

## **Benign Recurrent Unilateral Abducens (6th) Nerve Palsy in 14 Months Old Girl: A Case Report**

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**Abstract :** Background: Benign, isolated, recurrent sixth nerve palsy is very rare in children. Here we report a case of recurrent abducens nerve palsy with no obvious etiology. It is a diagnosis of exclusion. A recurrent benign form of 6th nerve palsy, a rarer still palsy, has been described in the literature, and it is of most likely secondary to inflammatory causes, e.g, following viral and bacterial infections. Purpose: To present a case of 14 months old girl with recurrent attacks of isolated left sixth cranial nerve palsy following upper respiratory tract infection. Observation: The patient presented to ophthalmology clinic with sudden onset of inward deviation (esotropia) of the left eye with a compensatory left face turn one week following signs of upper respiratory tract infection. Ophthalmological examination revealed large angle esotropia of the left eye in primary position, with complete limitation of abduction of the left eye, no palpebral fissure changes, and abnormal position of the head (left face turn). Visual acuity was normal, and no significant refractive error on cycloplegic refraction for her age. Fundus examination was normal with no evidence of papilledema. There was no relative afferent pupillary defect (RAPD) and no anisocoria. Past medical history and family history were unremarkable, with no history of convulsion attacks or head trauma. Additional workout include CBC. Erythrocyte sedimentation rate, Urgent magnetic resonance imaging (MRI), and angiography of the brain were performed and demonstrated the absence of intracranial and orbital lesions. Referral to pediatric neurologist was also done and concluded no significant finding. The patient showed improvement of the left sixth cranial nerve palsy and left face turn over a period of two months. Seven months since the first attack, she experienced a recurrent attack of left eye esotropia with left face turn concurrent with URTI. The rest of eye examination was again unremarkable. CT scan and MRI scan of brain and orbit were performed and showed only signs of sinusitis with no intracranial pathology. The palsy resolved spontaneously within two months. A third episode of left 6th nerve palsy occurred 6 months later, which recovered over one month. Examination and neuroimaging were unremarkable. A diagnosis of benign recurrent left 6th cranial nerve palsy was made. Conclusion: Benign sixth cranial nerve palsy is always a diagnosis of exclusion given the more serious and life-threatening alternative causes. It seems to have a good prognosis with only supportive measures. The likelihood of benign 6th cranial nerve palsy to resolve completely and spontaneously is high. Observation for at least 6 months without intervention is advisable.

**Keywords :** 6th nerve palsy, abducens nerve palsy, recurrent nerve palsy, cranial nerve palsy

**Conference Title :** ICPOCE 2021 : International Conference on Pediatric Ophthalmology and Corneal Erosion

**Conference Location :** Paris, France

**Conference Dates :** September 20-21, 2021