STUDY OF EFFICACY AND TOLERABILITY OF TOPICAL VORICONAZOLE VERSUS NATAMYCIN IN THE TREATMENT OF FILAMENTOUS FUNGAL KERATITIS

ABSTRACT:

AIM: Study of efficacy and tolerability of topical Voriconazole versus Natamycin in the treatment of filamentous fungal keratitis. METHODOLOGY: The study was single centre, open label, prospective, interventional study in Ophthalmology department in collaboration with Pharmacology in Madurai Medical college. Sixty patients were recruited for the study after satisfying the inclusion and exclusion criteria. The patients, were divided into two groups, Group I received topical 5% Natamycin suspension and group 2 received topical 1% Voriconazole solution for 3 months. MAIN OUTCOME MEASURES: The primary outcome was best spectacle-corrected visual acuity (BSCVA) at 3 months. The other secondary outcomes include healing of epithelial defect to scar formation, reduction in infiltrate size & depth of the ulcer and also by the time of onset of resolution. The adverse effects will be monitored during the course of the treatment. RESULTS: The most common organism causing fungal keratitis was Fusarium, and the visual outcome was better with Natamycin treated patients compared with Voriconazole treated patients with the mean difference of 0.20, and the results was statistically significant (p< 0.00). Though Voriconazole had severe adverse effects, it is well tolerated than with Natamycin. CONCLUSION: Overall, there were significant differences in visual acuity, scar size, and perforations between Voriconazole and Natamycin treated patients. From this study, it is evidenced that Natamycin is cost effective and superior than Voriconazole. Tolerability of Voriconazole is better when compared with Natamycin group, however the incidence of corneal perforation is higher with Voriconazole than with Natamycin group.

KEY WORDS: Natamycin, voriconazole, fungal keratitis, visual acuity, perforation.