



PO 10

SURGICAL TREATMENT OF FOURTH CRANIAL NERVE PALSY: A CASE SERIES

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Purpose: To describe 4 cases of fourth cranial nerve palsy with different clinical presentations and corresponding tailored surgical techniques to correct ocular misalignment, diplopia and/or substantial abnormal compensatory head posture.

Methods: Retrospective and observational case series study. All cases were followed in the Strabismus clinic of the Ophthalmology Department of Centro Hospitalar Universitário de S. João (Porto, Portugal).

Results: Case 1 highlights a long-term congenital fourth nerve palsy in a 48-year-old patient, with significant inferior oblique (IO) overaction, successfully corrected with a recession of the IO. Case 2 consists of a 43-year-old patient with subacute onset of iatrogenic fourth nerve palsy, successfully corrected with a superior oblique (SO) tuck (significant intraoperative laxity of the SO muscle was evident in the forced duction test). Case 3 highlights a congenital fourth nerve palsy in a 2-year-old patient, whose abnormal head posture persisted despite anterior transposition of the left IO due to left excyclotropia, which was afterwards successfully corrected with a Harada-Ito procedure. Case 4 consists of a 32-year-old healthy patient, with subacute onset of idiopathic fourth nerve palsy (no history of trauma), who did not present IO overaction and had low potential for SO strengthening procedures. A recession of the ipsilateral superior rectus (SR) and the contralateral inferior rectus (IR) with 1 muscle-width nasal transpositions were successfully performed.

Conclusions: Fourth nerve palsies present multiple ocular motility patterns with varying degrees of SO underaction, IO overaction and cyclodeviations. To successfully correct them, one must study extensively the affected patient and understand the predominant anomaly, performing an individualized surgical treatment.