

Vasculitis

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Vasculitis

- Inflammation of the blood vessels
 - Can lead to ischemia and stroke
 - Can lead to intracranial hemorrhage
 - Can lead to pain

Most Common Neurosurgical Vasculitides

- Giant cell arteritis (aka temporal arteritis)
- CNS vasculitis

Giant Cell Arteritis (GCA)

- GCA = Temporal Arteritis
 - Vasculitis of vessels arising from the aortic arch
 - May lead to blindness, stroke, aortic dissections/aneurysms

Demographics and Epidemiology

- Race usually white
- Age usually >50
- Usually in northern regions
- Female:Male 2:1
- 50% have polymyalgia rheumatica

Signs and Symptoms of GCA

- Headache
- Pain when temporal artery palpated
- Spontaneous pain over temporal artery
- Visual loss or changes
- Fever
- Muscle pain
- Jaw pain when chewing (ischemic)
- Scalp pain
- Stroke

Diagnosis

- Sedimentation rate >40-50 (may be normal)
- Elevated C-reactive protein
- Elevated alkaline phosphatase in 30%
- Temporal artery biopsy most sensitive and specific test
- Biopsy side ipsilateral to symptoms first. If negative biopsy other side if suspicion is high for GCA

Treatment

- Steroids (oral prednisone) with taper as symptoms improve
- IV steroids for more severe cases.

Isolated CNS Vasculitis

- Inflammation of intracranial vasculature
- Symptoms
 - Mental status changes
 - Seizures
 - Stroke
 - Intracranial hemorrhage
- Etiology
 - Idiopathic
 - Drug induced (cocaine , amphetamine, ephedrine)
 - Radiation
 - Infection
- Diagnosis
 - MRI
 - Cerebral angiography
 - Open brain biopsy (1 cubic centimeter without use of cautery)
- Treatment
 - Steroids
 - Antibiotics
 - Other more experimental meds

Other Vasculitides That Can Affect NS

- Periarteritis nodosa
 - More commonly affects peripheral nerves
- Wegener's granulomatosis
 - May involve cranial nerves
 - Less commonly involves brain and spinal cord
- Fibromuscular dysplasia
 - May affect aortic branches (cervical internal carotid artery)
 - May be associated with aneurysm development
- CADASIL
 - Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy
 - Chromosome 19
 - No evidence of hypertension