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50 Years Ago in *THE JOURNAL OF PEDIATRICS*

Sixth Cranial Nerve Palsy in the Neonate

Reisner SH, Perlman M, Ben-Tovim N, Dubrawski C. Transient lateral rectus muscle paresis in the newborn infant. *J Pediatr* 1971;78:461-5.

In *The Journal* 50 years ago, Reisner et al presented this study on 6360 neonates. The infants were examined at the age of 2-4 days, all with normal neurologic findings apart from unilateral lateral rectus muscle paresis in 35 infants. There were more primipara mothers and more use of oxytocin in the infants with paresis but no signs of birth trauma or a greater rate of instrumental deliveries. By 6 weeks of age, the paresis had resolved in all but 1 child. The authors concluded that the most likely cause was increased intracranial pressure during delivery, causing transient damage to the sixth cranial nerve. De Grauw and Rotteveel in 1983 described identical findings in 3 neonates, but in their study forceps delivery was the hypothesized culprit.¹

Damage to the sixth cranial nerve can be caused by infections, malignancies, and vascular events; and most commonly in the neonate—by trauma. The prognosis in the neonatal population is good, and in the published cases it resolved within 6 weeks, which is also thought to be the sensitive period for the development of stereopsis and normal visual acuity—meaning that these infants have an excellent prognosis.²

Transient lateral rectal muscle palsy after delivery is most likely induced by damage to the sixth cranial nerve due to birth trauma. A current review from 2016 concluded that the majority of cases of strabismus in the neonatal period are benign and resolve without intervention,³ in line with Reisner's findings 50 years ago. Mansoor et al recommend referral to an ophthalmologist when strabismus remains after 3-6 months for prevention of amblyopia.³

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