Volume : 4 | Issue : 6 | June 2015 • ISSN No 2277 - 8179

Research Paper

A Case Report of Traumatic Optic Neuropathy - Due to Injury with Retained Wooden Stick In Right Orbit

Medical Science

KEYWORDS : wooden foreign body, traumatic optic neuropathy, CT scan, corticosteroids.

Dr.K.VijayaSekhar	Assosciate Professor of Ophthalmology, Siddhartha Medical College, Old Government General Hospital, Hanuman Pet, Vijayawada,AndhraPradesh
Dr. VMVRV PrasadaRao	Assosciate Professor of Ophthalmology, Siddhartha Medical College, Old Government General Hospital, Hanuman Pet, Vijayawada,AndhraPradesh
Dr.P.V. Sri Rama Chandra Murthy	Assistant Professor of Radiology, Siddhartha Medical College, Vijayawada, Andhra Pradesh

ABSTRACT

A50 years old male patient presented with the history of accidental fall in to pond and sustained injury by wooden stick which retained in right orbit. O/E swelling of both lids, with mild proptosis, wooden piece seen piercing through lower lid. Visual acuity –NO Perception of light CT scan of right orbit showing foreign body in the, medially in right orbit, Extending up to apex of orbit. Under local anesthesia the Foreign body (wooden piece) removed in totally from right orbit. Direct injury to optic nerve is common with fracture bone fragments in optic canal, but penetrating object directly causing optic nerve injury is that too without involving eyeball is rare as in our case

Case report

A50 years old male patient presented to the ophthalmology department, Government General Hospital, Vijayawada, with the history of accidental fall in to pond and sustained injury by stick which retained in right orbit.O/E swelling of both lids, with mild proptosis, wooden piece seen piercing through lower lid of right eye, Pupil dilated sluggishly reacting to light. Visual acuity –NO Perception of light.All ocular moments are normal ,Noperforation ofeye ball..

CT scan of right orbit showing foreignbody in the, medially in right orbitextending up to apex of orbit,injuring optic nerve.

Under local anesthesia the Foreign body(wooden piece)removed in totally from right orbit.All ocular movements normal, eye ball intact,but vision not regained still NO PL.weadministered the IVMethyl -prednisolen30mg/kg bolus,followed by 5.4mg/kg for 3days, oral steroids for 6weeks.but no improvement in vision, indicating direct trauma to optic nerve ,with wooden stick causing damage to right optic nerve,without causing damage to eye ball or other orbital contents.

Discussion:

Traumatic optic neuropathy is a condition in which acute injury to the optic nerve from Direct or Indirect trauma resulting in vision loss. 1.Indirect injury to optic nerve common, due to Transmitting shock. 2.Direct injury to optic nerve is common with fracture bone fragments in optic canal, but penetrating object directly causing optic nerve injury is rare as in our case. 3.orbitalhemorrhage and optic nerve sheath hematoma can cause traumatic optic neuropathy by compression of optic nerve.Most common cause for traumatic optic neuropathy is Road Traffic Accident.

Diagnosis: by 1.visual acuity2.colour vision3. Afferent pupillary defct.4.Fundoscopy: Optic disc normal in early stage. After 3-6weeks opticatrophy with disc changes seen.
Neuroimaging like 1.CTSCAN 2.M.R.I.

Treatment : 1.High dose ofCorticosteroids 2.Surgical remover of foreign body and Decompression ofhematoma ,correction of fractures.

Complications 1.Meningitis 2.C.S.F.leak.

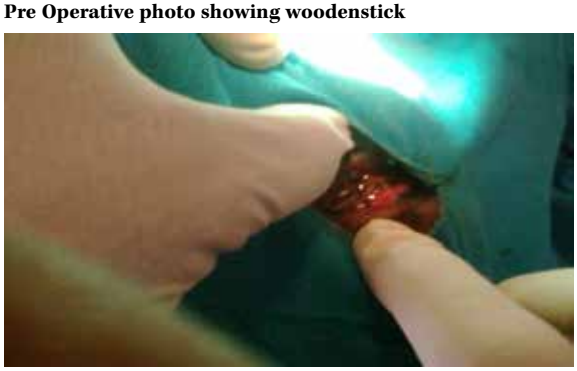
Prognosis:For visual acuity improvement> 3 lines was seen. 57% of untreated.52% of steroid treatment3.30%in surgery group.

Scan – Right orbit showing wooden stick foreign body along the Medial wall, injuring optic nerve

Volume : 4 | Issue : 6 | June 2015 • ISSN No 2277 - 8179

CT Scan right orbit showing Hematoma along the Medial wall of the orbit

Pre Operative photo showing woodenstick



Removed wooden foreign body

Post operative view of the Eye

REFERENCE

1. Levin l Atal the treatment of TON the international optic nerve trauma study -199-106(7)page1268-69. | 2 Youngw. NASCIS national acute spinal card injury study Neurotrauma 1990.(7) p-113-4- | 3.Edwardeso.etal final results MRC S H,arandam placebo-controlled study of I.V. corticosteroids