

Carbon disulfide encephalopathy: Cerebral microangiopathy

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摘要

Abstract

To understand cerebral blood circulation after long-term exposure to carbon disulfide (CS₂), four patients with encephalopathy and polyneuropathy, who had worked in a viscose rayon plant, were studied. Clinical and laboratory examinations, including brain magnetic resonance images (MRI), computed tomography (CT), CT perfusion, and CT angiography, were carried out. Brain CT and MRI disclosed mild cortical atrophy in all four patients, and multiple lesions in the subcortical white matter, and basal ganglia in three patients. Brain CT angiography and perfusion revealed a statistically significant decrease of cerebral blood flow (CBF) in the total brain parenchyma and basal ganglia, and a decrease of the cerebral blood volume (CBV) in the basal ganglia and a prolonged mean transit time (MTT) in the total brain parenchyma, and the territories of the internal carotid artery (ICA), basal ganglia and occipital lobe. In conclusion, the decrease of CBV and CBF, and the prolonged MTT in the total brain parenchyma, ICA, basal ganglia and occipital lobes, indicated a microangiopathy in patients with CS₂ encephalopathy