

Case	(450) Methanol intoxication
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CASE PRESENTATION

A 57-year-old woman is brought to our emergency service with a 5 hours course of low level of consciousness not responding to the call, or pain and non reactive bilateral midriasis (GSC 3).

She also presented coldness and acral cyanosis. Laboratory test revealed metabolic acidosis with high GAP anion.

A non enhanced brain CT scan was performed showing bilateral symmetrical low attenuation confluent areas in subcortical white matter and both caudate and lentiform nuclei. In the infratentorial compartement bilateral symmetrical affection is also seen in the cerebellar white matter.

Diagnosis of toxic encephalopathy was made. Later, an analysis revealed high blood methanol levels, leading to the aethiological agent responsible of the clinical picture.

DISCUSSION

Methanol is a commonly used organic solvent. When ingested, it's metabolized into formaldehyde and formic acid, leading to anion gap metabolic acidosis, neurologic and end organ damage. Initial symptoms can be non-specific and can include vomiting, nausea, visual disturbances, dizziness and headache. In extreme cases, excessive intake can lead to seizures, stupor and coma.

Visual symptoms are the most specific clinical features. There is a latency period between ingestion and the onset of symptoms that can vary between 8 and 24 hours.

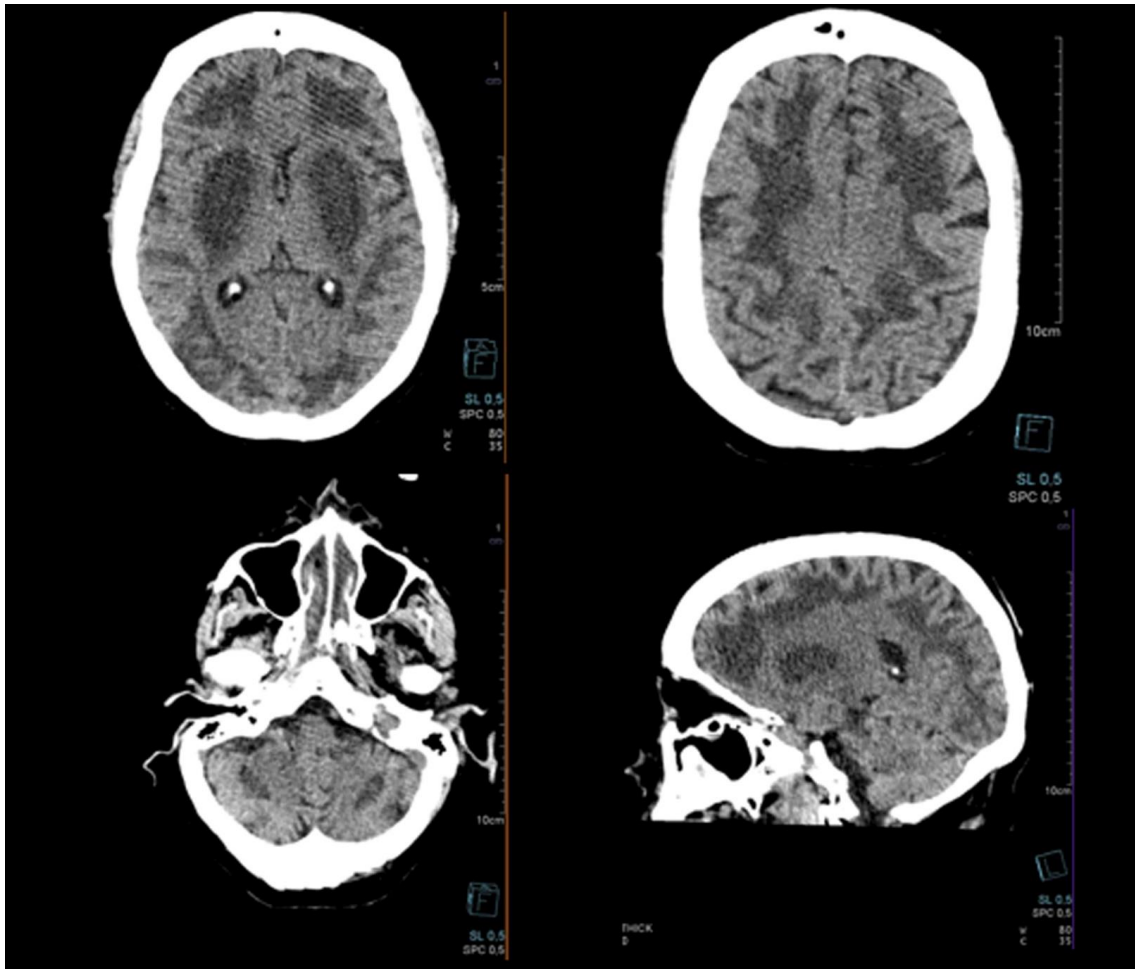
The most characteristic imaging findings is bilateral putaminal necrosis with varying grades of hemorrhage. This finding is nonspecific and also seen in other entities. Another imaging findings frequently described are: bilateral white matter edema/necrosis, intraventricular hemorrhage, diffuse cerebral edema, cerebral necrosis and optic nerve necrosis

This lesions have variable contrast enhancement as a result of brain-blood barrier damage.

However, this imaging findings are non-specific and there are several diseases that should be considered as differential diagnosis for methanol poisoning such as hypertensive hemorrhage, carbon monoxide intoxication, cyanide or organophosphate neurotoxicity and Leigh or Wilson diseases.

CONCLUSION

Methanol intoxication is a rare cause of neurotoxicity. The radiologist must know it, as well as its findings in the image; since it varies the therapeutic attitude and that can be correlated with the patient's prognosis.



BIBLIOGRAPHY

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