

## **A Five-Year Review Study of Epidemiology of Ocular and Adnexal Injuries Requiring Surgical Intervention in a Middle Eastern Area: Al Ain, UAE**

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**Abstract :** Background: To the best of the author(s)' knowledge there are no epidemiological studies for traumatic eye injuries in UAE, neither data on groups at risk or mechanisms for ocular trauma. Purpose: To report the epidemiology of eye injuries that required hospital admission and surgery at a referral center at the eastern part of Abu Dhabi. Method: Retrospective charts review of all patients who had suffered an eye injury that required surgical intervention between 2012 and 2017 at Al Ain Hospital. Demographic data, place of occurrence, the cause of injury, visual acuity (VA) before and after treatment, number of admission days and follow up were extracted. Data were tabulated and presented as number (%), mean (SD), or median (range) as appropriate. Wilcoxon signed rank test was used for VA outcome. Results: One hundred forty-one patients were identified, 96 eyes with open-globe and 48 other types of injuries. The mean age of the patients was  $26 \pm 15.5$  years, and 89% were male. Majority of injuries occurred at the workplace (50.4%) followed by home (31.2%). Trauma with a sharp object (24.1%), blunt object (16.3%), nail (11.3%), and hammer on metal (7.8%) were the most common etiologies of injury. Corneas injuries (48.2%) was the most frequent cause for visual acuity limitation followed by lens/cataract (23.4%). Among the traumatized eyes, 30 eyes (21.3%) retained intraocular foreign body, Mean admission days was  $3.16 \pm 2.81$  days (1-16) and a number of follow up visit was  $3.17 \pm 4.11$  times (0-26). Conclusion: Ocular trauma requiring surgical intervention is an area of concern in particular for occupations involving work with metals. This work may give insight into the value and necessity of implementing preventive measures.

**Keywords :** epidemiology, Middle Eastern area, occupational injury, ocular traumas

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