Vitamin B12 deficiency mimicking neuroimaging features of motor neuron disease

Deficiência de vitamina B12 mimetizando aspectos de neuroimagem da doença do neurônio motor

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A 45-year-old man presented with 2-month-history of progressive gait disturbances and behavioral changes. Examination showed vibration sense compromise and pyramidal signs of release. Blood test revealed low serum vitamin B12 (120 pg/mL; normal range>200 pg/mL). Brain MRI disclosed hyperintense signal in corticospinal tracts, a similar pattern observed in motor neuron disease (MND) (Figure). Replacement therapy was started and there were motor and cognitive improvements.

Vitamin B12 deficiency may present with different neurological syndromes¹. Encephalopathy related to B12 deficiency presents with nonspecific white matter changes². Although MTC brain MRI sequence was normal, our patient presented neuroimaging features observed in MND³.

References


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