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Scientific Abstract

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Bilateral Hemorrhagic Infarction Of The Putamen Caused By Acute Methanol Intoxication: A Case Report

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ABSTRACT

Objectives:

Acute methanol intoxication causes serious visual problems and permanent neurological dysfunctions. Methanol intoxication can be distinguished from other causes by neuroimaging findings.

Methods and Materials:

A 26-years-old male presented with cephalgia and sudden vision loss after oral ingestion of a large amount of liquid mixture with methanol based composition. There was no fever and seizures history nor trauma. Brain multislice computed tomography (CT) showed bilateral hypodense lesions on lentiform nuclei, with an incidental finding formed arachnoid cyst on the left temporal and right occipital lobes. Magnetic resonance imaging also showed late subacute symmetrical hemorrhagic lesions of putamen described on T1-weighted image showed hypo-hyper intensity, and T2WI with hypo-hyper intensity and also hemosiderin stanning on GRE unrestricted to DWI. Slightly-enhancement observed after contrast injection.

Results:

Susceptibility to methanol poisoning varies so greatly. Methanol intoxication can cause severe metabolic acidosis from the production of formic and lactic acids, visual defects caused by myelin damage at retrolaminar optic nerve and permanent neurological dysfunction ranging from drowsiness to obtundation, seizure and coma. Neuroimaging of methanol poisoning typically characterized by bilaterally symmetrical haemorrhagic necrosis of the putamen on CT contrast and more superiority magnetic resonance (MR) imaging.

CONCLUSION:

Due to depressant effects of methanol on central nervous system, brain CT has been considered as the first line diagnostic device in methanol intoxication. MR considered as secondary and more superiority imaging in methanol intoxication. Bilaterally symmetrical lesions on putamen considered as typical neuroimaging finding on methanol intoxication, distinguished from other causes of brain poisoning