

14 - Biopsy findings

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© SPMM Course metabolites of arachidonic acid, which are neurotoxic, and tumour necrosis factor, which is toxic for oligodendrocytes and can cause demyelination.

Biopsy findings The following can be seen in the biopsy of an HIV infected brain tissue

1. Infiltration of macrophages into the CNS
 2. Formation of microglial nodules
 3. Multinucleated giant cells from virus-induced fusion of microglia and/or macrophages in central white and deep gray matter;
 4. Astrocyte activation and damage;
 5. Neuronal loss particularly in hippocampus, basal ganglia and caudate nucleus.
 6. A variable degree of white matter pathology with myelin damage
 7. Accumulation of lipid macrophages in extreme cases
- Most common psychiatric presentation in AIDS is HIV-related dementia, followed by depression. Psychosis is seen only in 10% of HIV-infected individuals.

VIRAL LOAD The current method used to predict stage of disease, to monitor disease progression, and to formulate treatment strategies is to determine viral load (actual number of viral particles found in a cubic millimeter of blood).

HIV-1 can also be detected in the cerebral spinal fluid (CSF). But CSF viral load is not established as an accurate indicator of CNS disease related to HIV.

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