VISUAL RECOVERY FOLLOWING TREATMENT WITH CORTICOSTEROID IN INDIRECT TRAUMATIC OPTIC NEUROPATHY: A CASE REPORT

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PURPOSE: To report a patient who developed indirect traumatic optic neuropathy (ITON) with considerable visual loss after forehead trauma and who had marked visual acuity improvement after being treated with megadose methylprednisolone.

METHOD: A 23-year-old male sustained blunt forehead trauma after a fall from about 3 meters. He had periorbital edema and there was loss of vision in the left eye. At presentation, the visual acuity in the injured eye was hand motion and there was afferent pupillary defect, despite the normal appearance of the fundus examination. Computed tomography imaging demonstrated a fracture of the left orbital roof and pneumoorbita. The optic canal was confirmed intact and no retrobulbar hematoma was detected. Magnetic resonance imaging revealed that the left optic nerve had swelling on the distal part of the optic nerve which was assessed on coronal sections. The patient was diagnosed with ITON and intravenous loading megadose methylprednisolone therapy administered for 3 days and was continued with oral prednisolone 1 mg/kg daily for two weeks.

RESULTS: The vision in the traumatized eye improved to the level of 5/10 at one month after therapy. Altitudinal visual field defect and afferent pupillary defect was detected in the left eye.

CONCLUSIONS: Following closed head trauma, if there is decreased visual acuity and an APD in the absence of intraocular pathology, the clinician should suspect trauma to the optic nerve. Early treatment with steroids may improve the vision.