



A rare case report of post-traumatic luxation of globe with optic nerve avulsion.

KEYWORDS

Dr Sapan Shah

Year Residents, Department of Ophthalmology, Shree C.H.Nagari Eye Institute, Ahmedabad

Dr Rutu Modh

Year Residents, Department of Ophthalmology, Shree C.H.Nagari Eye Institute, Ahmedabad

Dr Paresh Varsat

Year Residents, Department of Ophthalmology, Shree C.H.Nagari Eye Institute, Ahmedabad

Dr Arpan Chawala

Fellow oculoplasty, MS ophthalmology, Shree C.H.Nagari Eye Institute, Ahmedabad

Dr Nitin Trivedi

Professor of Ophthalmology, Shree C.H.Nagari Eye Institute, Ahmedabad

Introduction:

Road traffic accidents are common in India. After road traffic accidents, patients present with various types of complaints among which globe rupture, corneal tear, lid tear are most common. It is one of the leading cause of preventable blindness in India. There are two types of injuries in road traffic accident

Open globe injury

-penetrating
-IOFB
-perforating

2. Closed globe injury

-contusion
-lamellar laceration
-subluxation (rarely)

OPEN GLOBE INJURIES:- The penetrating injuries are all potentially serious and should be treated immediately due to gravid factors such as immediate damage to the eye, post traumatic iridocyclitis, introduction of infection and sympathetic ophthalmitis.

CLOSED GLOBE INJURIES:- Such injuries generally follow blunt trauma and mostly known as contusion or concussion injuries. Except luxation of eyeball, it is very serious condition in case of optic nerve avulsion.

Here we are presenting a case of 11 year old female with subluxation of eyeball after road traffic accident. We operated on her for seven different surgeries and she felt cosmetically better inspite of no light perception. So it is essential to start immediate management, not only for better visual outcome but also for good cosmetic result.

Case Report:

An 11 year old female presented at shree C. H. Nagri eye hospital in emergency ward with complaints of right eye globe luxation with no perception of light after injury, in road traffic accident. with history of forehead and nasal-bridge skin suturing done at other hospital. CT scan (brain and face) showed fractured frontal bone extending into frontal sinus, fracture bilateral nasal bone and nasal septum, fracture of medial wall, lateral wall and roof of orbit with soft tissue injuries causing displacement of right globe anteriorly and laterally.

(surgery 1) Patient was operated for globe repositioning with temporary tarsorrhaphy with lateral canthotomy under general

anaesthesia on next day and patient was cosmetically better with post operative vision was no light perception.

(surgery 2) Tarsorrhaphy release was done after 7 days. After one month patient had non healing corneal epithelial defect and she was tried for bandage contact lens but it was misfitting to eye.

(surgery 3) Then patient was operated for Amniotic membrane transplantation with tarsorrhaphy.

(surgery 4) After 14 days, tarsorrhaphy was released. corneal epithelial defect was healed.

(surgery 5) Patient was suffering from hypotropia since first post operative day. After 2 month of tarsorrhaphy release patient was operated for inferior rectus recession. On next post-operative day patient was cosmetically better with no perception of light.

(surgery 6) Right sided mucocele was found after 20 days of last operation and medical management was given, but it was not improved. We found ROPLAS test positive after 45 days and patient was operated for classical DCR after 2 months. But surgery was not successful and patient came with same complaint of watering from eye with ROPLAS test positive so,

(surgery 7) Right eye re classical DCR with intubation was done after 3 months. Now patient comes for routine follow up to C.H.Nagri eye hospital without any complaints, and she is cosmetically better.

Pre-operative photo:

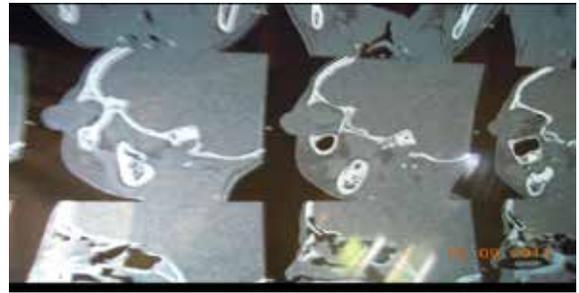
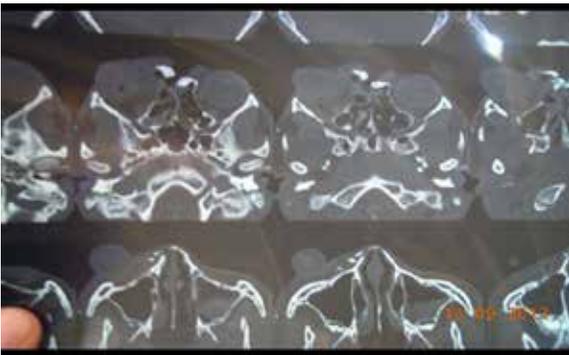


Post operative photo:**Recent photo:****CT Scan:****CT scan (brain and face) :**

fracture frontal bone extending into frontal sinus,

fracture bilateral nasal bone and nasal septum,

fracture of medial wall, lateral wall and roof of orbit with soft tissue injuries causing displacement of right globe anteriorly and laterally.

**Discussion:**

The majority of ocular trauma occurs due to accidental injuries at occupation and household work. Closed globe injuries are more common than open globe injuries and they have good prognosis, except subluxation of eyeball.

Open globe injuries which present after 24 hrs and with poor vision have poor prognosis.

Immediate treatment is needed in all condition of subluxation.

Many conditions lead to globe luxation like vomiting in pregnant women, pt with floppy eyelids , shallow orbit, hyperthyroidism. In all condition of luxation globe should be repositioned back as soon as possible. First it should be try with forceps to reposit back if not than operative intervention like canthotomy should be done and globe should be repositioned back. Until globe reposition done, for corneal maintenance we should apply eye shield with lubricating ointment. After the reposition we should take care that it won't come out again for that we can do temporary tarsorrhaphy.

After the globe luxation vision is always dependant on optic nerve status, optic nerve is normal than vision can come back to normal position and like in our case if total optic nerve avulsion is there then we won't get any visual outcome.

Moto of the oculoplasty surgeon is to give good cosmetic correction even without perception of light. That we had done in this patient with many surgeries ..

Conclusion:

We found that early treatment of road traffic accident can lead to good prognosis with good cosmetic outcome.

REFERENCE

- Alexandrakis G, Tse DT, Chang WJ. Spontaneous globe luxation associated with floppy eyelid syndrome and shallow orbits. Arch Ophthalmol 1999;117:138-9 | 2. Lyle DJ, McGaxic JS. The cause of voluntary forward luxation of the eyeball. Am J Ophthalmol 1936;19:316-20 | 3. Johnson SM, Vestal RY. Lateral tarsorrhaphy for prevention of postoperative complications resulting from globe luxation. J Cataract Refract Surg 2003;29:1831-3 | 4. Apostolopoulos M, Papaspiros A, Damanakis A, Theodossiadis G, Moschos M. Bilateral optic neuropathy associated with voluntary globe luxation and floppy eyelid syndrome. Arch Ophthalmol 2004;122:1555-6 | 5. Love JN, Bertram-Love NE. Luxation of the globe. Am J Emerg Med 1993;11:61-3 | 6. Carlson RE, Scheribel KW, Hering PJ, Wolin L. Exophthalmos, global luxation, rapid weight gain: differential diagnosis. Ann Ophthalmol 1982;14:724-9 | 7. Offenbach B. Dislocation (luxation) of the eyeball. N Engl J Med 1954;251:2338-9 | 8. Ruedemann A, Roberts N, Seligson A. Voluntary luxation of globes. Am J Ophthalmol 1954;37:351-4 | 9. Tse DT. A simple maneuver to reposit a subluxed globe. Arch Ophthalmol 2000;118:410-1 Figure 1. (A) Prominent luxation of the left globe that was easily induced on elevating the floppy left upper eyelid. (B) Left lateral view demonstrates spontaneous globe luxation. Reprinted with permission from Alexandrakis G, Tse DT, Chang WJ. Spontaneous globe luxation associated with floppy eyelid syndrome and shallow orbits. Arch Ophthalmol 1999;117:138-9. Vol. 107, No. 5, November 2008 © 2008 International Anesthesia Research Society 163 | Dislocation (luxation) of the eyeball. - ResearchGate. Available from: http://www.researchgate.net/publication/10357506_Dislocation_%28luxation%29_of_the_eyeball [accessed Apr 4, 2015]. |