

## OPTICAL NEUROPATHY DUE TO NON- NUTRITIONAL LACK OF VITAMIN B12

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## INTRODUCTION

Vitamin B12, also known as cobalamin, is a water-soluble vitamin found in foods of animal origin. Their daily needs are small, so their lack of food is exceptional. However, when enough is not ingested or when the body cannot absorb it, vitamin B12 deficiency occurs, causing symptoms such as pale or jaundice skin, feelings of fatigue, shortness of breath and dizziness, among others. Optic neuropathy is among the rarest effects of B12 deficiency, and the main clinical characteristics and consequences of this condition will be seen below, through a case report.

## GOALS

Report the case of a female patient diagnosed with chronic optic neuropathy due to vitamin B12 deficiency.

## CASE DESCRIPTION

Female patient, 59 years old, was admitted to the outpatient clinic of Hospital de Olhos do Paraná with low visual acuity (BAV) in both eyes (AO) that had been progressive for a few years. She had a vitamin B12 deficiency, despite not having any dietary restrictions. There was no history of surgery or ophthalmological treatment. On examination, visual acuity in the right eye was 0.2 and in the left eye 0.13 with no improvement in refraction. Pupillary reflexes, extrinsic ocular movement and biomicroscopy were unremarkable. On funduscopy, she presented an optic disc with bilateral temporal pallor in both eyes (AO). Vascular arches and macular region without changes. Visual field showed decreased foveal AO sensitivity. Optical coherence tomography (OCT) examination showed loss of ganglion cells and retinal fibers in the temporal sector in AO. The patient

presented laboratory tests with a vitamin B12 level of 118 pg/ml. Given the history, clinical findings and complementary exams, the patient was diagnosed with chronic optic neuropathy due to vitamin B12 deficiency. The patient was advised to investigate the etiology of the deficiency and perform intravenous replacement. **CONCLUSION:** Vitamin B12 deficiency is an etiology that must be considered relevant in cases of optic neuropathy, given the increase in the vegan vegetarian population and pathologies with absorption disorders. This report reinforces the importance of assessing vitamin B12 deficiency in cases of suspected neuropathies, as it is a treatable disease and, if diagnosed early, has a good prognosis. However, a late diagnosis can cause irreversible loss of vision.