

Neuro-Ophthalmology

A COMPLETE TRAUMATIC OPTIC NERVE AVULSION IN PEDIATRIC PATIENT: A TRAGIC CASE

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PURPOSE: Forced nerve fiber desinsertion at the disc margin without compromising the disc sheath is a hallmark of optic nerve avulsion. The lamina cribrosa's absence of supporting connective tissue and the loss of myelin makes the axons there particularly susceptible to damage during orbital trauma. We present a case of a child's complete optic nerve avulsion and emphasize the utility of ultrasonographic analysis in its characterization.

METHODS: Clinical case description, including retinography and ultrasound scans.

Results: After being hit by a door, an 8-year-old boy presented to the emergency department with acute loss of vision in the right eye. He had no light perception and the right pupil was dilated and unresponsive to light. Lid oedema and subconjunctival hemorrhage were present. Posterior pole examination revealed a 360-degree tear of the optic nerve head from the sclera with peripapillary hemorrhages. Subhyaloid hemorrhage and retinal pallor were also present. B-scan ultrasound revealed a hypoechoic area posterior to the optic nerve head. The diagnosis of optic nerve avulsion was immediately confirmed and a conservative approach was taken.

CONCLUSION: Optic nerve avulsion must be considered in cases of trauma evolving nerve retropulsion, anterior luxation of the globe or forced rotation of the eye. Ultrasonographic findings are highly suggestive of this condition, aiding in the diagnosis, particularly in the presence of media opacity. The prognosis is poor, with irreversible blindness as a result. This highlights how crucial it is to make a correct diagnosis to prevent receiving needless treatments.

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