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**Original article**

**Study on ocular morbidity in mechanical injuries**

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**Abstract**

**Aim** - To determine the effect of mechanical injuries on the eye and visual outcome of the same.

**Materials and methods**- This was a prospective study of 100 cases of ocular trauma conducted in tertiary care hospital for one year. Included patients’ demographic details, nature and mode of injury, time interval between injury and examination, visual acuity by Snellen’s chart, Applanation tonometry in possible cases, anterior & posterior segment examination with slit lamp, direct ophthalmoscopy, indirect ophthalmoscopy, B-scan were done. CT facial bone, X-ray orbit were taken in selected cases

**Results**- Out of 100 patients, 82 were male, 18 female. Mean age of male was 34.9+/- 16.0 and female was 35.7 +/- 18.2 (yrs). Among the injuries, road traffic accidents (RTA) were 47%, assault – 23%, accidental fall – 21%, others- 9%.In RTAs, accidents by 2 wheeler was 85%.Combined injury was the commonest type (53%) followed by anterior segment injury alone.23 patients were diagnosed with traumatic optic neuropathy out of which 7 patients showed improvement with treatment and all had vision-PL and above at presentation. Open globe injuries were seen in 19 patients and accidental injury with sharp object was the most common cause. Posterior segment injury (15 patients) showed poor visual outcome (<6/60).Orbit, adnexal and anterior segment injury alone had good visual outcome.

**Conclusion-** Mechanical injuries affecting eye are more common in young males and RTAs with 2 wheelers is the most common mode of injury. Poor visual outcome was seen in open globe injuries and traumatic optic neuropathy, late presentation, poor vision at presentation.

**Key words**- Anterior segment, Posterior segment, ocular trauma, visual outcome, mechanical injury.