

## عنوان مقاله:

A study on the most prevalent bacterial cause of corneal ulcer and their susceptibility to five common types of ophthalmic antibiotics

## محل انتشار:

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## خلاصه مقاله:

**Purpose:** Proper diagnosis of the corneal ulcer is one the most important efforts in the eyes medical urgencies. The aim of this study was to determine the bacteriological profile and in vitro antibiotic resistance of the bacteria isolated from the eyes of patients with infectious corneal ulcers **Methods:** In this study, 94 patients with corneal ulcer disease participated. After differential diagnosis of potentiated corneal ulcer infection and sampling of the active area of the wounds, the sample was transferred to the laboratory for cultivation in the suitable culture medium and finally incubated in proper temperature. In cases of positive culture, the type of bacteria and antibiotic sensitivity test of the broth micro-dilution method was performed and evaluated for five antibiotics including ciprofloxacin, levofloxacin, gentamycin, erythromycin, and chloramphenicol. **Results:** our results indicated that patients consisted of 55% male and 45% female, 51% of whom were positive and the most common bacterium was staphylococcus negative coagulase with 48% prevalence. The isolated bacteria sensitivity for levofloxacin, ciprofloxacin, gentamycin, erythromycin and chloramphenicol was 94%, 79%, 67%, 33%, 27%, respectively. In vitro study for levofloxacin and ciprofloxacin showed a higher percentage of antibiotic sensitivity in patients with corneal infectious ulcers in comparison to other antibiotics. However, Erythromycin and chloramphenicol were not suitable for the bacterial corneal ulcer treatment due to the high microbial resistance. **Conclusions:** Accurate and precise training of physicians in the prescribing of ocular antibiotics as well as the prevention of arbitrary use of these drugs is important for reducing the microbial resistance.

## کلمات کلیدی:

corneal ulcer, Drug Resistance, Ophthalmic Solutions, Antibacterial Agent, Gram-Negative Bacterial Infections

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