



Clinical Image

Incomplete Left Third Cranial Nerve Palsy of Microvascular Etiology

Sara Tereso¹ , Elisabete Mendes² , Tânia Vassalo³, Carlos Machado e Costa⁴

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¹Resident in Internal Medicine Training, Department of Internal Medicine, Unidade Local de Saúde do Oeste – Hospital Caldas da Rainha, Caldas da Rainha, Portugal; ORCID: <https://orcid.org/0000-0001-9503-7049>.

²Resident in Internal Medicine Training, Department of Internal Medicine, Unidade local de Saúde do Alto Alentejo – Hospital de Portalegre, Portalegre, Portugal, ORCID: <https://orcid.org/0000-0002-1994-7849>.

³Hospital Assistant in Internal Medicine, Department of Internal Medicine, Unidade local de Saúde de Santa Maria – Hospital de Santa Maria, Lisboa, Portugal.

⁴Senior Consultant in Internal Medicine, Casa Santa Maria (RNCCI/ERPI), Lisboa, Portugal; ORCID: <https://orcid.org/0000-0003-4448-4169>.

Corresponding Author:

Sara Lourenço Tereso, ORCID: <https://orcid.org/0000-0001-9503-7049>, Rua Diário de Notícias, 2500-176, Caldas da Rainha, Portugal.

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Image Case Presentation:

A 71-year-old man with uncontrolled hypertension and dyslipidemia presented to the emergency department with binocular diplopia, more pronounced at near, and left eyelid ptosis. He denied headache, ocular pain, jaw claudication, visual acuity changes, or other neurological symptoms. On examination, he had isocoric and reactive pupils, left eyelid ptosis, left eye exo-hypotropia (Figure 1), horizontal diplopia on dextroversion and vertical diplopia on infraversion, with limitation of adduction and infraduction. The remaining neurological examination was unremarkable. Laboratory tests showed no relevant abnormalities. Cranial CT and CT angiography revealed no parenchymal lesions, extra-axial collections, or aneurysms. During hospitalization, he remained hemodynamically stable, with normalization of blood pressure after starting ramipril. Etiological workup showed negative autoimmune and infectious screening, HbA1c 5.7% and LDL-c 108 mg/dL. Brain MRI demonstrated hyperintensities in the corona radiata and bilateral centrum semiovale, consistent with chronic microvascular disease, without compressive lesions along the oculomotor pathway. Neurology diagnosed incomplete third cranial nerve palsy of probable microvascular etiology. Diplopia resolved during hospitalization, with residual ptosis. At neuro-ophthalmology follow-up, he had normal ocular motility, without diplopia or ptosis.

Third cranial nerve palsy may result from compressive, infectious, inflammatory, or microvascular ischemic causes [1], with incidence increasing with age [2] and peaking in the 70s and 90s [2]. In adults with vascular risk factors, microvascular etiology is the most frequent, particularly when the pupil is spared [1]. Exclusion of aneurysm, neoplasm, and head trauma is mandatory [1–4]. Prognosis is generally favorable, with complete recovery within weeks after strict control of hypertension and dyslipidemia [1].

Keywords: Oculomotor nerve palsy, Microvascular ischemia, Diabetes Mellitus, Arterial Hypertension.



Figure 1: Left eyelid ptosis, left eye exo hypotropia consistent with incomplete third cranial nerve palsy.

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