

Author: **Dimitar Veljanovski**, Filip Risteski, Aleksandar Gjoreski, Smiljana Bundovska u
Subject: **Neuroimaging: brain**

Title: **Sarcoidosis of the nervous system MRI - findings**

Objective: Evaluation the role of MRI in the diagnosis and treatment of patients with neurosarcoidosis.

Introduction: Sarcoidosis is a multi-systemic granulomatosis disease of unknown etiology. In 90 % of patients the disease affects lungs, most commonly as a bilateral lymphadenopathy. Sarcoidosis can also involve other organs such as lymph nodes, eyes, skin, heart, muscles, liver, and brain. Neurosarcoidosis can be found in 5 - 15 % of patients with sarcoidosis, whereas central neurosarcoidosis occurs in about 5 % of patients. Diagnosis is based on the clinical presentation of morphologic changes in different organs (lung, liver, etc.) in patients with sarcoidosis, MRI of the brain, values of enzyme (ACE) in serum and liquor and CT-study, but definitive diagnosis can only be made by biopsy.

Case discussion: We present a 37 y/o female with sudden loss of vision in both eyes and occasional occurrence of dizziness and tingling in the tongue. We use MRI examinations to present the parenchymal, leptomeningeal and cranial nerve involvement. The disease began with changes in left cheek, arms and both hands. Definitive diagnosis is made by biopsy.

Conclusion: MRI is a high sensitive tool for diagnostic evaluation and follows up of patients with neurosarcoidosis. MRI studies show CNS inflammation, but lack of specifics, making the ascertainment of neurosarcoidosis a clinical challenge.