

# Lead Poisoning: Myoclonus Following Welding Exposure

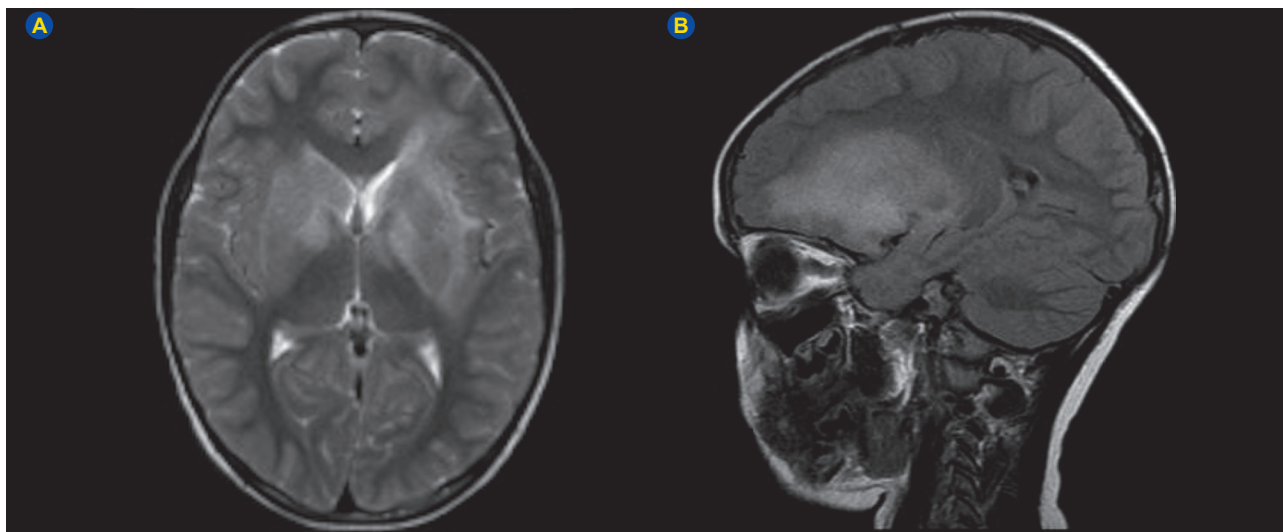
## Intoxicação por Chumbo: Mioclonias após Exposição à Soldagem



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**Figure 1** – Brain MRI. (A) Axial T2-weighted image showing bilateral hyperintensity of the basal ganglia with mass effect and corresponding; (B) sagittal view showing left frontal-subcortical involvement after lead toxicity

A previously healthy 5-year-old male presented with progressive anorexia, irritability, vomiting, mental confusion, insomnia and abnormal movements during the last 15 days. The family had moved three months before to a house adjacent to a welding garage. The neurological examination revealed a confusional state, impaired swallowing, grasp reflex, right hemiparesis, and generalized myoclonus. Magnetic resonance imaging showed bilateral basal ganglia and left frontal T2 hyperintensities (Fig. 1). Blood lead level was 27 µg/dL (normal < 5 µg/dL). Chelation therapy reversed neurologic deficits.

Environmental lead exposure is a global health concern in children interfering with the cardiac, intestine, renal, reproductive and nervous system, causing potentially permanent damage. Brain lesions usually affect the hippocampus, frontal lobe and cerebellum. Basal ganglia involvement and myoclonus are rarely reported.<sup>1,2</sup> Toxicity

from other heavy metals such as manganese, mercury and cadmium are included in the differential diagnosis of lead poisoning, as well as acute demyelinating disease, viral encephalitis and metabolic disorders.<sup>3,4</sup> Occupational history and environmental history are indispensable for the diagnosis.

### DATA CONFIDENTIALITY

Informed consent was duly obtained from the legal representative of the patient.

### CONFLICTS OF INTEREST

The authors report no financial disclosure related to this article.

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