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Araştırma/Research

Korneal Yabancı Cisim Hastalarının Uygulamaları ve Güvenlik Gözlükleri Kullanma Oranları

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ÖZ

Amaç: Dört yıllık korneal yabancı cisim hastalarının uygulama sayılarını ve kişisel güvenlik gözlüklerinin kullanımını değerlendirmeyi amaçladık.

Yöntem: Bir Ocak 2013 - Bir Ocak 2016 tarihleri arasında Adıyaman Üniversitesi Eğitim ve Araştırma Hastanesi Göz bülümüne başvuran tüm kornea yabancı cisimlerini koruyucu gözlük için sorguladık. Bu hastalar başvuru sayıları için hastanenin son dört yıllık veri tabanı tarandı.

Bulgular: Son dört yılda corneal yabancı cisim nedeniyle gelen 520 hastanın 102 (%19.62)'si ilk başvuru, 172 (%33.07) hasta 2-5 başvuru, 72 (%13.85) hasta 5-10 başvuru grubunda ve 174 (%33.46) hasta ise 10'dan fazla başvurusu grubunda olduğu belirlendi. güvenlik gözlüğü kullanmayan hastasayısı 325(%62.5) olduğu belirlenirken, 195 (%37.5) hastanın güvenlik gözlüğü kullandıkları belirlendi.

Sonuç: Korneal yabancı cisim ile kliniğimize başvuran hastaların çoğunun güvenlik gözlüğü kullanmadığını ve uygulamaların tekrarlayıcı olduğunu belirledik. Korneal yabancı cisiminler görme kaybı veya görme keskinliğinin azalmasında önlenebilir bir neden olarak kabul edilmektedir. Ayrıca, işgücü kaybına ve tedavi maliyetlerinin artmasına da neden olmaktadır.

Anahtar kelimeler: Korneal yabancı cisimler; göz yaralanmaları; iş sağlığı; iş güvenliği; koruyucu gözlük.

Yazışmadan Sorumlu Yazar

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Applications of Corneal Foreign Body Patients and Safety Eyewear Usage Rates.

Abstract

Purpose: To investigate the practices numbers and the utilize of individual safety goggles of corneal foreign body patients in four year.

Materials and Methods: We examined all corneal foreign body patients who practiced for safety goggles use in Adıyaman University Education and Research Hospital Ophthalmol Department between January 1st 2013 and January 1st 2016. The patients were analyzed in database of our hospital for their number of appeals in the last four year.

Results: In the last four years, determined that 102 (19.62%) of the 520 patients, who were admitted to our hospital due to corneal foreign body, the first application group, 172 (33.07%) patients 2-5 applications group, 72 (13.85%) patients 5-10 application group and 174 (33.46%) patients more than 10 applicants group. In addition; identified 325 (62.5%) of the patients did not use safety glasses, while 195 (37.5%) patients used safety glasses.

Conclusions: We determined that most of the patients who applied to our clinic with corneal foreign body did not use safety glasses and that the applications were repetitive. Corneal foreign bodies are accepted preventable causes of loss of vision or decrease in visual acuity. It has also caused workforce loss and increased treatment costs.

Key Words: Corneal foreign bodies, eye injuries, occupational health, occupational safety, protective glasses,

Introductıon

Superficial corneal foreign body can prevent eye injury is one of the leading causes. The vast majority of corneal foreign bodies and metallic objects, stone and wooden pieces (1). Corneal foreign body is a cause of visual impairment. At the same time adversely affects the quality of life and work capacity. Corneal foreign bodies also have an important role in eye trauma. The epidemiology of corneal foreign bady in developed countries has been described. It is estimated that the prevalence of corneal foreign bady in the United States is between 14.4% and 19.8% (2).

Corneal foreign bodies is a common cause of minor work accidents. Business health is to protect the safety of the worker and his family. At the same time ensure that the worker is working in a healthy environment.(3). A work accident is a sudden condition that causes the worker's injury or death (4). Occupational health and safety are affected by workplace and working conditions (5).

Our aim is to determine the safety goggles usage rates of patients with corneal foreign bodies and the number of visits to the hospital.

Materıals And Methods

We questioned 520 patients for safety goggles usage who applied to Adıyaman University Education and Research Hospital Emergency Department with complaint of corneal foreign body between January 1st 2013 and January 1st 2016. Worker grinding without protective goggles in **Figur 1.** We have retrospectively reviewed corneal foreign bodies in the last four years. We have noticed the numbers of these patients. In this study, patients were scanned backward-information. We classified the patients who applied to the hospital according to the number of applications. Group 1; first application, group 2; 2 -5

application , group 3; 5-10 application and more than 10 were classified as group fourth. Patients were evaluated by biomicroscopic examination. First, the patient's corneal topical anesthesia was instilled and then the corneal foreign body was removed with a 23 gauge needle. After removal of corneal foreign bodies, topical antibiotic therapy was given. Statistical analyses were performed with Statistical Program for Social Science 15.0 (SPSS Inc, Chicago, ABD). The statistical calculations included descriptive statistics.

Figure 1. Worker grinding without protective goggles.

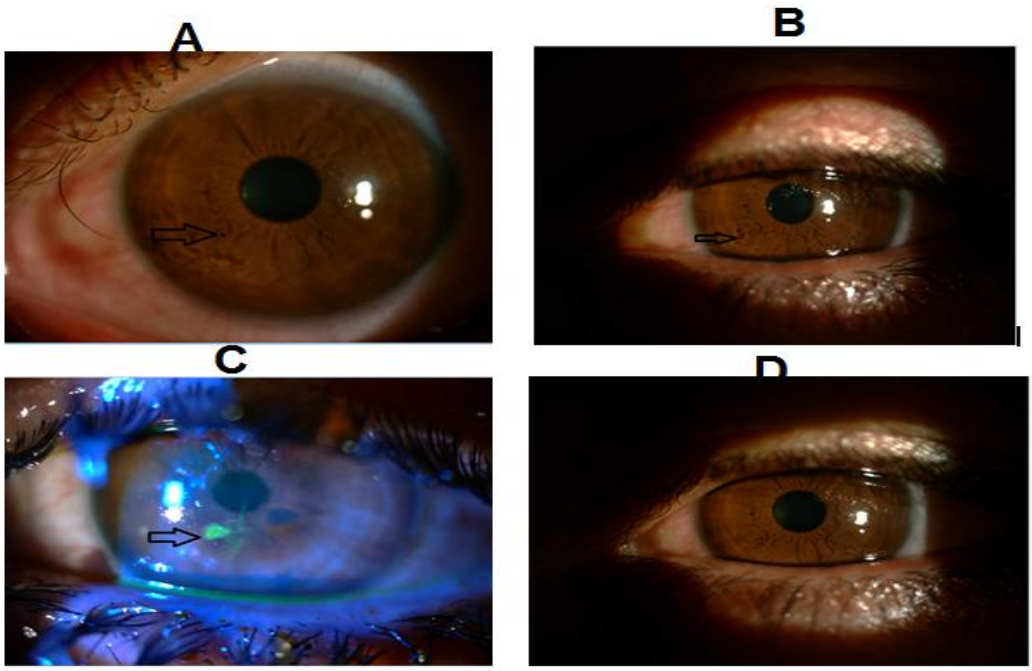

Figure 2. Influence on the corneal structure of the metal spall deployed from cutting and grinding A: before treatment, B: After removal of the metal particle, C: The performed by fluorescent staining after the removal of metal particle, D: 1 week after treatment.

Results

Average age of patients was 38.2±13.6 years (18-72 years). 98.46% (n=512) of the patients were male and 1.53% (n=8) female. There were 102 patients (19.62%) in group 1, 172 patients (33.07%) in group 2, 72 patients (13.85%) in group 3 and 174 patients (33.46%) in group 4. Corneal foreign body of a patien view of the first and subsequent treatment Figure 2.

Safety goggle usage ratio was 29,41% in first group, 32,55% in second group, 51,38% in group three and 41,37% in group four in **Table 1.** All corneal foreign bodies were removed safely.

Table 1. Number of applications, patients and usage of goggles.

groups	Protective Goggles (+)	Protective Goggles (-)	Total
group 1	30	72	102
group 2	56	116	172
group 3	37	35	72
group 4	72	102	174
Total	195	325	520

Discussion

Corneal foreign body patients who applied to our clinic found that the use of safety glasses was low. Safety glasses use increases over time.

Orbital trauma is the most common reason for eye-related emergency department (ED) (6). Eye trauma has a significant loss of vision and quality of life (7). Corneal foreign body is a preventable condition and frequently affects young men (1, 8). In our study the mean agewas 38,2. Foreign body might cause low visualacuity due to infectious keratitis, endophthalmitisand corneal scar (1, 9). Even minimal corneal damage can cause pain, discomfort, and loss of labor and cost of care (1, 10, 11). Using safety goggles 90% of eye trauma due to job accidents can be prevented (12).

We observed that workers did not use safety glasses and those who used safety glasses were inadequate. Considering that a large number of workers are admitted with corneal foreign body complaints, work safety and education seems to be inadequate in these places. It needs immediate action. As a result, we cosider that job security checks and training are inadequate.

In conclusion, vision and labor loss due to corneal foreign body can be prevented with protective glasses.

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