

Cerebral toxoplasmosis presenting as a solitary space occupying lesion

Jamallulail SI¹, Cheng JT²

¹Faculty of Medicine, Royal College of Medicine Perak, Universiti Kuala Lumpur (RCMP UniKL), Ipoh, Perak, Malaysia,

²Department of Infectious diseases, Hospital Raja Permaisuri Bainun, Jalan Raja Ashman Shah, Ipoh, Perak, Malaysia

ABSTRACT

Introduction: *Toxoplasma gondii* is a ubiquitous obligate intracellular protozoa of the phylum apicomplexa which can cause significant human disease. Upon infection of an immunocompetent host, it persists in a dormant form (bradyzoite) mainly in privileged tissue such as neurons and retina. In states of compromised cell mediated immunity, these bradyzoites can reactivate into their infective replicating form (tachyzoite) and cause significant organ damage. **Case Report:** A 42-year-old single Malay man presented with a week history of right sided upper limb weakness with facial asymmetry. Physical examination revealed a right sided hemiparesis accompanied by a right facial droop. Otherwise, he was afebrile, and the rest of his physical examination was unremarkable except for presence of facial seborrhoeic dermatitis and mild oropharyngeal candidiasis. Computed tomography (CT) scan of his brain revealed diffuse white matter oedema of his left fronto-parietal lobe with associated sulcal effacement. He tested positive for the human immunodeficiency virus (HIV) with a CD4+ cell count of 32 cells/ μ L and toxoplasma immunoglobulin G (IgG) was positive. He was commenced on co-trimoxazole 1.92 g twice daily, empirically treating for cerebral toxoplasmosis. His facial asymmetry resolved within 7 days and his hemiparesis improved with physiotherapy. **Discussion:** Cerebral toxoplasmosis is an important cause for a stroke mimic in immunocompromised patients. It is classically described in patients with CD4+ cell counts of less than 100 cells/ μ L. Cerebral toxoplasmosis generally appear radiologically as multi-focal ring enhancing lesions on a contrasted CT scan. However, it may present atypically as a solitary space-occupying lesion such as in our case. This condition responds well to folate antagonists such as pyrimethamine combined with sulphonamides or co-trimoxazole, with expected clinical improvement within a fortnight. Other alternative pharmacological treatment regimens are discussed.