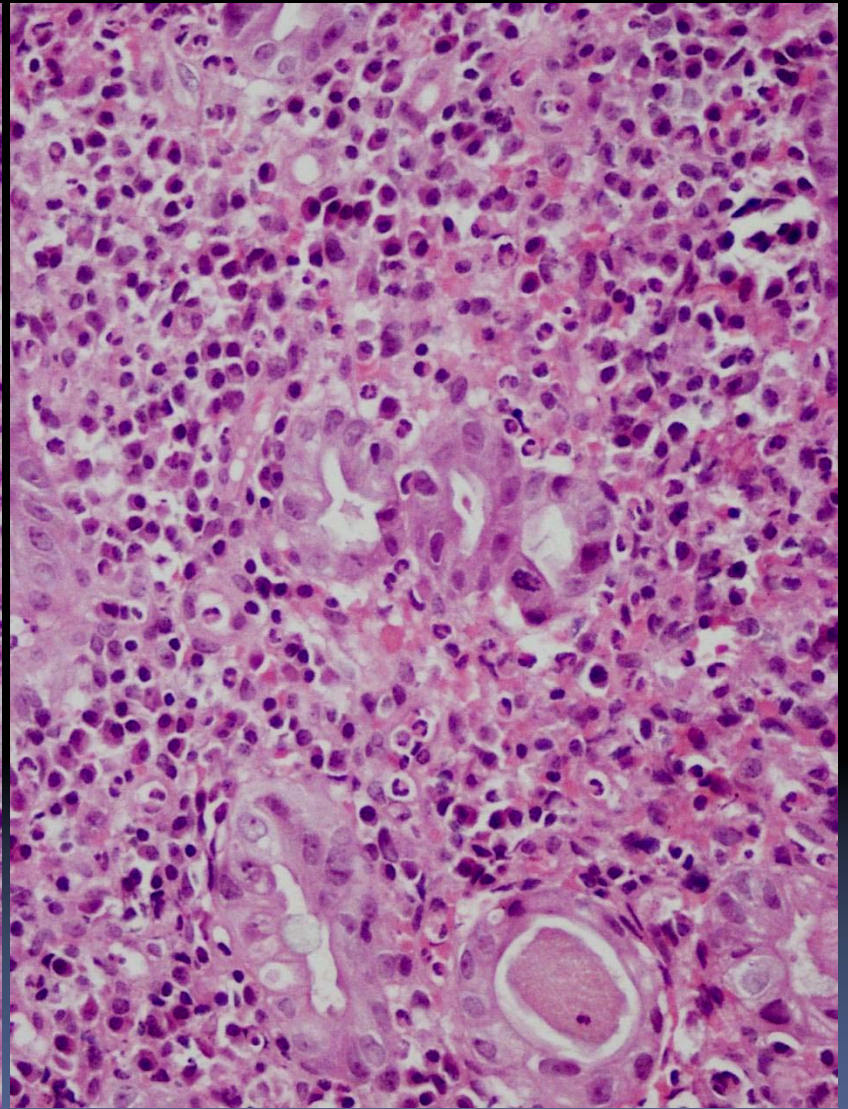
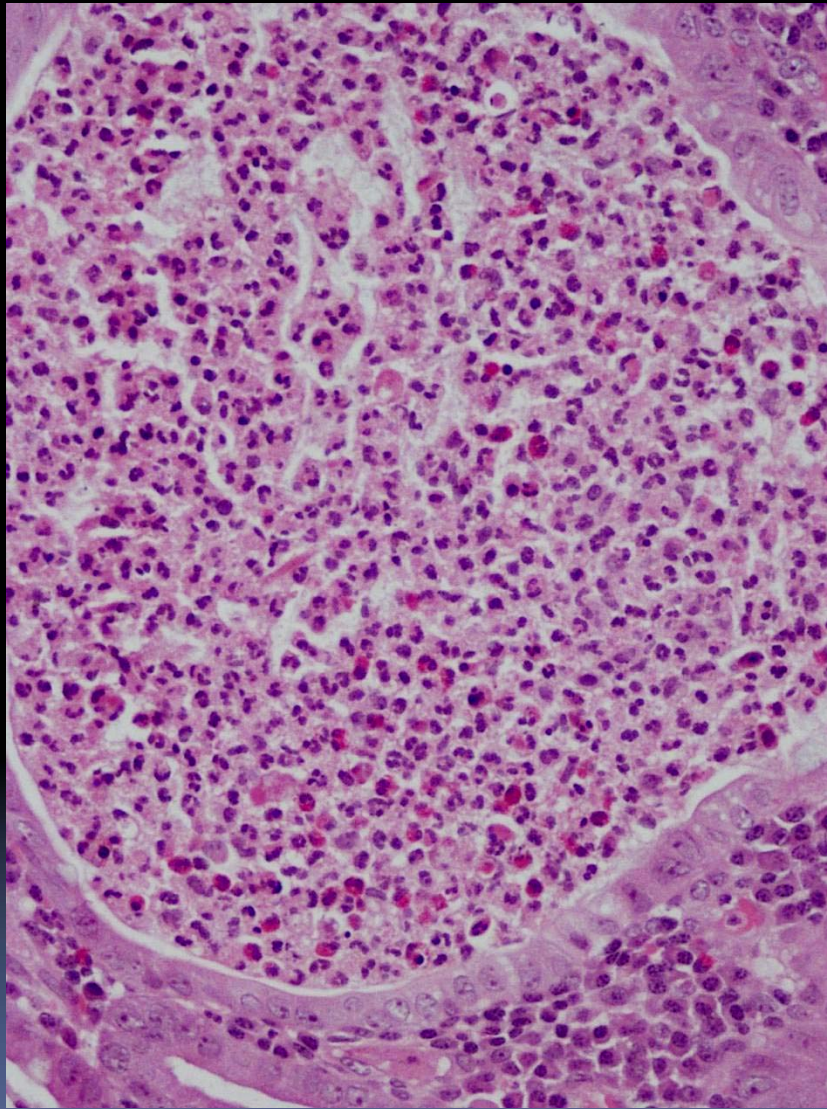


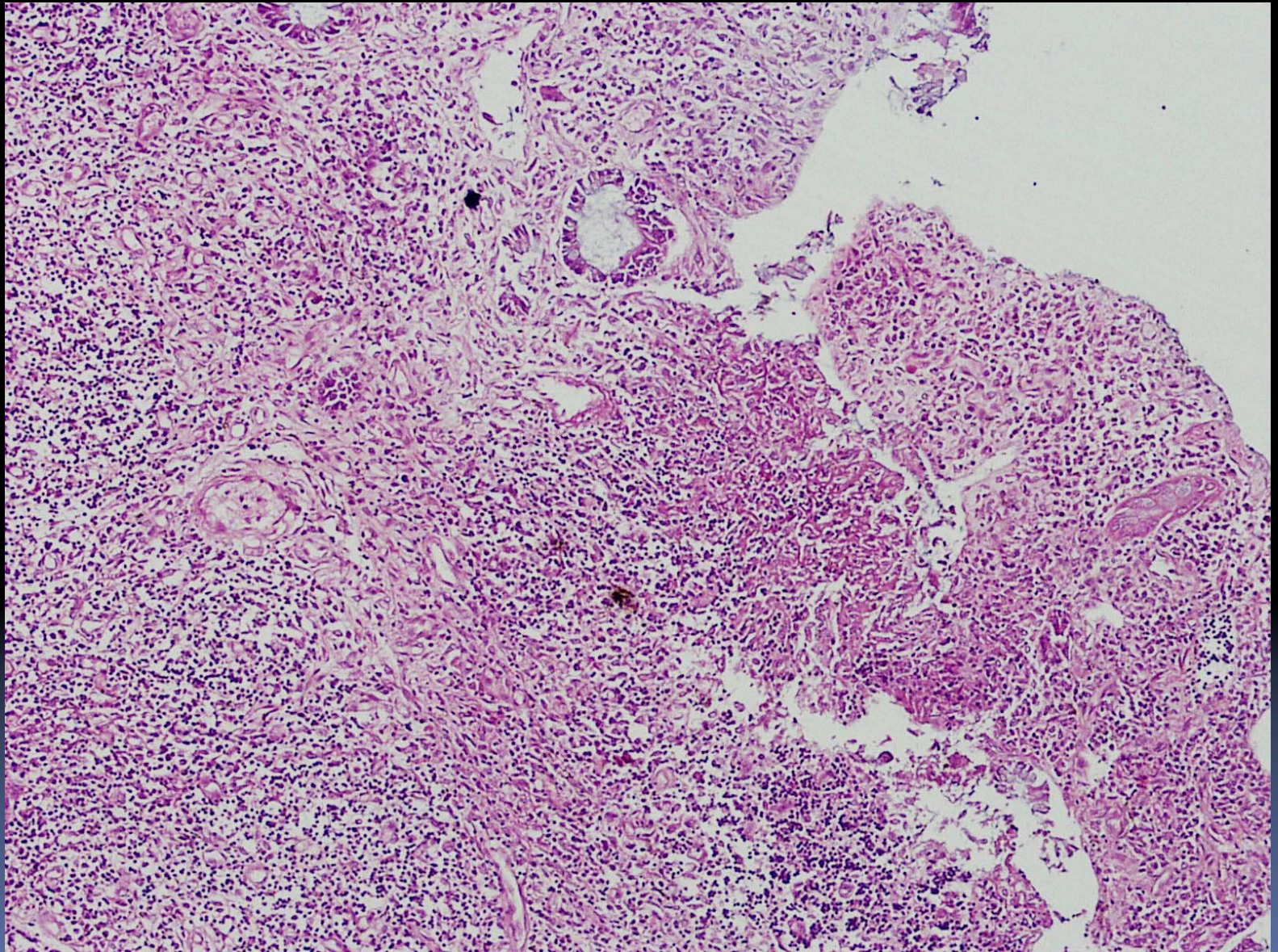


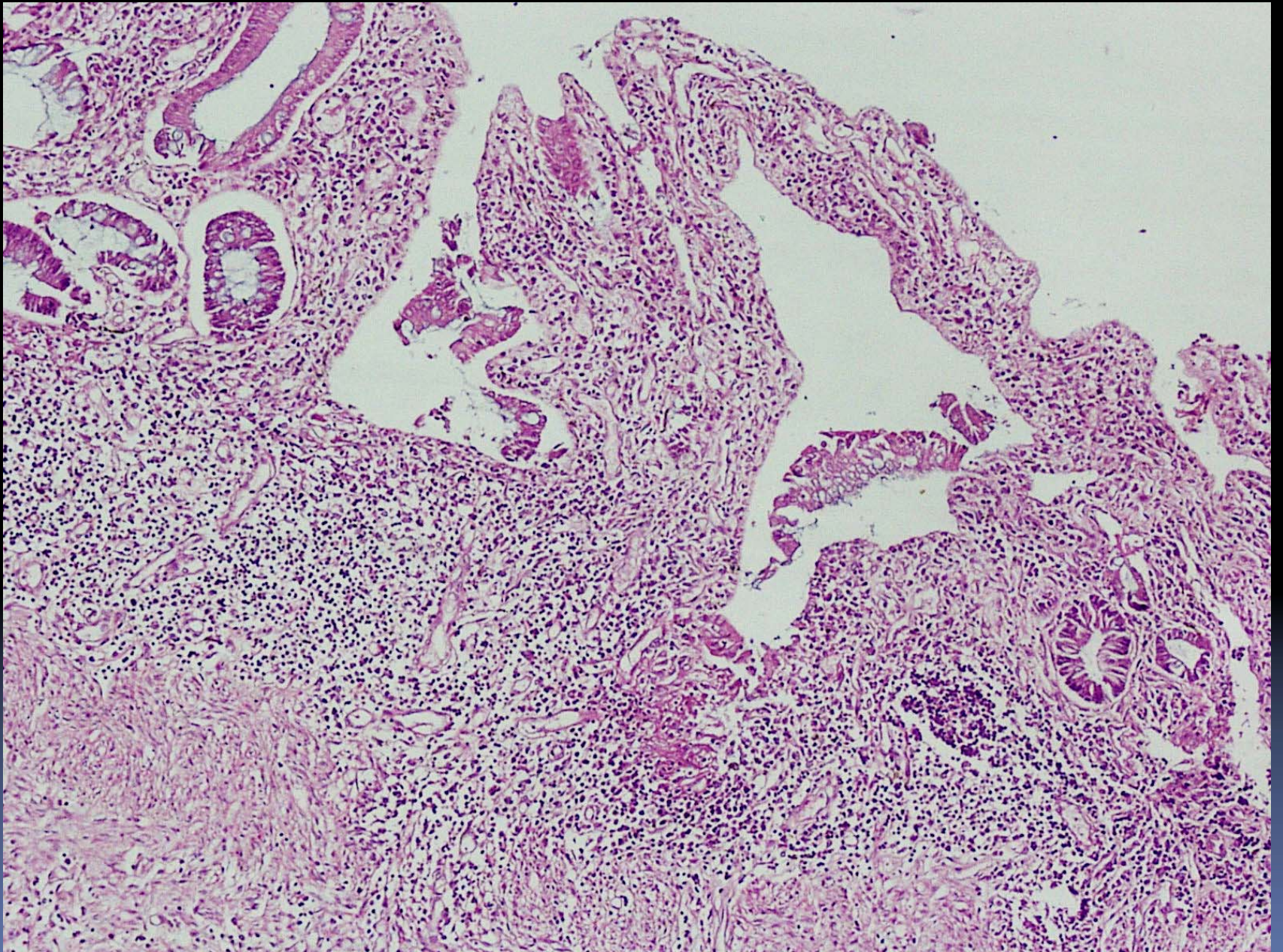


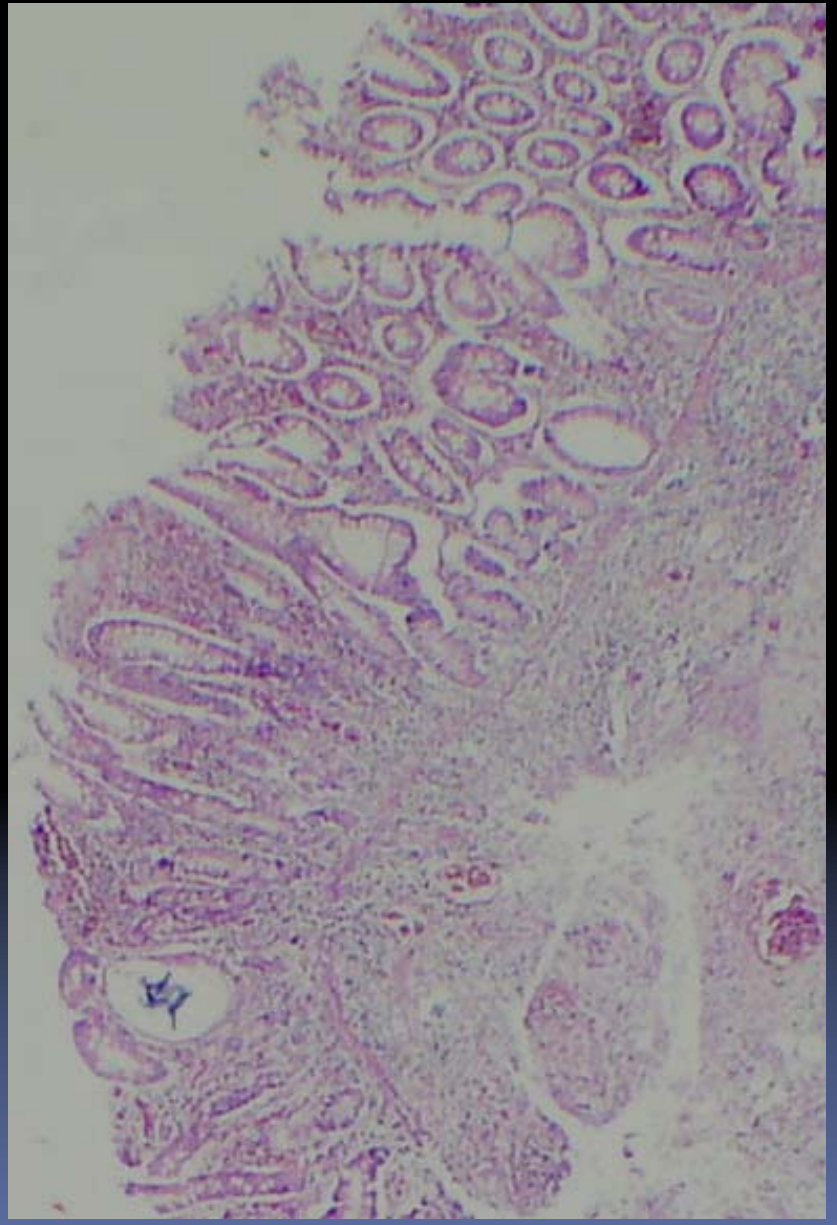
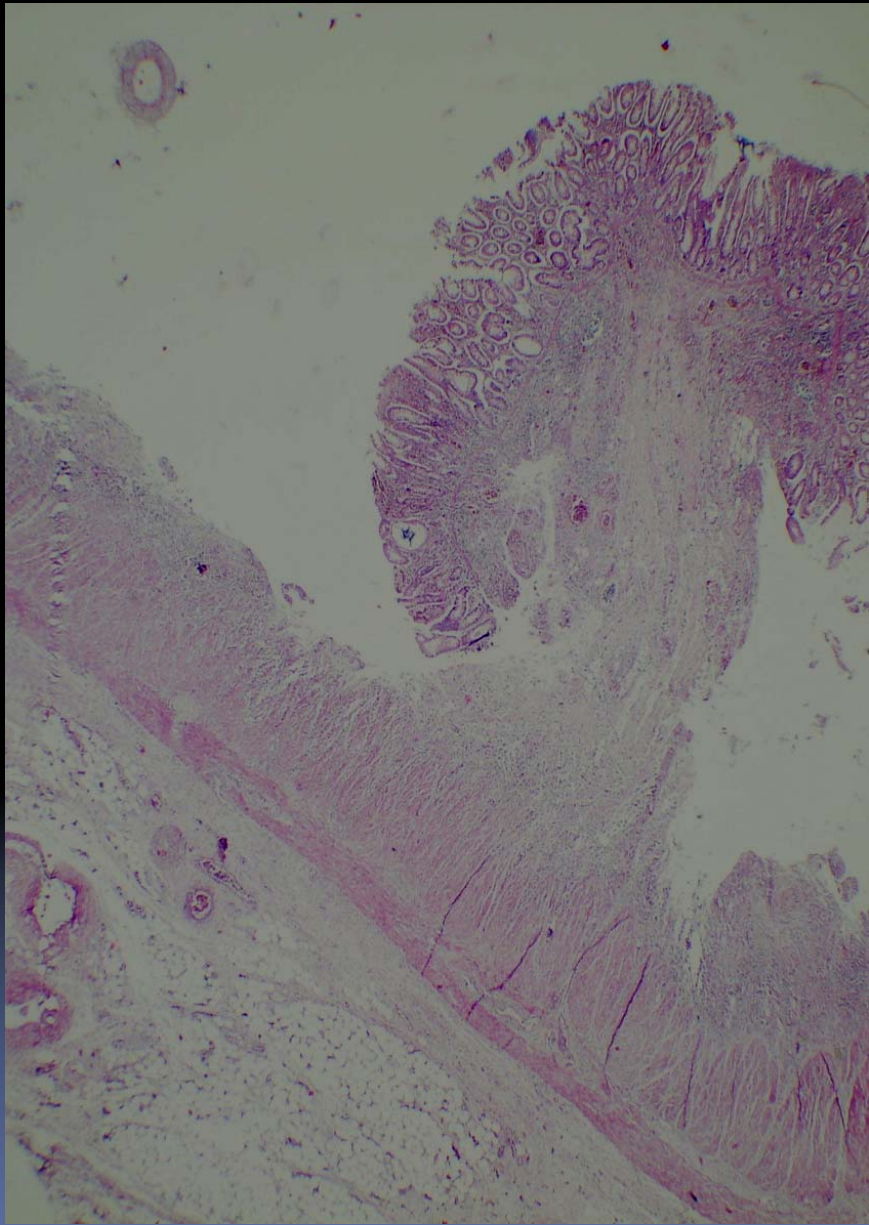


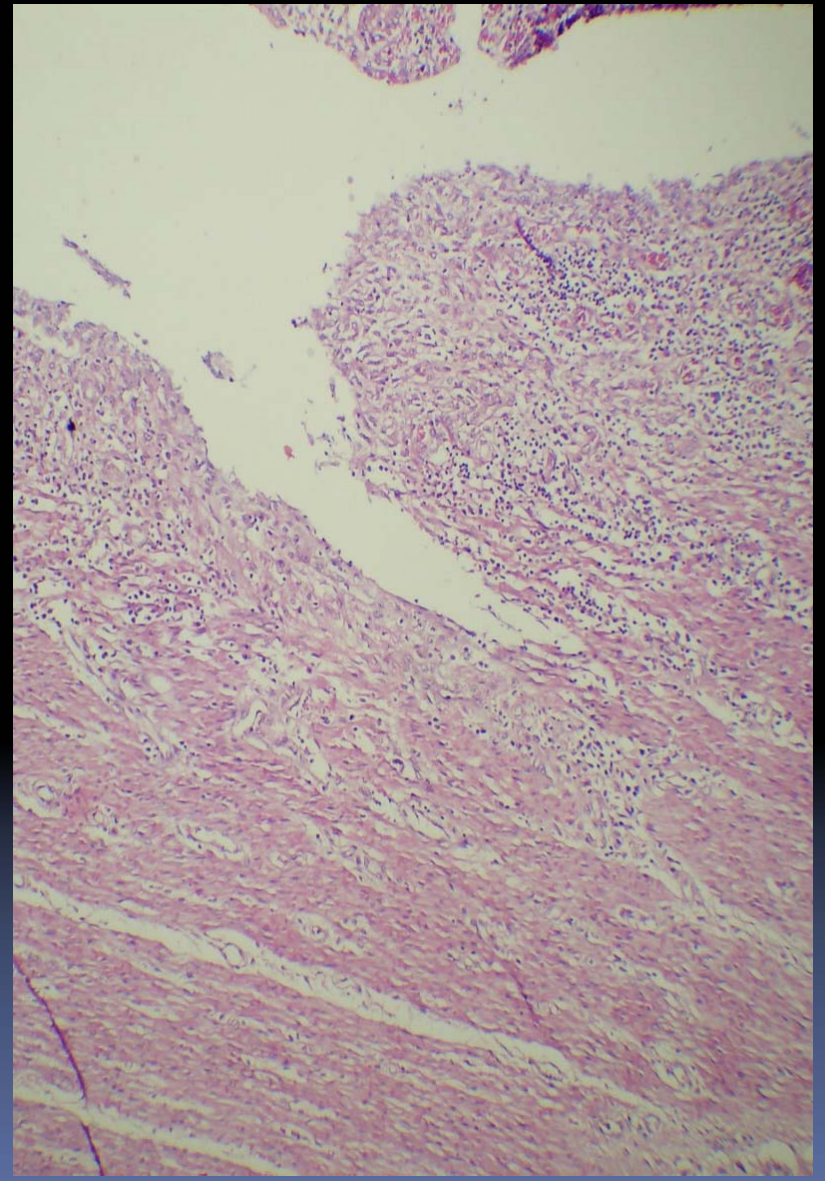
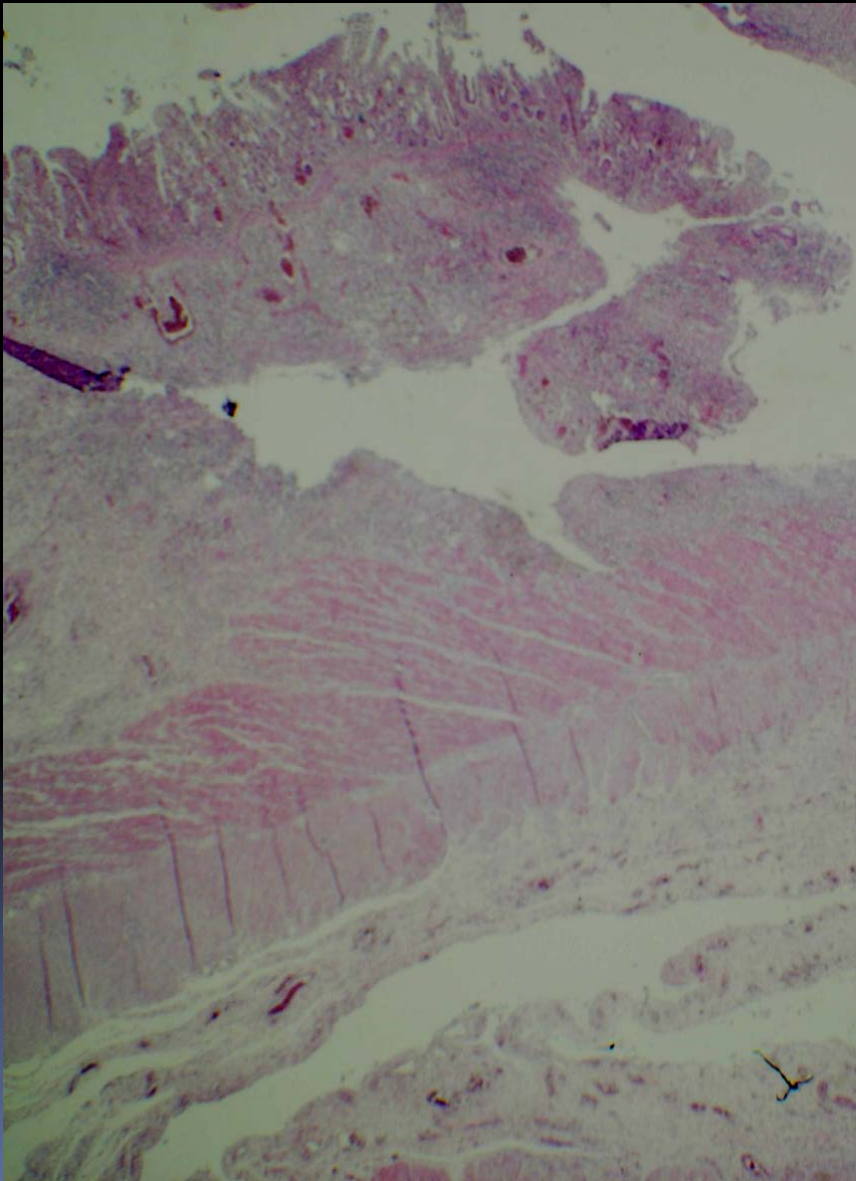


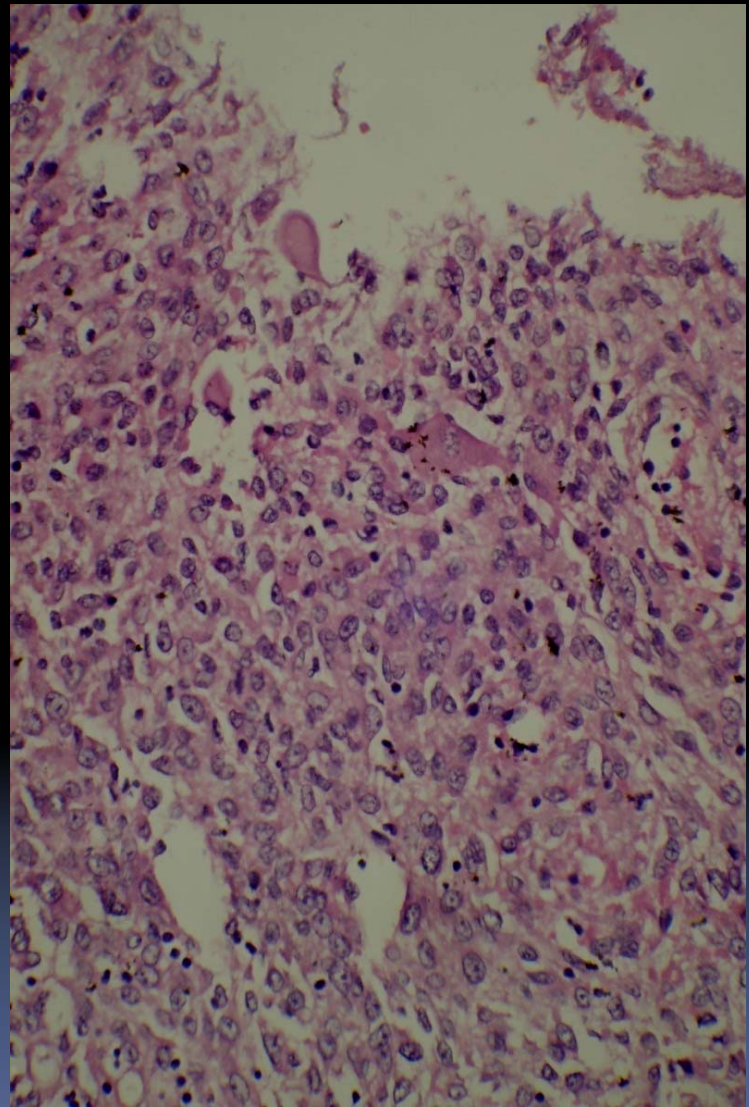
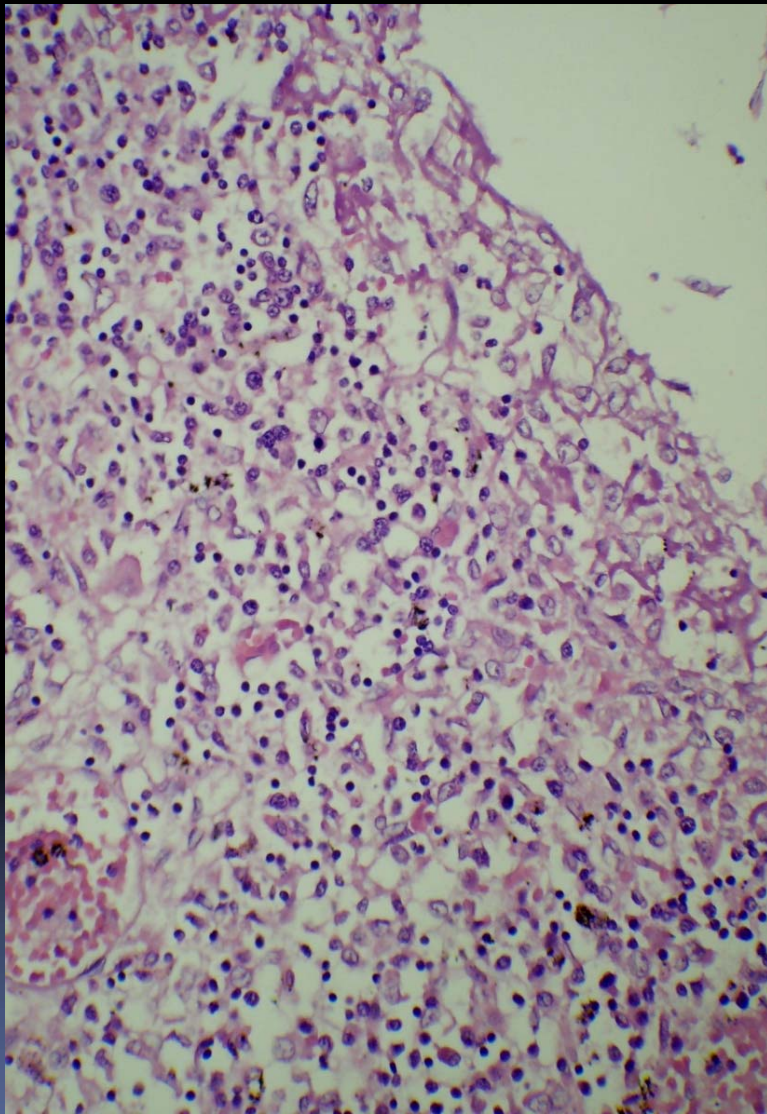


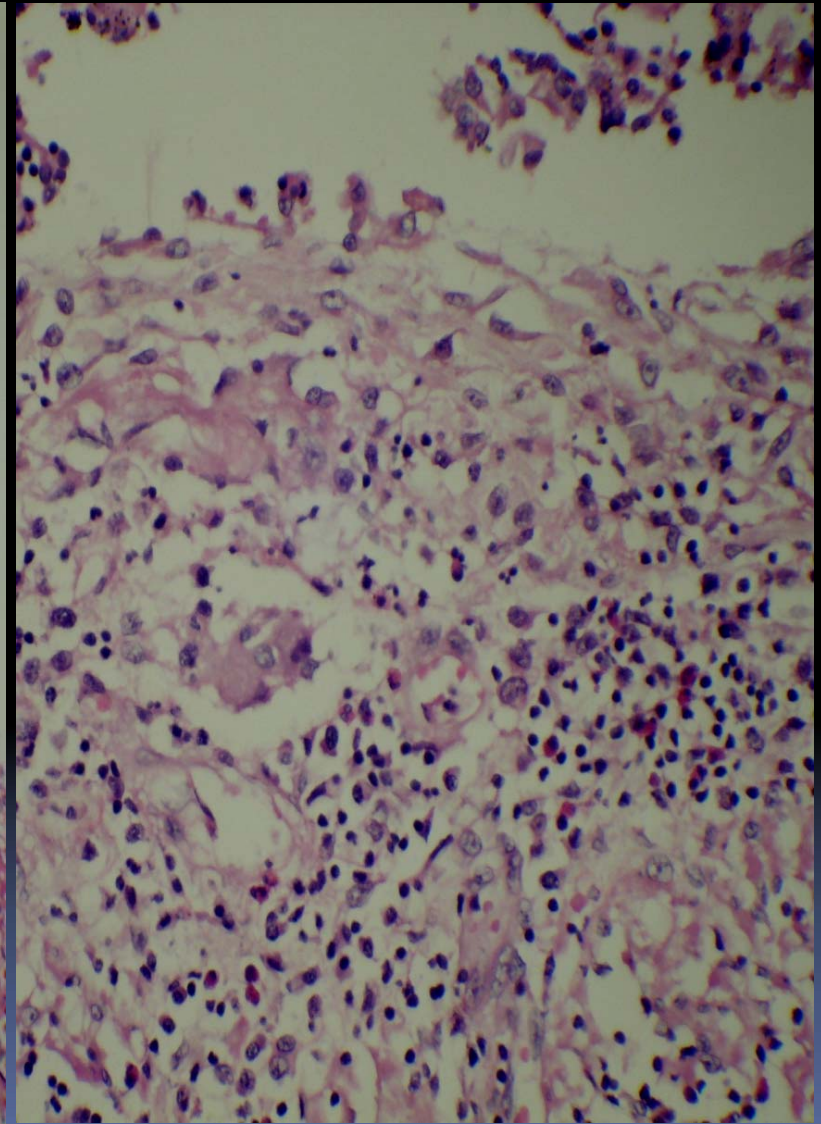
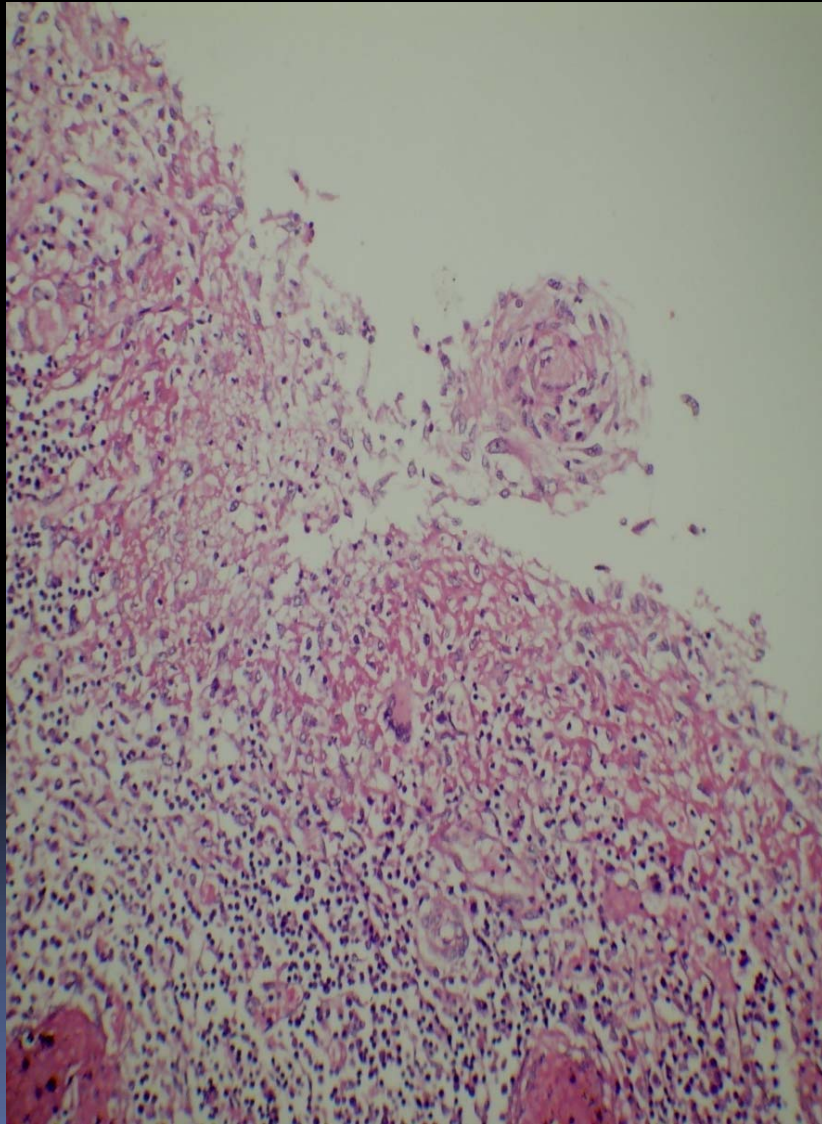


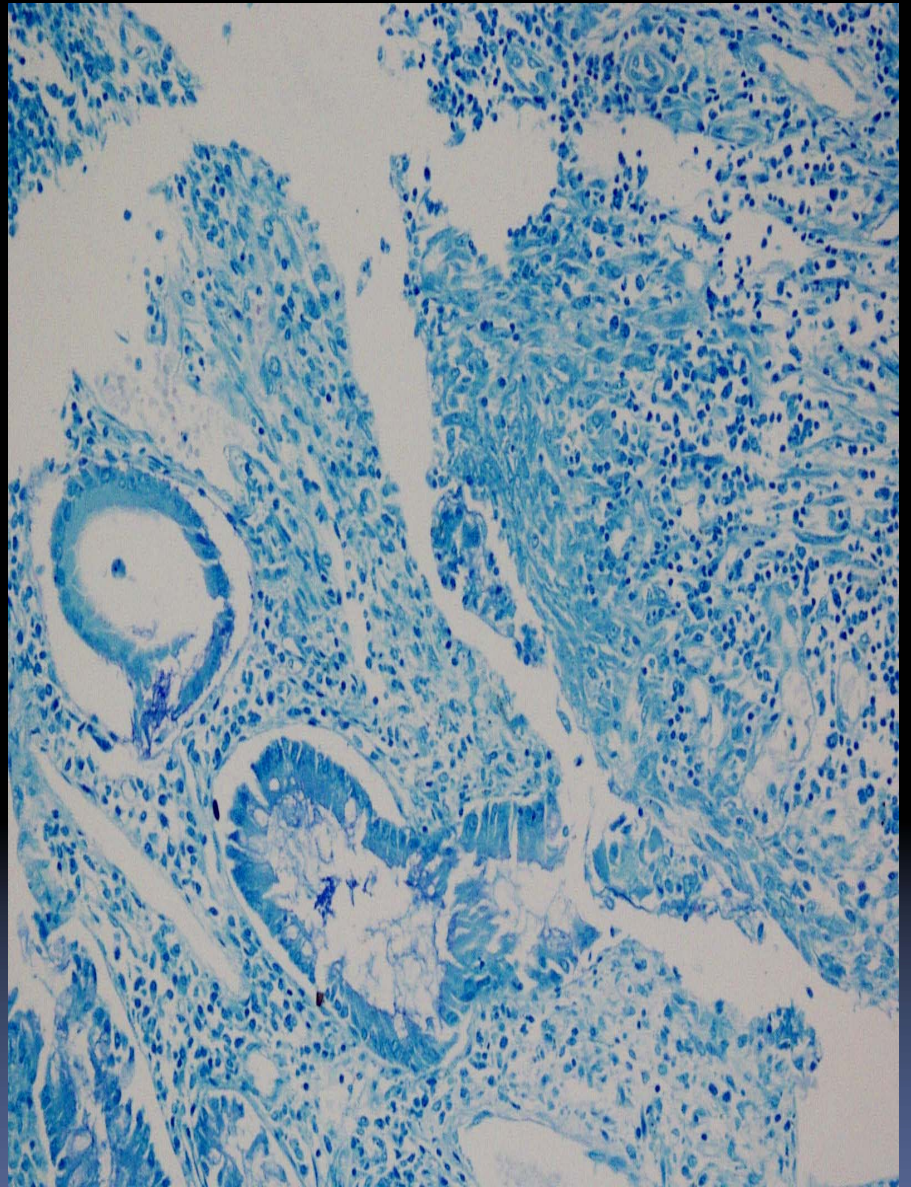
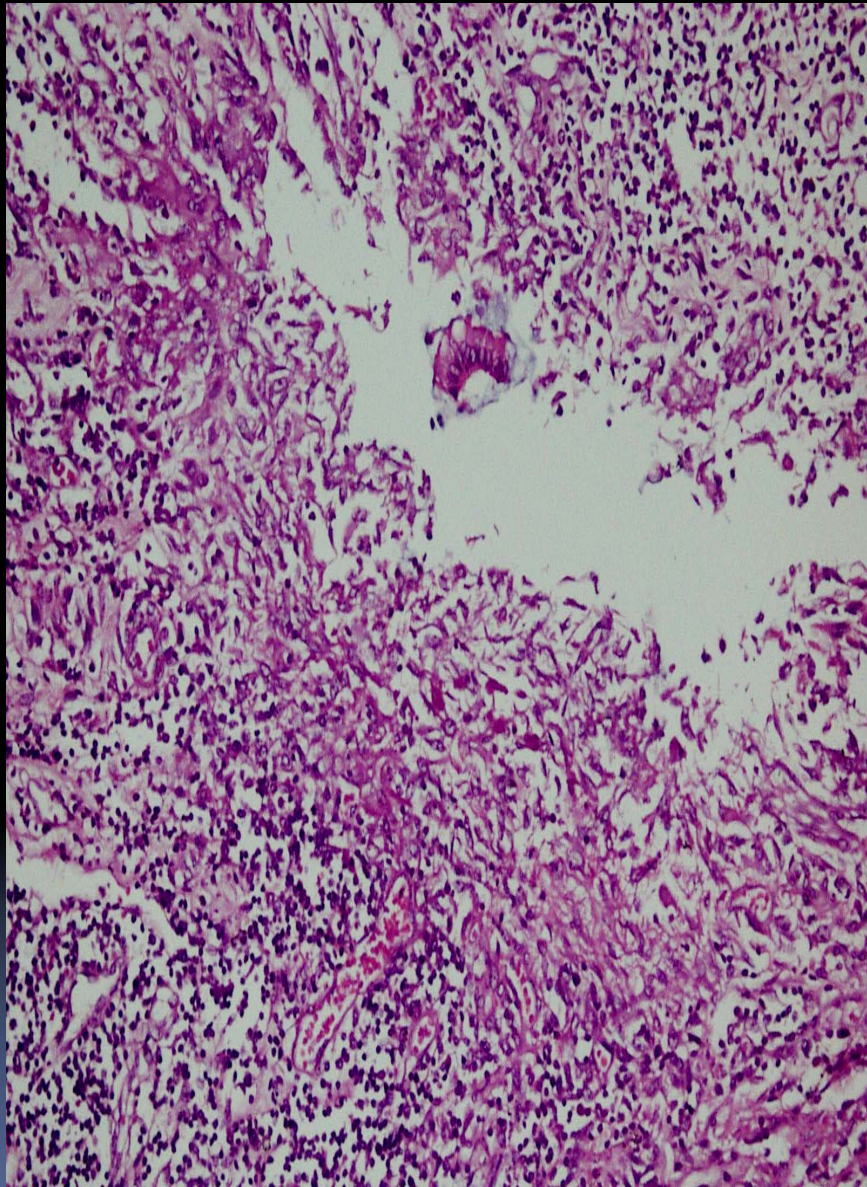


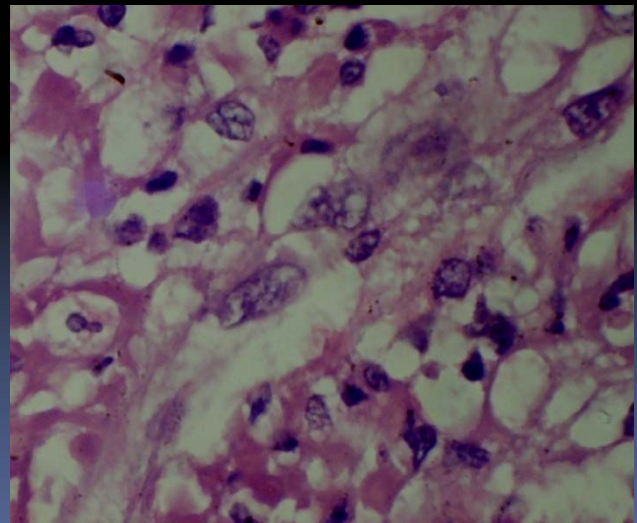
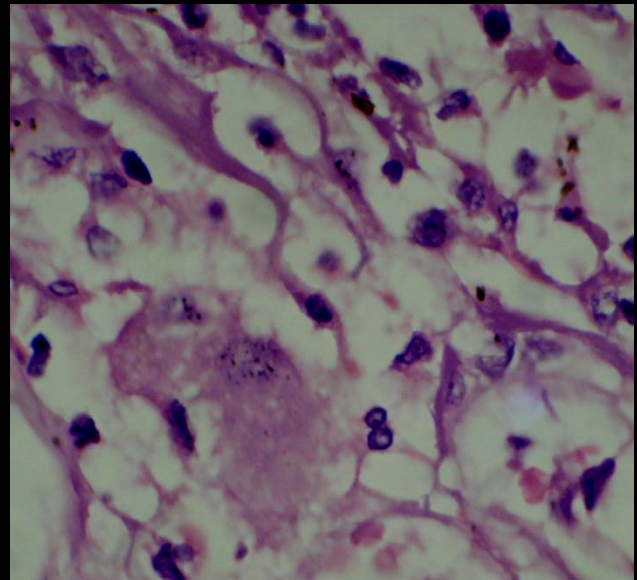
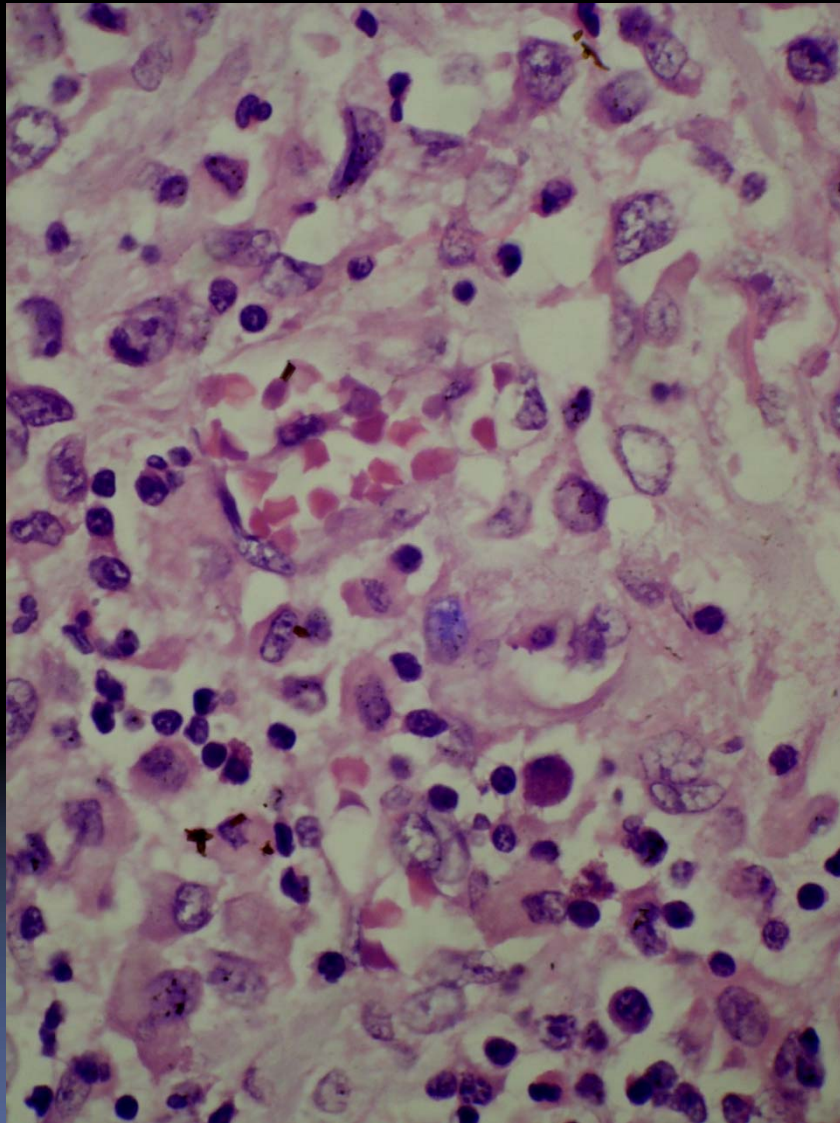


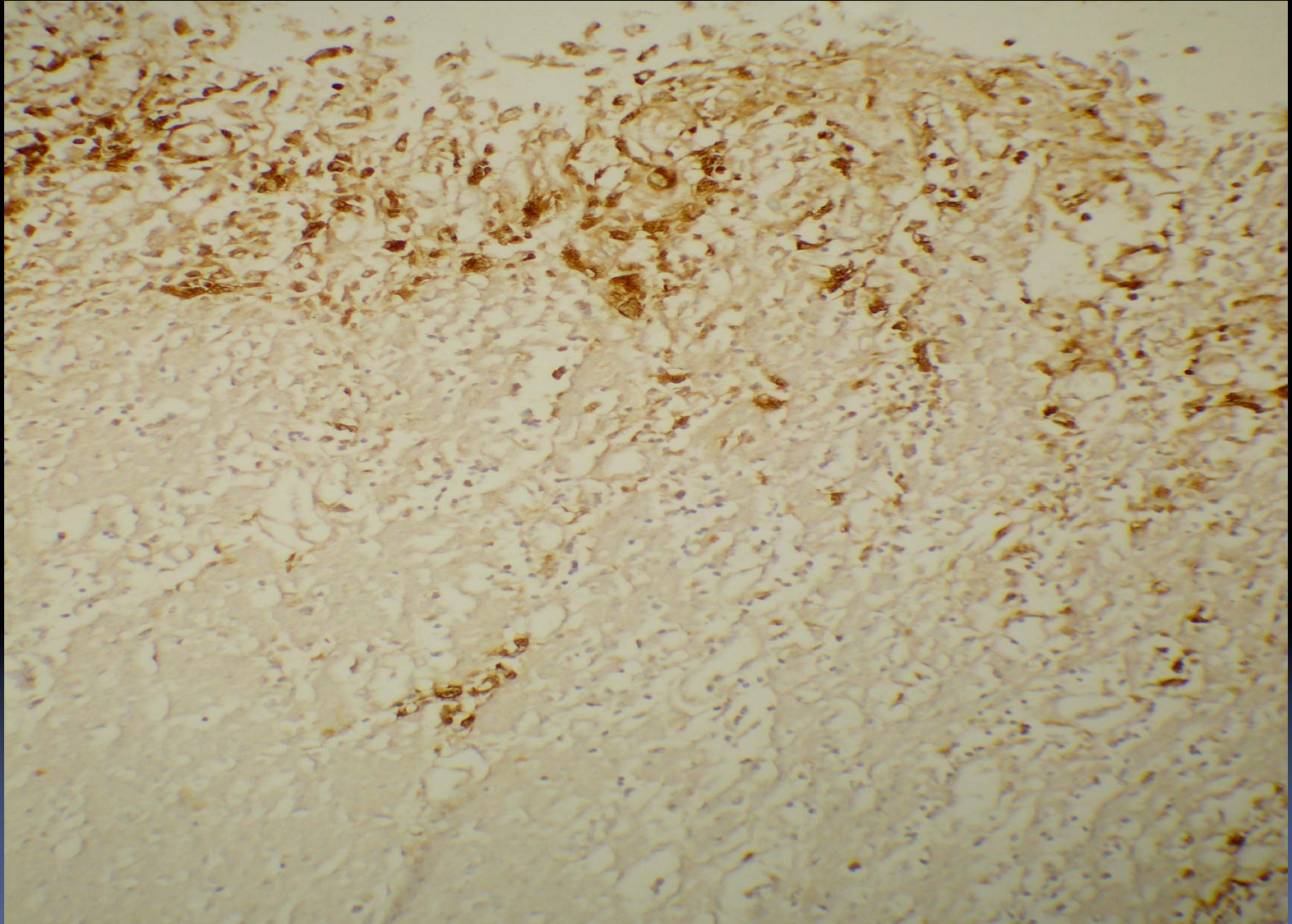




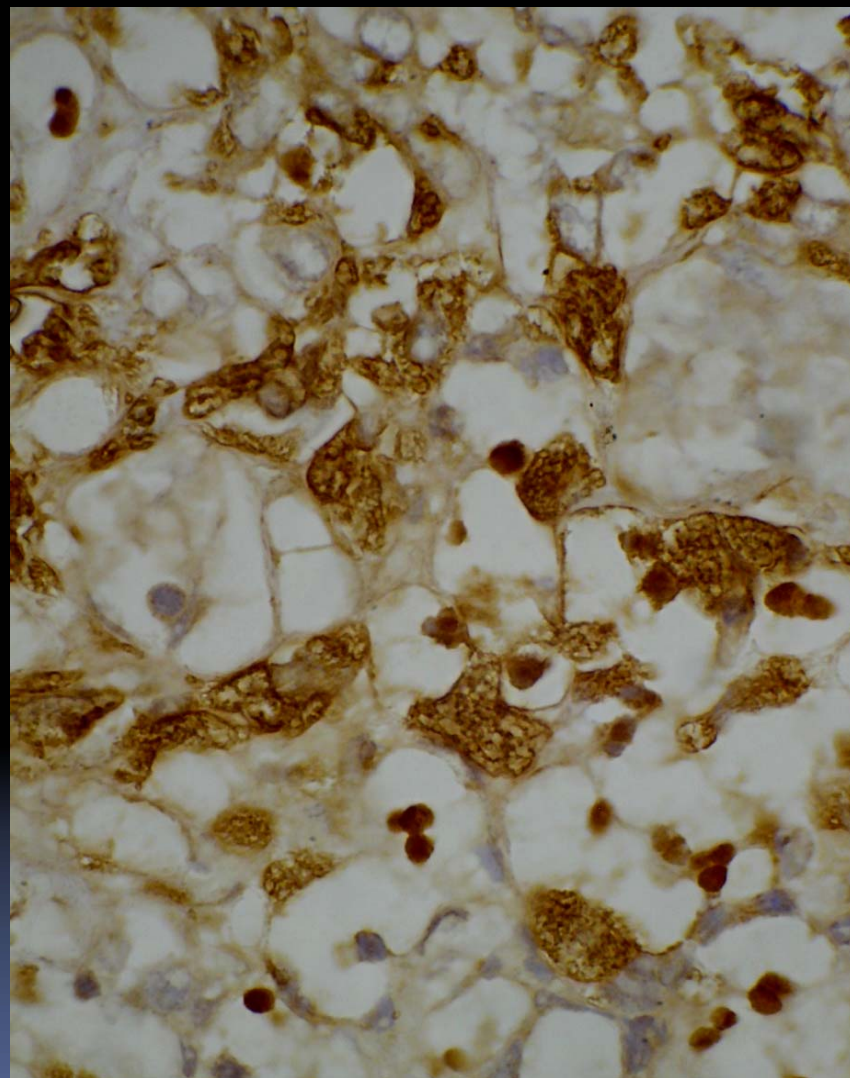
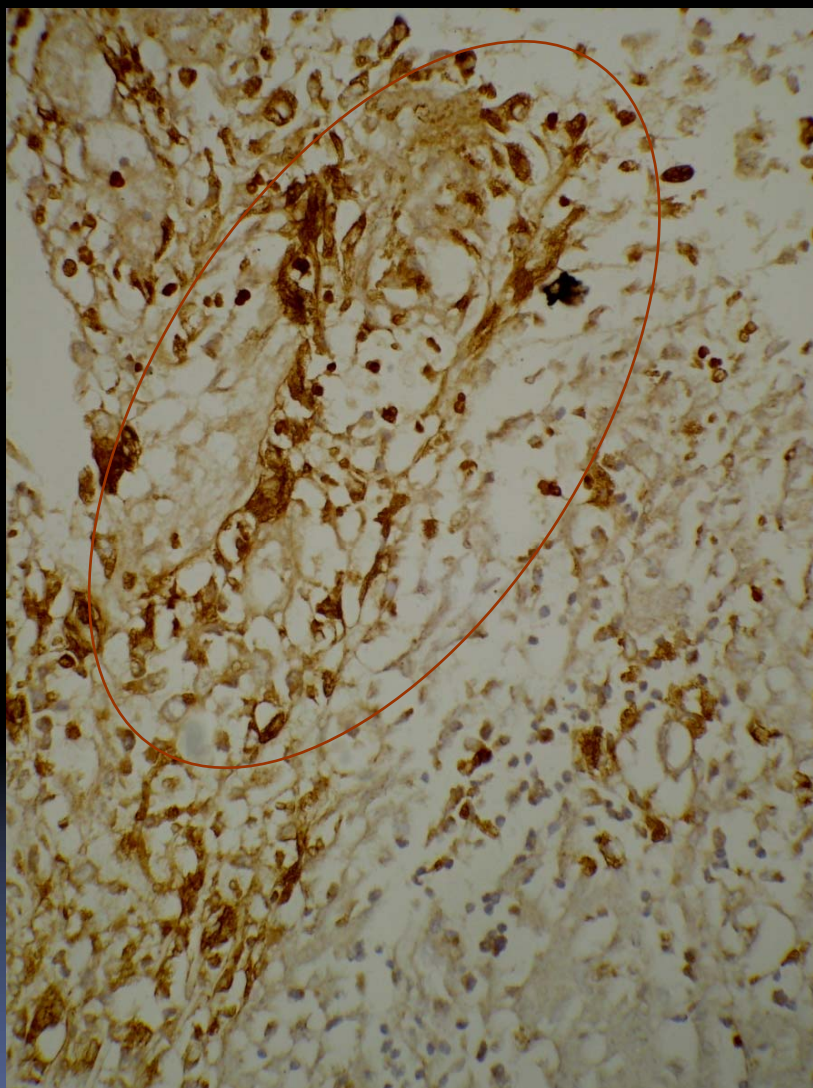




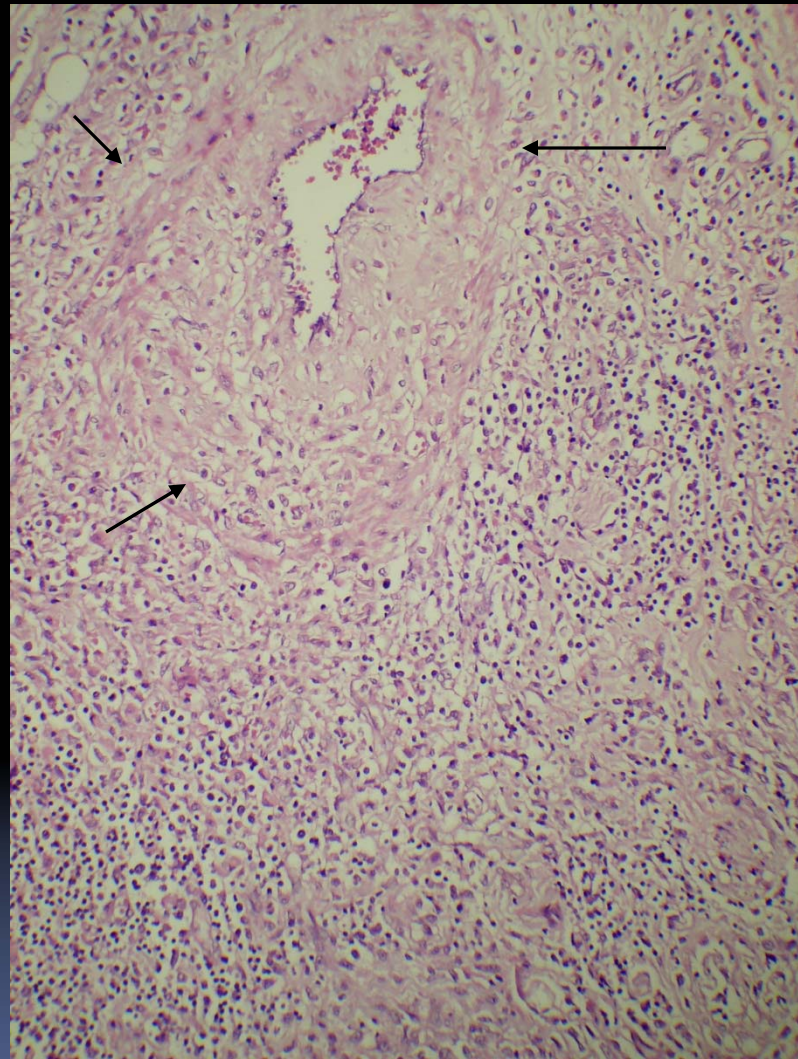
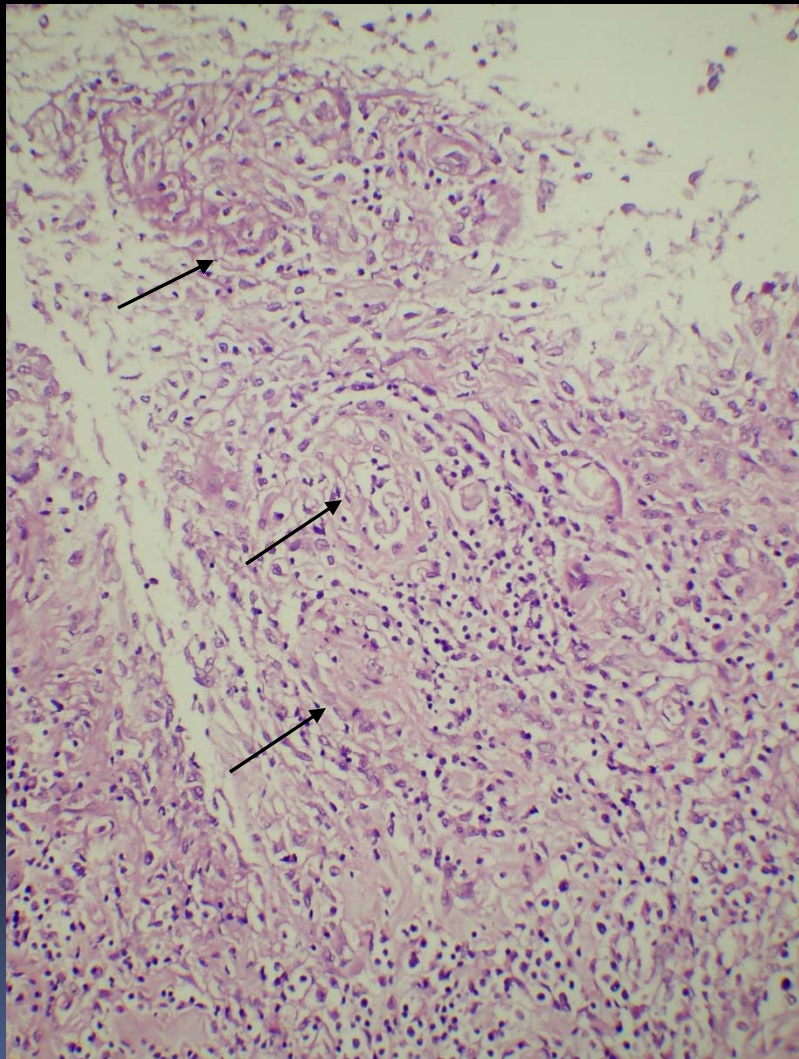


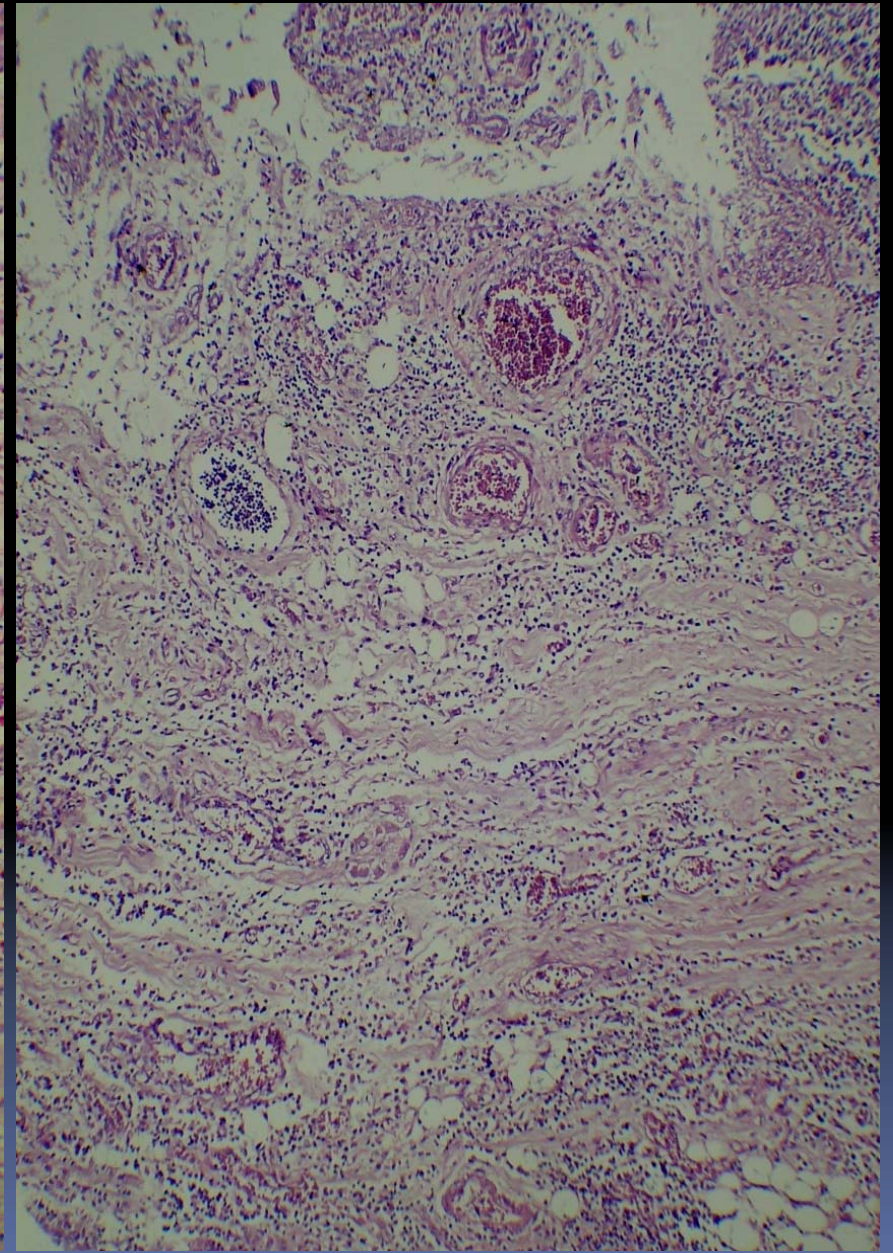
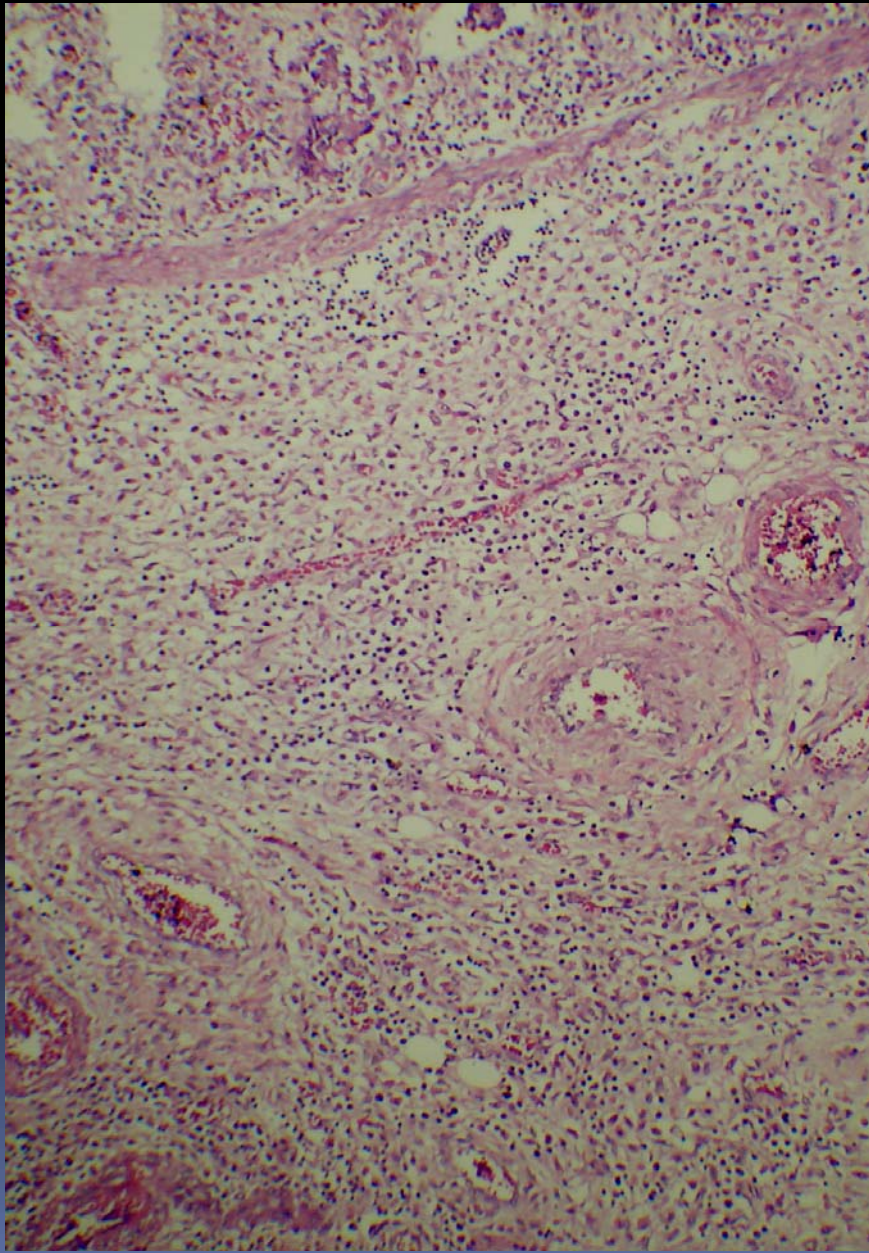


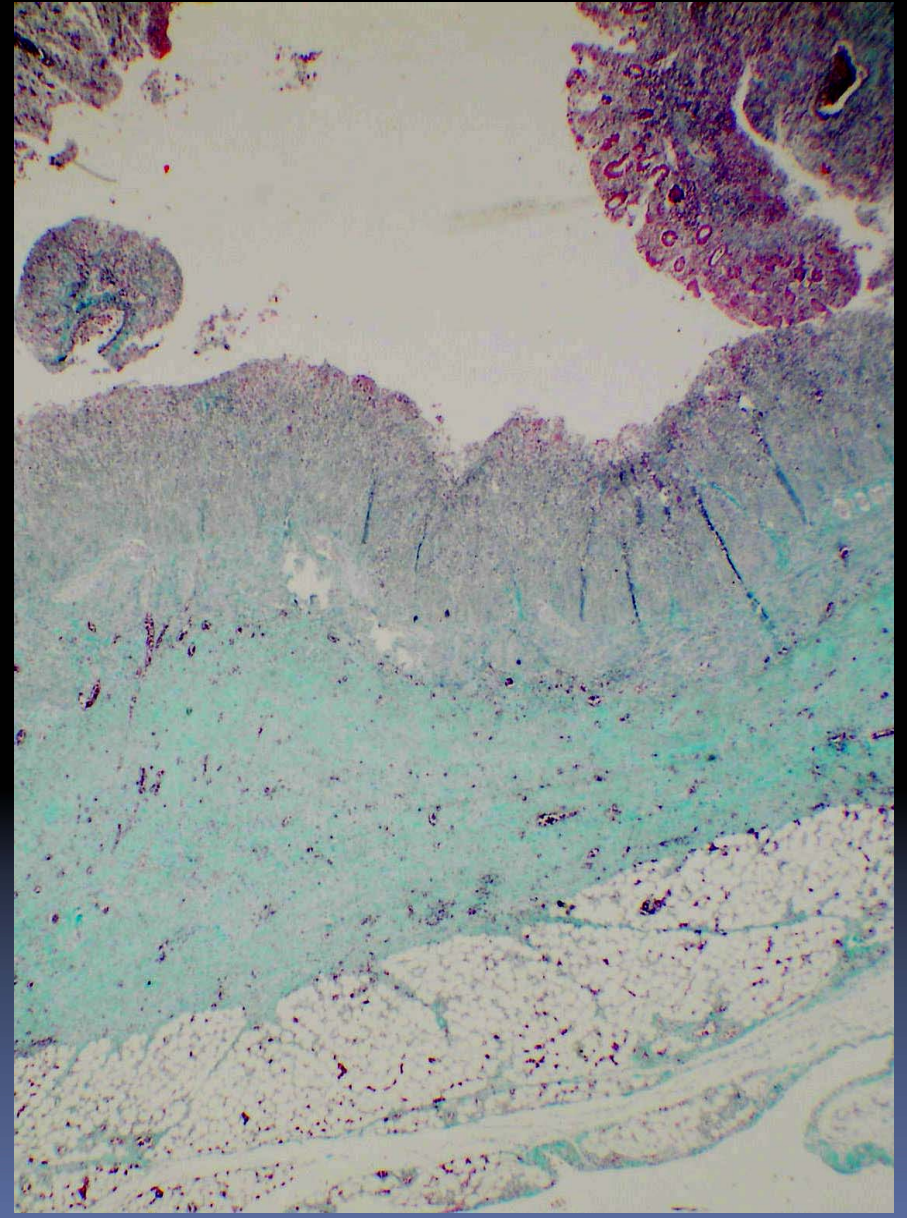
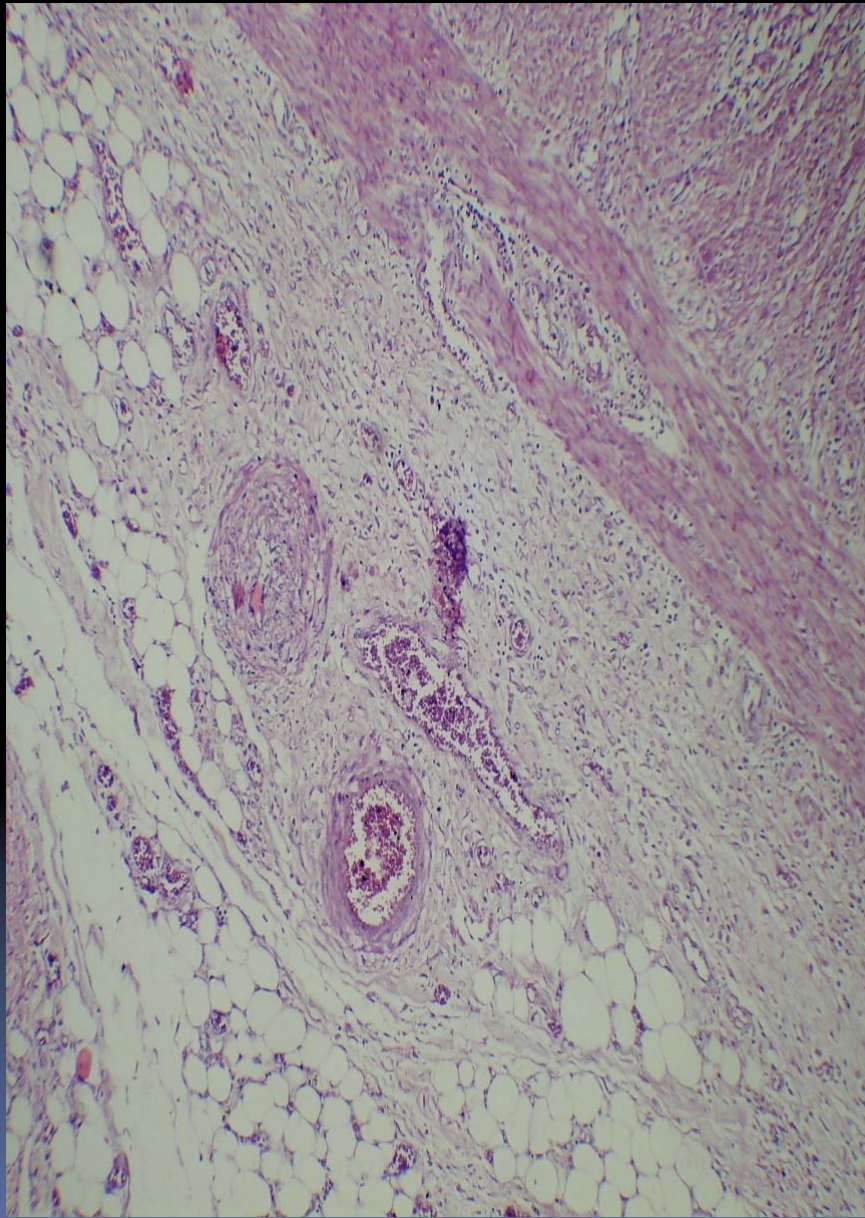
CMV -immunostain

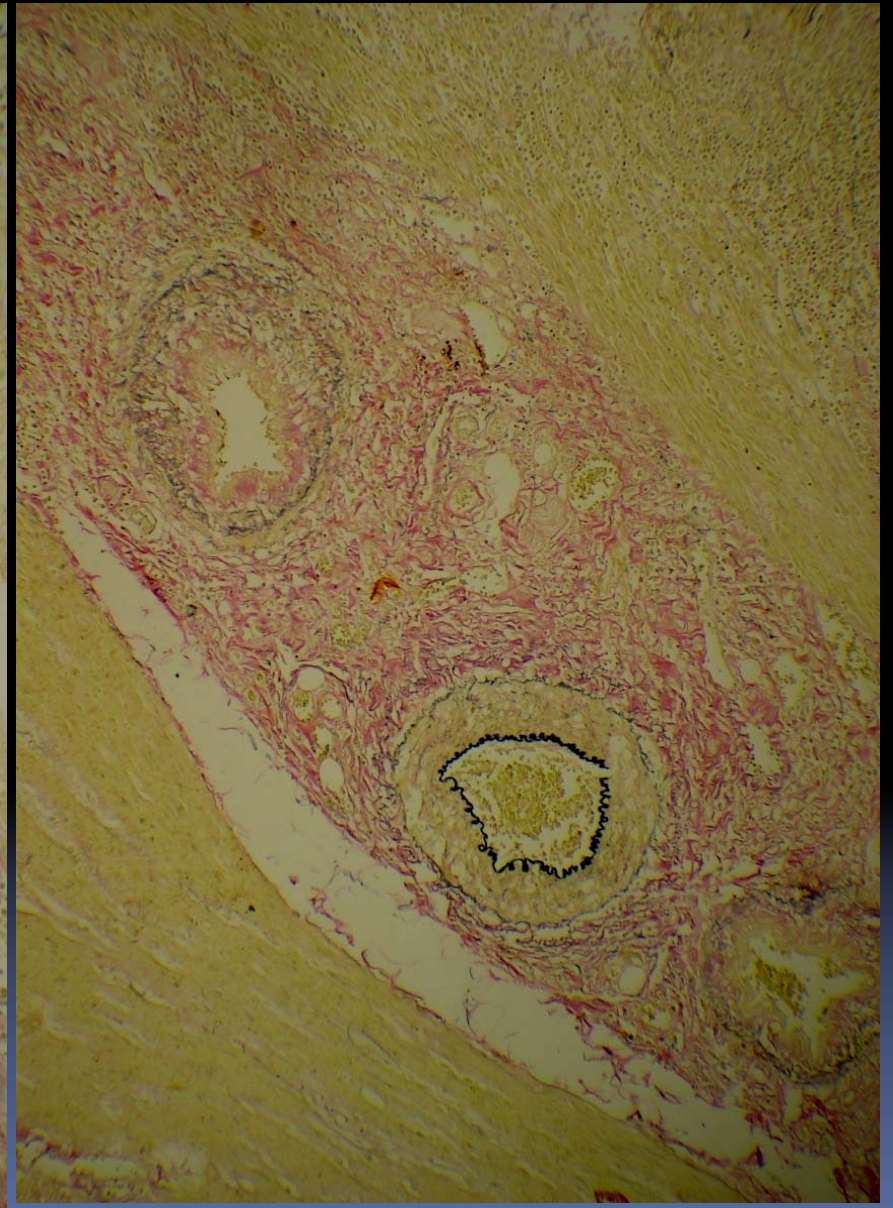
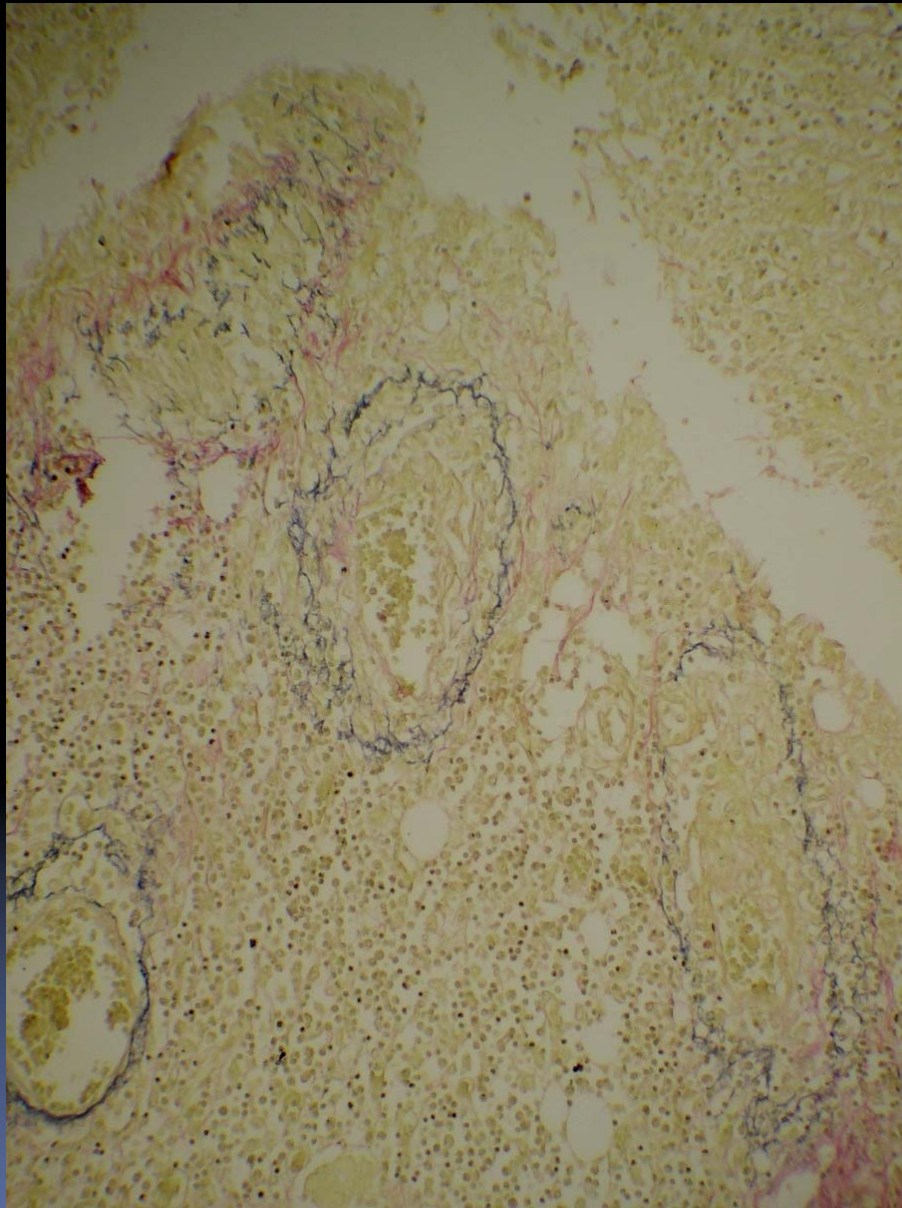


CMV -immunostain

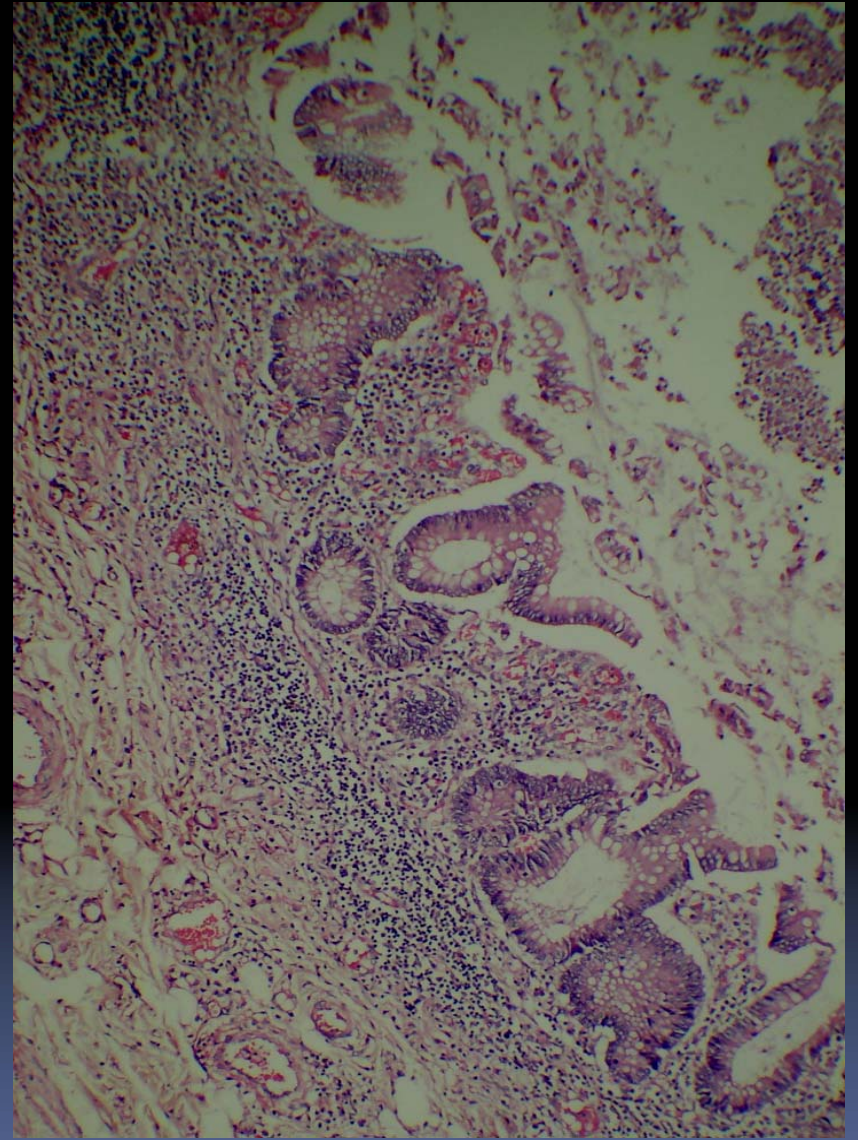
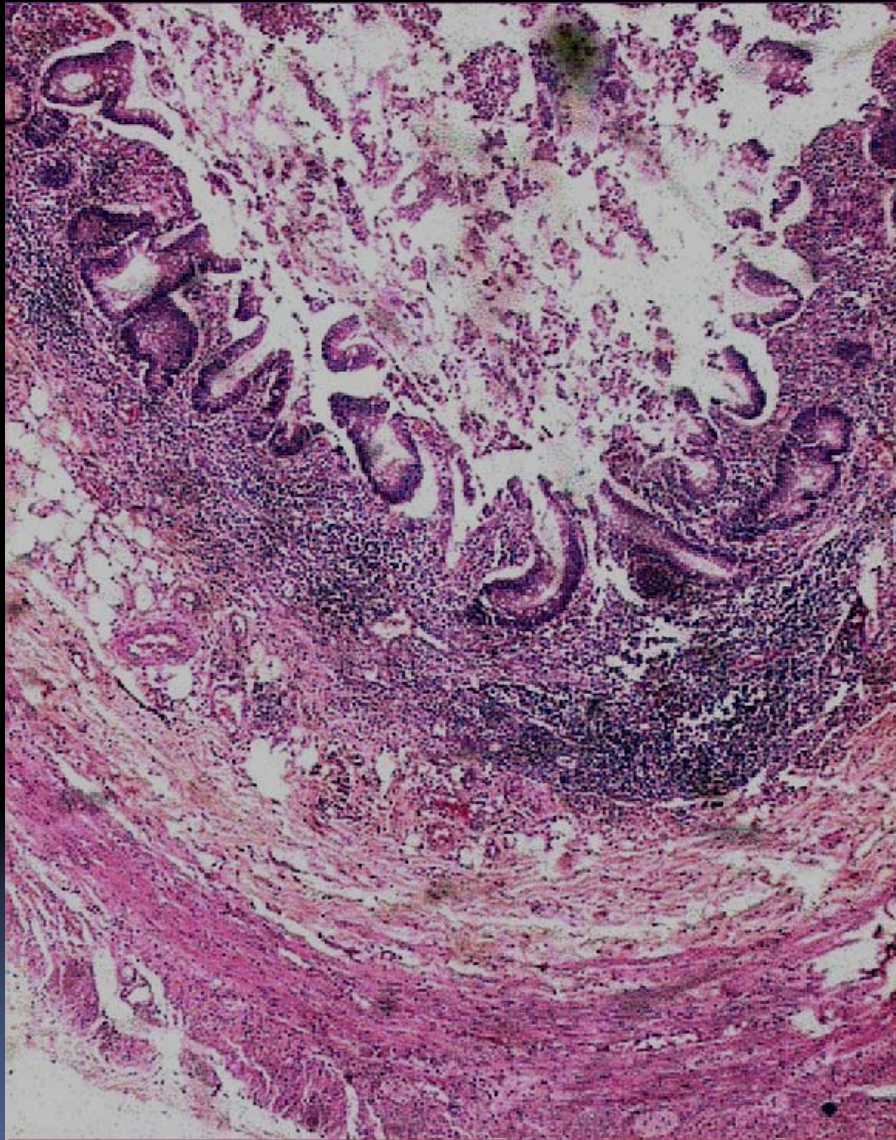




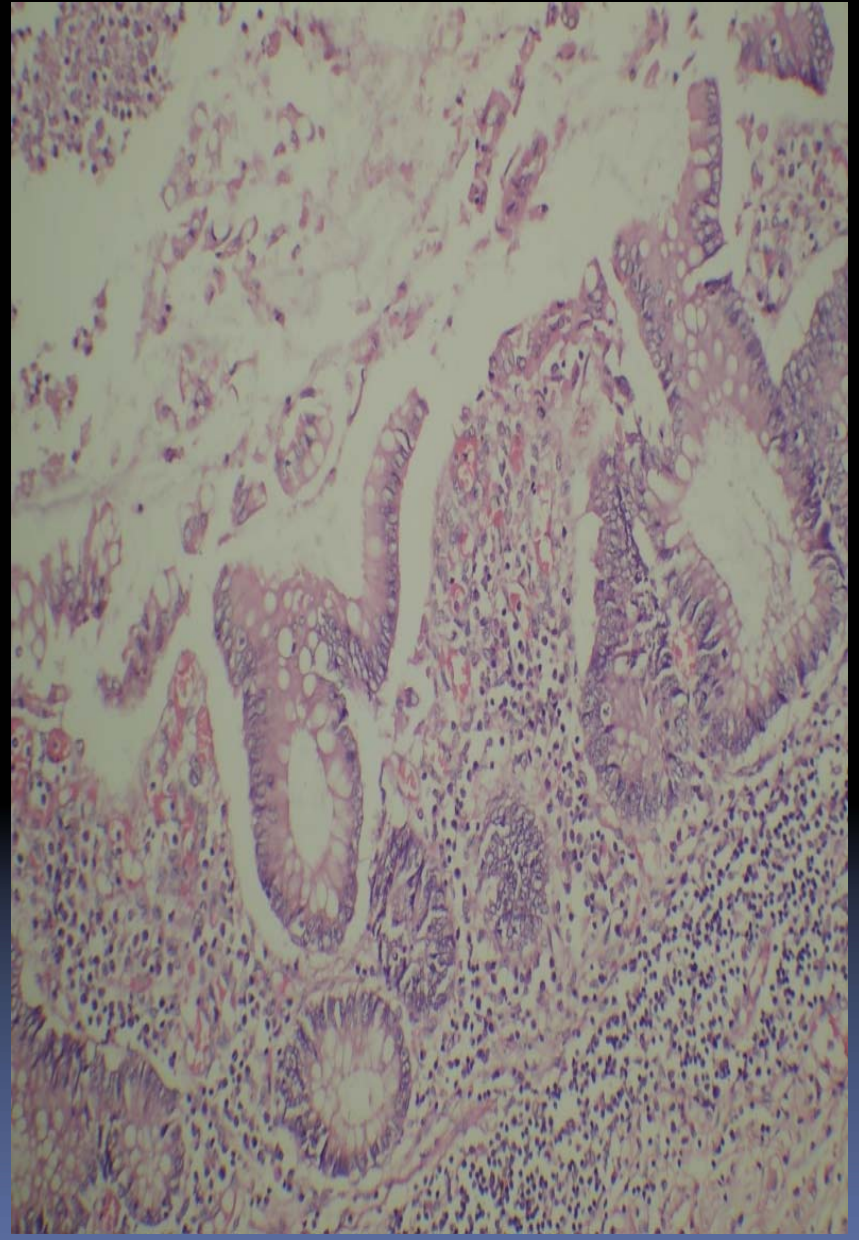
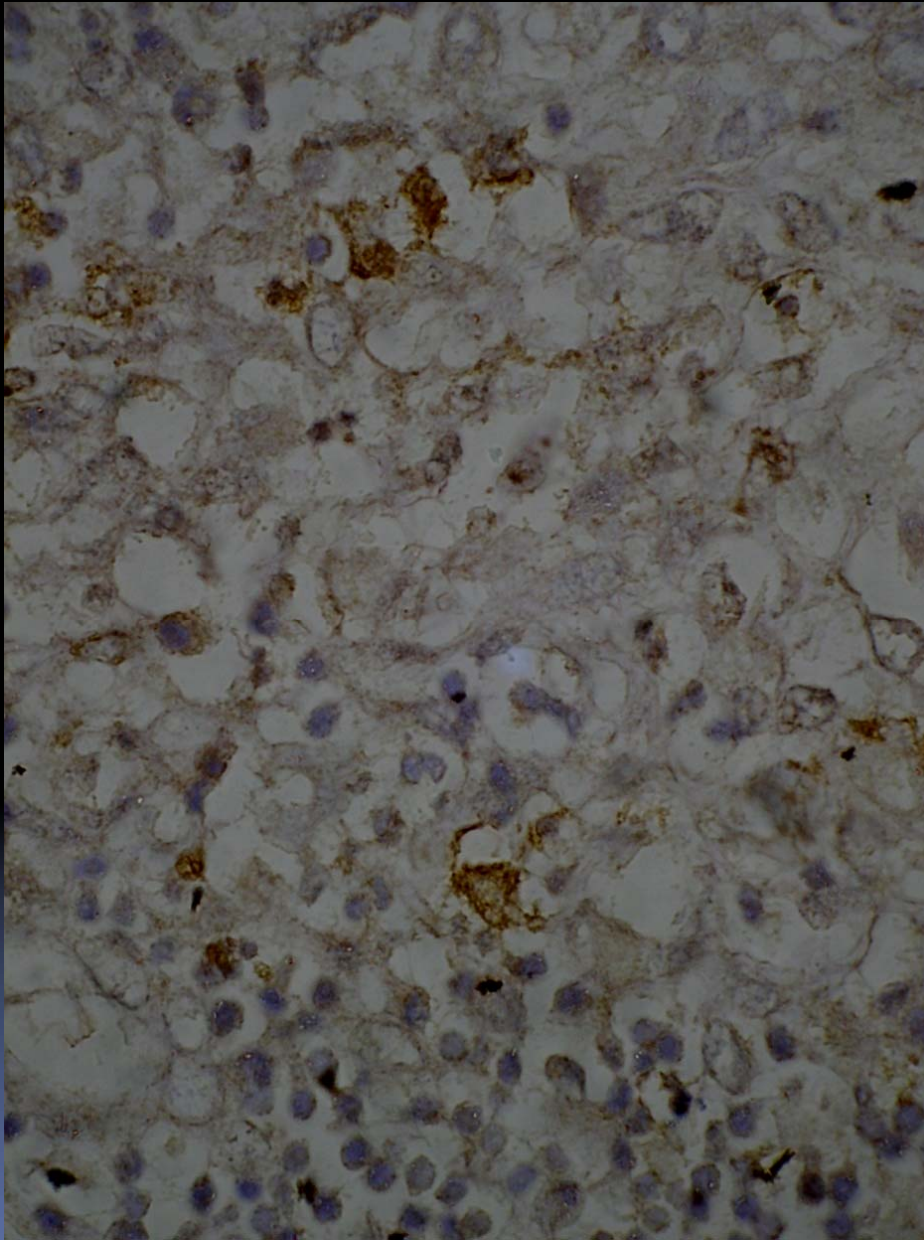




Elastic Van Gieson



Appendix



Appendix

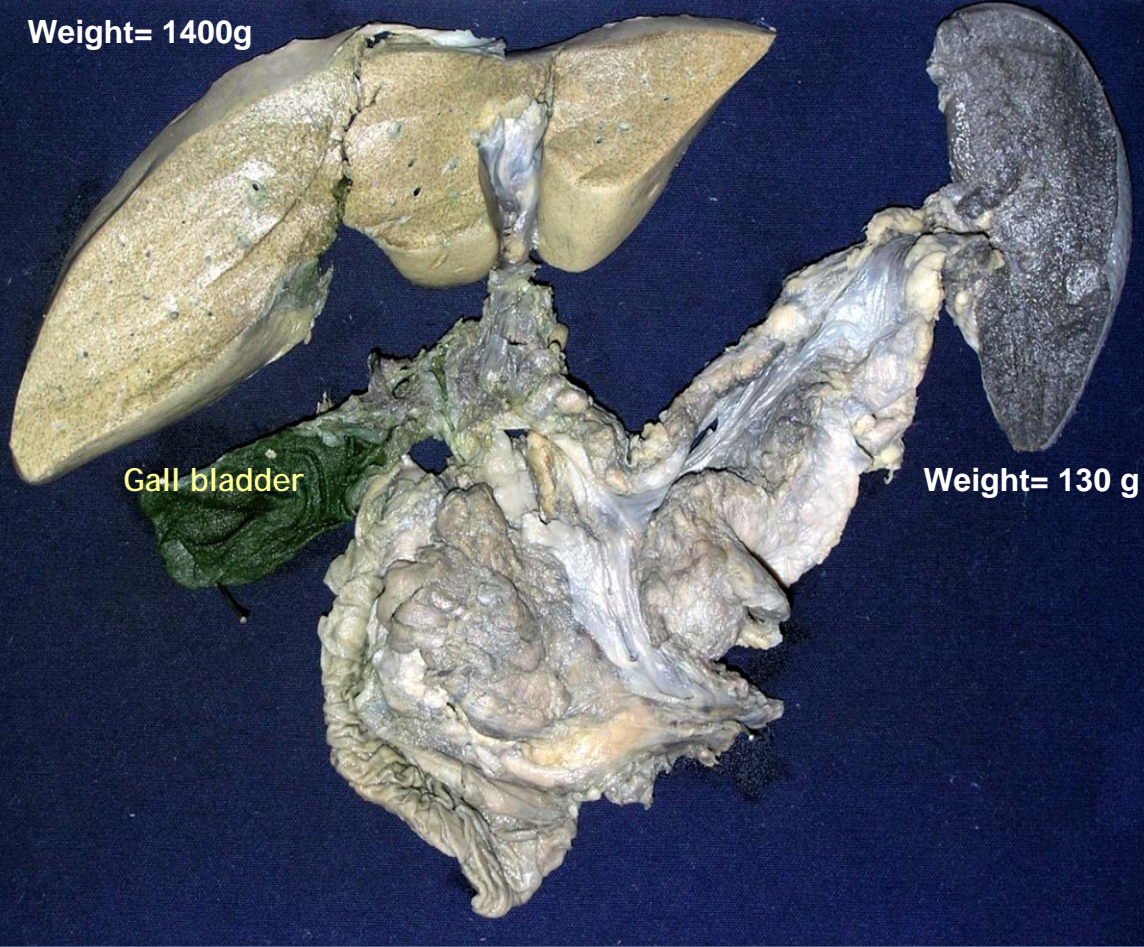
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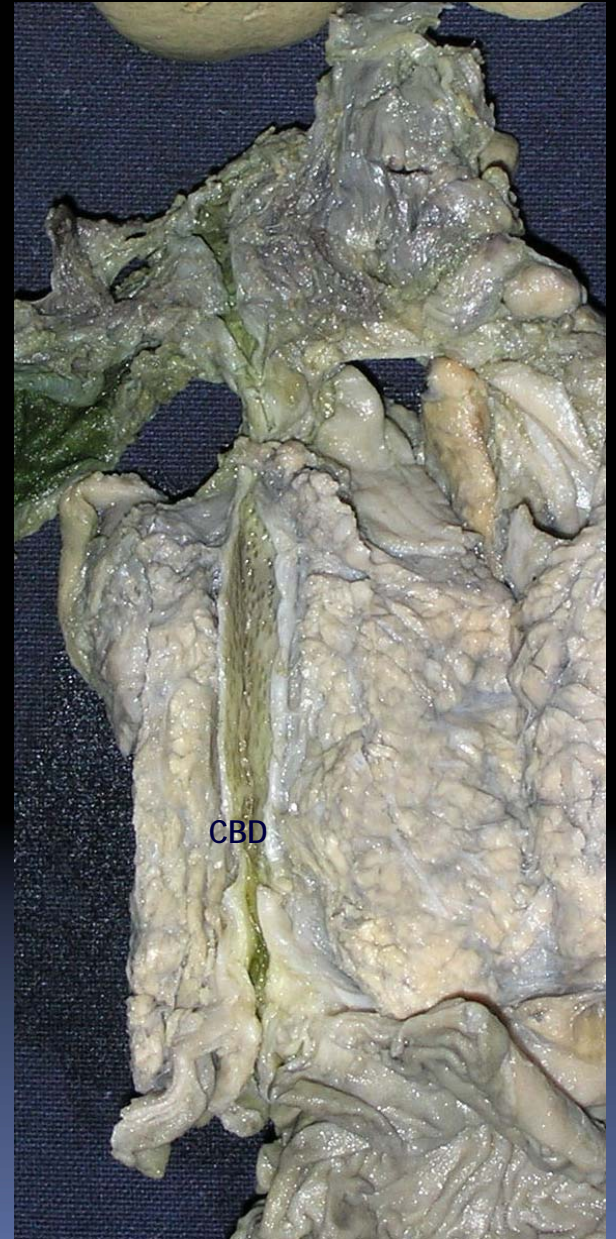


Weight= 1400g

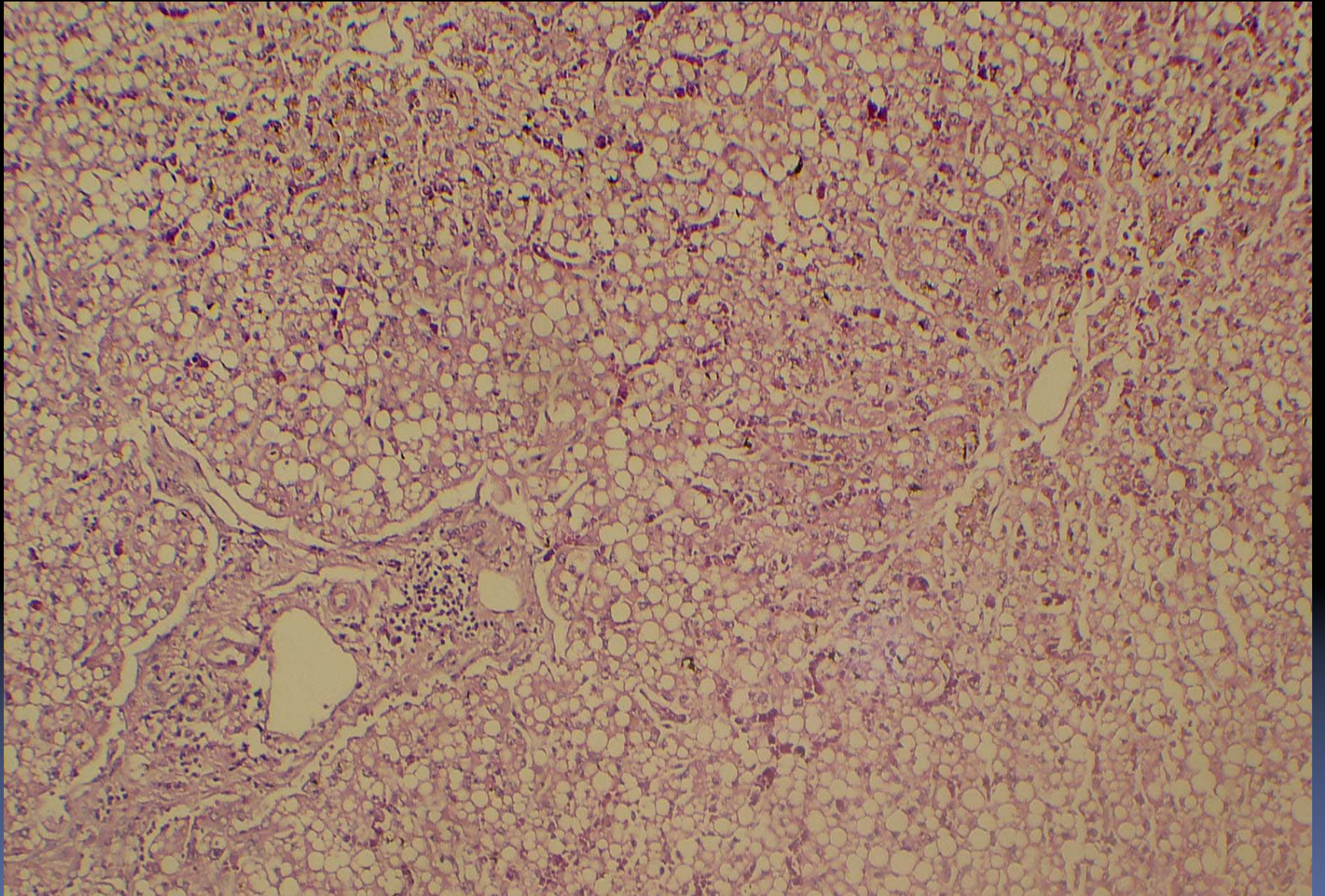


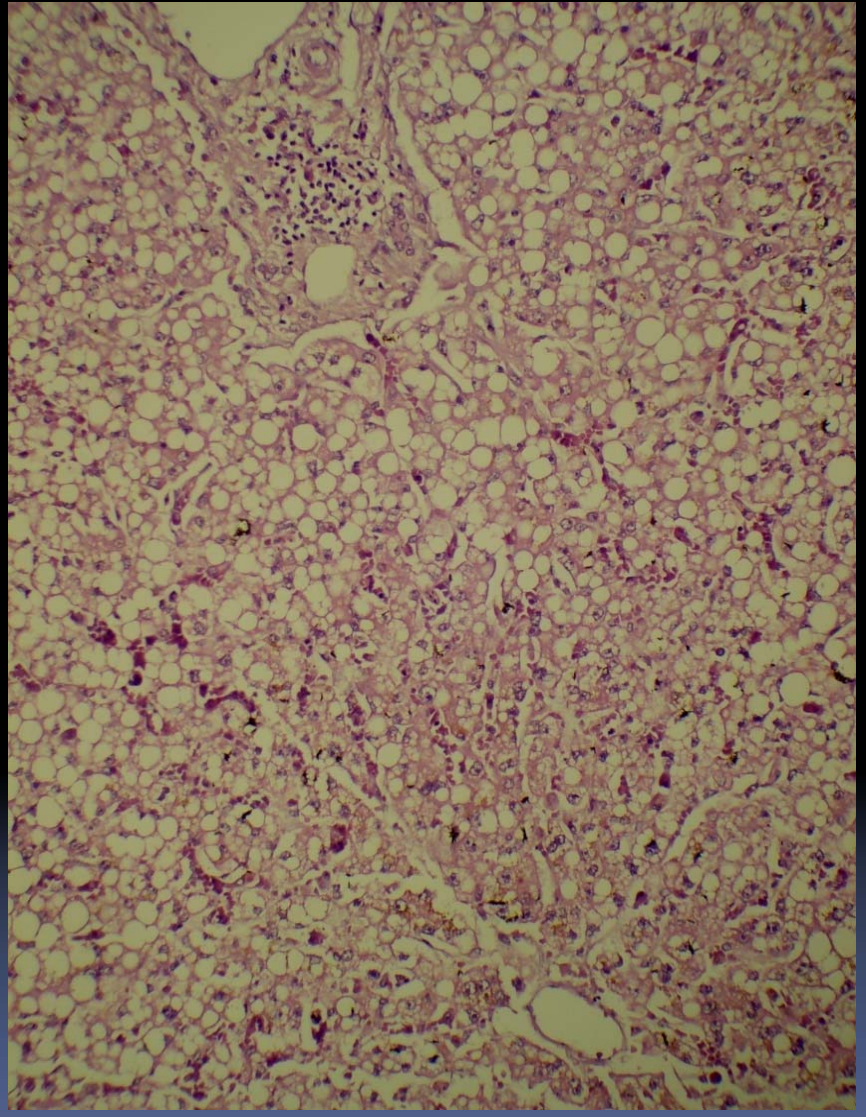
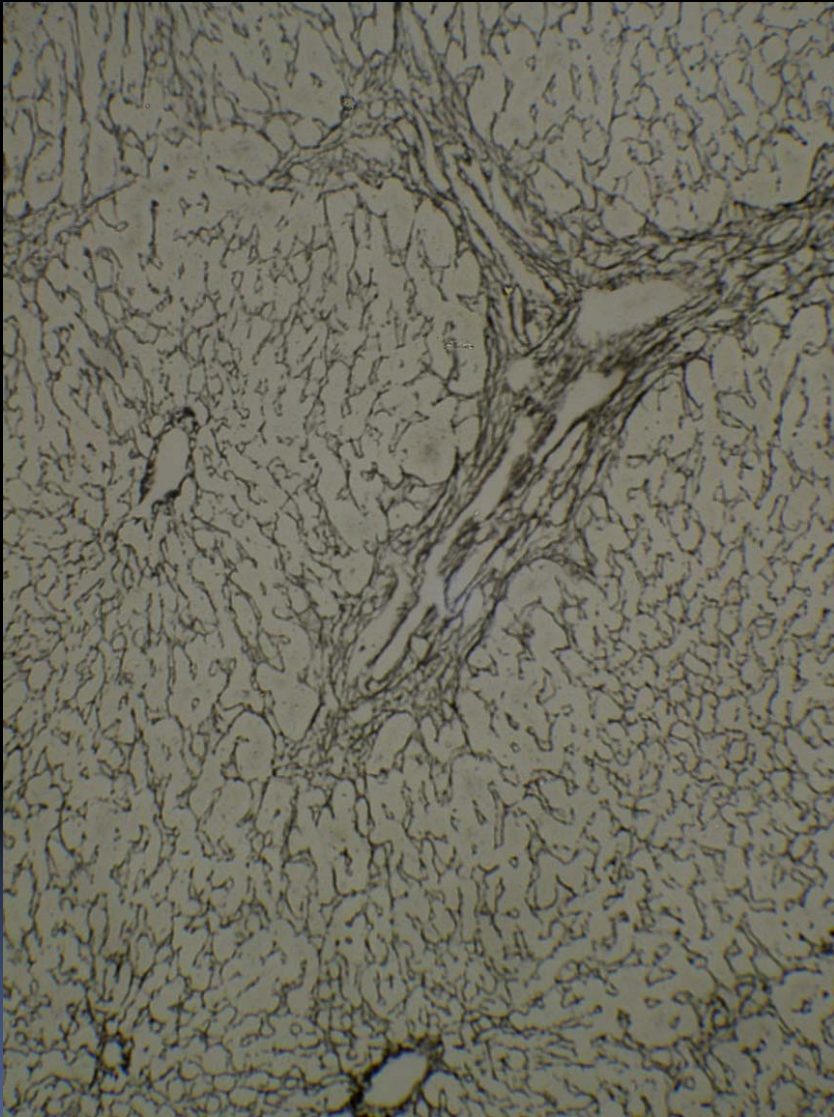
Gall bladder

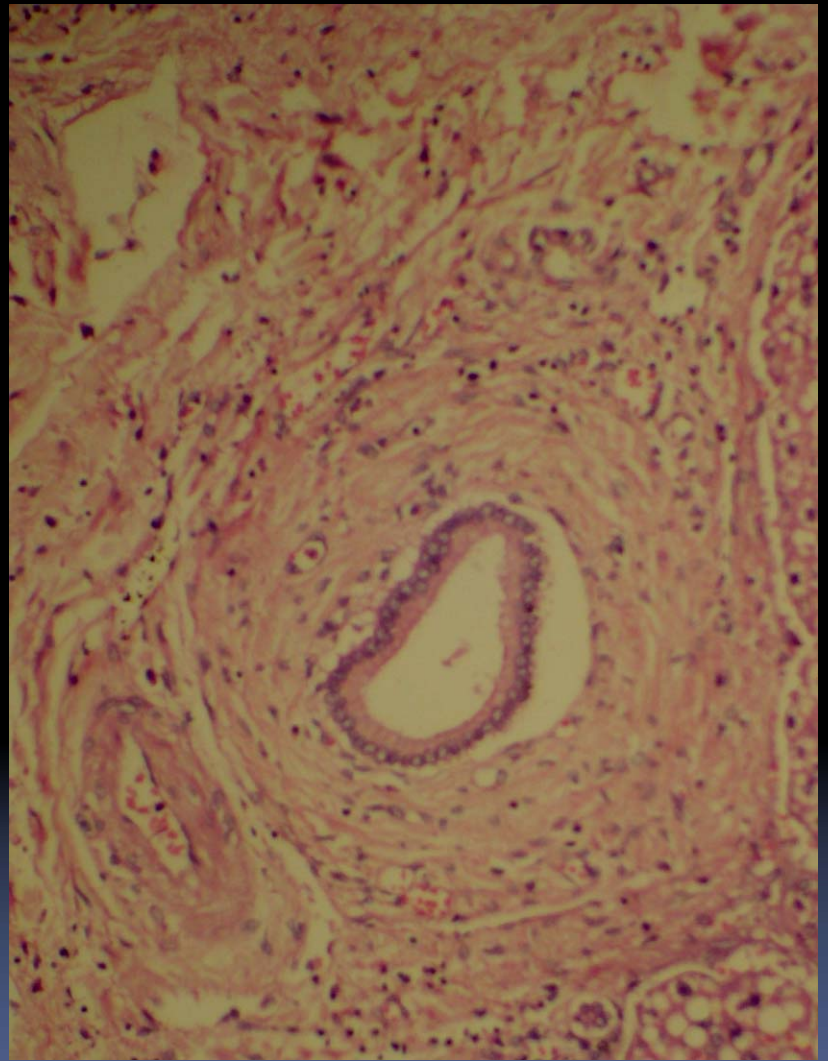
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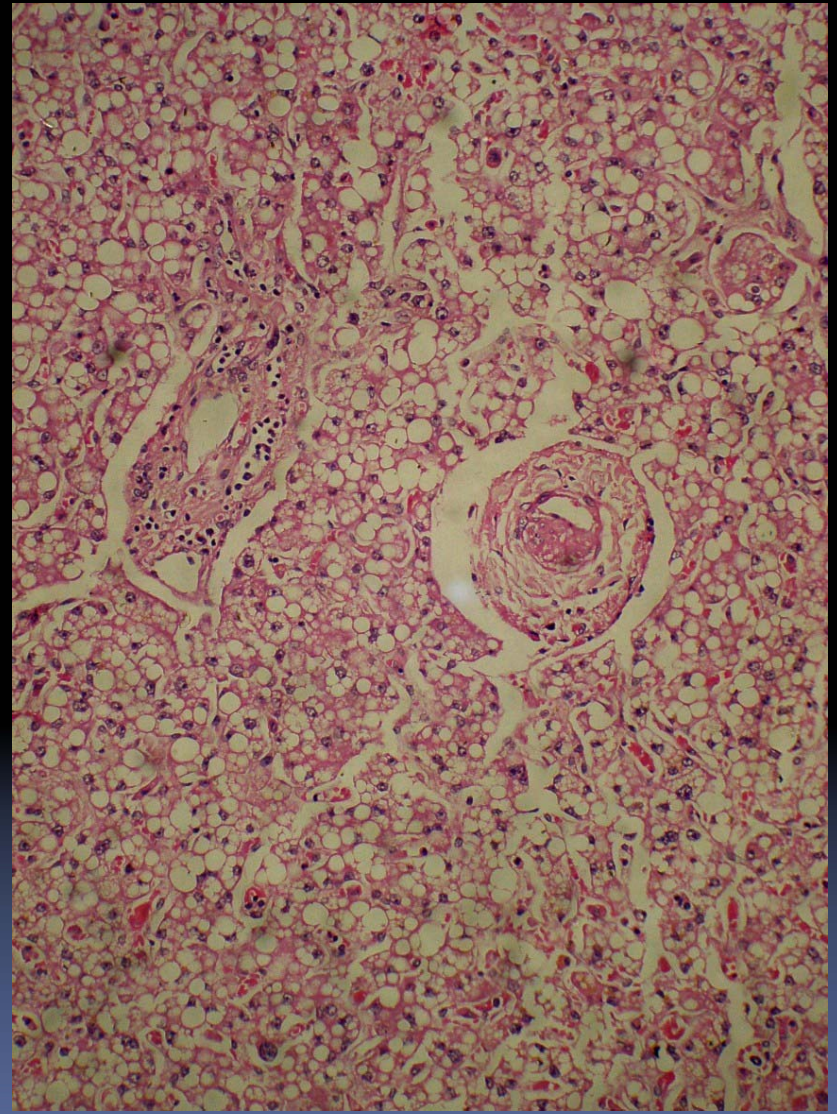
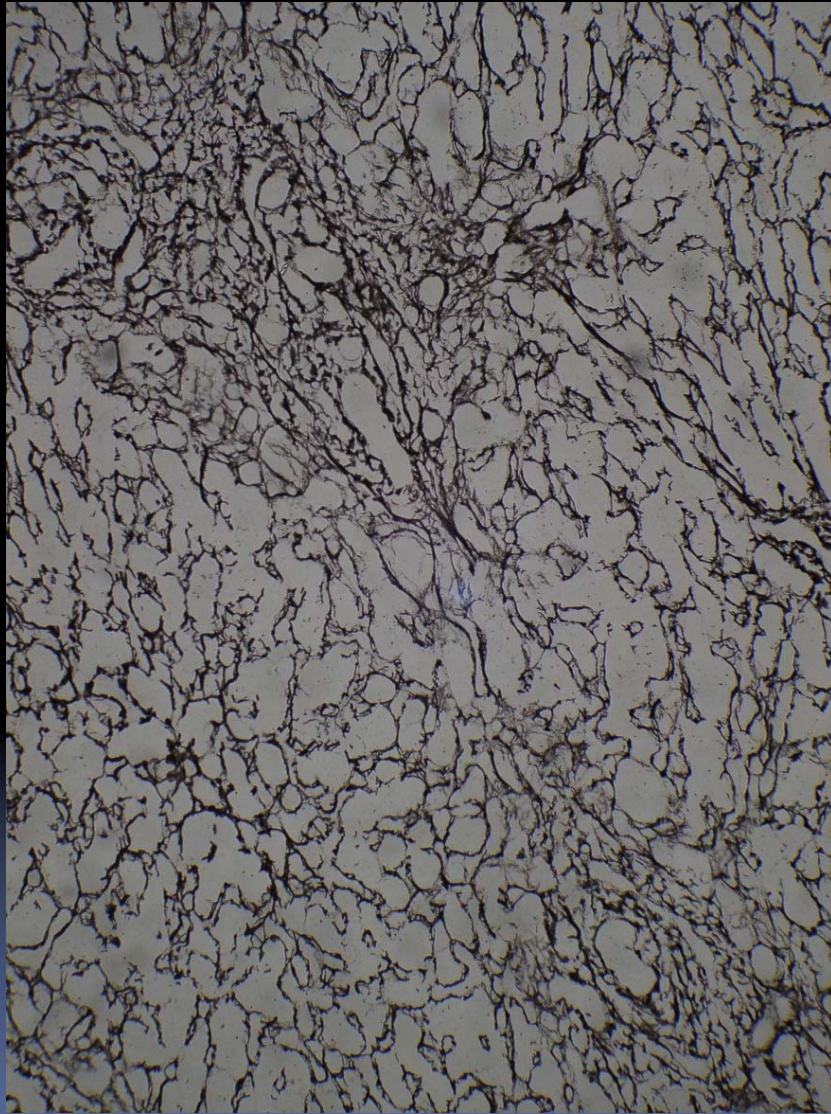


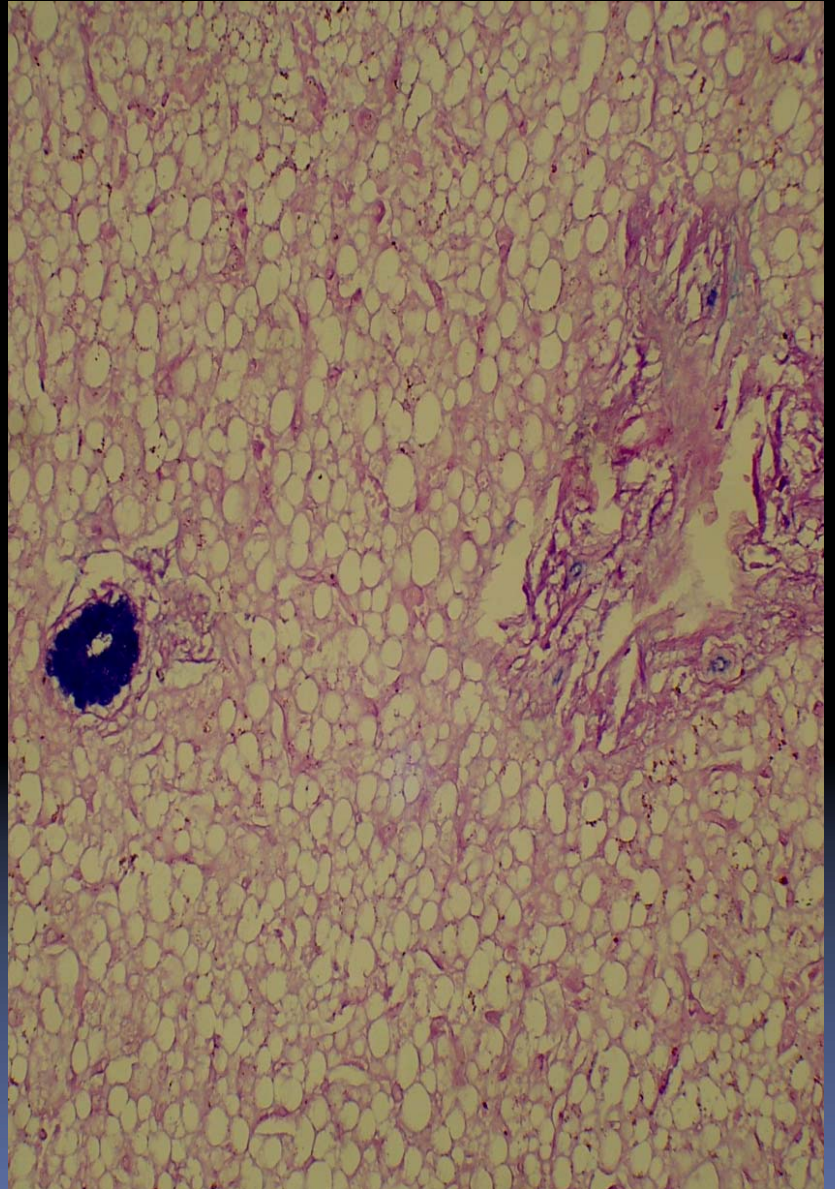
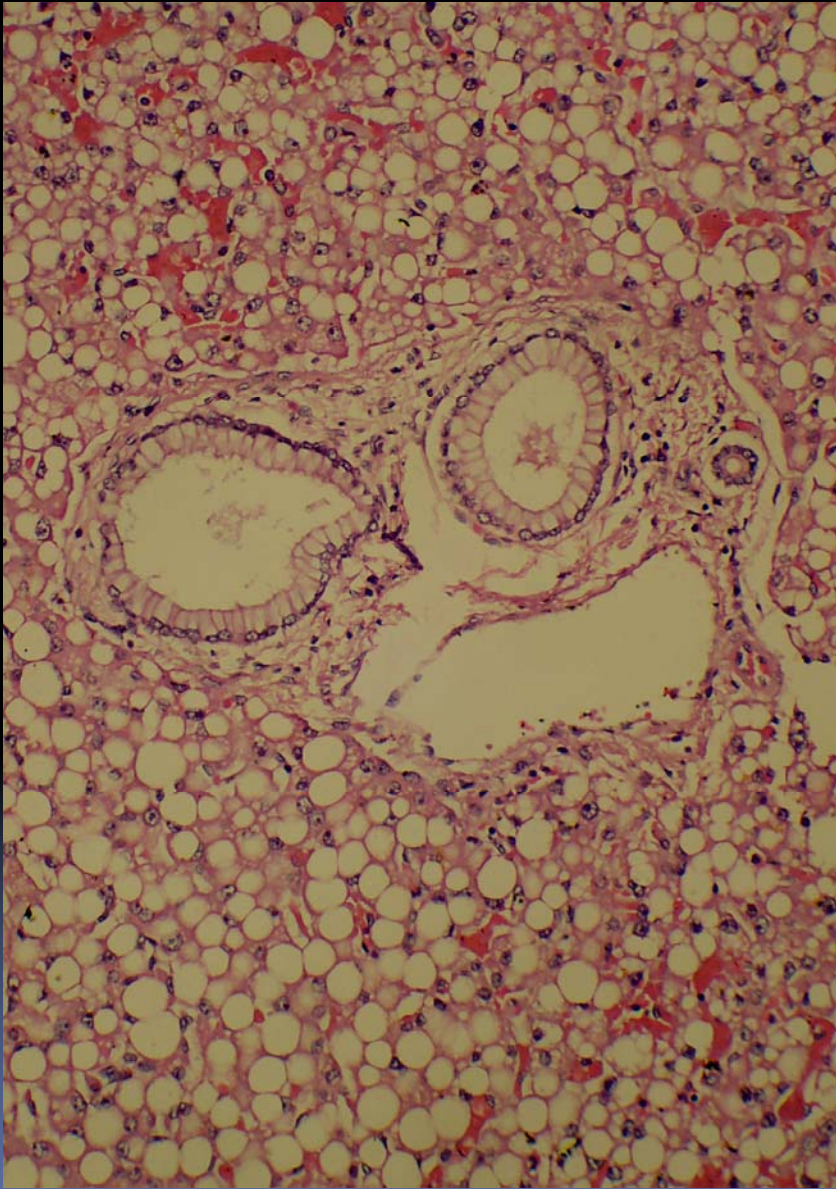
CBD

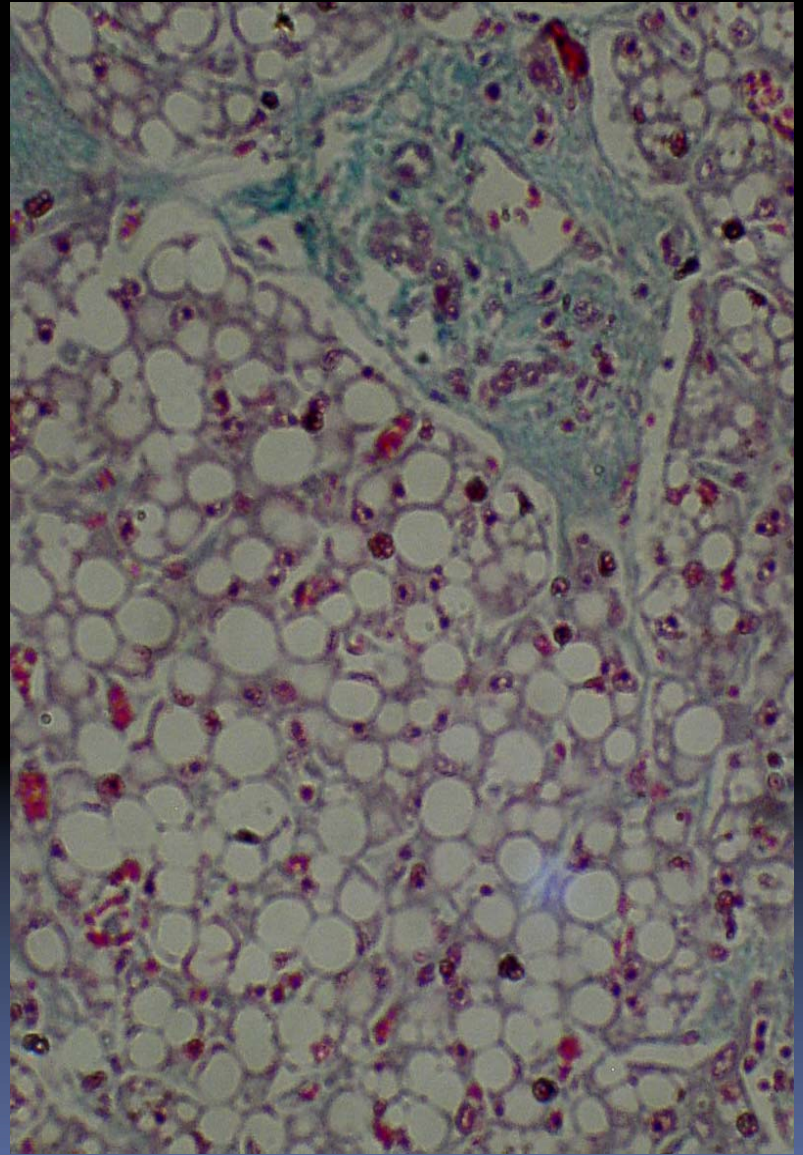
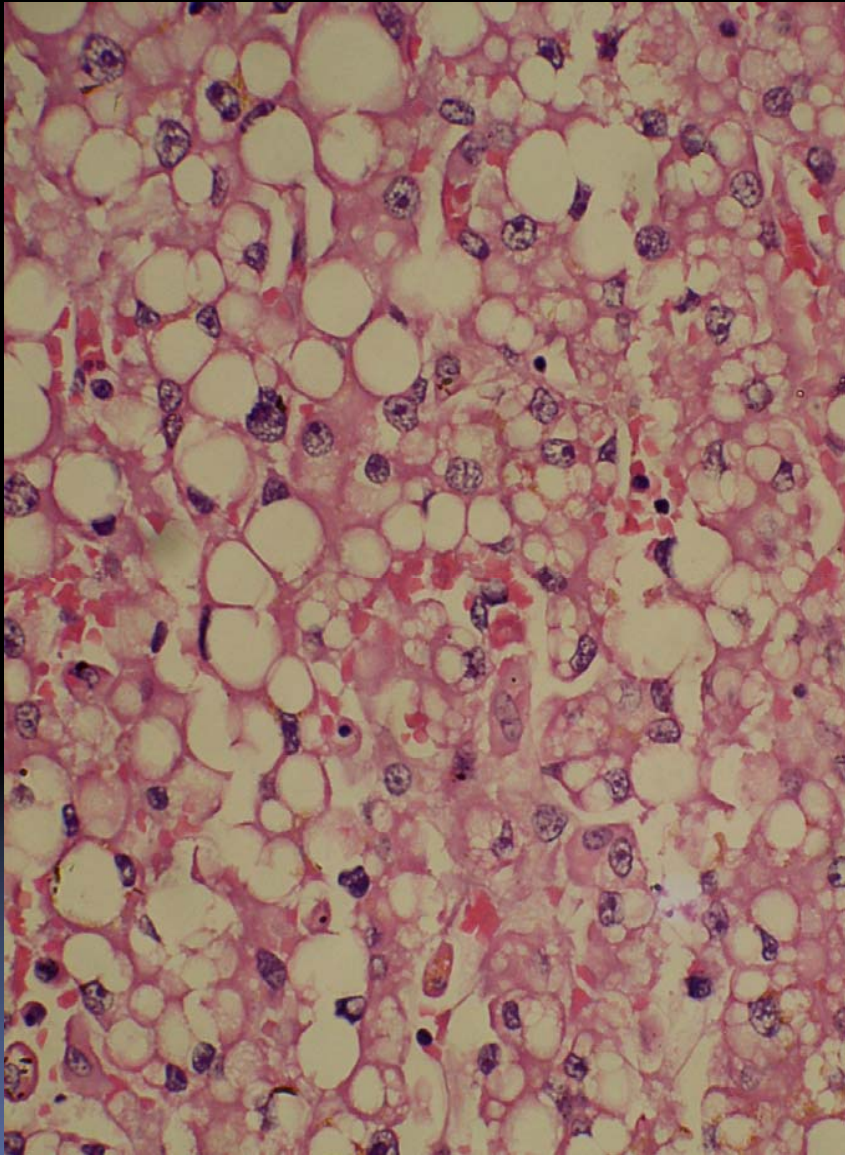


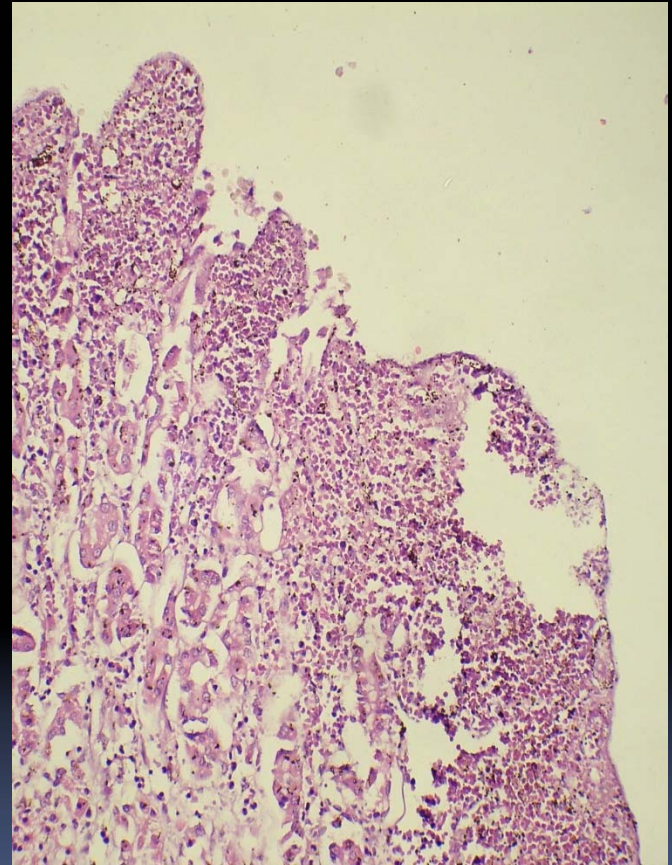


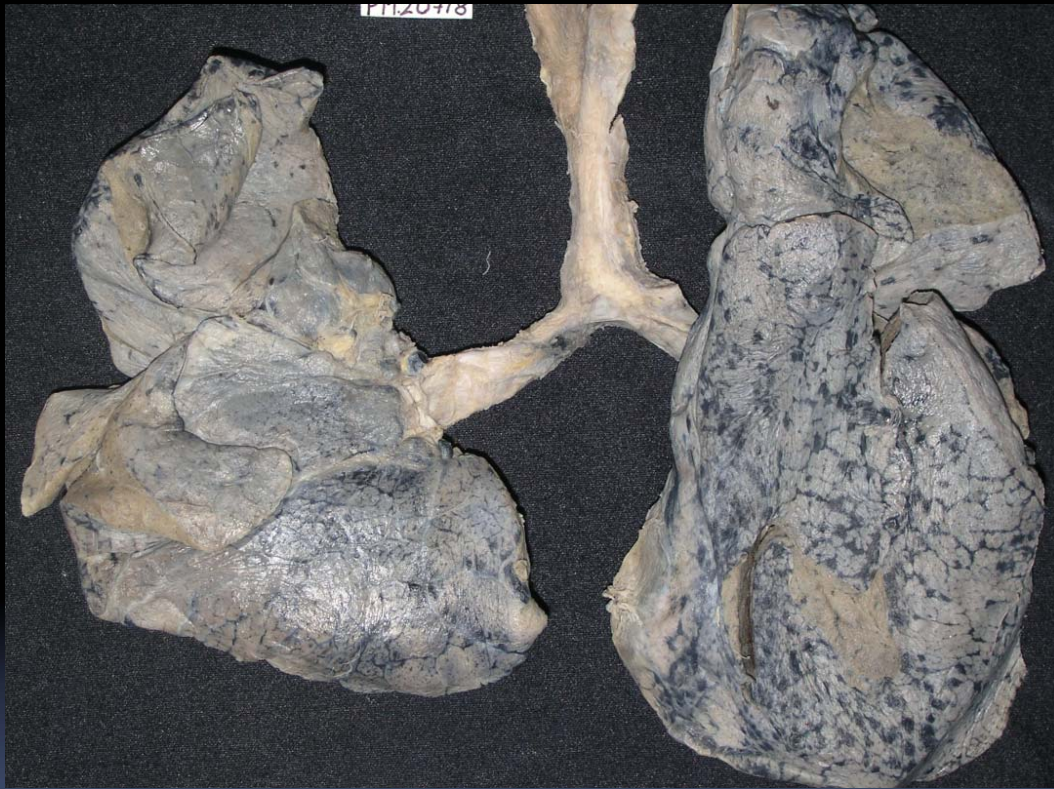






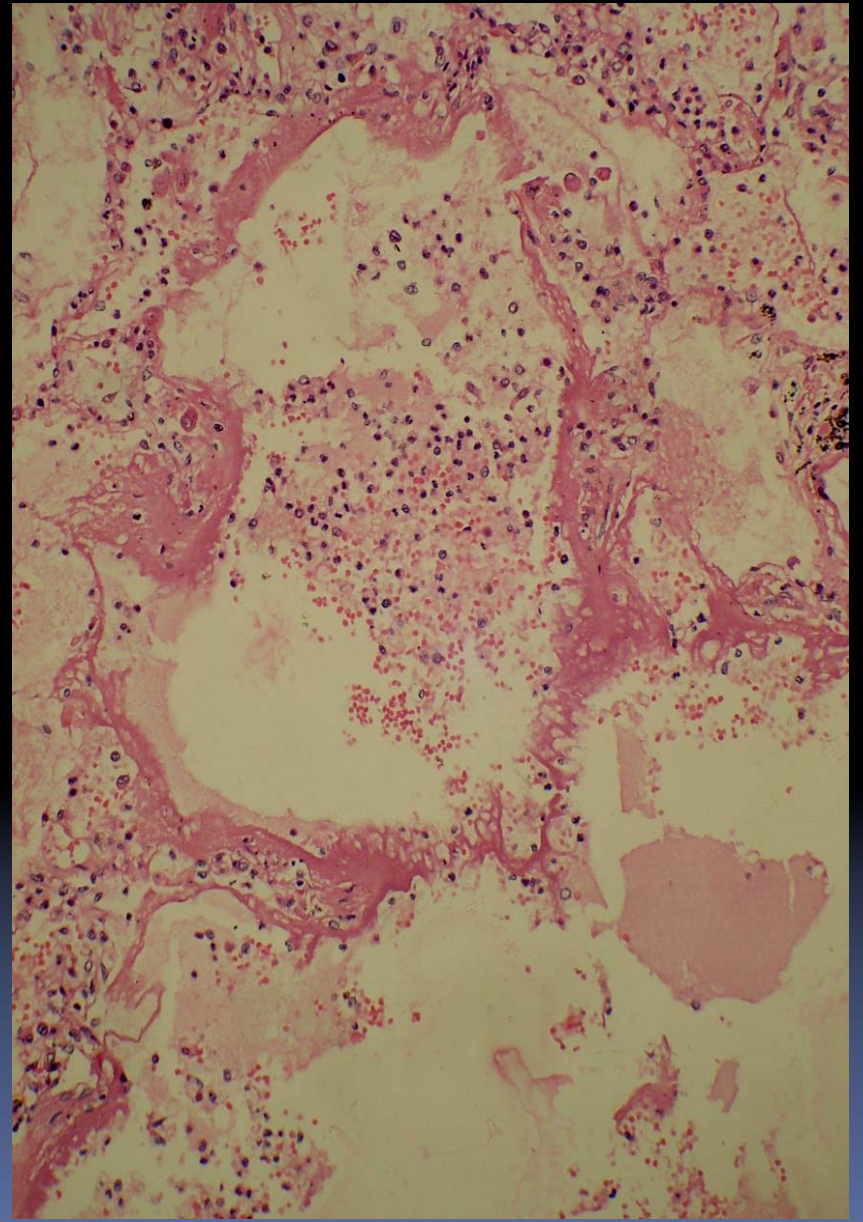
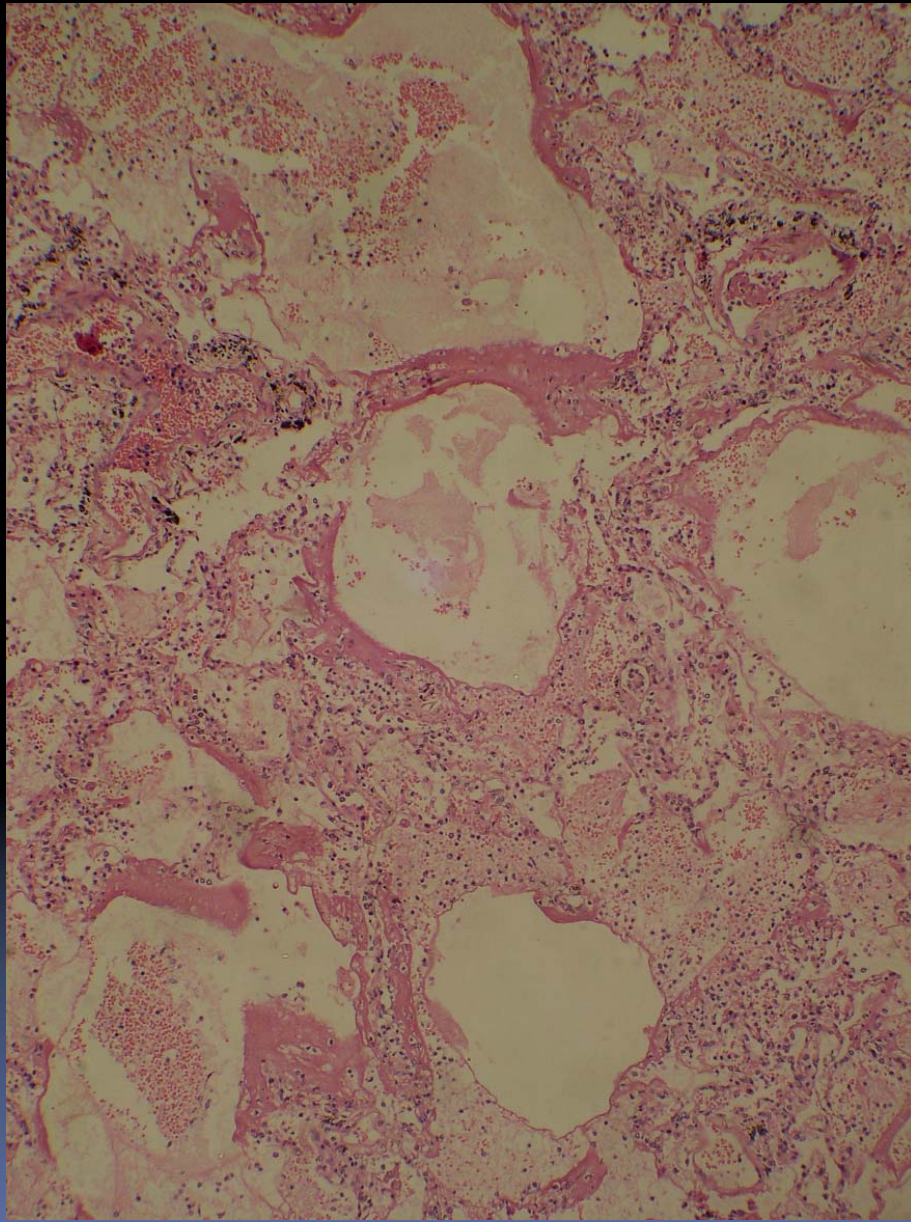


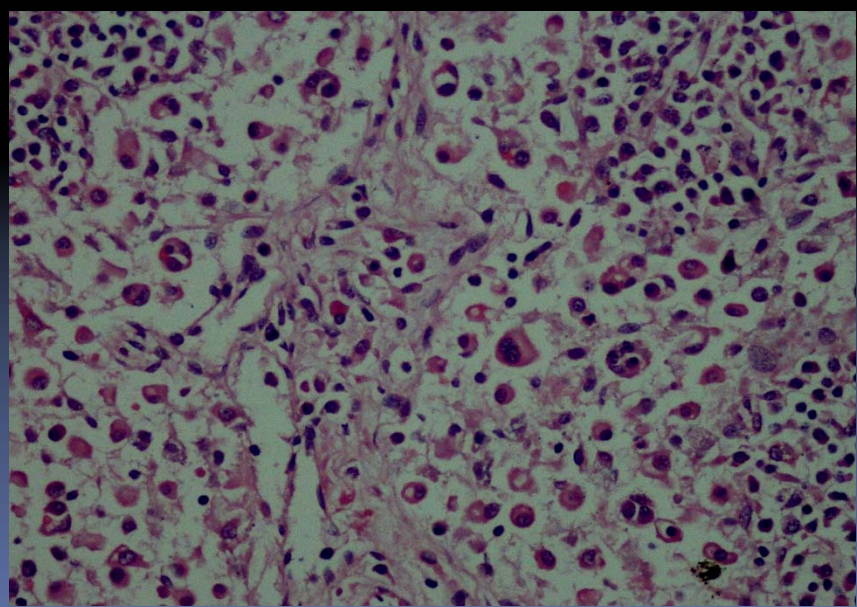
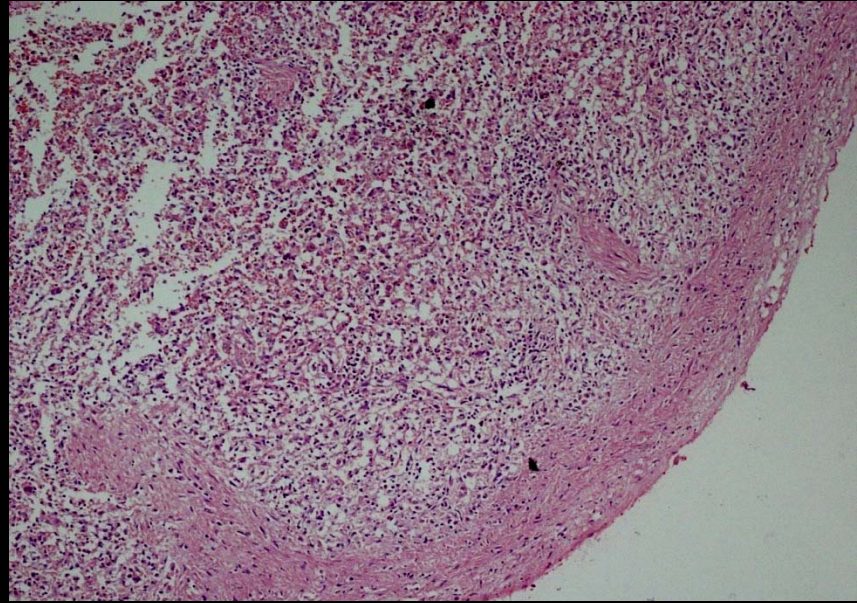




Weight=800 g

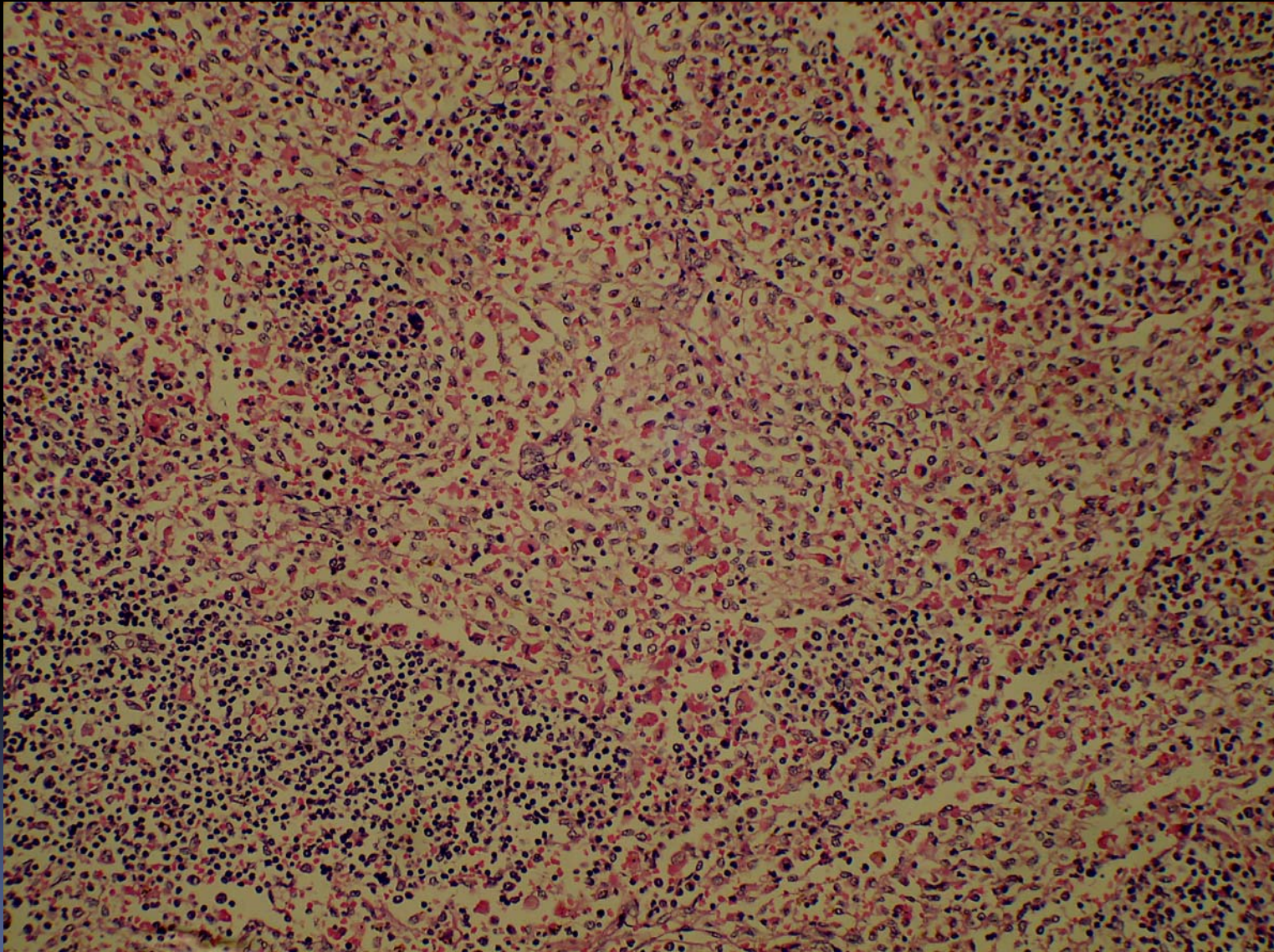




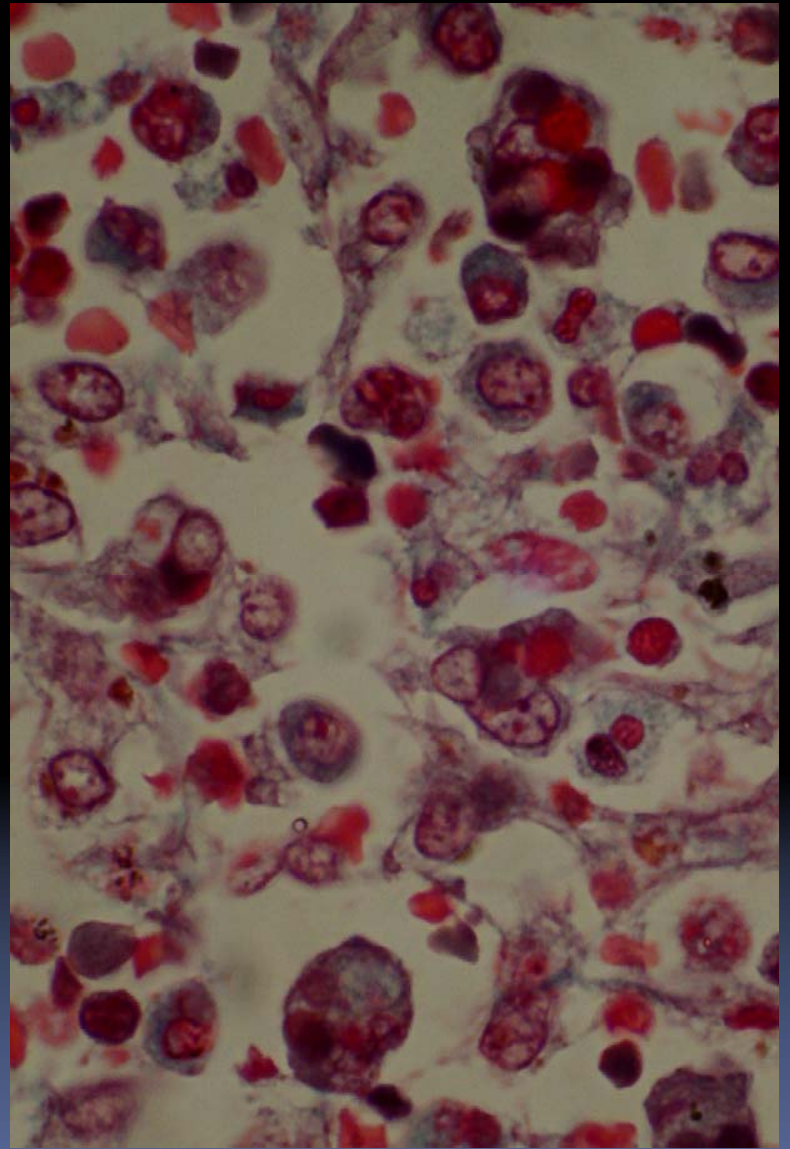
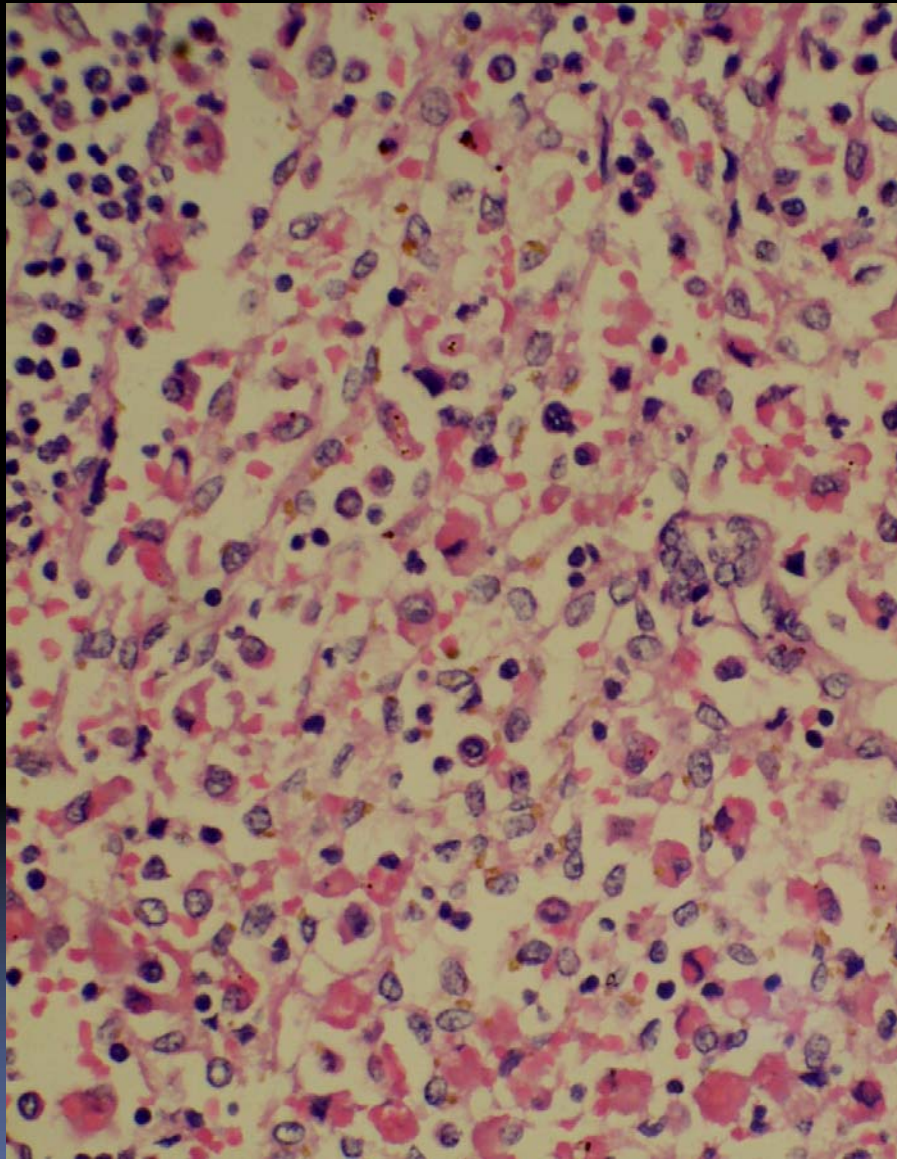


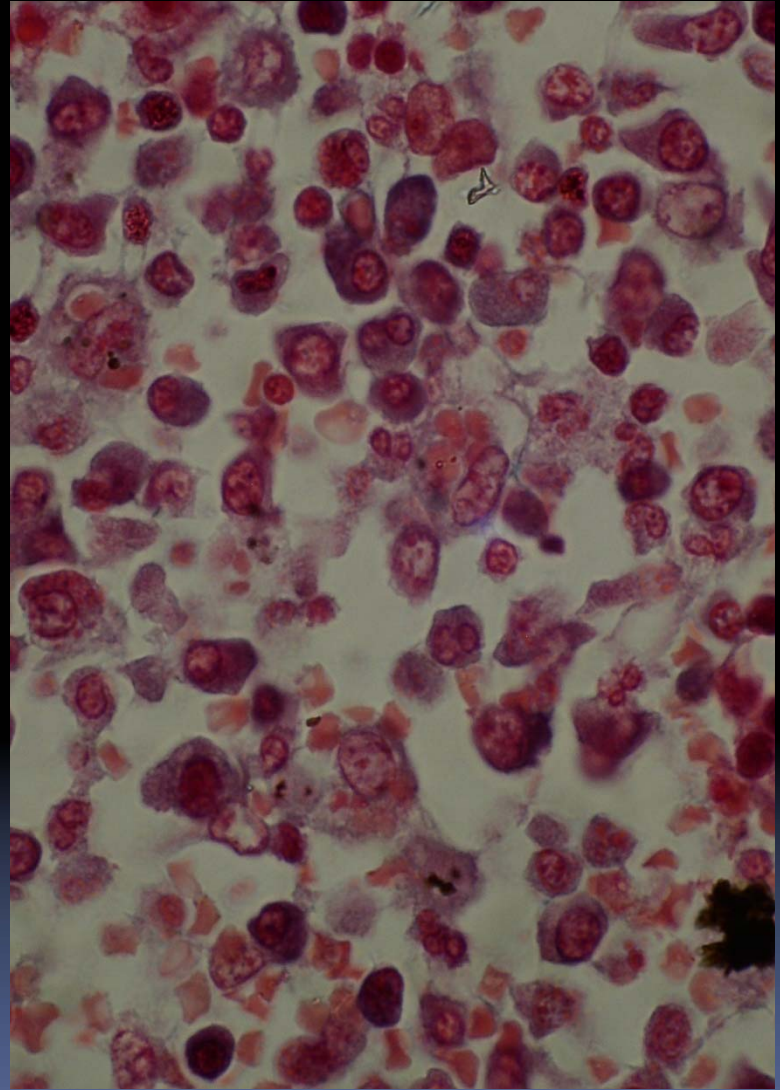
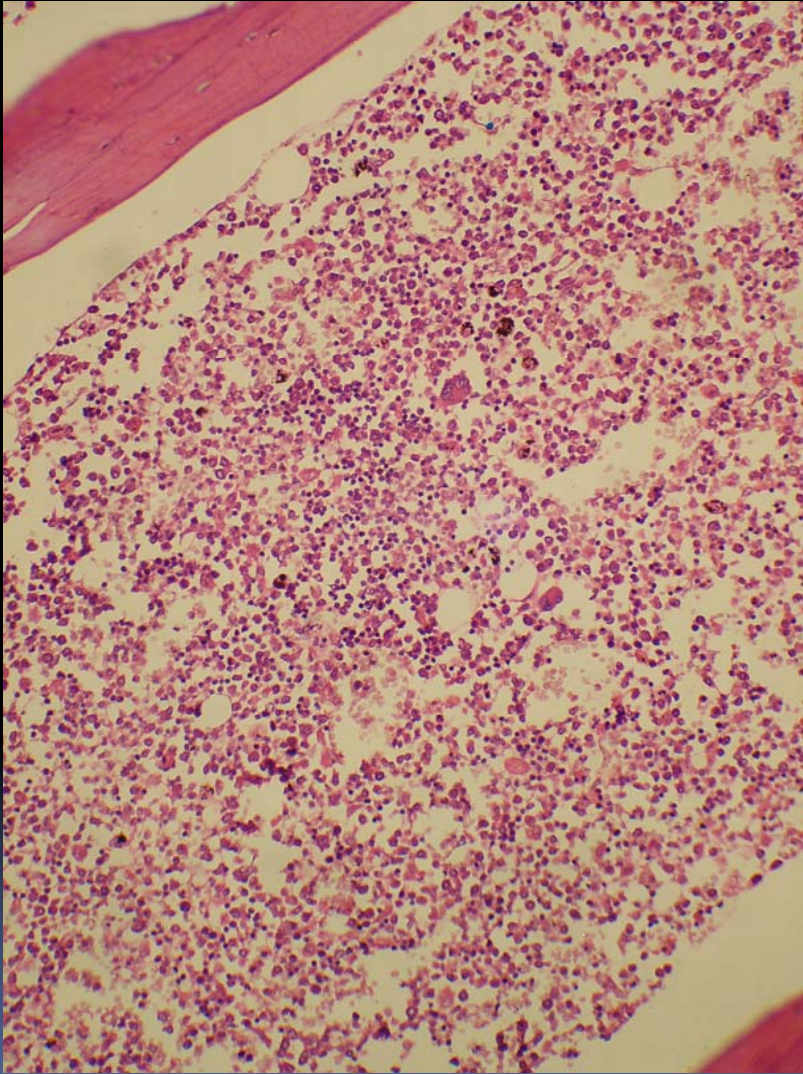


Mesenteric lymph nodes



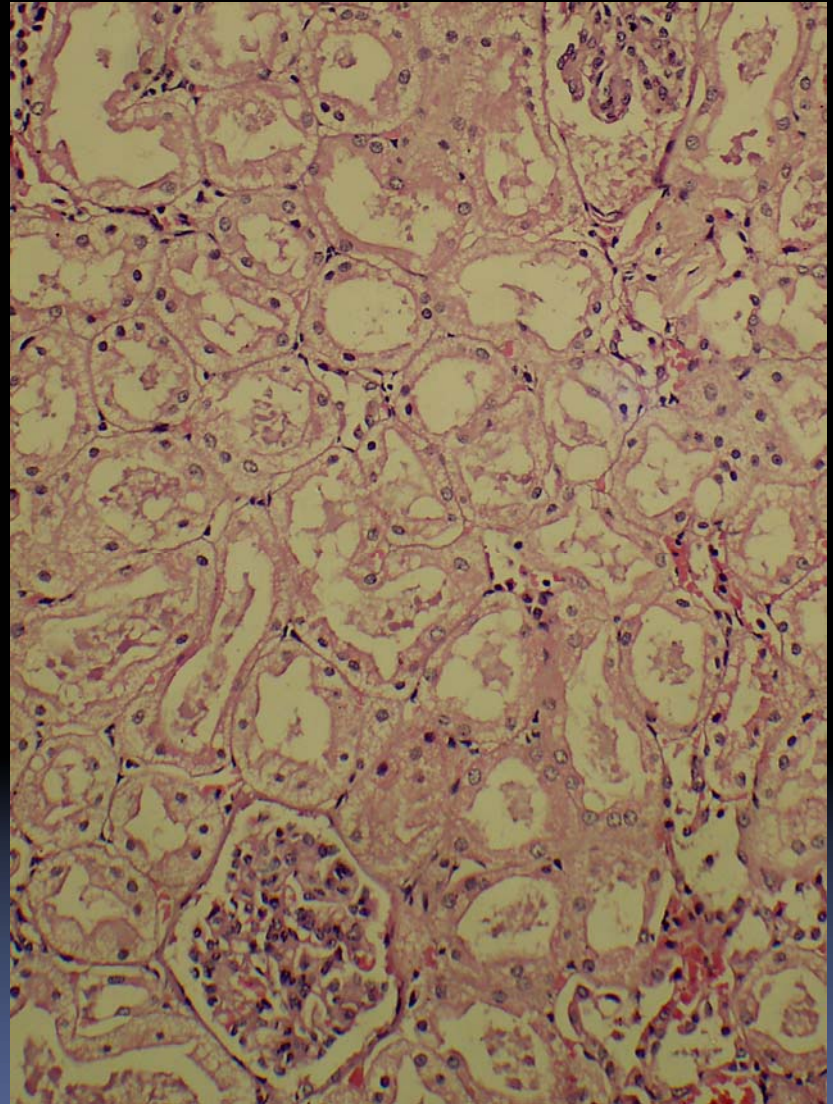
Mesenteric Lymph nodes







Kidneys; weight=230g



Final autopsy diagnosis

In a known case of ulcerative colitis with exacerbation -

- Toxic megacolon
- (Granulomatous) CMV proctocolitis and appendicitis
- Fatty liver and primary sclerosing cholangitis
- Diffuse alveolar injury and patchy bronchopneumonia
- Chronic gastritis and erosion
- Haemophagocytosis - liver, spleen and mesenteric lymph nodes.

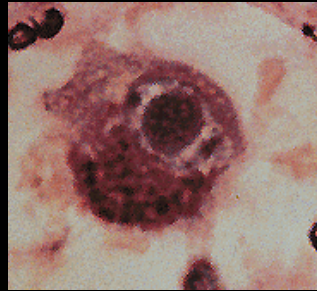




Cytomegalovirus infection

- A large size DNA virus
- Usually infects endothelial, smooth muscle, stromal, epithelial, macrophages and lymphocytes
- Presence of inclusions indicates active viral replication
- Inclusions are associated with pathologic lesions

Characteristic cytopathic changes of CMV infection



- Cytomegalic cell >3-4 times of a normal cell
- Owl's-eye intra-nuclear Cowdry A inclusion, homogenous round body surrounded by clear halo, irregularly thickened nuclear membrane due to chromatin clumping
- Eosinophilic to amphophilic cytoplasmic inclusions



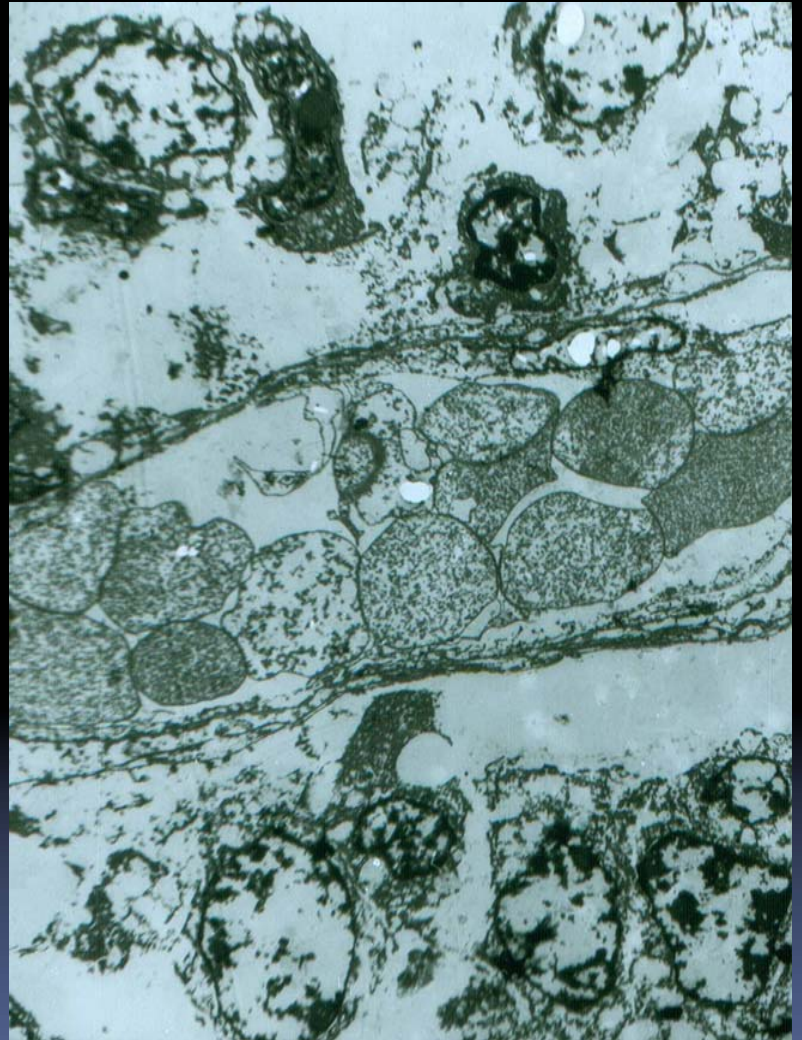
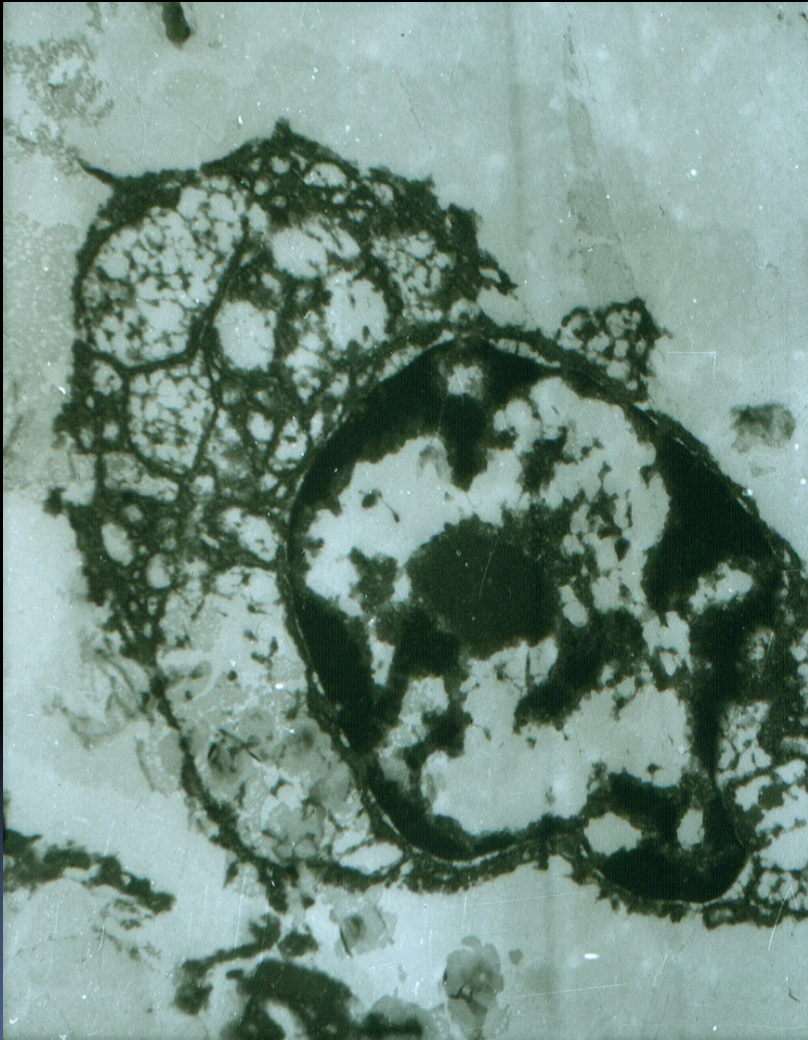
Atypical CMV inclusions

- Not all CMV infected cells exhibit classic changes
- Marked variation from the classic features of infected cells
- Morphologically atypical inclusions are prevalent in gastrointestinal tract infections.

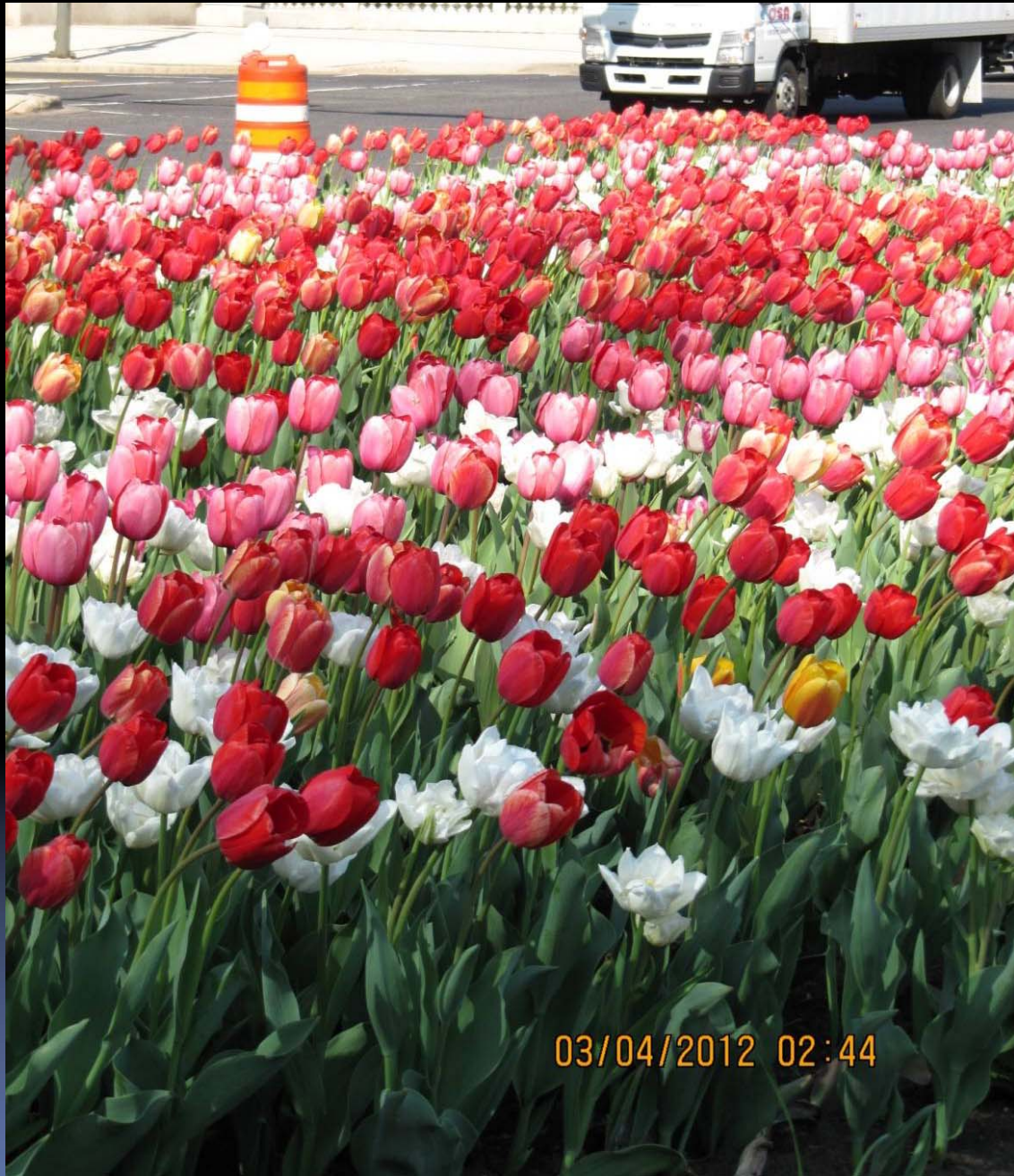
Atypical CMV inclusions- 3 types

- Type I: slightly enlarged rounded cells with eccentric nucleus, perinuclear amphophilic zone and occasional minute cytoplasmic granules.
- Type II: slightly to moderately enlarged elongated (stromal or smooth muscle) cells, densely eosinophilic cytoplasm, smudge nuclei.
- Type III: slightly enlarged epithelial cell, nuclei with occasionally inclusion like intranuclear crystalline structures, prominent intracytoplasmic granules

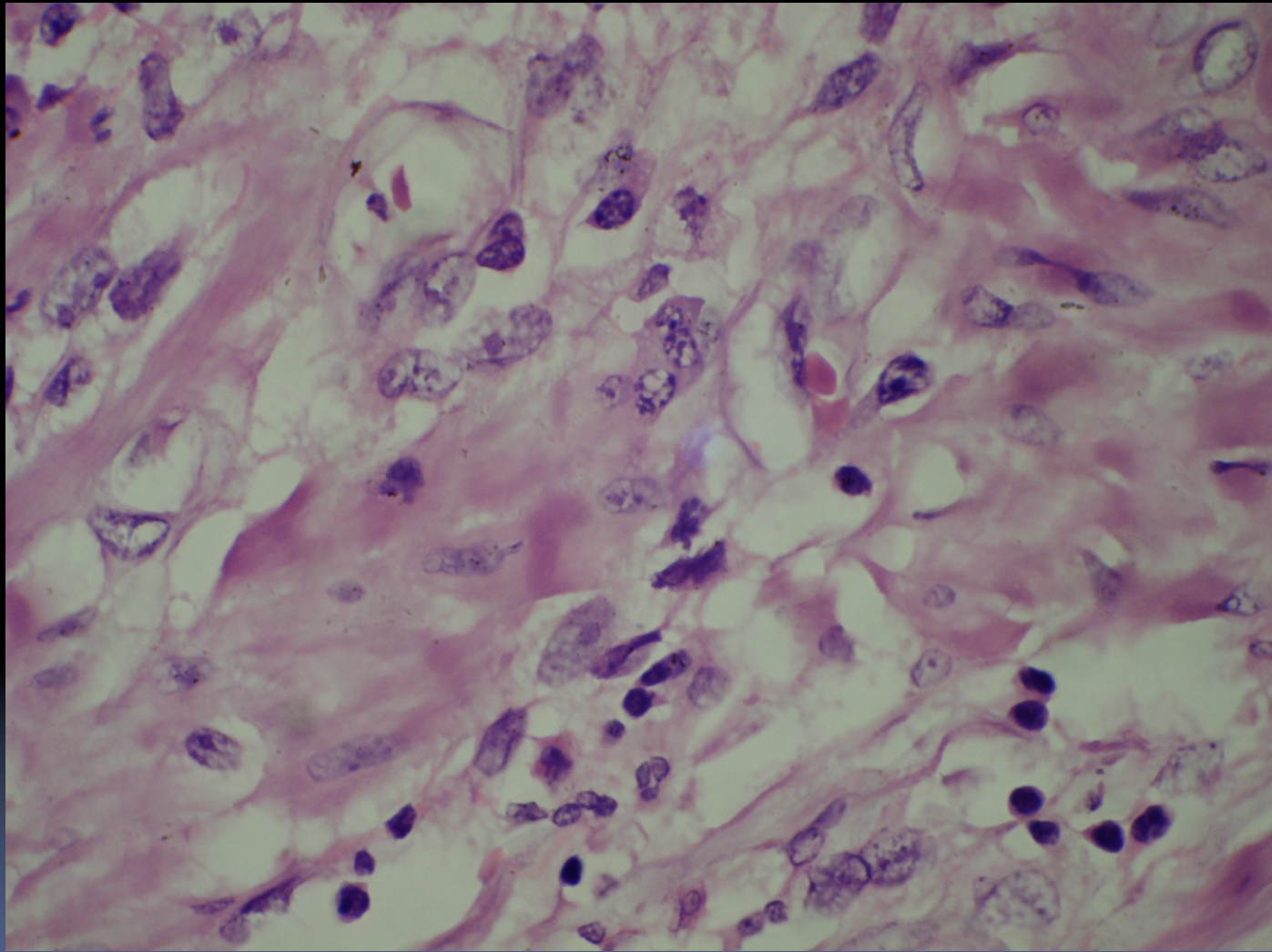
Confirmation is by in-situ hybridisation or immunostaining.

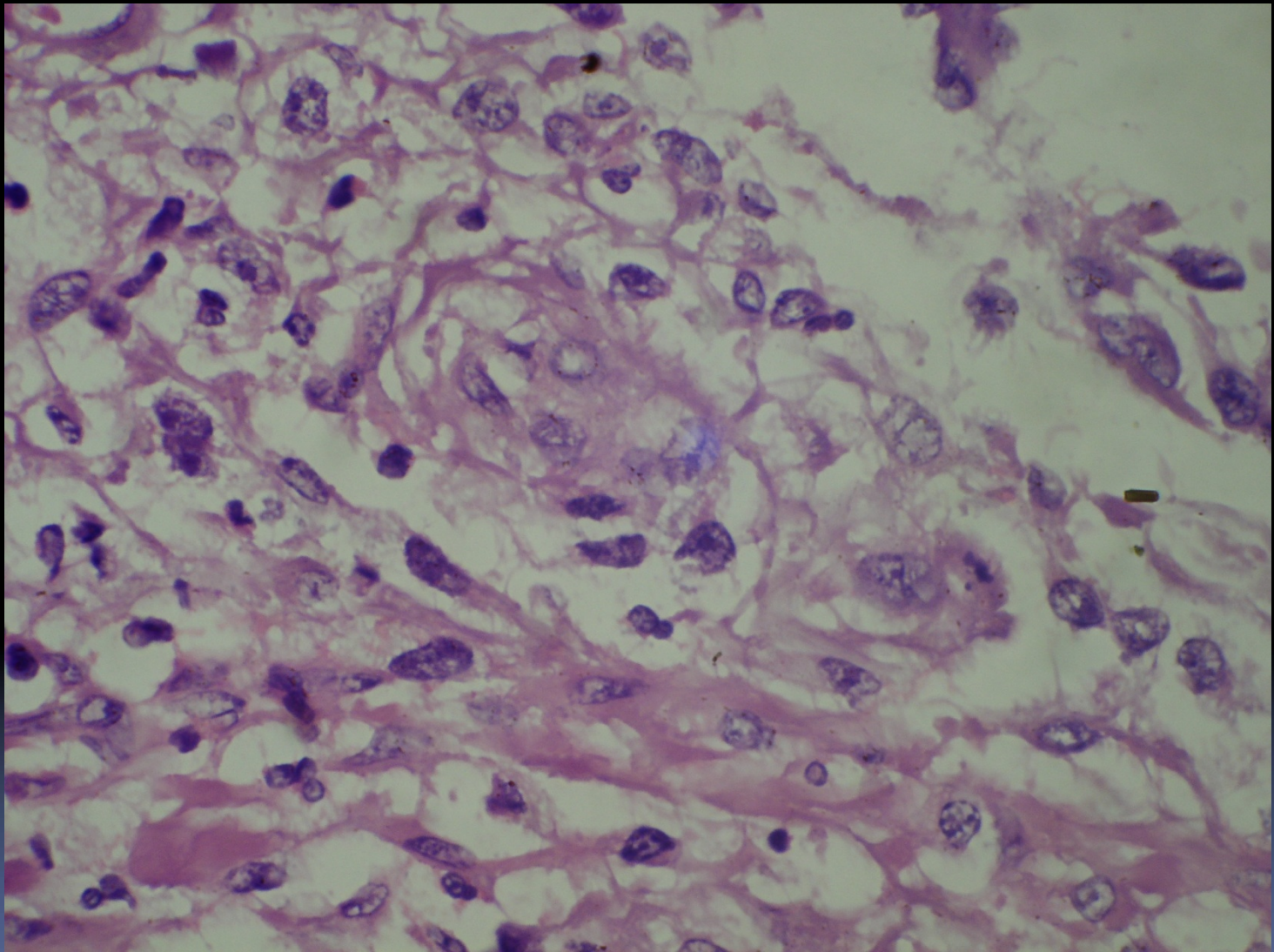


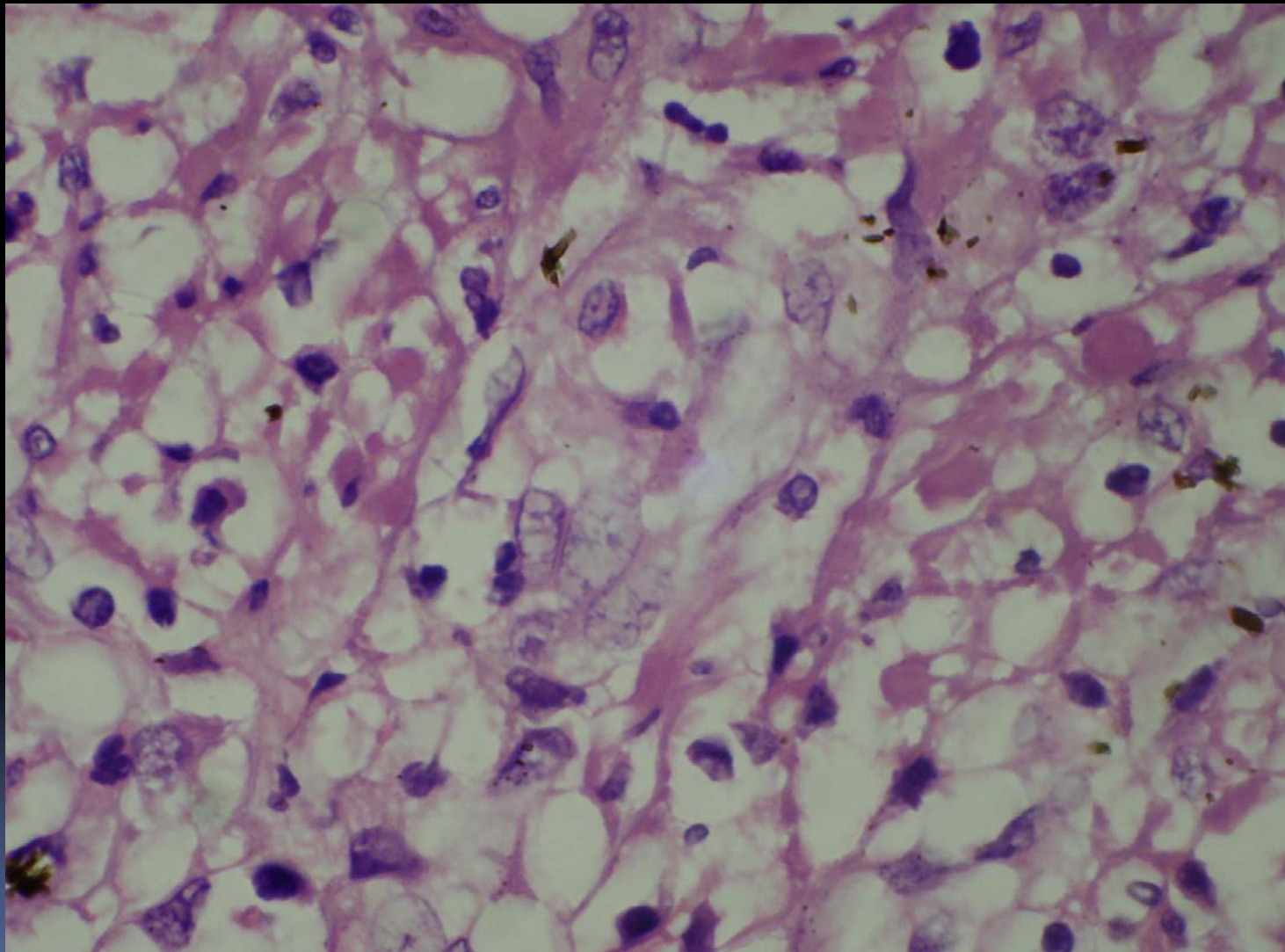
Transmission Electron microscopy

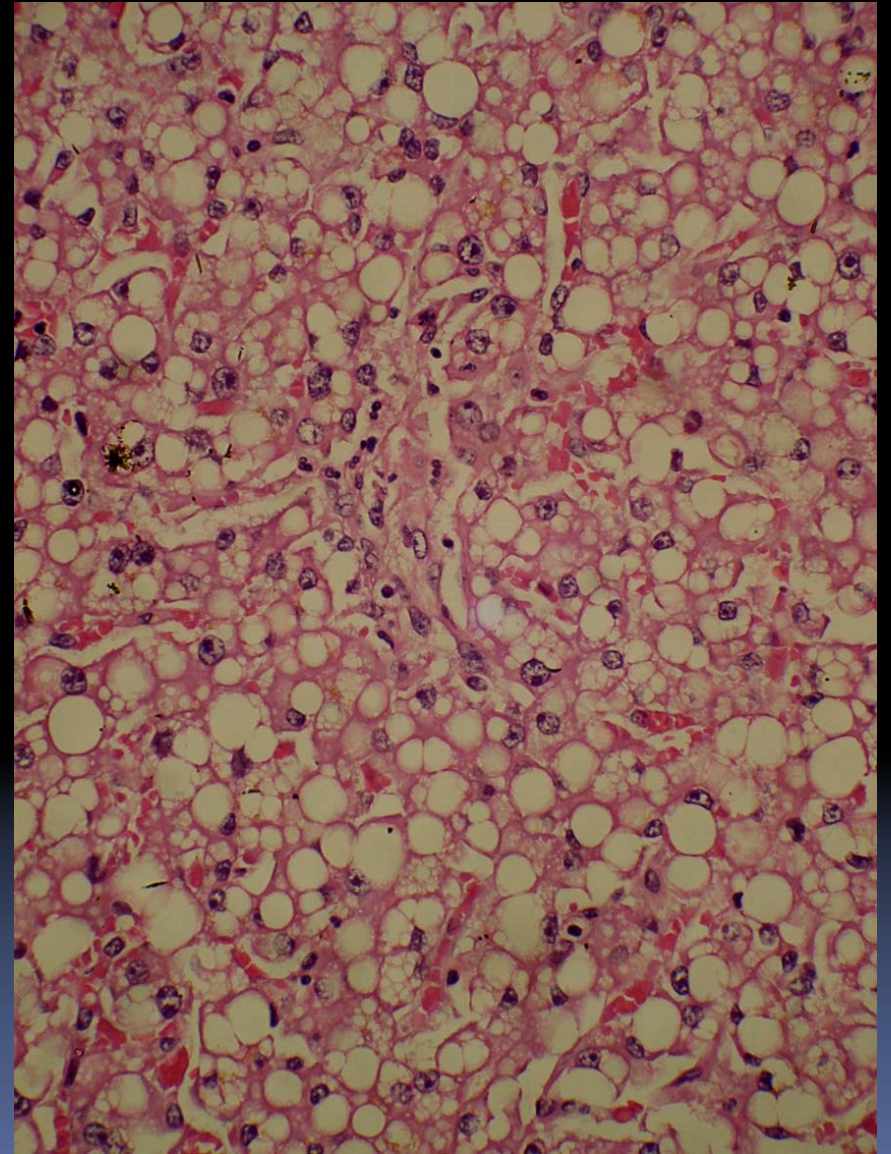


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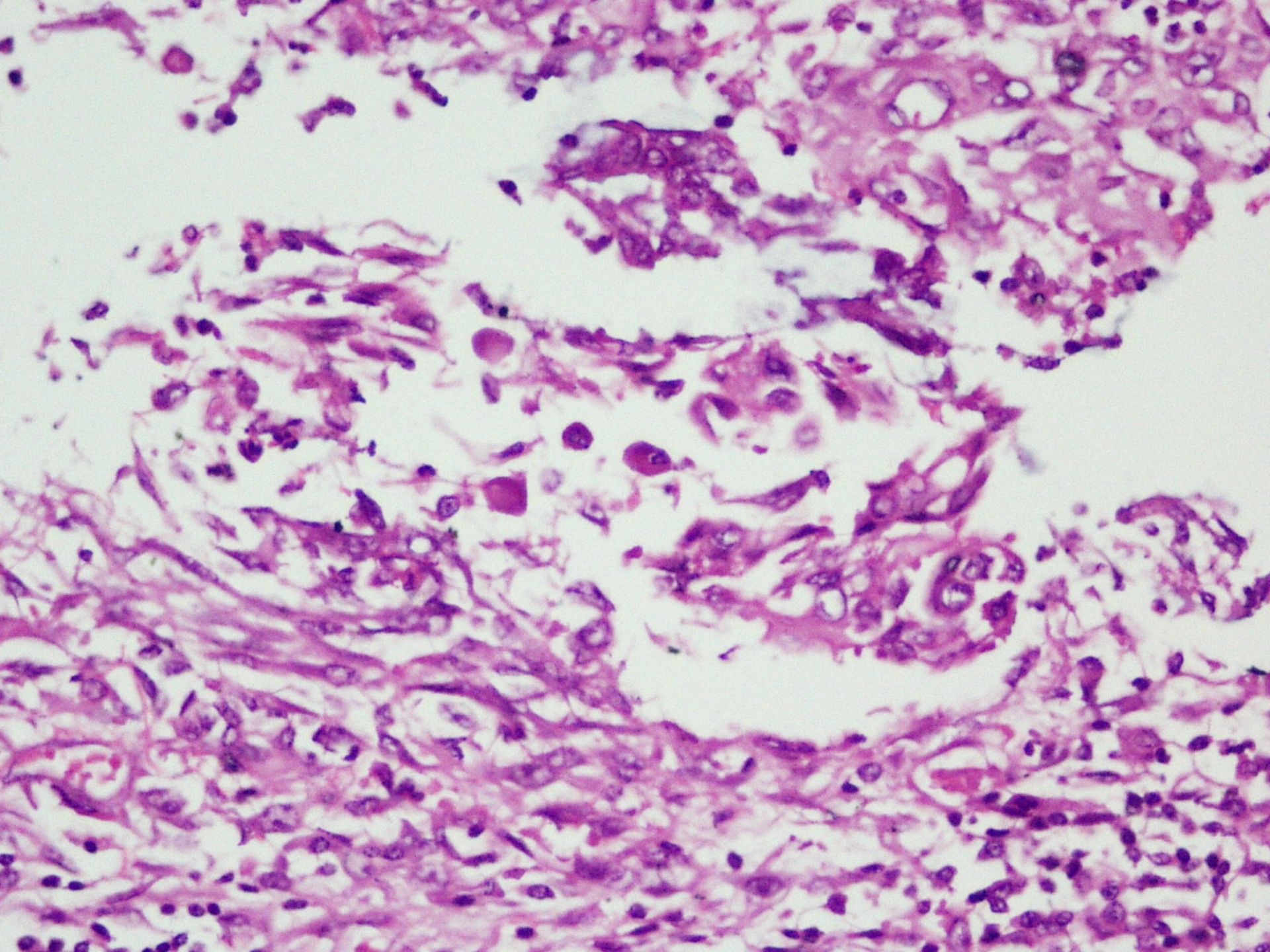








Atypical CMV inclusions-cont ----



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