

IMPORTANCE OF OCULAR TRAUMA SCORE

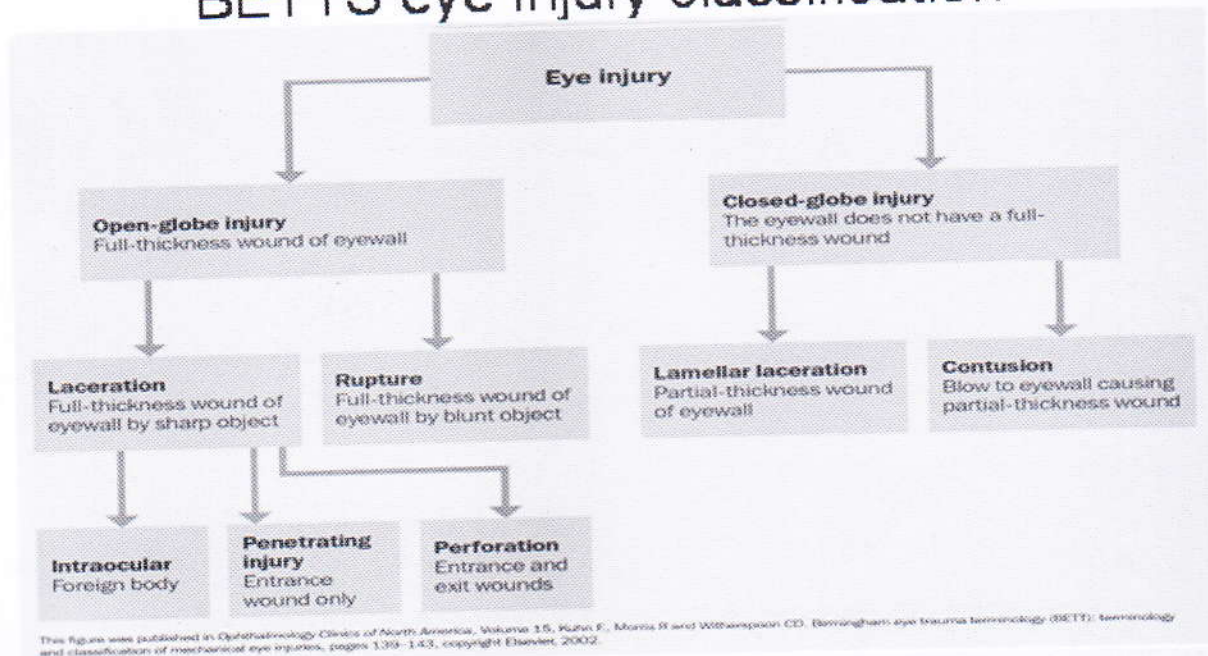


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Ocular trauma is an Important cause of preventable morbidity worldwide; it accounts for half a million cases of monocular blindness worldwide. Predominantly the causes of ocular trauma include road traffic accidents, sports and work related activity in men and domestic fall and other home related activities in women. Reported risk factors are workplace, road accidents, alcoholism and lower socioeconomic class.

Despite advances in ophthalmic surgery such as operating microscopes, vitreoretinal techniques, and surgical skills together with improvements in the awareness of visual prognosis, instrumentations, and other factors that have led to better outcomes, there remain a number of eyes that cannot be salvaged. They impact not only the individuals, but also the country's healthcare system. The recent ocular trauma classification is BETTS.

BETTS eye injury classification



There are many factors likely to predict the final visual acuity (VA) after open globe injury. They are initial VA, mechanism or type of injury, zone of injury, adnexal trauma, relative afferent pupillary defect (RAPD), retinal detachment, uveal or retinal tissue prolapse, vitreous hemorrhage, lens injury, hyphema, delay to surgery, and number of operative procedures [7-10]. One of the most important uses of knowing about prognostic factors is that it helps the physician in counselling the patient and his family and preparing him for the outcome.

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Ocular Trauma Score (OTS) system suggested by Kuhn et al. is to predict the final VA after an open globe injury. Kuhn et al. analyzed more than 2500 injured eyes from the United States and Hungarian Eye Injury Registries (USEIR) and evaluated more than 100 variables with the goal of identifying specific predictors. OTS is calculated by assigning definite numerical raw points to six variables: initial VA, rupture, endophthalmitis, perforating injury, retinal detachment, and RAPD (Table 1). The scores are stratified into five categories that give the predictabilities of final VA.

Table 1: Calculating the ocular trauma score (OTS): variables and raw points. Variables Raw points Initial VA □ NLP 60 LP/HM 70 1/200–19/200 80 20/200–20/50 90 ≥ 20/40 100 Rupture -23 Endophthalmitis -17 Perforating injury -14 Retinal detachment -11 RAPD -10

Variables	Raw points
Initial VA	□
NLP	60
LP/HM	70
1/200–19/200	80
20/200–20/50	90
≥ 20/40	100
Rupture	-23
Endophthalmitis	-17
Perforating injury	-14
Retinal detachment	-11
RAPD	-10



• Sum of raw points <20/40	OTS	NLP	LP/HM	1/200– 19/200	20/200– 20/50
• 0–44 1%	1	74%	15%	7%	3%
• 45–65 15%	2	27%	26%	18%	15%
• 66–80 41%	3	2%	11%	15%	31%
• 81–91 73%	4	1%	2%	3%	22%
• 92–100 94%	5	0%	1%	1%	5%

Ocular trauma is a common cause of visual impairment in children and can be prevented. There should be preventive measures, better supervision, public education, and aggressive and prompt management to improve visual outcomes.

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