

# Frequencies of various ocular pathologies detected on B-scan ultrasonography in patients of ocular trauma

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## Abstract

**Objectives:** To determine the frequencies of various ocular pathologies detected on B-scan ultrasonography in patients of ocular trauma.

**Study Design:** A descriptive cross-sectional study.

**Subjects and Methods:** The study was conducted in 162 patients of ocular trauma from 14th September 2011 to 14th March 2012 presenting to the outpatient department of Al-Shifa Trust Eye Hospital in collaboration with the B-scan department of the hospital. All the information was recorded on proformas and data analysis was done using SPSS 13.0.

**Results:** There were 134 (82.7%) males & 28 (17.3%) females. The study showed that age group 1-20 yrs is most commonly affected by ocular trauma. Males are 5 times more commonly affected by ocular trauma than females. Vegetative material (29%), metallic objects (27.2%) & stone material (17.9%) were most common causes of ocular trauma. While plastic objects (8.6%), blast injuries (4.9%), glass (4.9%), hand & finger trauma (3.7%) & animal horn trauma (3.7%) were less common causes. The study showed vitreous hemorrhage to be most common B-scan finding in ocular trauma (31.5%) while 19.8% patients had no abnormality detected on B scan. Retinal detachment was present in 17.9% patients, intraocular foreign body (IOFB) in 9.9% and endophthalmitis in 7.4%.

**Conclusion:** In patients of ocular trauma, most common B-scan finding is vitreous hemorrhage, retinal detachment & intraocular foreign body. Although significant number of trauma patients have normal B-scans as well. In ocular trauma patients B-scan can be an excellent tool to examine posterior segment when anterior segment pathology precludes clinical examination. This study provides a local data base of the burden of posterior segment pathology in ocular trauma patients that requires urgent management by Vitreoretinal specialist for better visual outcome. *Al-Shifa Journal of Ophthalmology* 2013; 9(2):70 -76 © Al-Shifa Trust Eye Hospital, Rawalpindi, Pakistan.

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