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Clinical Profile of Patients of Ocular Injuries

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ABSTRACT: AIM: To study clinical profile of ocular trauma in a tertiary care centre.

Material and method: A Cross-sectional descriptive study was carried out in 50 patients of ocular injuries presenting to the OPD of Ophthalmology and emergency to evaluate the predisposing factors, etiology and clinical presentation. Detailed history was taken which include complete history of the mishap, the nature and circumstances of the injury occupation. Complete details of ophthalmic examination include visual profile, anterior segment with the help of slit lamp biomicroscopy, fundus examination with +90D examination and indirect ophthalmoscopy and x-ray and Ultrasonography was done.

RESULTS: Males (86.8%) outnumbered females (13.2%) and children (<16 years) constituted 46.8% of the total affected population which mostly occurred at home. Majority of the cases comprised of monocular trauma (89%). The cause of injury were road traffic accidents, sports playing & recreational activities and occupational in 32.7%, 25.5% and 20% respectively. Closed globe injuries were found to be more common accounting for 66.6% than open globe injuries, which accounted for 26.6%.

CONCLUSION: Simple measures such as education regarding the use of protective eye wear could possibly significantly decrease this preventable cause of visual disability.

KEYWORDS: Ocular Trauma, Tertiary care centre.

I. INTRODUCTION

- A. Trauma to the eye and its surrounding structures remains a leading cause of visual morbidity and blindness. Ocular trauma may range from minute corneal abrasions or sub conjunctival hemorrhage to a badly lacerated globe.
- B. Worldwide there are approximately 6 million people blind from eye injuries. [5] 2.3 million bilaterally visually impaired and 19 million with unilateral visual loss. [5] These facts make ocular trauma the most common cause of unilateral blindness.
- C. Studies indicate that one out of every 5 adults have a history of ocular trauma. [7] Ocular trauma is the most avoidable cause of childhood blindness. [6-10]
- D. Compared with any other organs in the body, the effect of injuries is far more devastating in the eye. Unusual social and economic loss results following ocular injuries.

II. PURPOSE OF STUDY

- E. The accumulation of defined epidemiological data and varied approaches to ocular trauma analysis would be helpful to plan health and clinical strategies for prevention and management of the injuries. There is paucity of studies on the profile of ocular trauma from the less developed countries. Such studies can play an important role in defining the target groups for prevention and education on ocular trauma.
- F. And also in prognosticating ocular injuries at the time of presentation, prevent many unnecessary surgical procedures, and also help ophthalmologists dealing with ocular trauma in making clinical decisions

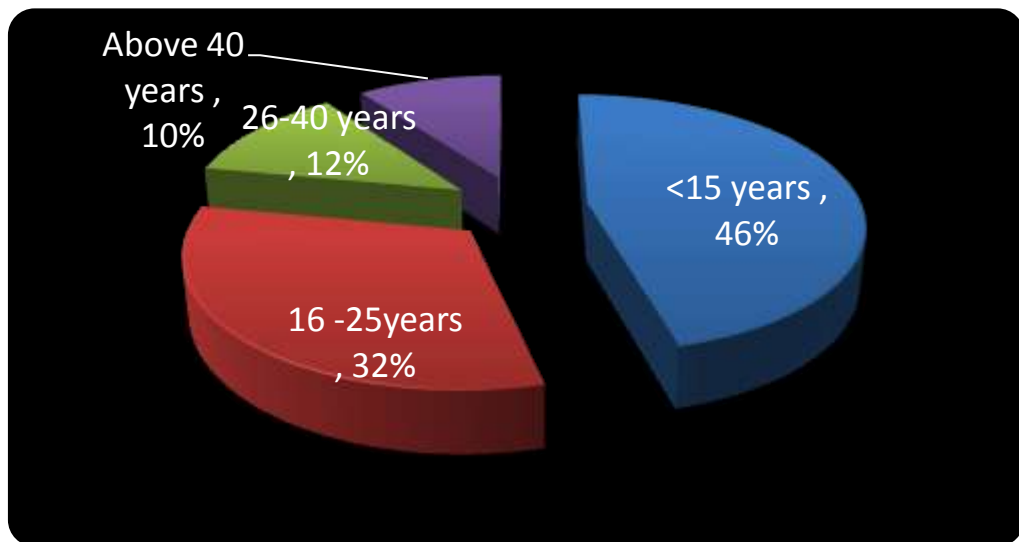
III. AIMS & OBJECTIVES:

- A. To study the predisposing factors of ocular trauma.
- B. To study the demographic characteristics of ocular trauma.
- C. To study the etiology of ocular trauma .
- D. To study the various clinical presentation of ocular trauma

IV. MATERIAL AND METHODS

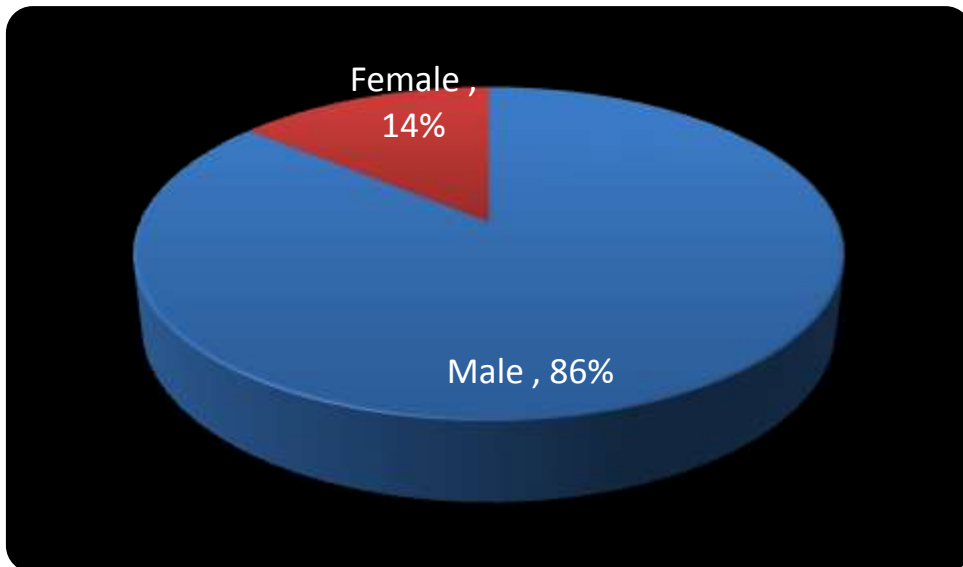
- A. Cross -sectional descriptive study was carried out in 50 patients of ocular injuries presenting to the OPD of Ophthalmology and emergency to evaluate the predisposing factors, etiology and clinical presentation..
- B. Exclusion criteria: Surgical repair done before presentation to our centre, Clinical findings suggestive of non-traumatic origin.
- C. Written informed consent was obtained from the patients.
- D. Brief history regarding the trauma.
- E. Detailed examination of anterior segment on slit lamp.
- F. Detailed examination of retina by indirect ophthalmoscope.
- G. X-Ray orbit and ultrasonography was done in all patients to rule out orbital wall fracture and IOFB.

V. OBSERVATIONS



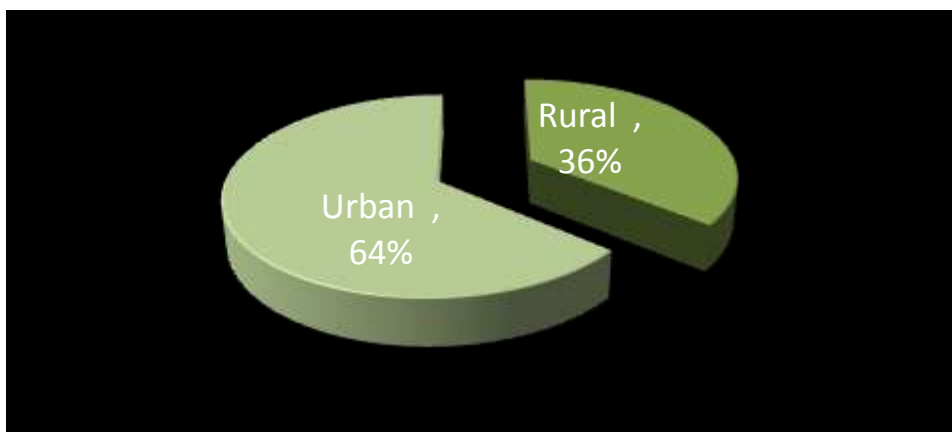
Graph no.1: Age wise distribution

- Our study showed maximum no. of patient in the age group of <15 years(46%) and occur from unsupervised games and firecracker followed by 32% in 16-25years of age group followed by 12% in 26-40% of age group and lastly 10% in above 40 years of age.
- 80% patients belonged to the working and dependable age group. This is similar to previous studies by Rahman I et. al.1



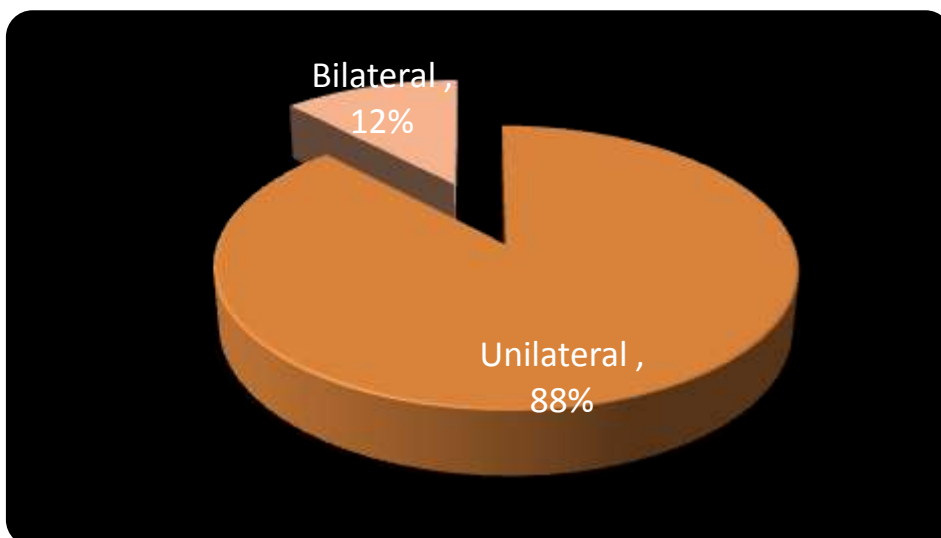
Graph no.2: Gender wise distribution

Male: female ratio was 6.1:1 This is similar to previous studies by Loon SC et. al.2



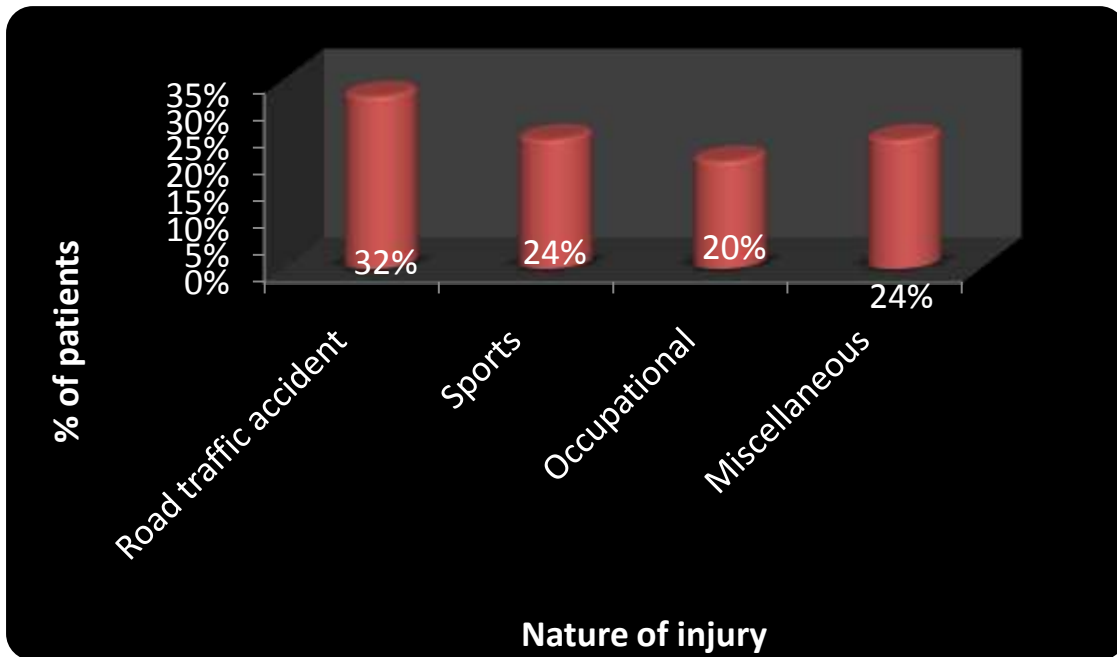
Graph no.3: Distribution according to area

- Most injuries occurred from urban location (64%) followed by rural in 36% of patients.



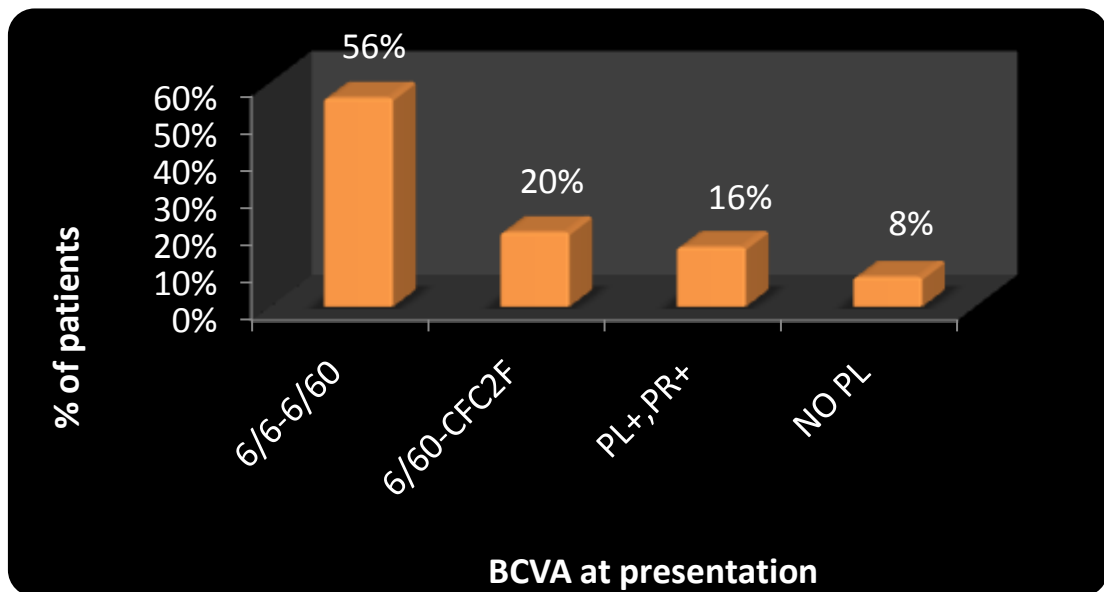
Graph no.4: Distribution of study participants according to laterality

88% of the patients had unilateral ocular involvement followed by bilateral involvement in 12% of patients.



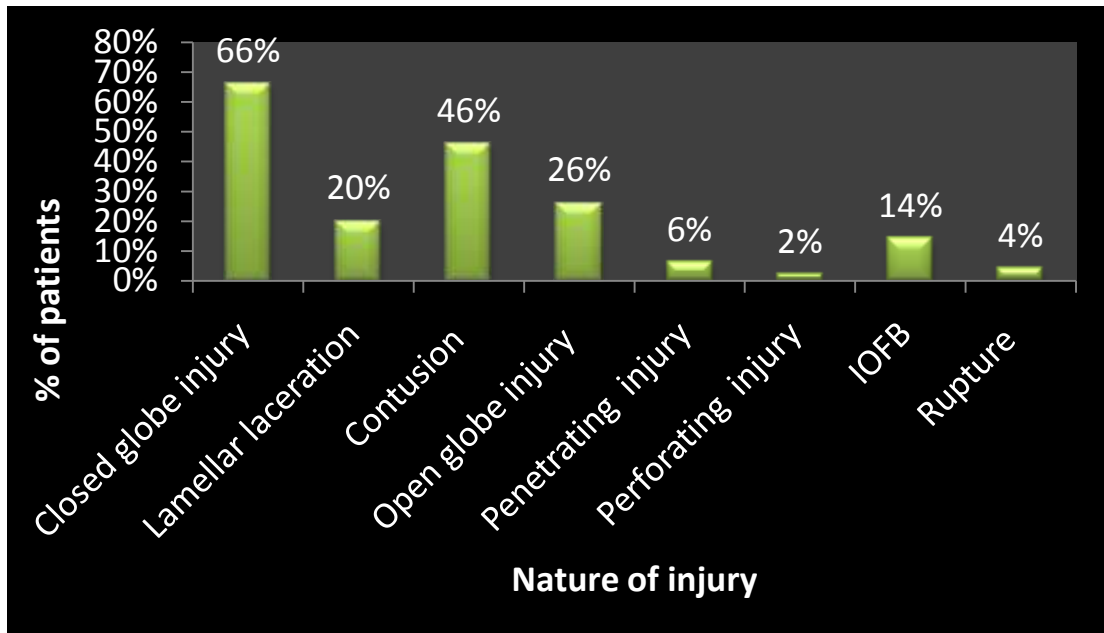
Graph no. 5: Nature of injury distribution

- Road accidents(32%) in urban are more frequent cause of injury in which a total of 80% cases had a history of alcohol consumption while presenting to the hospital.24% had sports related injuries,20% had occupational injuries,24% had miscellaneous injuries.



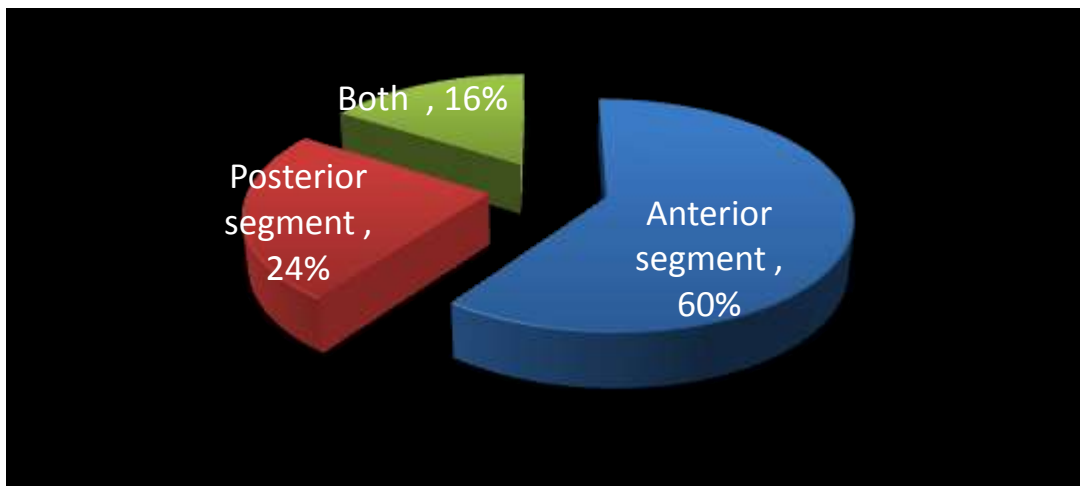
Graph no. 6:BCVA at presentation distribution

- In our study 25% had very poor vision at the time of presentation.56% of patients had vision between 6/6-6/60,20% between 6/60-CFC2F,16% PL+,PR+,8% had no PL+.Similar finding was there in the study by Titiyal and Prakash.4



Graph no 7: Types of injury according to The Birmingham Eye Trauma Terminology (BETT) System of classification of ocular injuries

- In the present study closed globe injuries were seen in 66% while open globe injuries were seen in only 26% with a ratio of 3:1. This is in total concordance with the study of Karaman et al. where ratio was similar.³



Graph no. 8: Distribution by ocular structure (segment) involved

- Injuries to the anterior segment alone were seen in 60%. 24% were found to have injuries of the posterior segment only. 16% were found to have involvement of both anterior and posterior segment.

Table 9: Clinical finding on presentation distribution

Clinical findings	No. of patients	Percentage(%)
Corneal/ Corneo scleral / Scleral Laceration	14	28%
Hyphaema	03	6%
Subluxated/Dislocated Lens	13	26%

Retained intra ocular foreign body	07	14%
Retinal Detachment/ Vitreous haemorrhage	10	20%
Traumatic optic atrophy	03	6%

Clinical finding on presentation distribution maximum no. of patients had corneoscleral laceration that is 28%, 6% had hyphaema, 26% had subluxated or dislocated lens, 14% had retained intra ocular foreign body, 20% had retinal detachment or vitreous haemorrhage, 6% had traumatic optic atrophy.

CONCLUSION

- Young males and children due to their outdoor and high-risk activities are particularly vulnerable to ocular trauma.
- This study emphasizes the need for health education regarding ocular trauma and protective measures at work place.
- Common people should be made aware regarding early referral to trauma unit to help in early treatment, lesser financial loss, early rehabilitation and better visual outcome.
- To reduce blindness due to trauma....
- Increasing incidence of RTA in younger age group is due to changing lifestyle and rash driving which we often see on road.
- Rules like “do not drink and drive” and use of helmets and safety seat belts need strict implementation.
- Most eye injuries in children are preventable and occur from unsupervised games and firecracker.

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