Neurosarcoidosis Presenting as Trigeminal Neuralgia

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Introduction
• Sarcoidosis is a noncaseating, granulomatous disease that primarily affects the lungs and skin, but can include other organ systems.

• Central nervous system (CNS) involvement is rare, affecting 5 to 13% of patients, with many cases being subclinical.

Case Presentation
• 38 year old African American female, with a known history of sarcoidosis, presented with refractory trigeminal neuralgia.

• Magnetic Resonance Imaging (MRI) head was done, revealing a 1.5 cm x 0.6 cm x 1.1 cm mass in the left Meckel's cave (Figure 1).

• A partial craniotomy was performed and the mass was excised.

Pathology and Laboratory Results
• Frozen sections showed noncaseating, granulomatous inflammation, suggestive for sarcoidosis (Figure 2).

• Tissue stains for acid fast bacilli and fungi were negative.

• Serology studies, including Human Immunodeficiency Virus (HIV), Quantiferon Gold, and Antinuclear Antibody (ANA) were negative. Angiotensin Converting Enzyme (ACE) on serum was normal.

Clinical Outcome
• The patient's symptoms improved dramatically post operatively.

• The patient was dismissed with a tapering dose of steroids.

• Outpatient follow up with a rheumatologist was scheduled.

Discussion
• Neurosarcoidosis presents within two years of the initial diagnosis of sarcoidosis, most commonly affecting cranial nerve (CN) VII.

• There are very few case reports of neurosarcoidosis presenting as trigeminal neuralgia, a unilateral, sharp, intermittent pain resulting from compression of one or more of the CN V branches.

• Laboratory evaluation is limited; analysis of cerebral spinal fluid (CSF) can help rule out infectious etiologies.

• ACE is elevated in the serum of 29-60% of patients, but absence of elevation does not rule out neurosarcoidosis.

• MRI is the most common imaging modality used to investigate possible neurosarcoidosis.

• The gold standard for diagnosis is histological examination.

• Treatment includes steroids or immunomodulators.

Conclusion
• Although rare, neurosarcoidosis should be a differential diagnosis for a patient with known sarcoidosis presenting with neurological symptoms.

References