



POSTER

Pitfalls in suspected brain infarction—a Neuroradiologist's must know

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Abstract

Introduction: A wide range of pathologies have been associated to restricted diffusion in the corpus callosum, particularly involving the splenium; those include seizures, drug therapy, infections, malignancy, metabolic disorders and others. In all these, increased levels of cytokines and extracellular glutamate lead to an influx of water into astrocytes and neurons. The water is trapped within the cells, resulting in intracellular oedema and low ADC value on MRI, a condition termed cytotoxic oedema. The neurons and glial cells of the splenium have higher density of cytokine, glutamate, drug receptors and others.

Case presentation: A 39-year-old man with lung sarcoidosis under immunosuppression with corticoids; presented with progressive headache, drowsiness and weight loss. An inflammatory CSF with confirmed cryptococcus neoformans gave the diagnosis of CNS cryptococcosis. The patient

developed a pattern of meningitis with vasculitis developing progressive ischemic lesions in small vessel territory. On MRI there were multiple lesions with diffusion restriction, including one centred in the splenium, symmetrical. The patient improved with treatment and on follow-up MRI there were multiple ischemic sequelae but not on the splenium.

Conclusions: CNS cryptococcosis is associated to different pathological findings; one is the meningo-vasculitic pattern, with infarctions on small vessel territory. This patient presented a lesion in the splenium, which at acute phase is undistinguishable from true ischemia on MRI and might be interpreted as infarction. However, its location gives the clue, and the neuroradiologist should know that the splenium of corpus callosum is susceptible to very distinct alterations of the homeostasis and the findings on MRI are reversible in most cases.

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