

Diagnosis of Primary CNS Vasculitis

CNS Vasculitis (Suspected)

Other Diagnosis

Clinical Presentation:

Newly acquired neurological deficits (focal and/or diffuse) and/or psychiatric symptoms



Evaluation-First Step:

Clinical Assessment:

- General assessment for underlying disease/illness;
- Detailed neurological tests; psychiatric/neurocognitive assessment (when applicable)

Blood Tests:

- Blood inflammatory markers (E.g. ESR, CRP, CBC)
- Auto-antibody testing (E.g. antinuclear antibody, antineutrophil cytoplasmic antibody)

Diagnostic Imaging:

- Cerebral MRI (with gadolinium enhancement, T2, and FLAIR);
- MRA with post-gadolinium vessel-wall imaging and/or other cerebral vessel imaging (E.g. CTA)

CSF analysis:

- Opening pressure; CSF cell count; Infectious work-up (bacterial, fungal, and viral cultures and serology); oligoclonal banding



- Non-inflammatory vasculopathies (E.g. atherosclerosis)

- Non-vascular inflammatory brain diseases (E.g. ADEM, MS)

- Mimic of vasculitis (E.g. RCVS) or IBrainD

- Secondary vasculitis and non-vasculitic IBrainD



Evaluation-Second Step:

Step: CSF analysis:

- Neuronal antibodies (E.g.; anti-NMDAR, anti-AMPA, anti-AQP4, anti-LG1)

Blood Test:

- Anti-NMDAR, anti-AMPA, anti-AQP4, anti-LG1

Consider other diagnostic Imaging:

- Conventional angiography



Evaluation-Third Step:

Brain biopsy

Lesional or non-lesional; non-dominant frontoparietal lobe

