### IMAGES

# An interesting case of subacute combined degeneration

## Um caso interessante de degeneração combinada subaguda

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### ABSTRACT

A 41-year-old man presented with history of paresthesia, weakness in the legs to the point of not being able to walk, constipation and urinary retention for the last 6 months. For the previous 18 months he got deep depressed and lost 36kg after his wife died of breast cancer. Physical examination was marked by psychomotor slowing, paresis over four members, especially legs, a sensitive level on T11 and impairment of proprioception. Laboratory analysis revealed pancytopenia, macrocytosis low vitamin B12 level and high homocysteine. He had no diet restrictions. Tests for syphilis were negative. Serology for celiac disease and antibody to intrinsic factor and parietal cells were negative.

The Magnetic resonance imaging (MRI) showed on axial T2-weighted a symmetric abnormal high-intensity signal within the posterior spinal cord corresponding to the posterior funiculus, also known as inverted "V" sign (Figure 1 and Figure 2). There was no spinal compressive lesion. A diagnosis of severe subacute combined degeneration of the spinal cord by vitamin deficiency B12 was made.

Diagnosis of vitamin B12 deficiency is not straightforward because laboratory tests have certain limitations. False negative and false positive values are common when the laboratory-reported lower limit of the normal range is considered as a cutoff point for deficiency. The clinical manifestations can be subtle, highly variable, and non-specific. A late diagnosis may bring serious consequences; some residual neurological abnormalities are common in these patients, and some of them may remain with severe sequelae.

Keywords: Anemia. Subacute combined degeneration. Vitamin B12 deficiency. Neuropathy. Myelopathy.

**Figure 1.** The arrow highlight the inverted "V" sign in the posterior spinal cord on axial T2-weight MRI.



**Figure 2.** This sagital T2-weighted MRI sequence revels the cervical longitudinal extension of abnormal high-intensity signal within posterior spinal cord.



#### REFERENCES

1. Green R. Vitamin B12 deficiency from the perspective of a practicing hematologist. Blood. 2017;129(19):2603-11.

2. Briani C, Dalla Torre C, Citton V, Manara R, Pompanin S, Binotto G, et al. Cobalamin deficiency: clinical picture and radiological findings. Nutrients. 2013;5(11):4521-39.

3. Matsuura H, Nakamura T. Inverted V sign; subacute combined degeneration of the spinal cord. QJM : monthly journal of the Association of Physicians. 2018;111(1):65-66.

4. Stabler SP. Vitamin B12 deficiency. N Engl J Med. 2013;368(2):149-60.

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