

# Cytologic Findings in progressive Multifocal Leucoencephalopathy. A case report

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Male, 42 years, headaches, cognitive impairment,  
convulsive attack, focal neurologic deficits.  
CT - typical hypodense unilateral lesions, no mass-effect

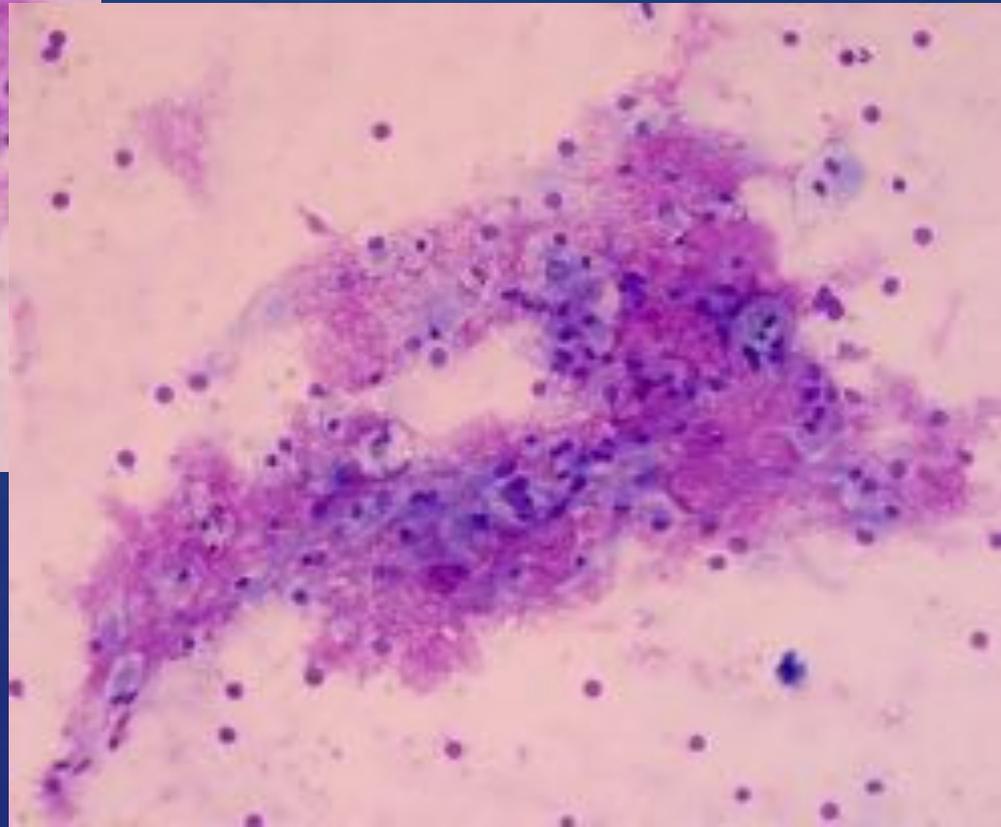
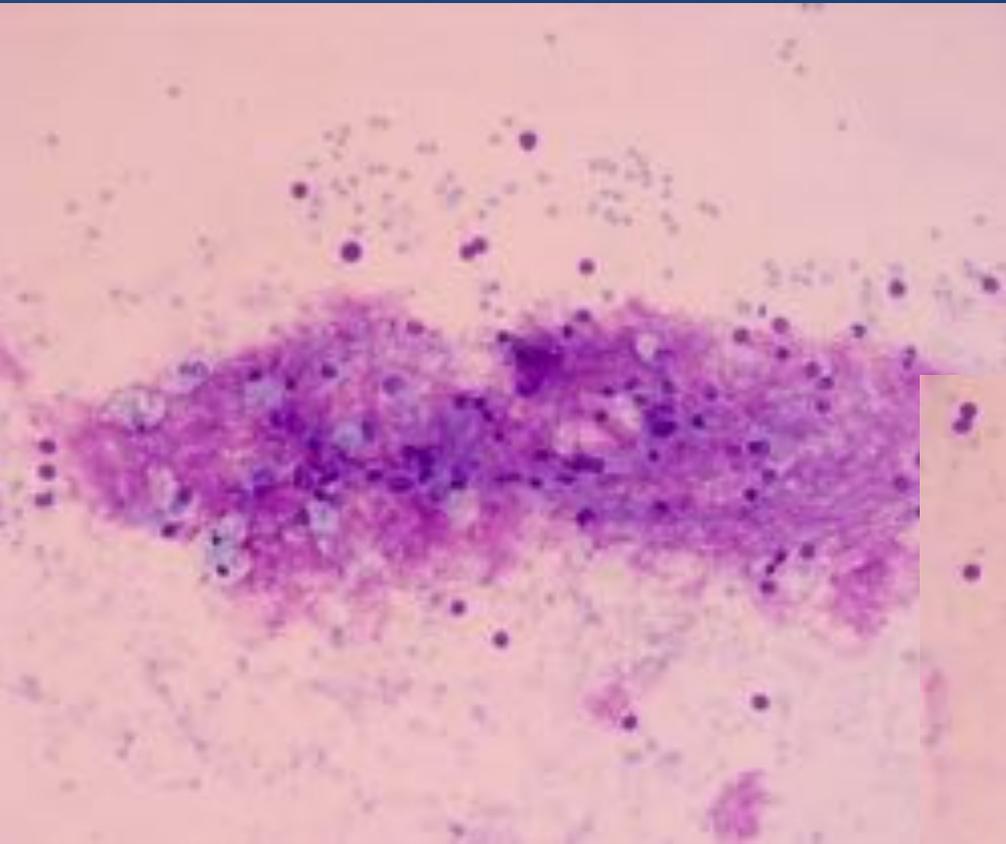


After coagulopathy correction was performed CT-guided stereotactic needle biopsy.

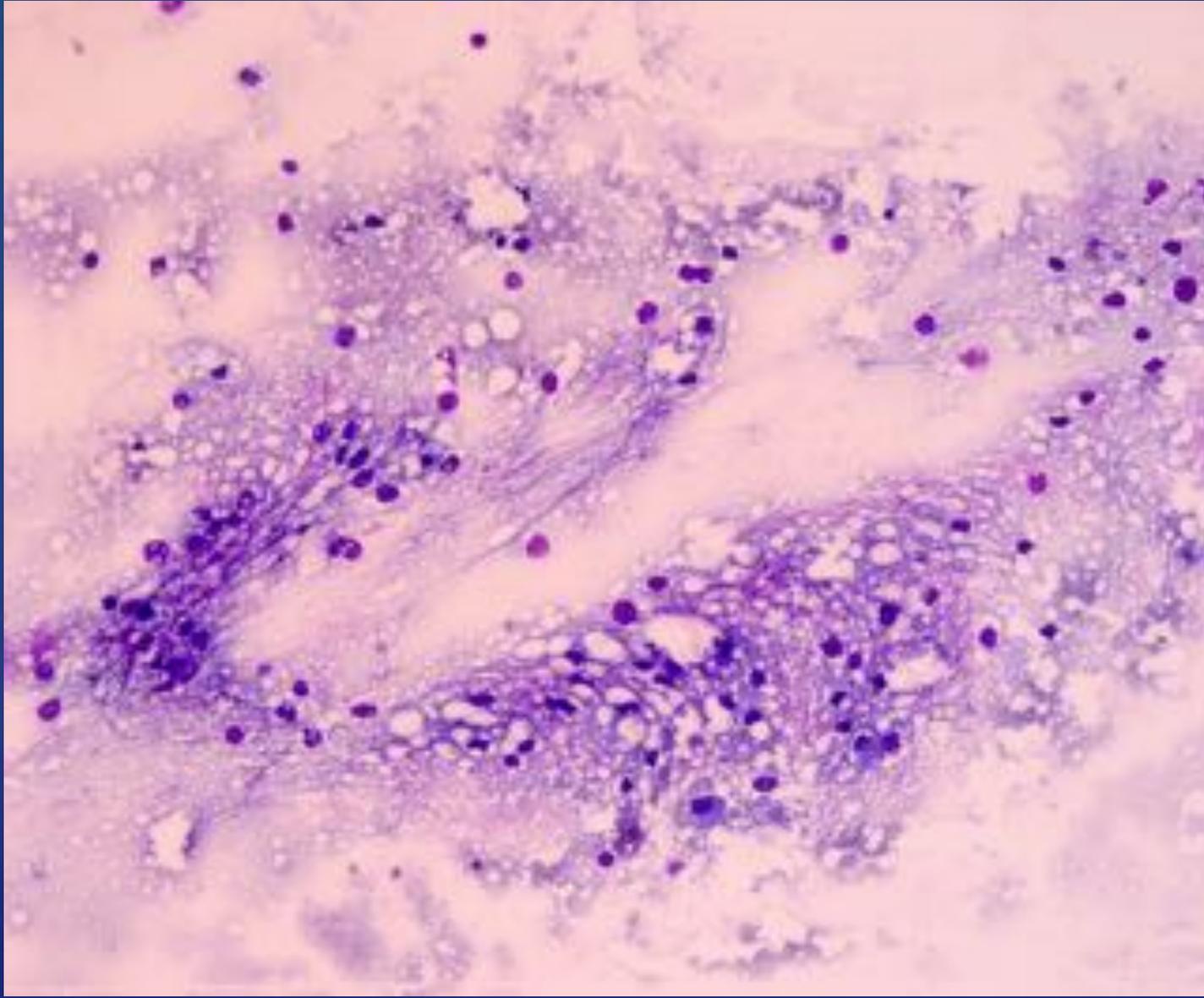
Crush preparations prepared from each sample, stained with Diff-Quik.

Tissue fragments fixed, paraffin embedded, H&E stained

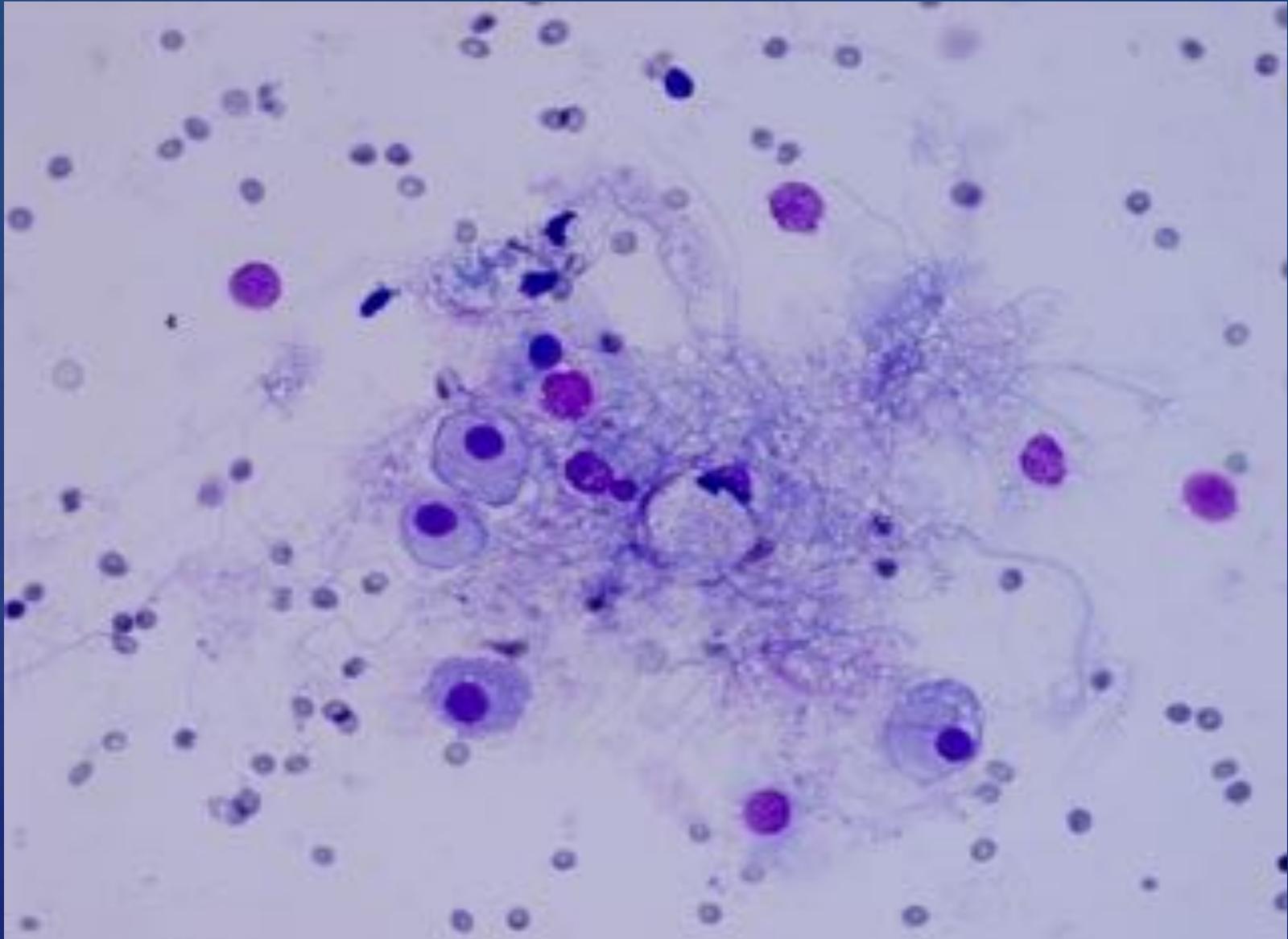
# Diff-Quik, foam macrophags, reactive astrocytes



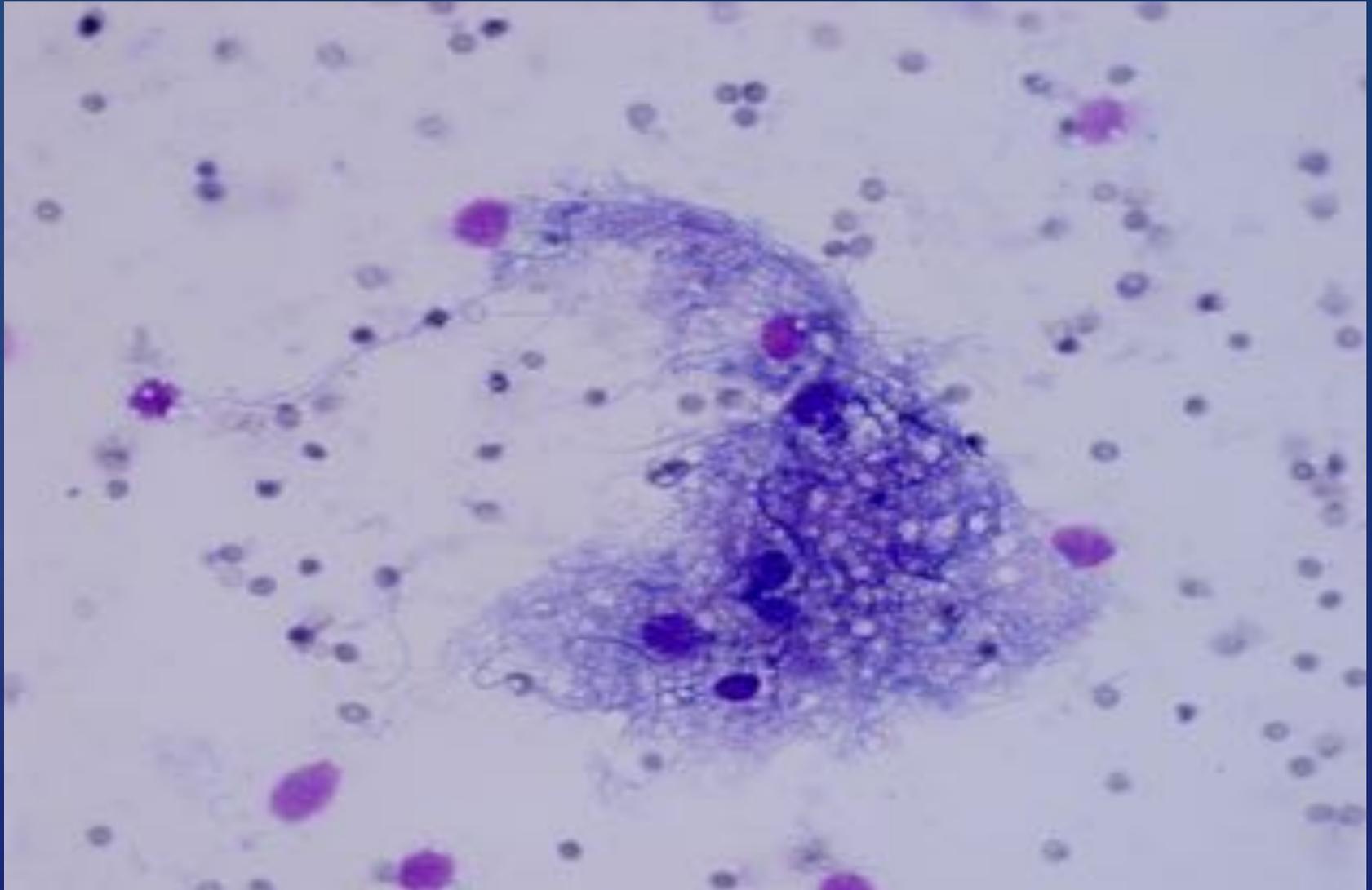
Reactive astrocytes, macrophages with abundant, foamy cytoplasm



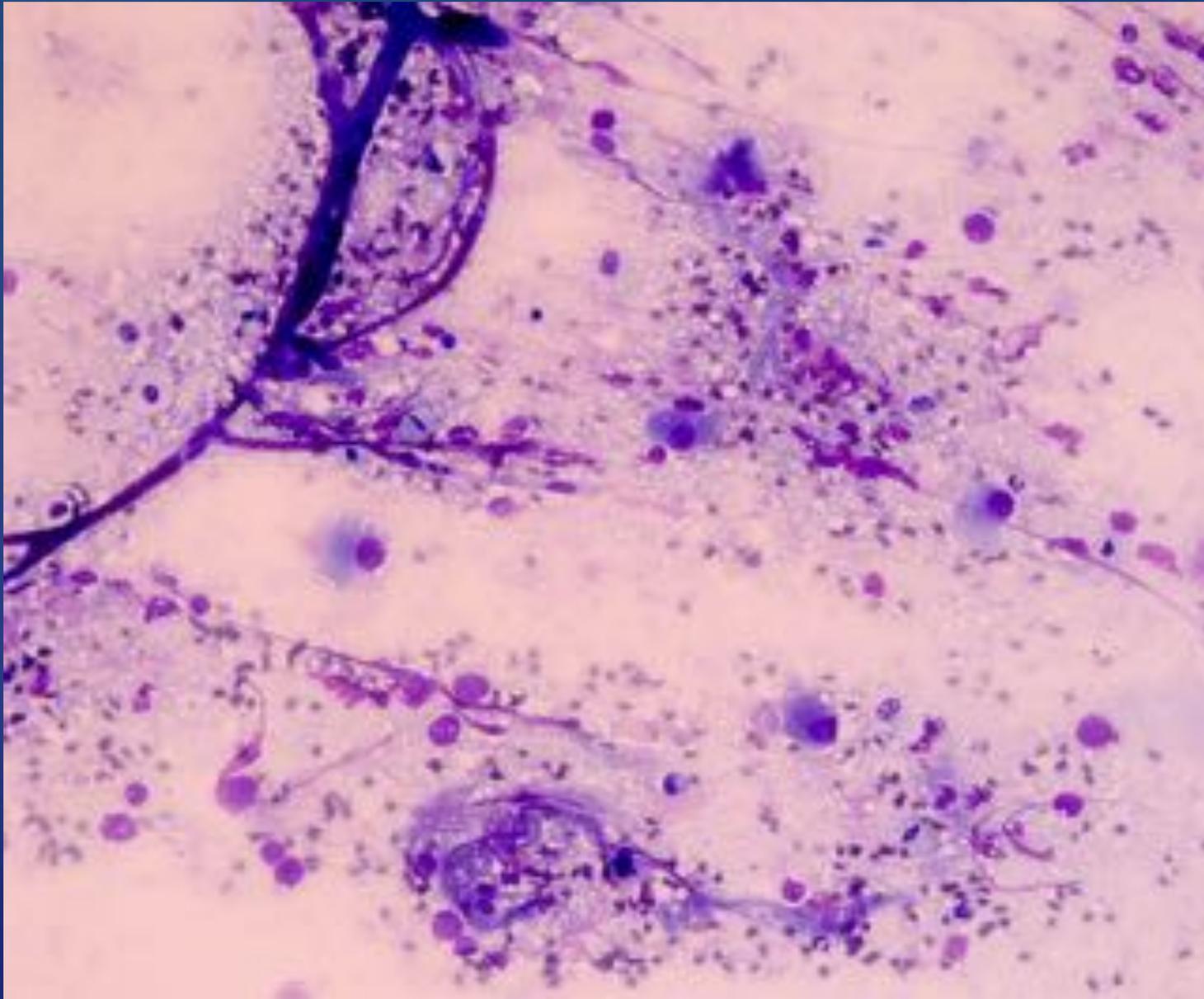
# Macrophages with abundant, foamy cytoplasm



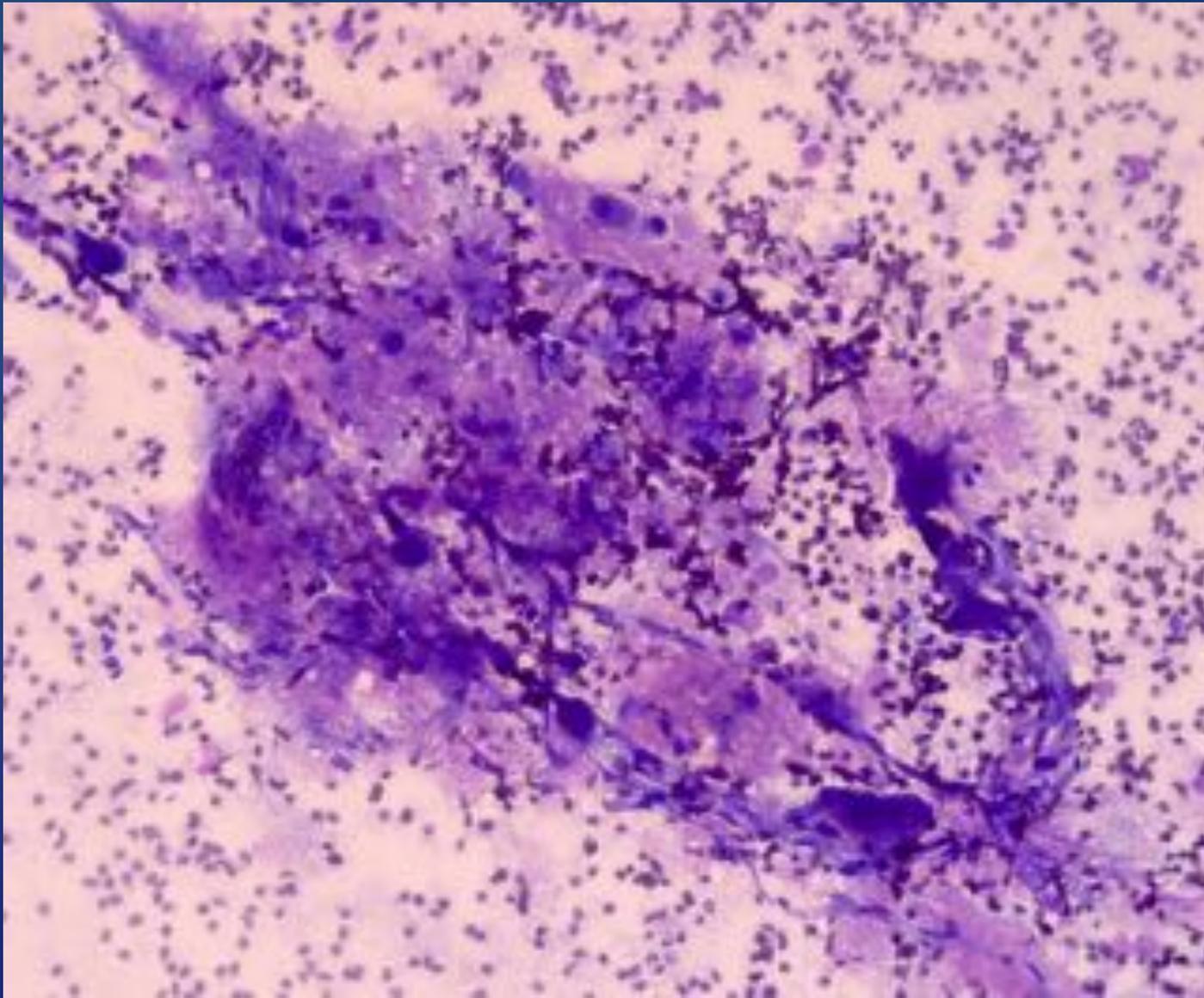
Reactive astrocytes, macrophages with abundant, foamy cytoplasm



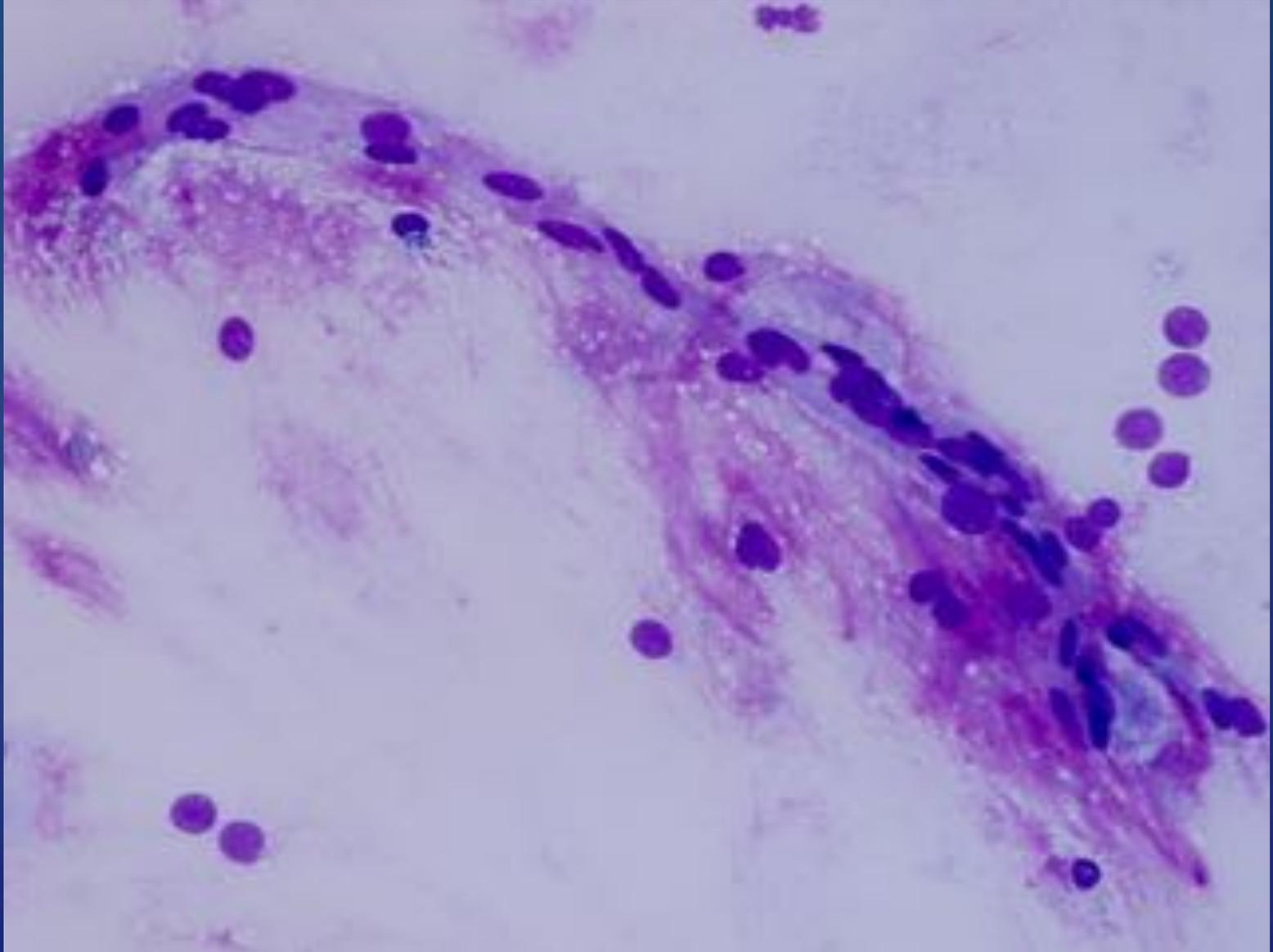
Blood vessels, reactive astrocytes, macrophages  
with abundant, foamy cytoplasm



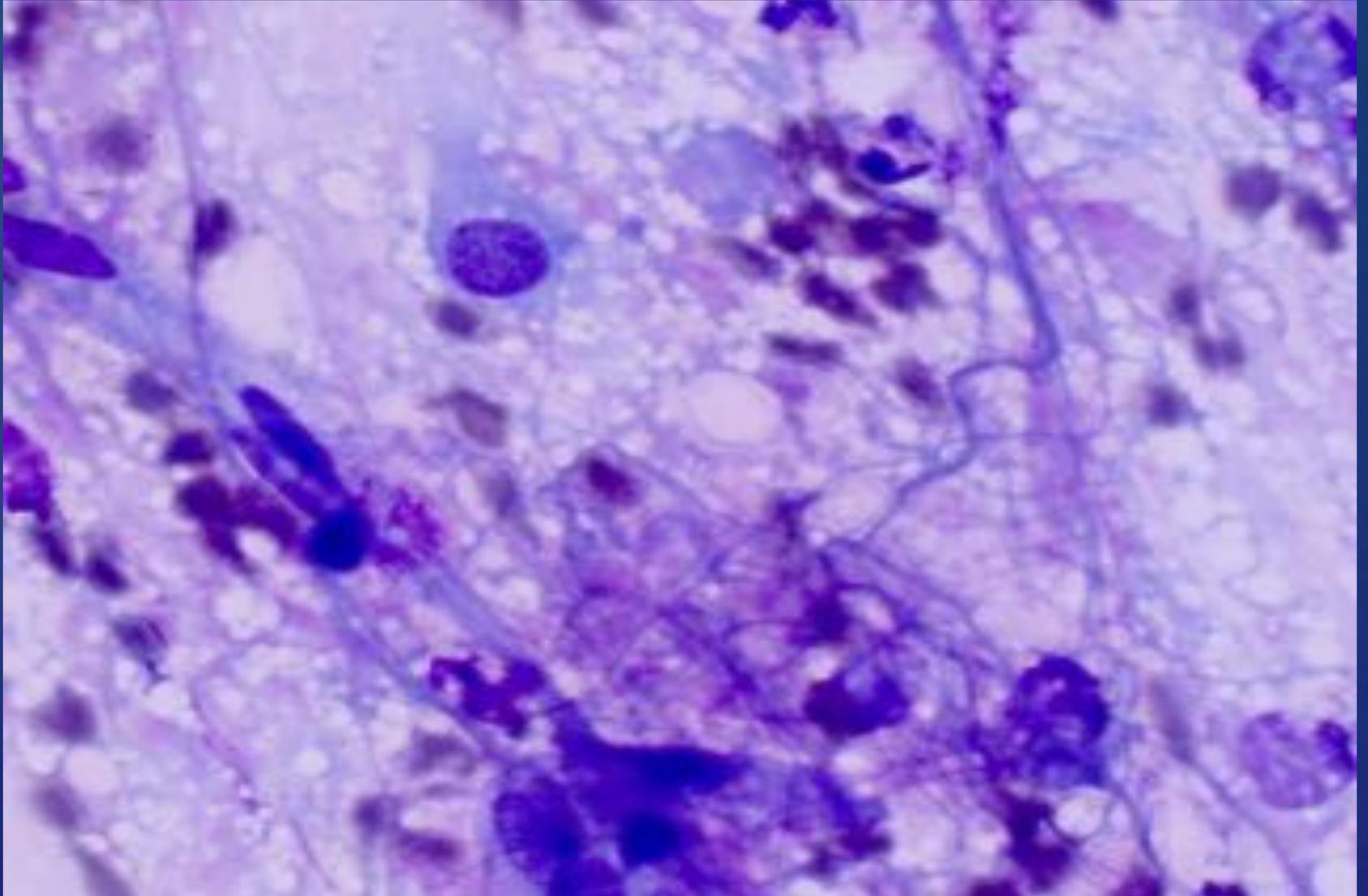
# Reactive astrocytes, vascular proliferation



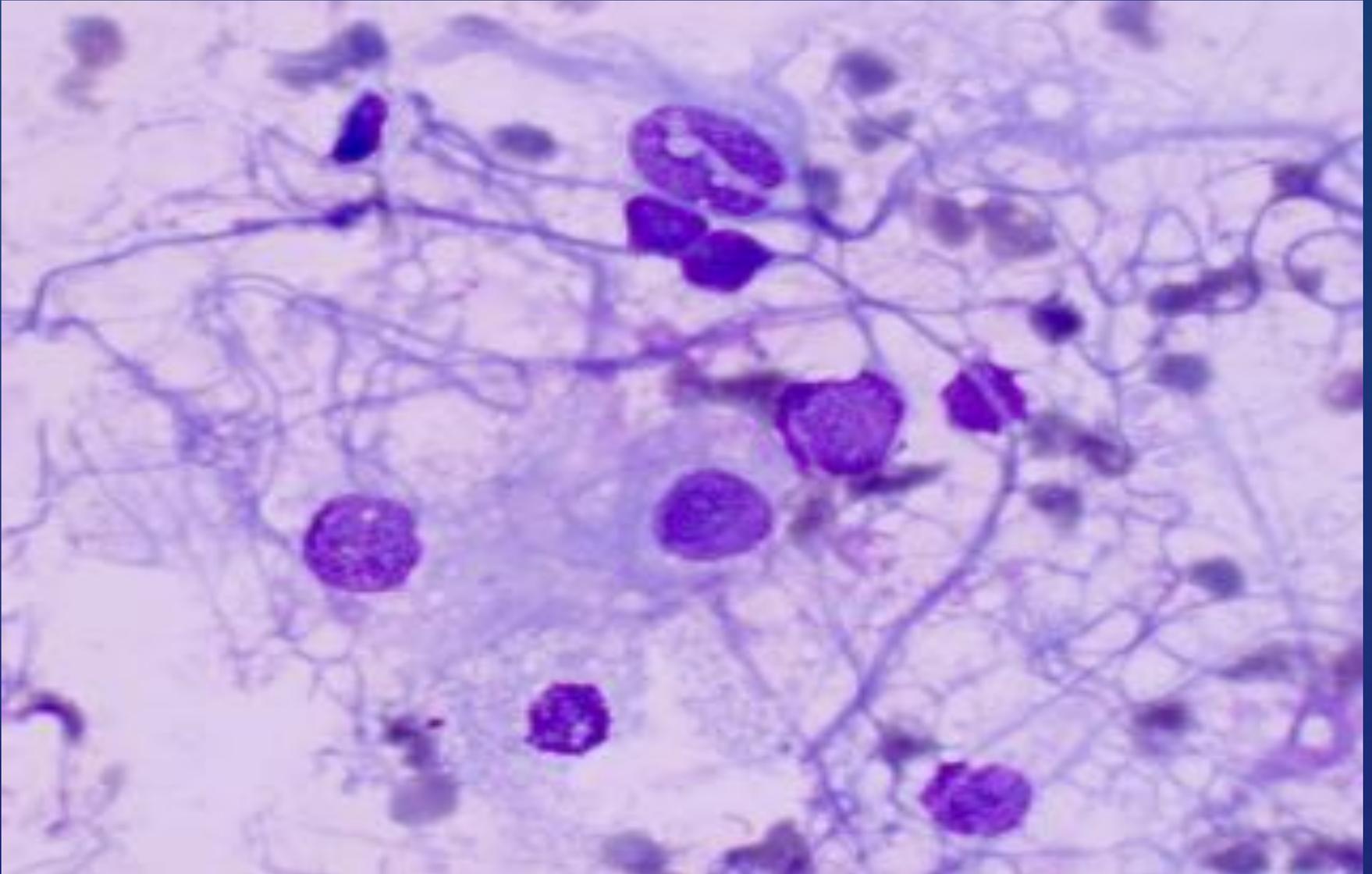
# Blood vessels, with microglia



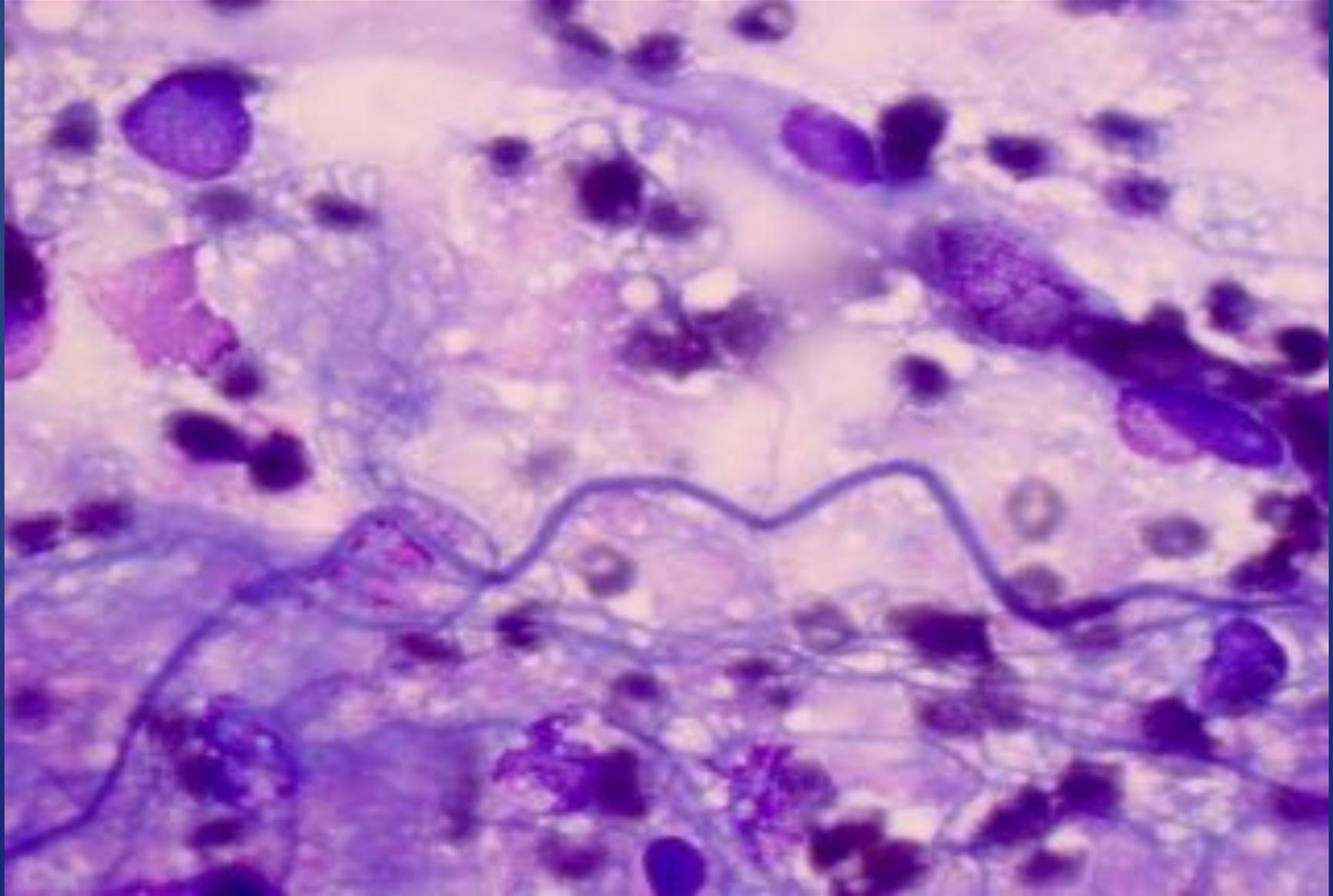
Bizarre astrocytes with abundant cytoplasm,  
dystrophic myelin processes



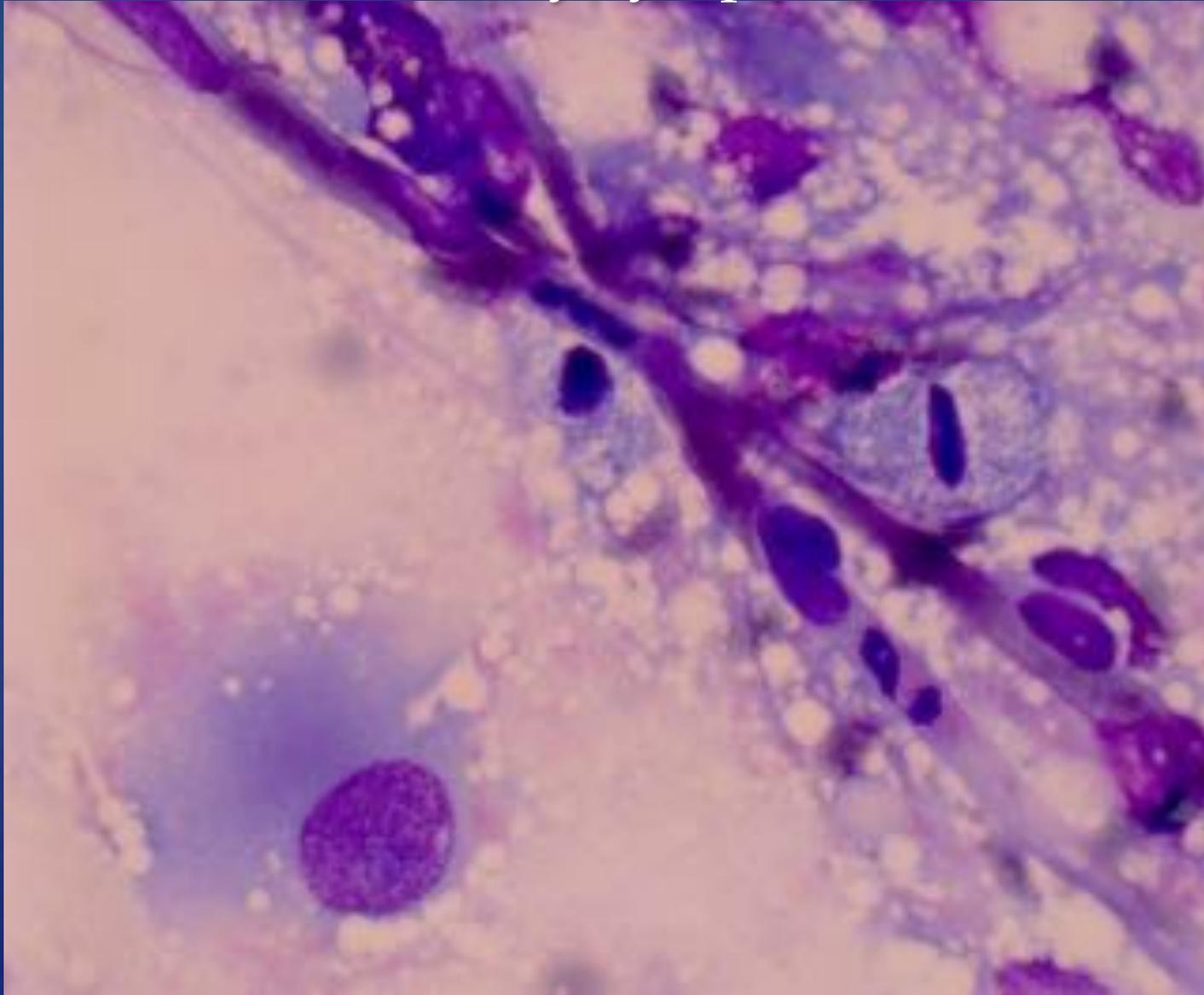
Bizarre astrocytes with abundant cytoplasm;  
dystrophic myelin processes



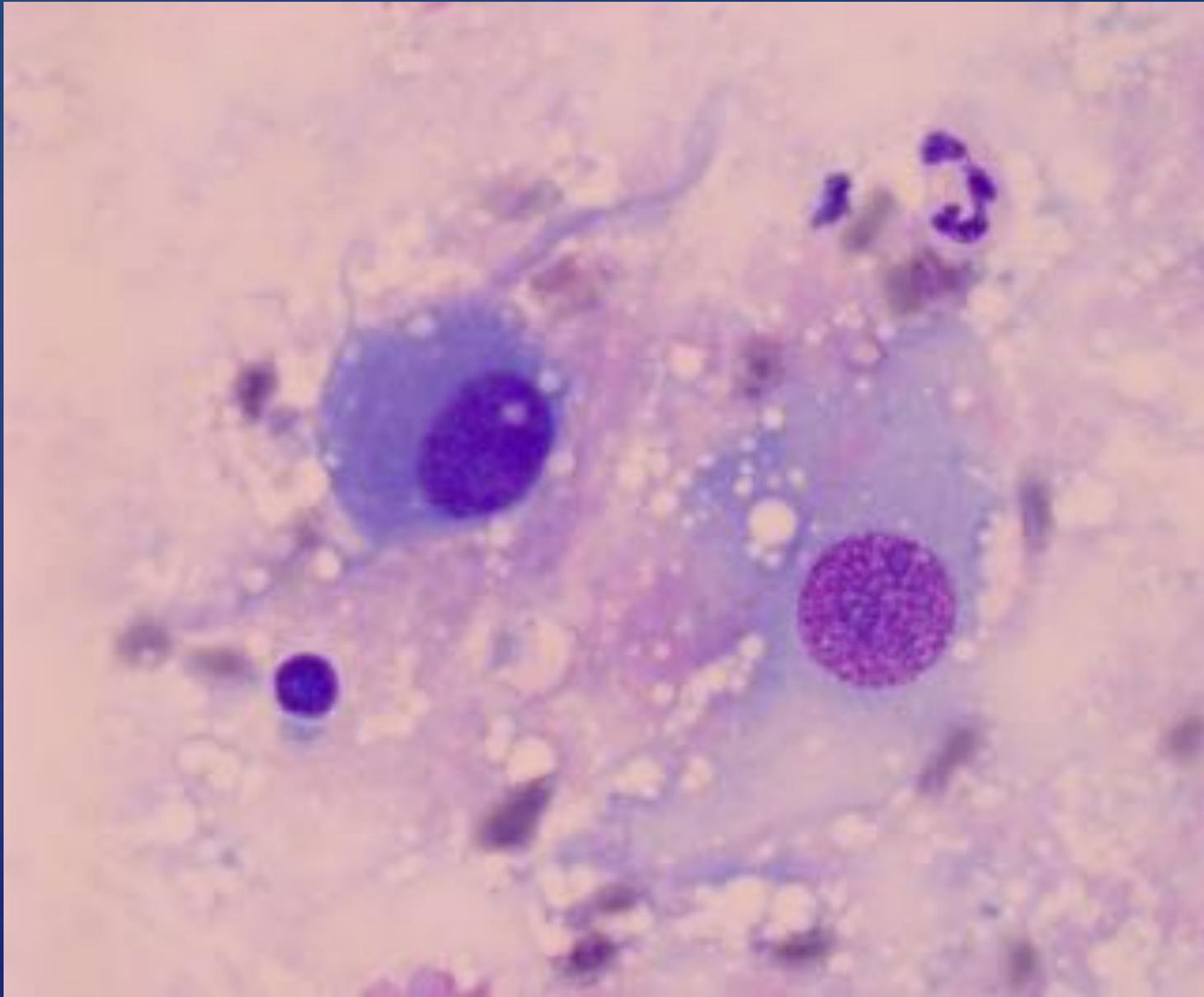
Bizarre astrocytes with abundant cytoplasm,  
dystrophic myelin processes



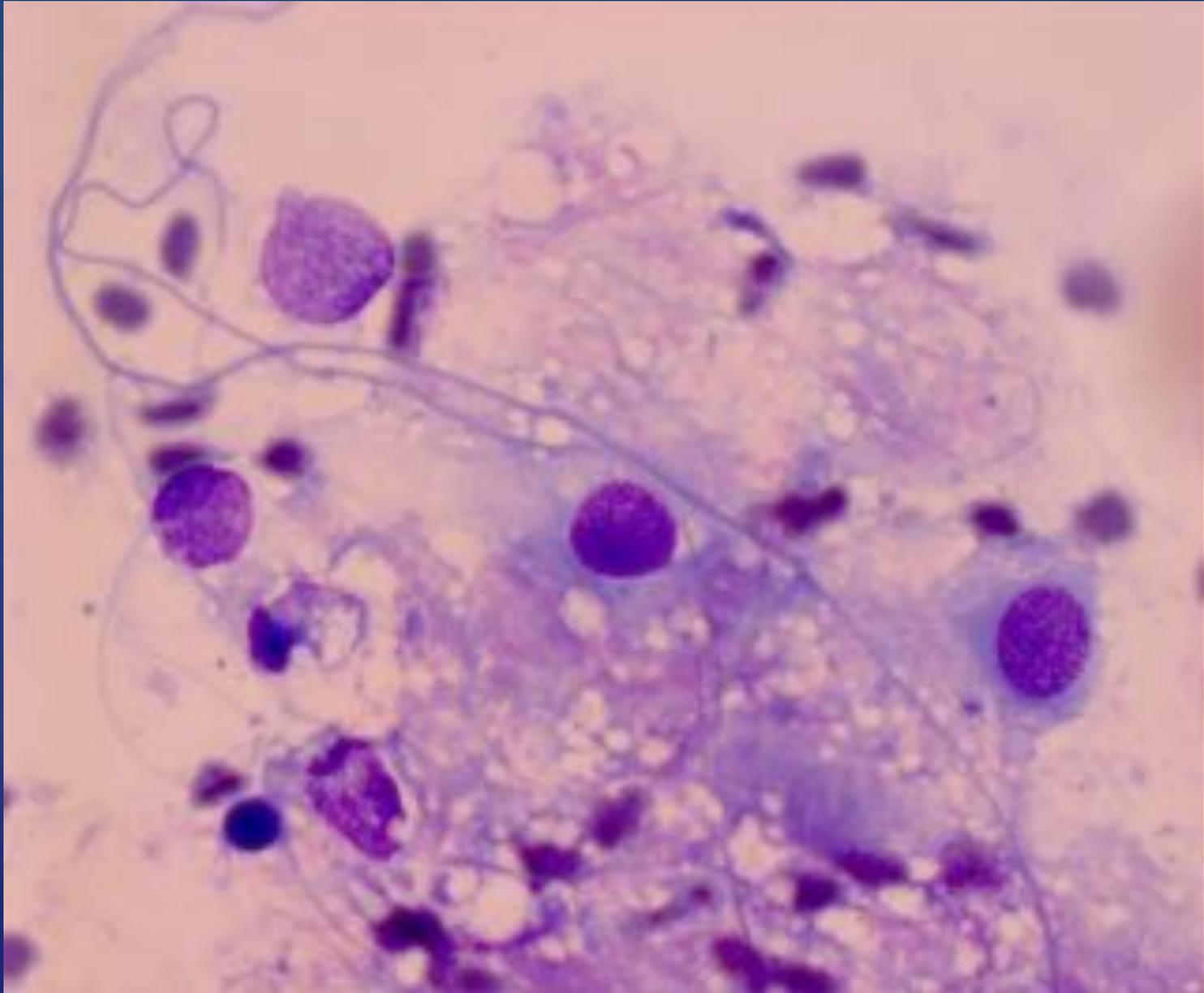
Bizarre astrocytes with abundant cytoplasm,  
dystrophic myelin processes, macrophages with  
foamy cytoplasm



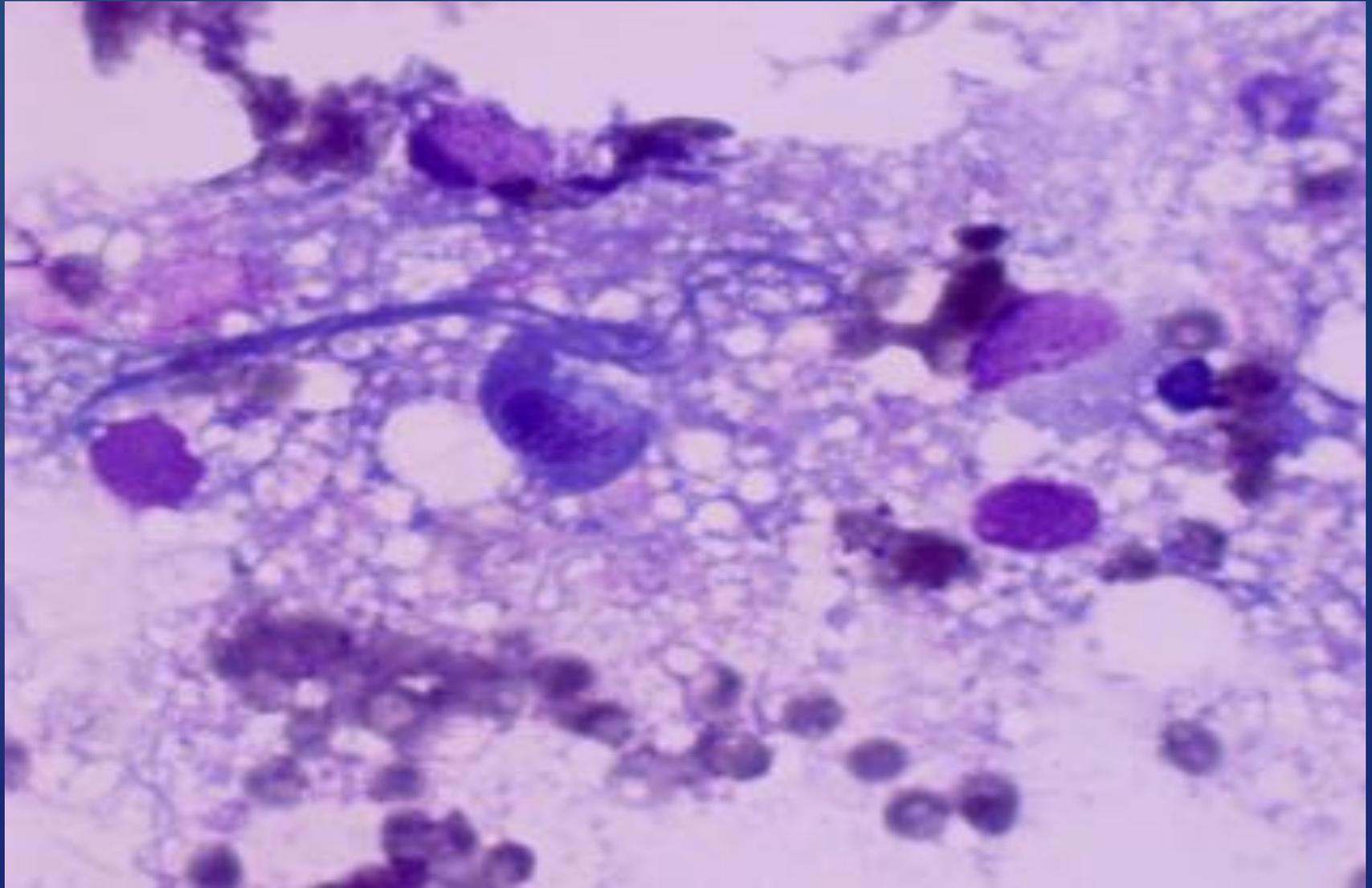
# Bizarre reactive astrocytes with abundant cytoplasm



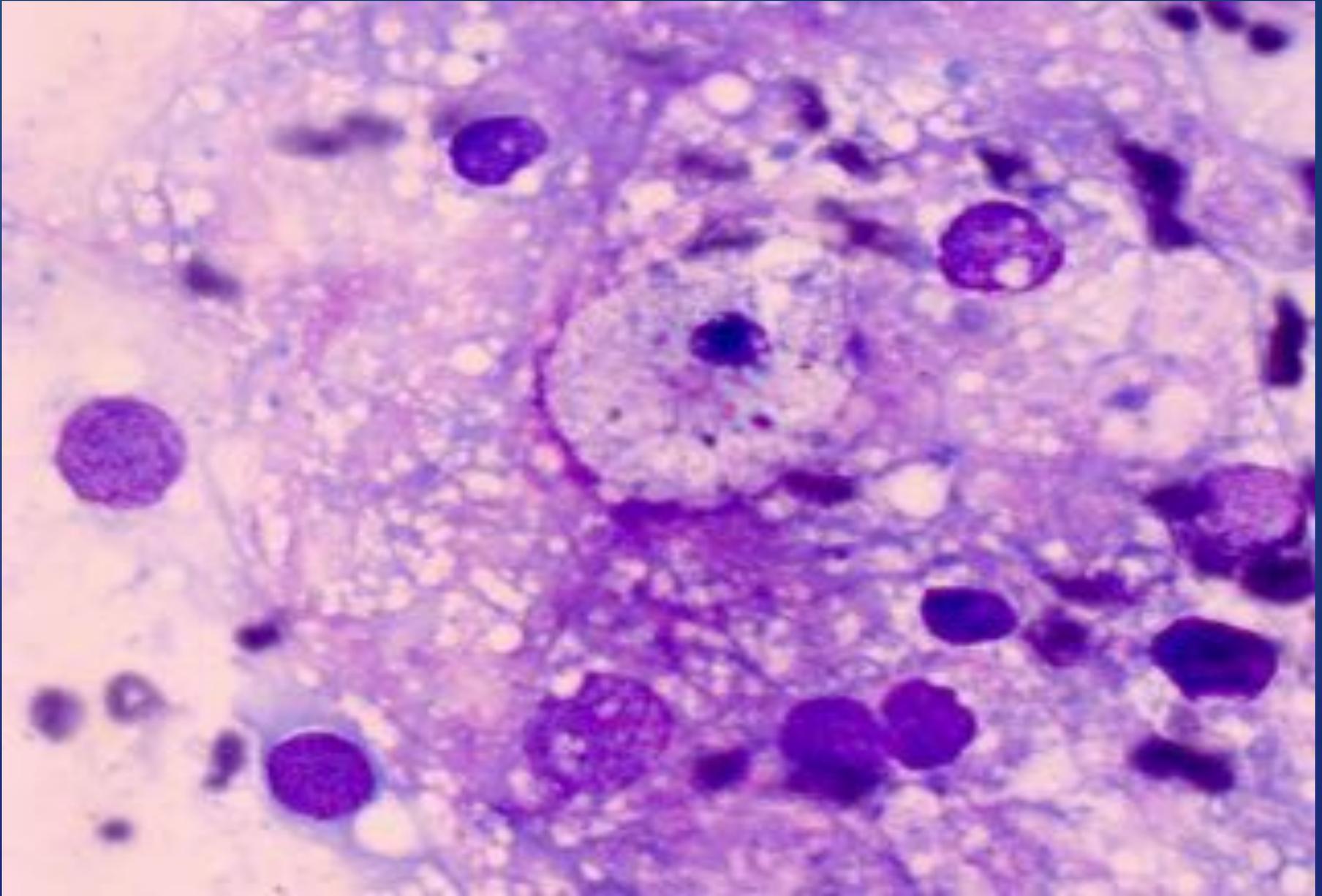
Bizarre astrocytes with abundant cytoplasm,  
dystrophic myelin processes



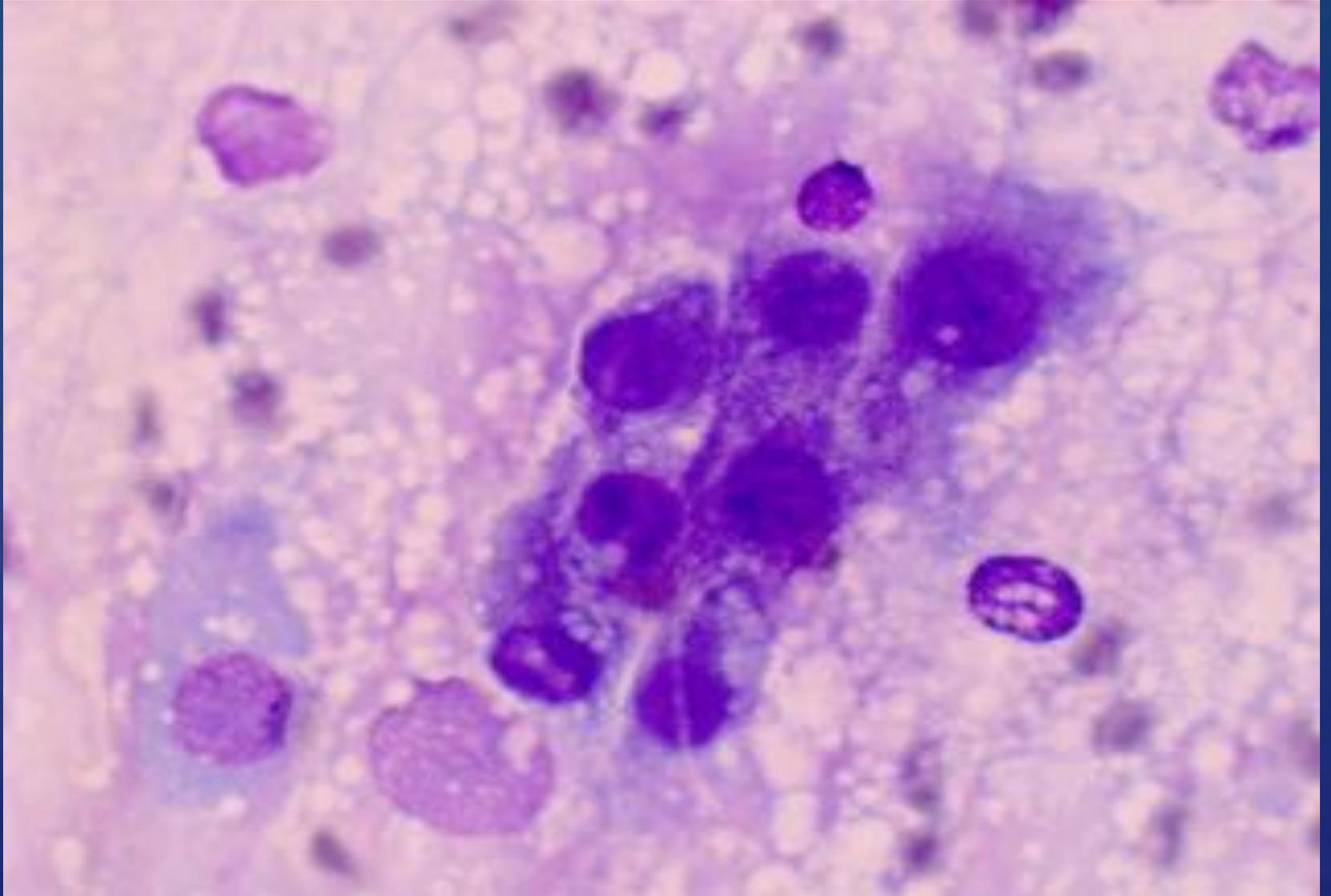
# Demyelination brain matter



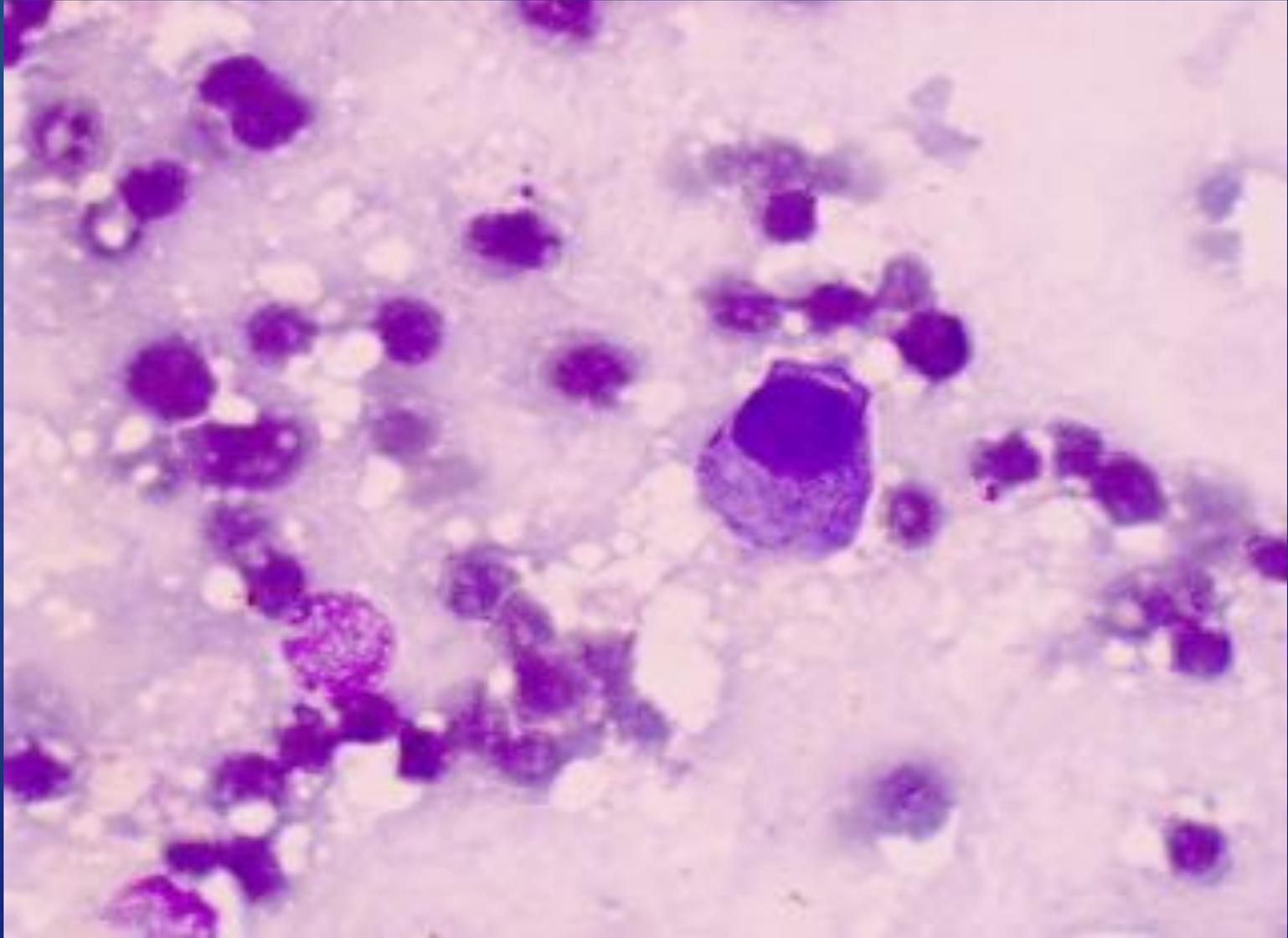
# Many macrophages



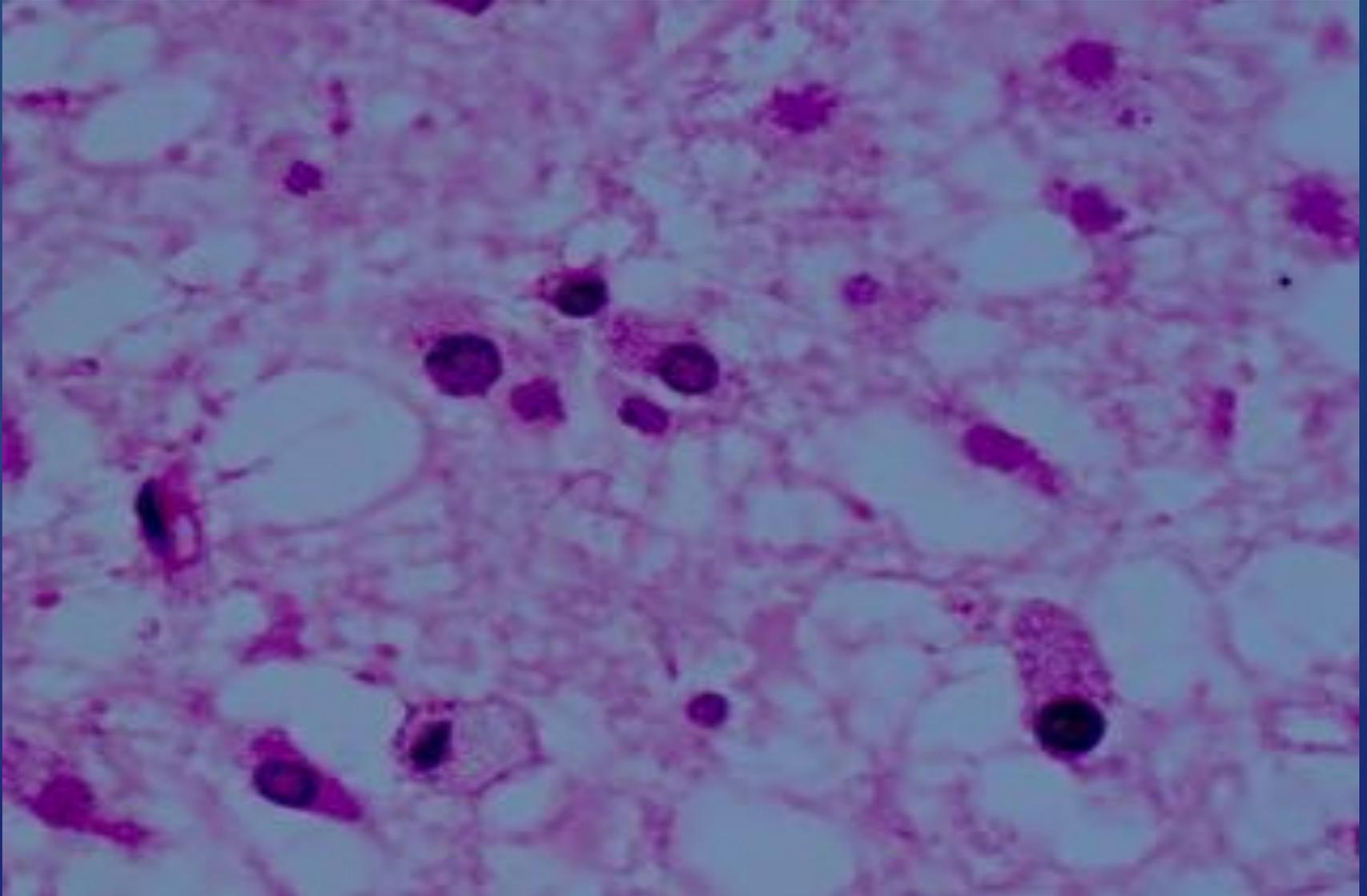
# Hyperchromatic nuclears with chromatin effacement



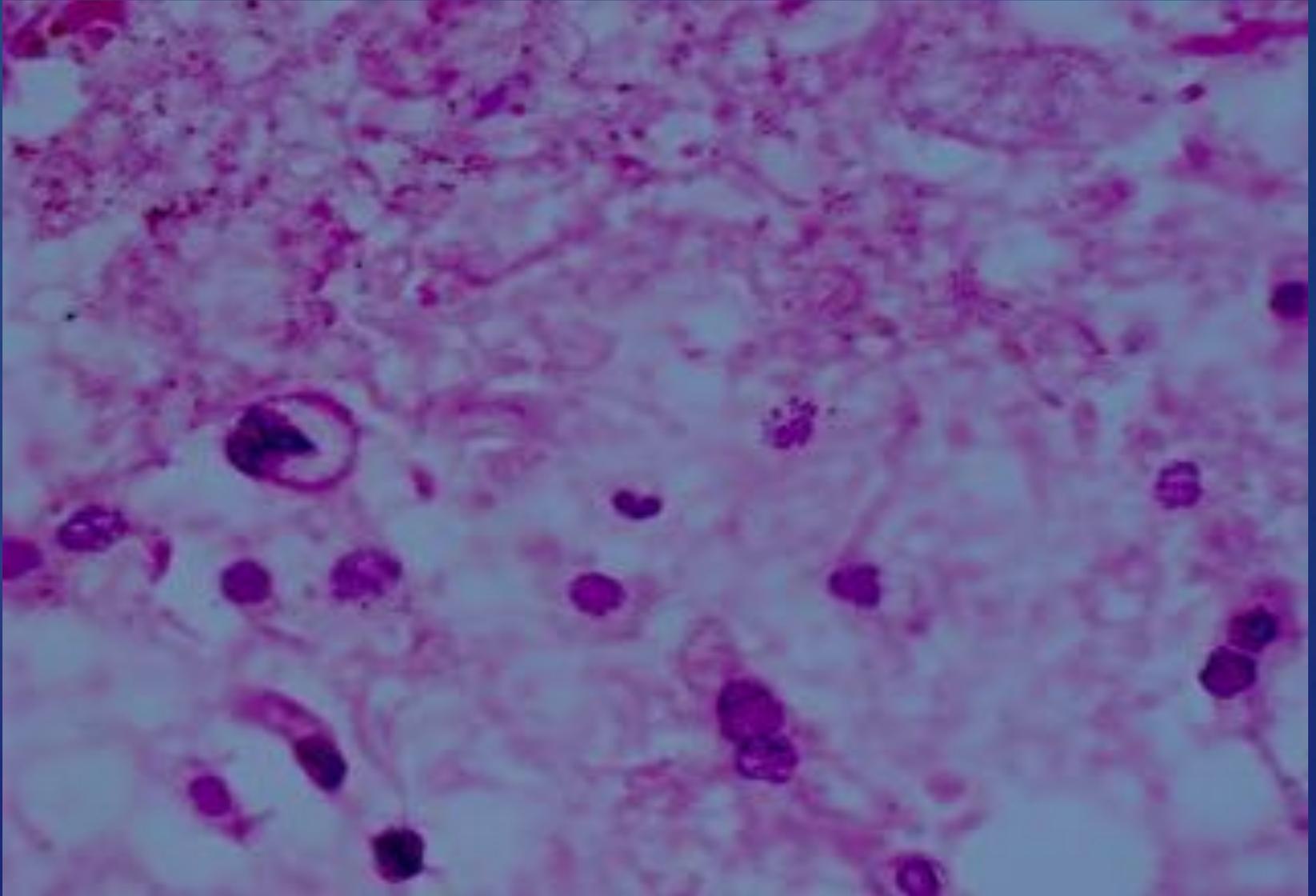
# Hyperchromatic nuclears with chromatin effacement



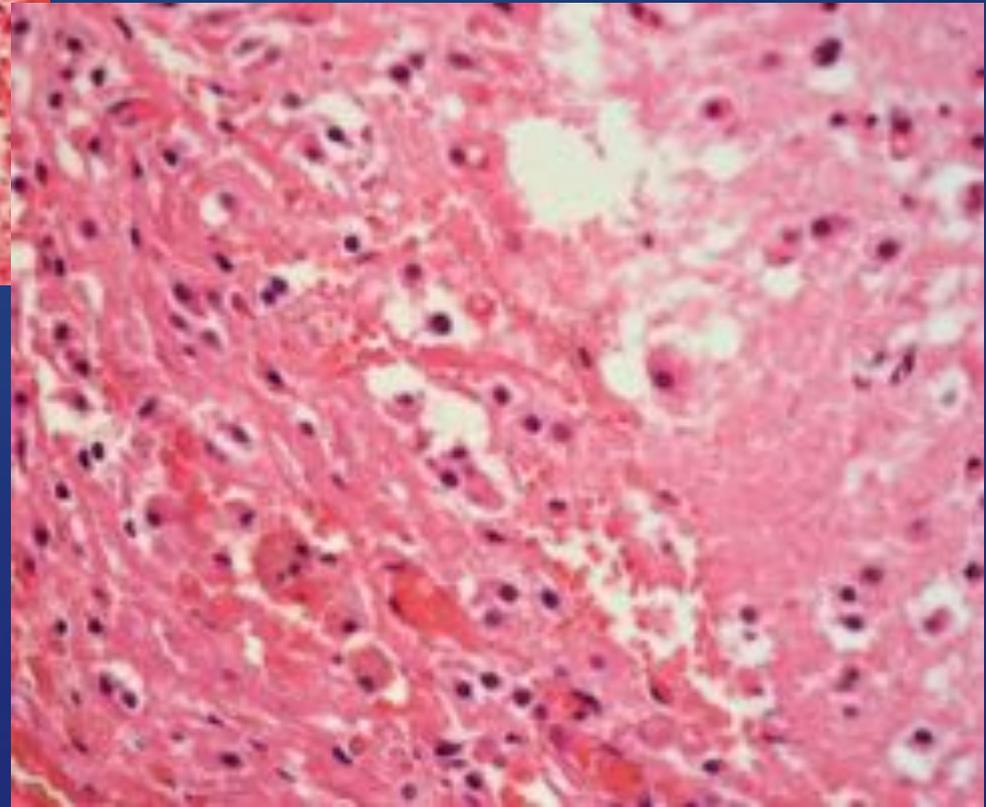
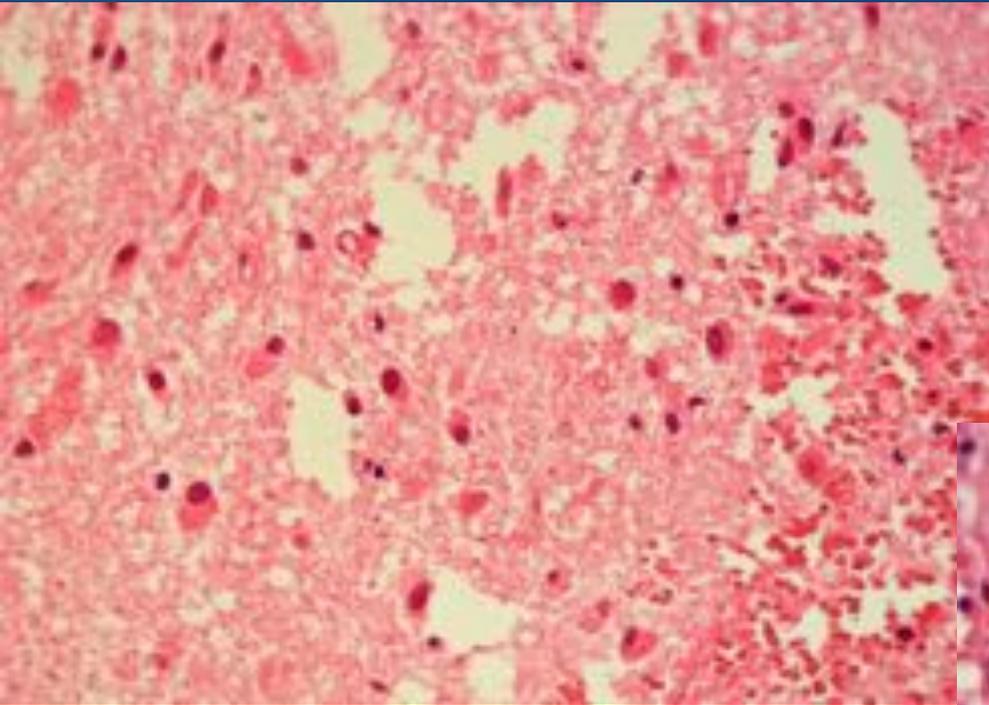
Some oligodendrocytes with hyperchromatic nuclears,  
chromatin effacement



# Hyperchromatic nuclei with chromatin effacement

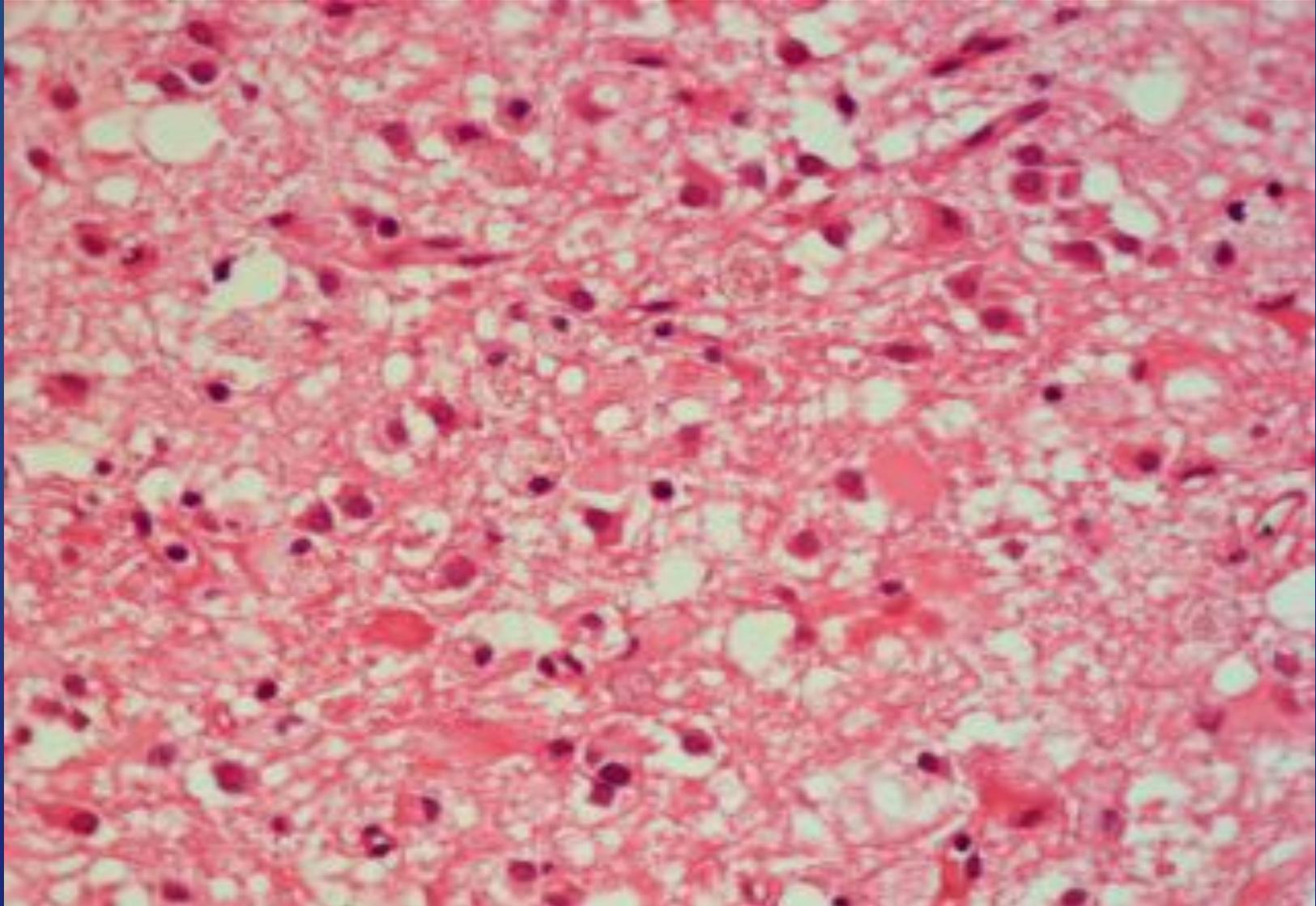


# Histology, focal hemorrhage

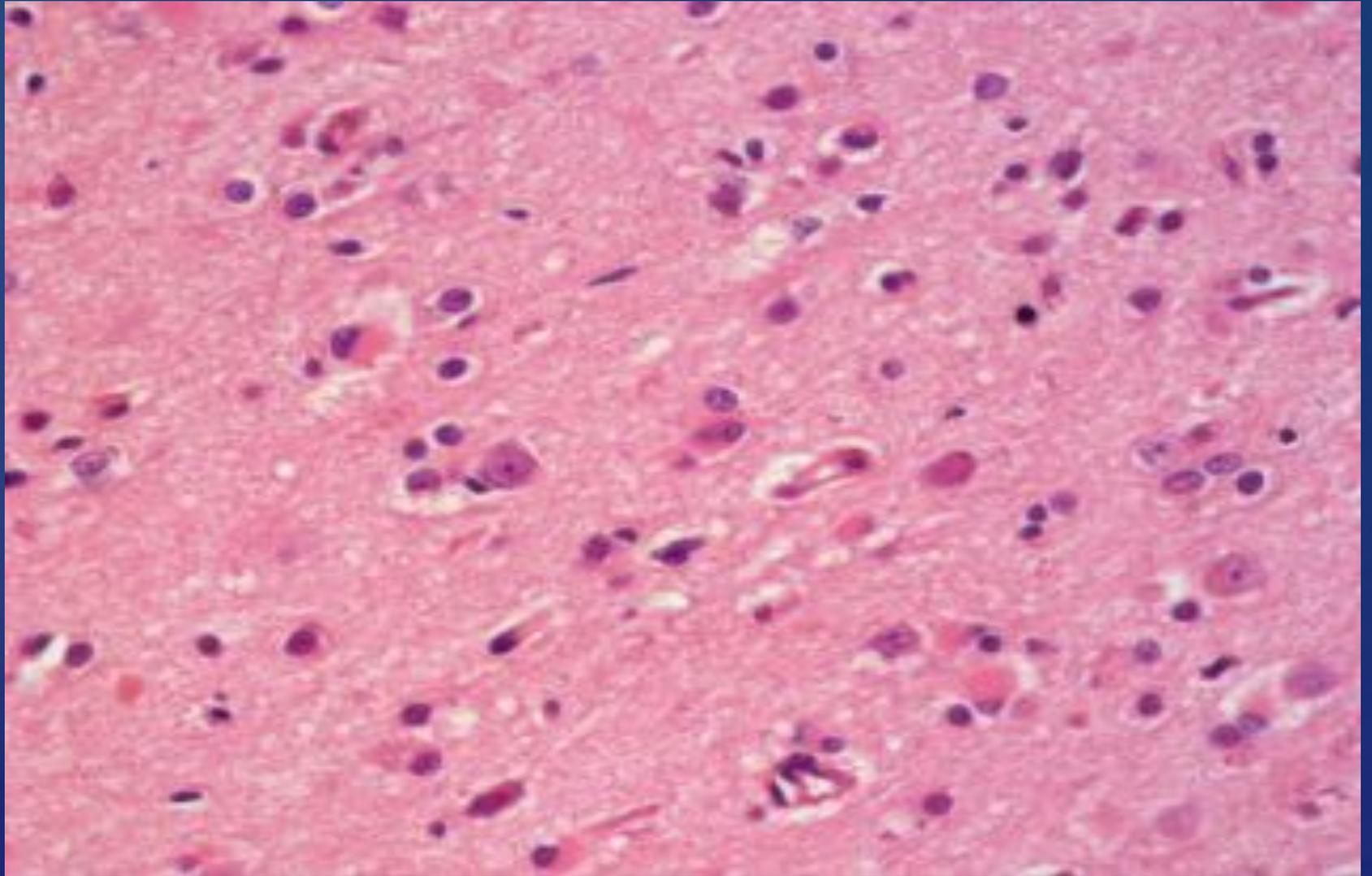


## Histology, H&E

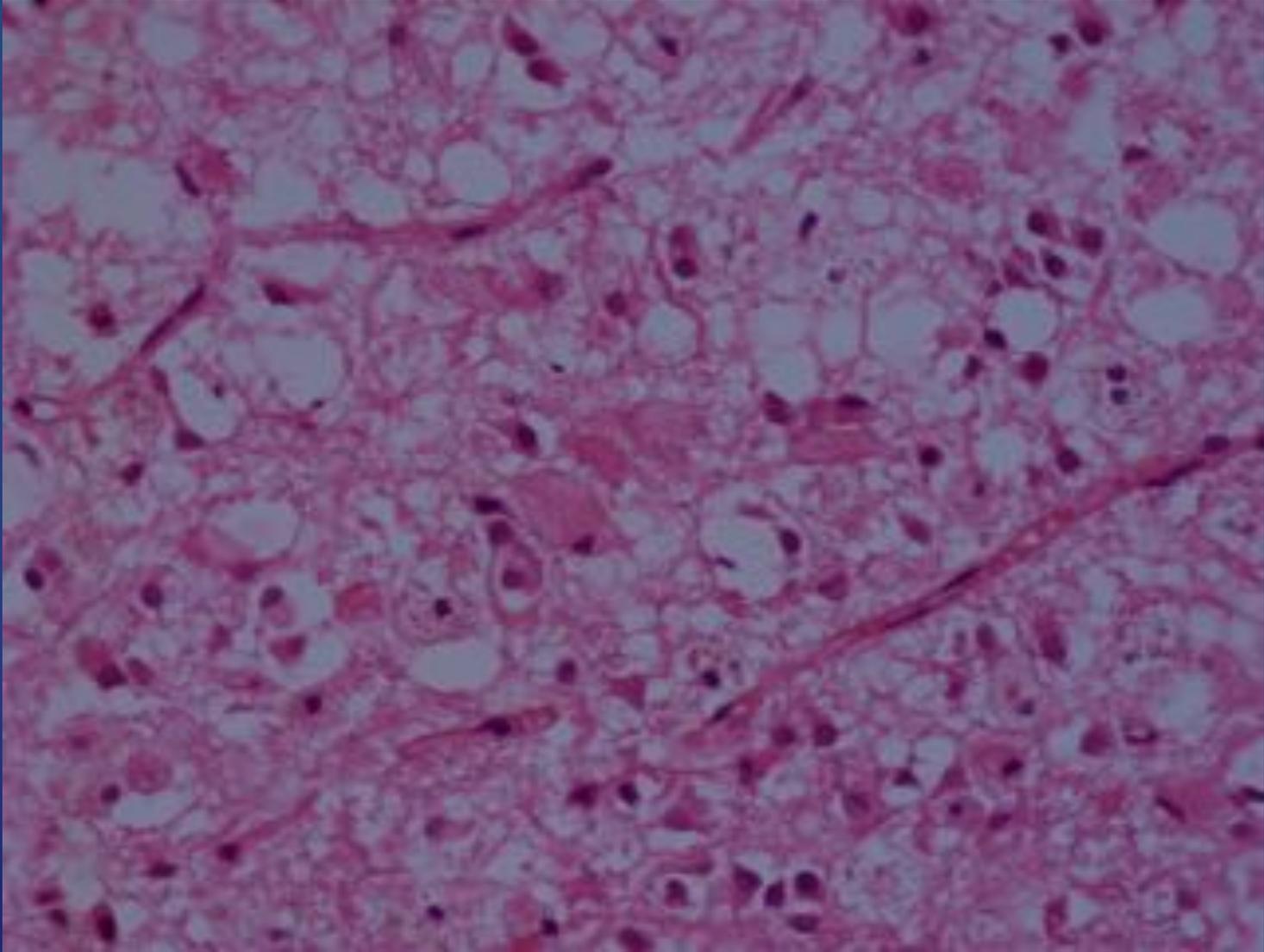
Bizarre reactive astrocytes with abundant cytoplasm



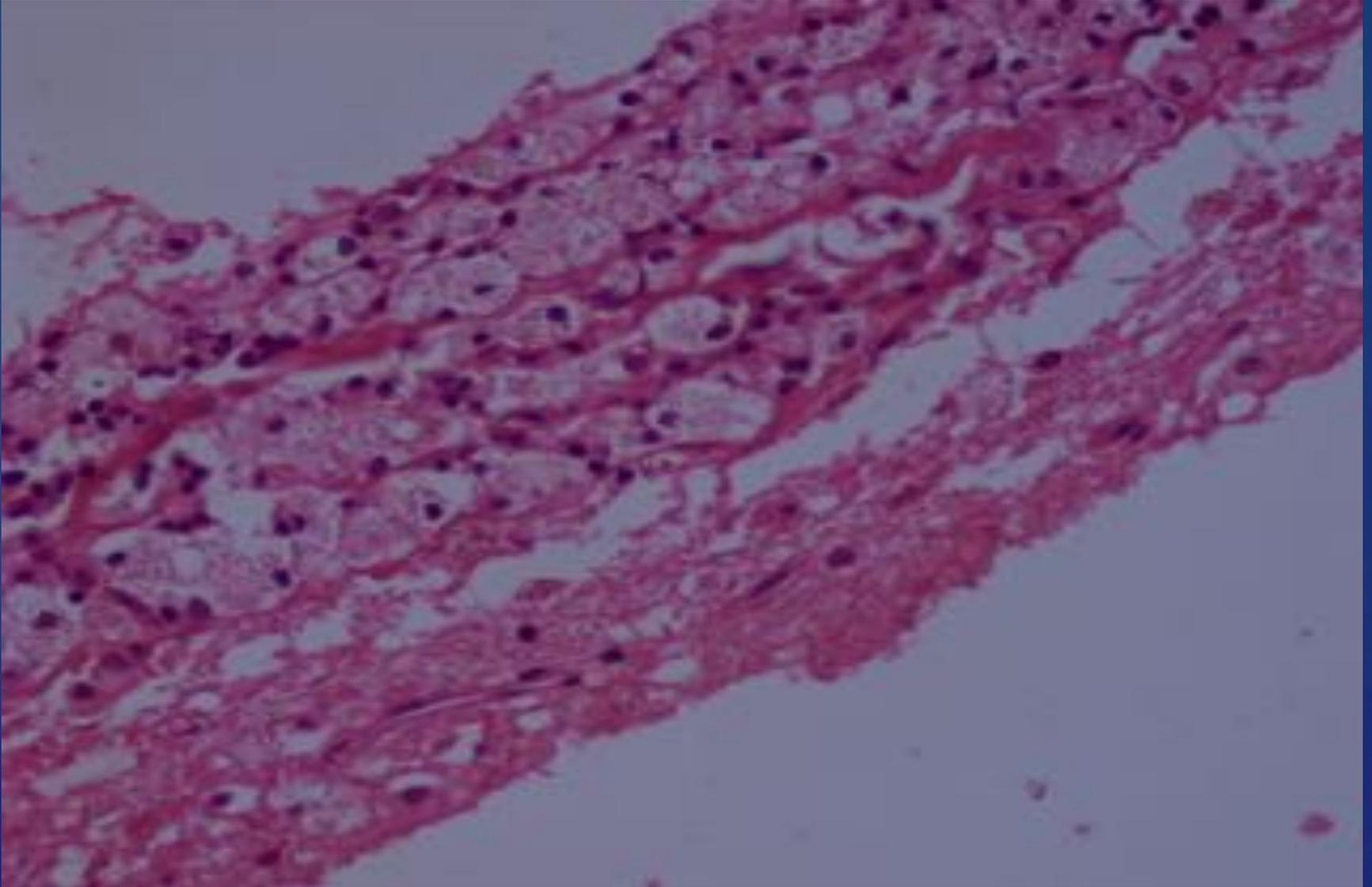
# Histology, H&E, reactive astrocytes



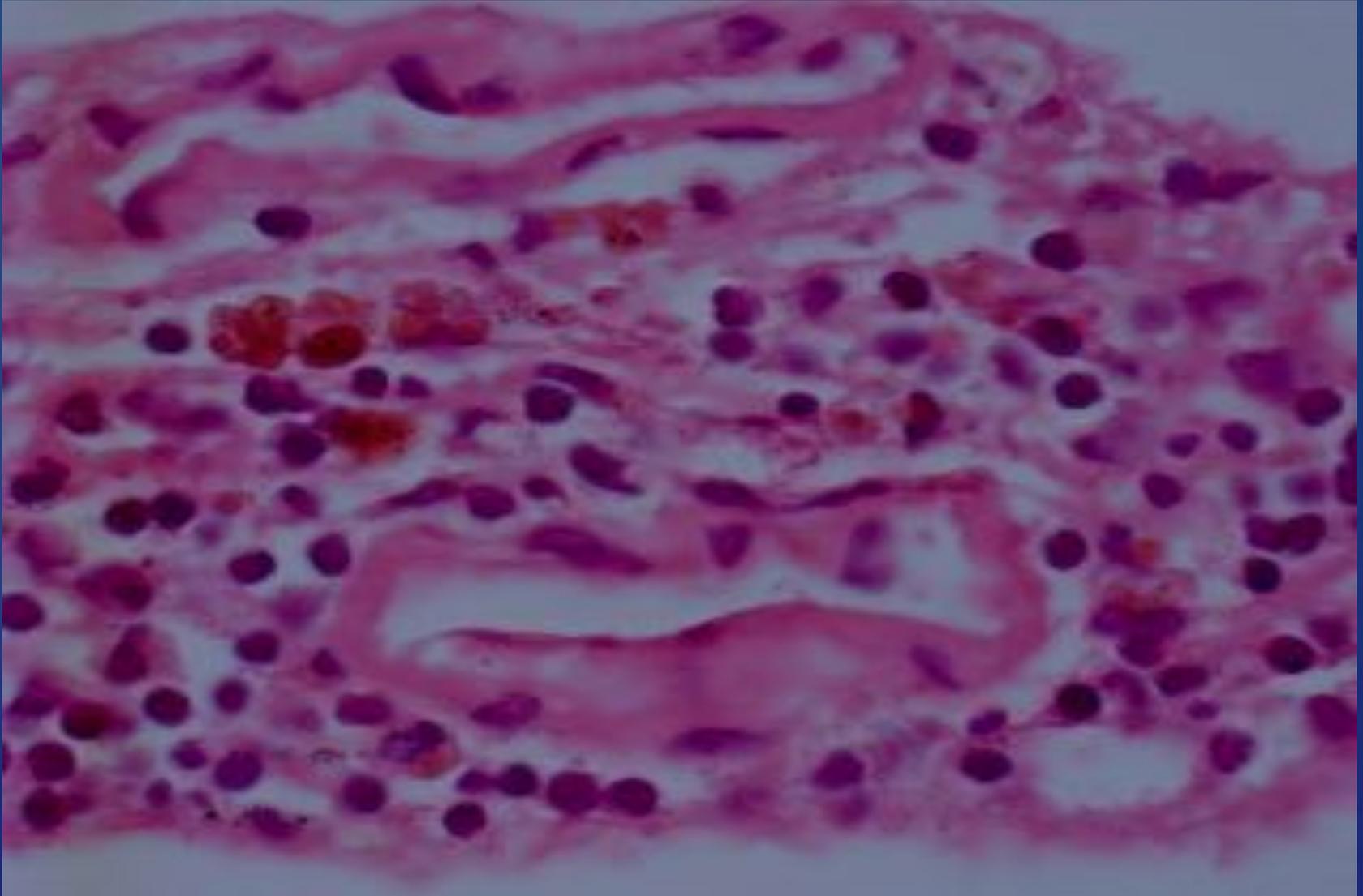
Histology, H&E, vascular proliferation,  
macrophages, reactive astrocytes



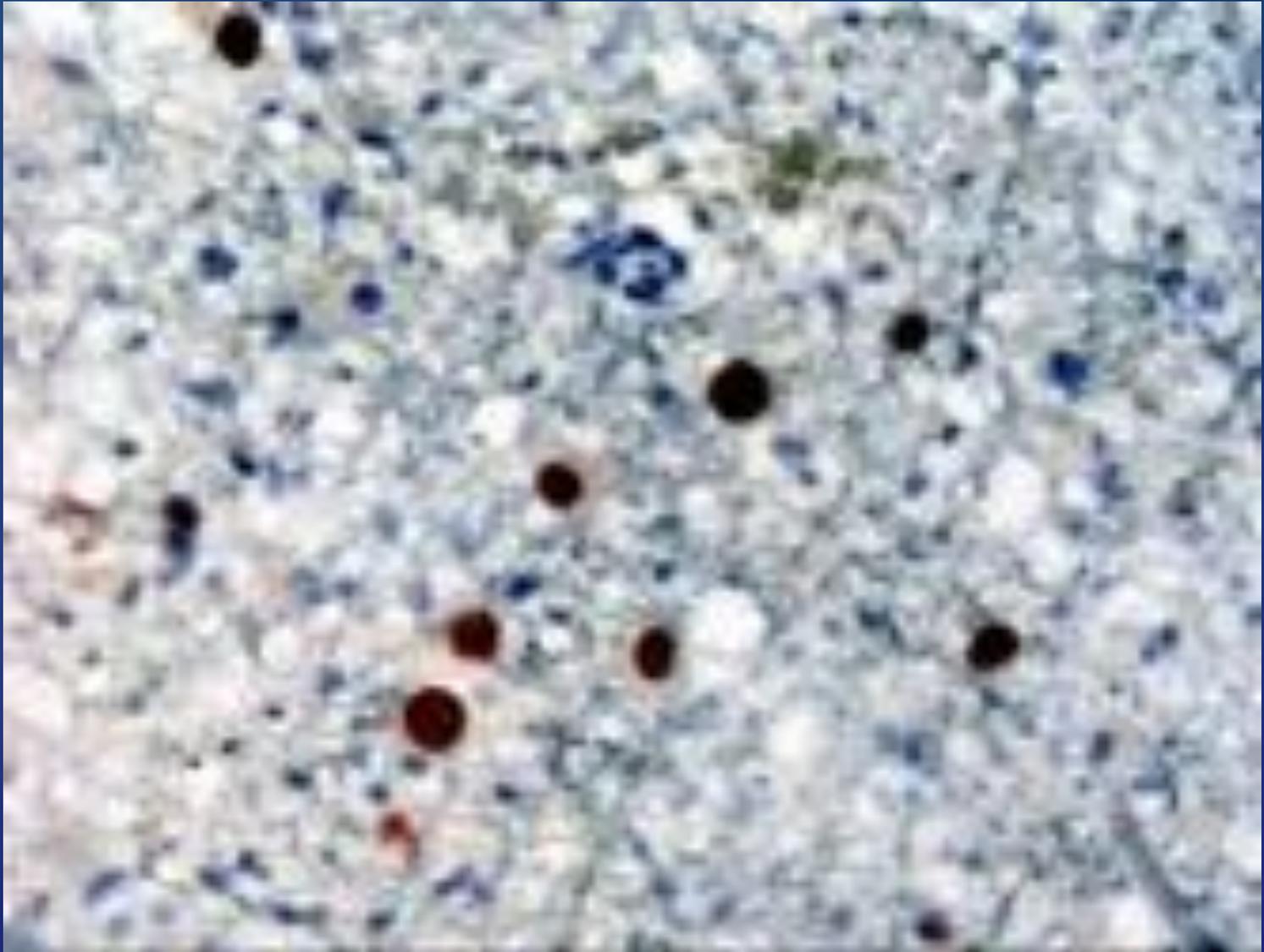
# Histology, H&E, macrophages, vascular proliferation



# Perivascular lymphocyte infiltration



# ICC nuclear stain with anti SV-40



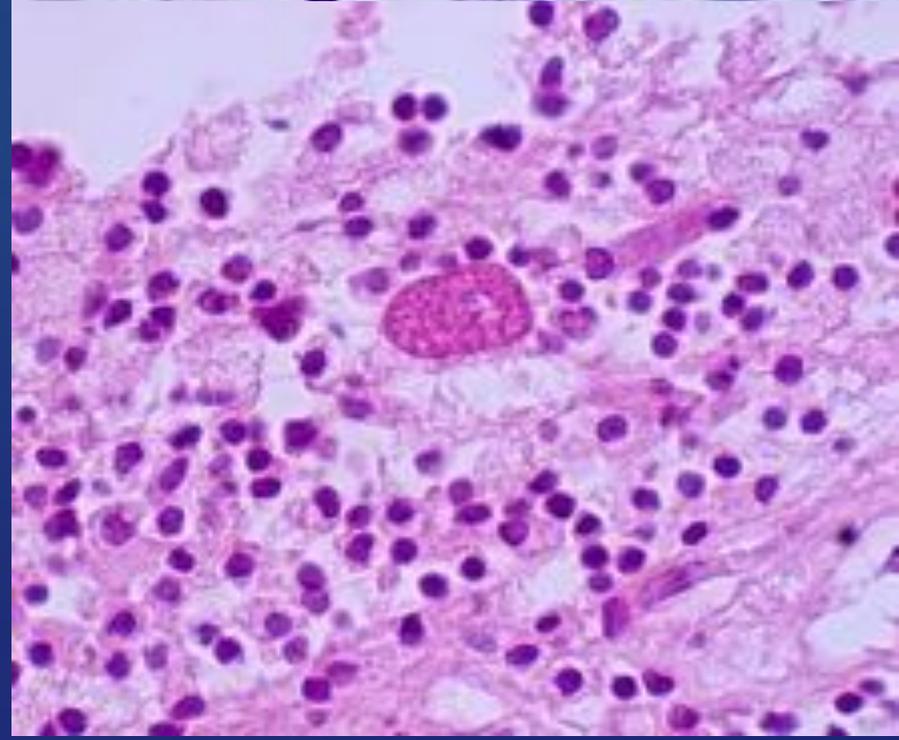
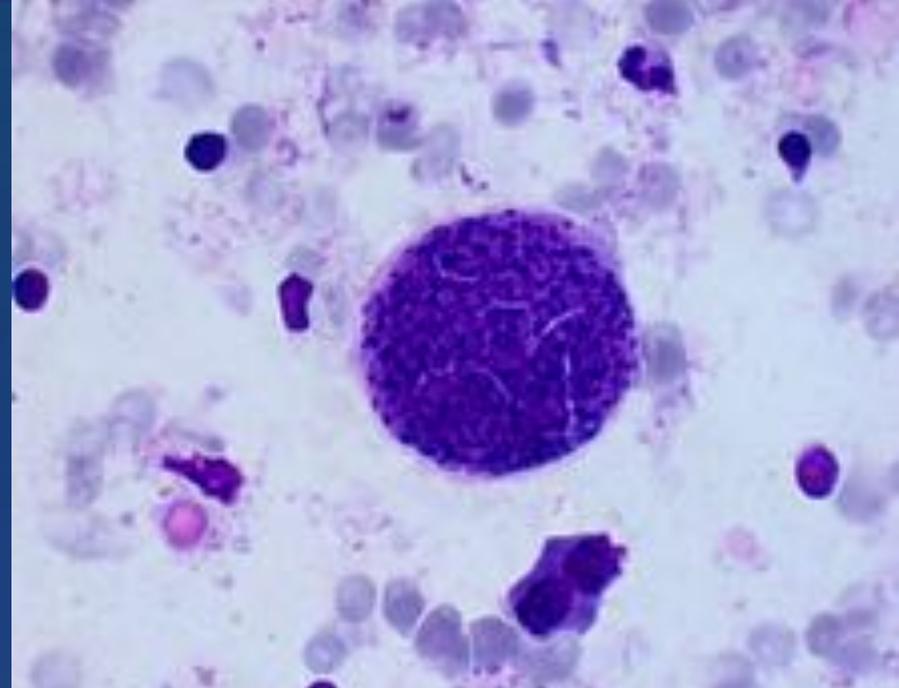
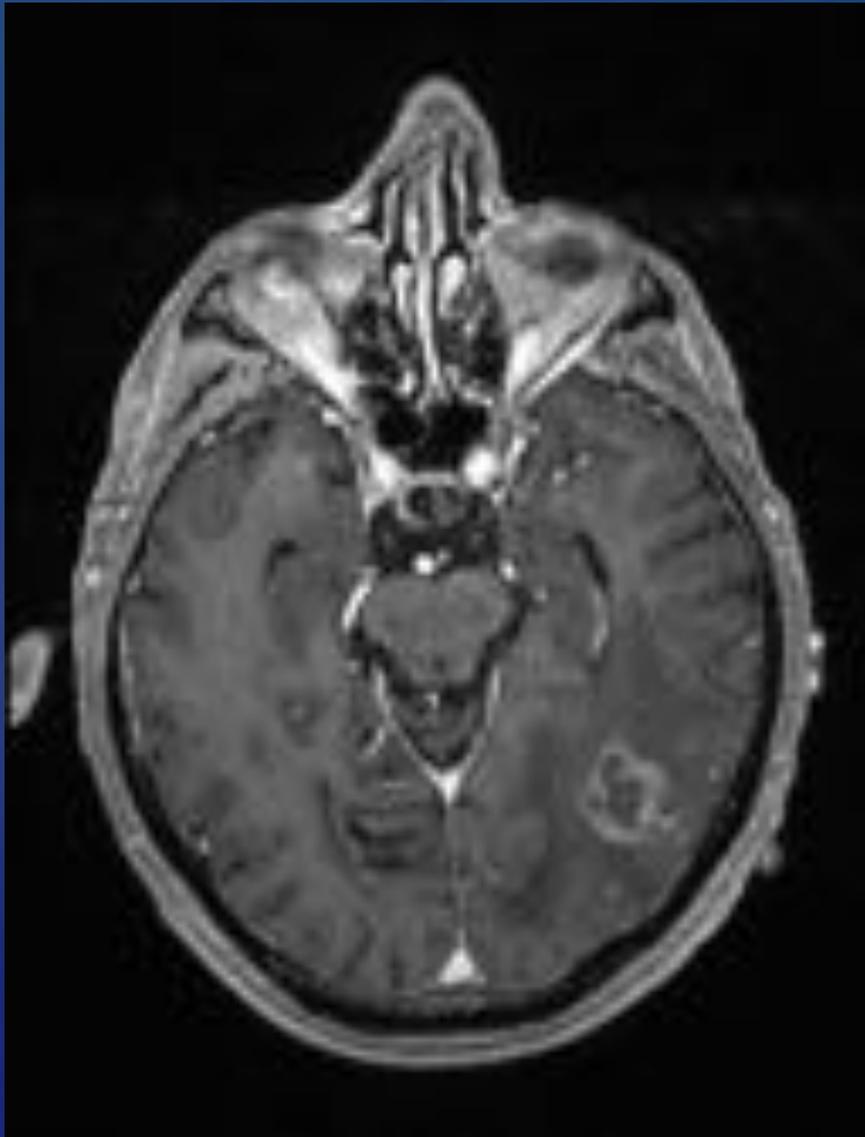
# PML differentiated:

Glial neoplasm

HSV encephalitis

CNS toxoplasmosis

# Differentiated: CNS toxoplasmosis



**Thank you for your  
attention!**