

Temporal Arteritis

Temporal arteritis is a vasculitis of medium and large arteries which typically presents as a severe unilateral headache in an elderly patient. There can be a variety of atypical presentations depending on the arteries involved, but uniformly a granulomatous “giant cell” reaction will be appreciated on biopsy. The characteristic lab findings will show elevated ESR with normal serum creatine kinase. There is a strong association of temporal arteritis with polymyalgia rheumatica which is an inflammatory disorder resulting in proximal muscle pain. The most severe consequences of the vasculitis are when it involves the ophthalmic artery and can compromise blood supply to the eye resulting in blindness. It is for this reason, patients must be immediately treated with high doses steroids.



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Giant Cell Arteritis

Giant Cell of Arteries

Temporal arteritis can be called giant cell arteritis due to the granulomatous response producing giant cells when the inflammation occurs more in the neck, upper body, and arms.

Granulomatous

Granny-llama

The inflammation seen in temporal arteritis is a granulomatous inflammation which occurs when the immune system attempts to wall off substances that it perceives as foreign but is unable to completely eliminate the substance.

Old Females

Old-lady

This disease occurs primarily in older females.

Clinical Features

Polymyalgia Rheumatica

Poly-muscle-algae and Rheumatoid-hands

Polymyalgia Rheumatica is an inflammatory disorder that causes muscle pain and stiffness primarily in proximal muscles in the neck, shoulders, upper arms and the proximal leg muscles. Many patients with temporal arteritis have coexisting polymyalgia rheumatica.

Unilateral Headache

Unilateral Head-bump

Due to the inflammation of the blood vessels supplying the temporal region, patients with temporal arteritis will often present with a unilateral headache.

Jaw Claudication

Jaw Claws

Jaw claudication refers to pain or discomfort in the jaw or ear when chewing. It is commonly seen in patients with temporal arteritis.

Blindness

Blinds-over-eye

Inflammation of the ophthalmic artery can threaten vision and cause blindness if not treated promptly.

Lab Findings

Increased ESR

Up-arrow ESR test tubes

ESR stands for erythrocyte sedimentation rate, which is an indirect test of inflammation in the body. Patients with temporal arteritis have a characteristically elevated ESR.

Normal Serum Creatine Kinase

Normal-bell-curve CK

Creatine kinase is a marker of muscle breakdown and will be elevated in pathologies like myocardial infarction and rhabdomyolysis. In temporal arteritis, serum creatine kinase is not elevated.

Treatment

Steroids

Steroid-stairs

Steroids are potent anti-inflammatory drug used to treat temporal arteritis. Patients complaining of visual deficits must be treated with high dose steroids to prevent permanent blindness.