

system” (SVcPACNS). Our results parallel recent reports of anti-MOG neuropathology describing small vessel vasculitis, contrary to initial and subsequent reports that describe “encephalitis”. The foregoing suggests that the neuropathology associated with serum anti-MOG positivity may be broader than first appreciated. Moreover, this pattern of vasculitis might have implications for the natural history of this nascent disorder.

LEARNING OBJECTIVES

- Define anti-MOG encephalitis.
- Recognize the pathologic spectrum of reported cases of anti-MOG encephalitis.
- Contrast the pathologic features of pediatric and adult CNS vasculitis.
- Describe the histologic overlap of vasculitis and encephalitis.

ABSTRACT 4

Spectrum Of White Matter Changes In Ischemic Lesions

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Morphological studies on cerebral ischemia concentrate mainly on the grey matter and white matter changes are regarded as secondary or overlapping injuries. Immunohistochemical (IHC) studies to highlight the combination of various cellular changes in ischemic white matter but have not well documented. We selected 11 archival cases of 3 different ischemic processes (i.e. large vessel occlusion, small vessel occlusion, and hypoperfusion) with survival period range 2-35 days from the ischemic event. The white matter was examined using HE-LFB histochemistry, APP, GFAP, and HLA-DR immunostains focusing on myelin, axonal, astrocytic and microglial changes respectively. The various white matter changes are probably reflective of the different mechanism, duration, severity and extent of ischemia. The APP-IHC shows patchy axonal expression, swelling, and finally complete axonal loss. HLADR-IHC highlights early microglial injuries (fragmentation of processes), complete cell loss, and subsequent replacement by cells of macrophage phenotype. Surrounding the ischemic areas are reactive microglia. Astrocytic changes range from fragmentation of processes (clasmatodendrosis) to different stages of cell loss. Astrocytic swelling tends to occur with cerebral edema. Large vessel occlusion results in complete tissue loss while in small vessel disease the damage is more selective. The injury is generally more subtle in hypoperfusion but can be pronounced focally. Our study has documented the spectrum of white matter injury in different scenarios of cerebral ischemia.

LEARNING OBJECTIVE

- Describe the cellular and immunohistochemical changes in the ischemic white matter

ABSTRACT 5

Relevance of tissue eosinophilia in subdural hematoma

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Chronic subdural hematoma (CSDH) are treated by evacuation. Recurrence occurs in 3-20% of cases, but the factors determining its occurrence have not been determined. Having observed that eosinophil cell infiltrates are often present in the outer membrane of CSDH, our aim was to determine whether such infiltrates are associated with risk of recurrence. Histological sections of the resections from 72 patients with primary CSDH (Mean age 73.4) and 16 with recurrent CSDH (Mean age 72.1) stained with H&E were graded by blinded observers for eosinophilic cell infiltrates using a semiquantitative 0 to 3 scale. The risk of recurrence requiring reoperation (RrR) in primary CSDH was 11.1%, and 12.5% in recurrent CSDH (meaning third surgery was required). A dense (grades 2 or 3) eosinophilic infiltrate was present in 22.2% of primary CSDH; the RrR was 0% in these cases, as compared with 14.8% in cases with sparse (grades 0-1) eosinophilic infiltrate. Among recurrent CSDH cases, 12.5% (2/15) showed a dense eosinophilic infiltrate; the RrR was also 0%, contrasting with 14.3% in those with sparse eosinophilic infiltrate. We conclude that eosinophils either play a role or are a marker of a process leading to stabilizing CSDH, making them less prone to rebleeding. Abstract not previously published

LEARNING OBJECTIVES

- Describe the risk of recurrence following surgical evacuation of chronic subdural hematoma
- Recognize the variable presence of eosinophils in chronic subdural hematoma
- Cite the presence of eosinophils is predictive of absence of recurrence

ABSTRACT 6

Subpial Thorn-shaped Astrocytes Are Prevalent In Guam ALS/PDC

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Guam amyotrophic lateral sclerosis/parkinsonism-dementia complex is a progressive neurodegenerative disorder characterized by neuronal and glial tau pathologies. With the aim to