

TOLOSA–HUNT SYNDROME IN ADOLESCENCE: A RARE CAUSE OF SECONDARY HEADACHE AND PAINFUL OPHTHALMOPLEGIA

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Background. Tolosa–Hunt syndrome (THS) is a rare cause of secondary headache and painful ophthalmoplegia attributed to idiopathic granulomatous inflammation of the cavernous sinus, superior orbital fissure, or orbital apex. Although well described in adults, pediatric-onset THS is exceptionally uncommon and represents a significant diagnostic challenge because of its rarity and broad differential diagnosis. We report the case of an adolescent with THS whose clinical presentation was characterized by unilateral headache, facial pain and diplopia.

Methods. We retrospectively reviewed the clinical, neuroradiological, laboratory, and therapeutic data of a 15-year-old girl referred to a tertiary Pediatric Headache Center for progressive unilateral headache, facial pain and diplopia. Diagnostic work-up included neurological and neuro-ophthalmological assessments, contrast-enhanced brain MRI, cerebrospinal fluid analysis, and investigations aimed at excluding infectious, autoimmune, vascular, neoplastic, and systemic causes.

Results. The patient presented with left frontotemporal headache, facial pain, and otalgia, followed within 24 hours by binocular diplopia. Initial neurological assessment in the emergency setting was unremarkable; however, subsequent evaluation revealed left ptosis, exotropia, anisocoria, and partial third cranial nerve palsy. Contrast-enhanced MRI demonstrated an area of enhancing inflammatory tissue involving the left cavernous sinus, extending to the orbital apex and adjacent dura, associated with mild ipsilateral proptosis. Diagnostic investigations excluded alternative causes. Based on the clinical presentation, neuroradiological findings, and exclusion of the main differential diagnoses, THS was diagnosed according to ICHD-3 criteria. Treatment with intravenous methylprednisolone (1 g/day for 5 days) resulted in complete pain resolution within 48 hours and progressive improvement of oculomotor dysfunction.

Conclusions. This case highlights the importance of considering THS in the differential diagnosis of adolescents presenting with unilateral headache and progressive painful ophthalmoplegia. Despite its exceptional rarity in pediatric patients, early recognition through dedicated imaging of the cavernous sinus region and systematic exclusion of alternative diagnoses is essential for prompt treatment and may reduce diagnostic delay.