ISSN - 2250-1991 | IF : 5.761 | IC Value : 79.96

Original Research Paper OPHTHALMOLOGY

A CASE REPORT- OCULAR TRAUMA BY STUCK IRON ROD IN UPPER LID WITHOUT PENETRATING INJURY

Dr Pradnya Vitthal Gawai — Post Grauate Second Year Student Department of Ophthalmology, Institute- Mahatma Gandhi Institute of Medical Sciences Sewagram, Wardha 442102

Dr Ajab Dhabarde — Associate Prof. Department Of Ophthalmology, Mahatma Gandhi Institute of Medical Sciences Sewagram, Wardha

ABSTRACT

Background- Traumatic optic neuropathy is a condition in which acute injury to optic nerve from direct or indirect trauma result in vision loss .The most common cause of traumatic optic neuropathy is indirect injury to optic nerve which is thought to be result of transmitted shock from an orbital impact to intra-canalicular portion of optic nerve.

Case presentation- A-8-year-old female child was referred to the Department of Ophthalmology, who met with trauma by hooked four feet iron rod, which was stuck in her right upper eye lid through palpebral conjunctival side with other end of the rod held by her relatives. The iron rod was removed under topical anaesthesia under X-ray orbit guidance. On ophthalmological evaluation right eye shows relative afferent pupillary defect, restriction of extra-ocular movements. There was no evidence of any penetrating injury.

Conclusion- X-ray findings are essential in every case of trauma to rule out intra-ocular or intra-orbital foreign body, extent of foreign body and orbital fractures.

KEYWORDS traumatic optic neuropathy; ocular trauma; X-ray orbit

INTRODUCTION

BACKGROUND

Traumatic optic neuropathy is a condition in which acute injury to optic nerve from direct or indirect trauma result in vision loss. The most common cause of traumatic optic neuropathy is indirect injury to optic nerve which is thought to be result of transmitted shock from an orbital impact to intra canalicular portion of optic nerve. Blunt trauma forms a major part of ocular trauma .It causes ocular damage by the coup and counter coup mechanism or by ocular compression. Concept of coup and counter coup injury was first introduced to explain brain damage caused by blunt trauma to the head by Courville.1 Childern mostly meet with blunt ocular trauma by ball, stone or any other toy. Here we described an unusual case involving 8-year-old female child who met with trauma by hooked iron rod, which was stuck in her upper eye lid through conjunctival side .The iron rod was removed under topical anaesthesia without any intraocular injury.

CASE PRESENTATION

A 8-year-old female child was referred to the Department of Ophthalmology, who met with trauma by hooked four feet iron rod, which was stuck in her right upper eye lid through palpebral conjunctival side with other end of the rod held by her relatives .She was having sever pain with movement of iron rod and watering in her right eye. She was unable to open her right eye.

Fig.1 Photograph of a 8-year old child with iron rod stuck in her right upper lid

Fig. 2 one end of rod stuck in her right upper eye lid through palpebral conjunctival side with other end of the rod held by her relatives

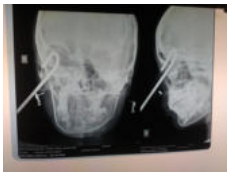

Fig.3showing X-ray right orbit PA and lateral.

Her X-ray right orbit posterio-anterior and lateral view was done to see the extent of the iron rod. Immediately after assessing the X-ray right orbit, the iron rod was removed under topical anaesthesia. The rod was first moved vertically through ninety degree, then made horizontal and removed. On ocular examination, her vision in right eye perception of light was present and projection of light accurate in all four quadrant, relative afferent pupillary defect was present, extra-ocular movement were restricted. She developed right divergent squint 15 degree. Left eye was within normal limits. Visual evoked potential of right shows no evidence of p100 waveform.

Fig. 4 photograph of patient after removing the rod.

On Ultrasonography right eye shows preseptal oedema with intra-ocular component normal. Computer tomography head reveal extra-cranial Soft tissue swelling with subcutaneous emphysema in right infra-orbital and right preseptal region. She was started on injection methylprednisolone 240mg IV OD for 3 days, followed by tapering oral prednisolone. She gradually improved.

CONCLUSIONS

The coincidence with the traumatic event, the absence of any eye pathology prior to the traumatic event and the exclusion of any alternative cause for an optic nerve swelling prompted the diagnosis in this patient of a post-traumatic unilateral optic nerve contusion with corresponding visual deficit which quickly responded to steroid therapy. This approach was successful in the

case reported here but the current body of evidence still lacks a validated approach to the management of traumatic optic neuropathy and each case needs to be individually assessed. X-ray findings are essential in every case of trauma to rule out intra-ocular or intra-orbital foreign body, extent of foreign body and orbital fractures. Awareness is essential in parents to prevent such injuries.

References

1 Pai SG, Kamath SJ, D'Souza S, Dudeja L. A Clinical Study of Blunt Ocular Trauma in a Tertiary Care Centre. Online J Health Allied Scs. 2013;12(2):10. Available at URL: http://www.ojhas.org/issue46/2013-2-10.html