

IMAGES IN CLINICAL MEDICINE

Penetrating Orbital Trauma



A 15-YEAR-OLD BOY PRESENTED WITH AN INABILITY TO OPEN HIS LEFT EYE after being assaulted with a pencil. A small laceration was noted on the left eyebrow (Panel A). An ophthalmic examination revealed no light perception; a fixed, dilated pupil; complete ptosis; complete ophthalmoplegia; a medial subconjunctival hemorrhage; and a normal fundus. The orbital apex syndrome was suspected, and emergency computed tomography showed a large pencil fragment penetrating the medial orbit, with its tip in the cranial cavity (Panel B). The central graphite component of the pencil is radiopaque, whereas the surrounding wood structure is radiolucent. A four-vessel angiogram revealed complete occlusion of the ophthalmic artery but intact anterior and posterior cerebral circulation and no penetration into the cavernous sinus. The pencil was surgically removed, restoring ophthalmic-artery flow. The patient's vision and cranial-nerve deficits did not improve. Penetrating trauma to the orbit can easily involve critical structures within the cranial cavity, despite a benign external appearance, and therefore necessitates thorough ophthalmic and neurologic examinations.

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