
# PROLONGED FEVER AS A SIGN OF NEUROSARCOIDOSIS RELAPSE

*LJUBIČIĆ L.[1], Hećimović A.[1], Janković Makek M.[1], Rnjak D.[1], Mihelčić Korte D.[1], Džubur F.[1], Glodić G.[1], Pavliša G.[1], Krpina K.[1], Čorak L.[1], Batarilo Hađar M.[1], Samaržija M.[1]*

[1] University Hospital Centre Zagreb, Zagreb, Croatia
*Clinic for Respiratory Diseases ˝Jordanovac˝*

**Objective:**

Sarcoidosis is a multisystemic granulomatous disease of unknown etiology mostly affecting the lungs, lymph nodes of the pulmonary hilus, eyes, and skin. It can also affect other structures including the central and/or peripheral nervous system. Neurosarcoidosis diagnosis is challenging because of its rarity and diversity of manifestations. We describe a case of neurosarcoidosis relapse which presented as a prolonged fever after SARS-CoV-2 vaccination.

A 54-year-old female patient presented with a fever of unclear etiology. In 2016, the patient was diagnosed with neurosarcoidosis involving also eyes and the mediastinal lymph nodes. She was initially treated with corticosteroids, which were later discontinued after 4 years of treatment and the patient was on maintenance therapy with methotrexate (10 mg once a week) at admission. An extensive investigation was performed to exclude infectious etiology and other systemic diseases during the hospital stay. Laboratory tests showed normal values of inflammatory parameters (white


blood count, C-reactive protein, the procalcitonin). The results of extensive serum and cerebrospinal fluid (CSF) infectious studies are shown in table 1.  The wide autoimmune screening was negative. Multi-Slice Computed Tomography (MSCT) of the thorax and abdomen showed only mild progression of the size of the hilar and mediastinal lymph nodes without affecting lung parenchyma. No inflammatory collections were seen in the abdomen and pelvis. Magnetic resonance imaging of the head demonstrating T2 / FLAIR hyperintensity of the anterior part of both hypothalamus and increased CD4/CD8 index (>10) of analyzed cerebrospinal fluid (CSF) indicated neurosarcoidosis relapse. The patient was initially treated with prednisolone 1 mg/kg with subsequent improvement and fever cessation.

With this case described we want to highlight the variety of the clinical presentation of neurosarcoidosis. According to the literature, the most common symptoms of neurosarcoidosis are cranial nerve deficits (50%) and headache (30%). Our patient presented predominantly with fever without neurological deficits and headaches. Relapse is very common after reducing the dose of immunosuppressive drugs but before we declare something as a relapse, we must exclude infective genesis and any other unrecognized systemic disease. It is important to emphasize that patients with neurosarcoidosis require a careful assessment of the systemic manifestations.