#### EVALUATION OF TREATMENT MODALITIES OF FUSARIUM FUNGAL KERATITIS

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## Introduction

Infection of the cornea by filamentous fungus and yeasts, often known as keratomycosis or fungal keratitis, is common. This illness may pose a harm to the eyes. The prevalence of different causes varies according on where people are from. The weather is also a major role. Filamentous fungi are more common in tropical and subtropical areas, whereas yeasts are thought to predominate in temperate zones.

The most common individual risk factors for FK include trauma, immunosuppression, ocular surface disease, and contact lens usage, any or all of which might increase susceptibility to a fungal infection.

A fungal infection as a cause of keratitis may be difficult to identify clinically, and delays in diagnosis are frequent due to negative or delayed culture findings

Topical anti-fungal medicines are the mainstay of pharmacological therapy for fungal keratitis. No antifungal recommendations based on individual fungal isolation are presently available. Many of these anti-fungal treatments have varying degrees of corneal penetration activity or efficacy. The most effective method of therapy is still the use of pharmacologically active antimicrobials via a topical application. Intra-stromal injections have been controversial since they have not been found to be more effective than topical instillation.

# Aim of the work

The aim of this study was to evaluate the effect of different treatment modalities on fusarium fungal keratitis.

## **Patients and Methods**

**Patients:** The study included 20 eyes with culture proven fusarium fungal keratitis undergoing antifungal treatment modalities.

#### Methods: Studydesign

This study was conducted as prospective case series study, where patients suspected clinically of having fungal keratitis were sent to do culture for fusarium fungal infection. After proving of fusarium fungal infection by culture, different treatment modalities were observed for efficacy in management of fusarium fungal infection.

During the study data was collected from patients emphasizing on:

• Different treatment modalities that was given , forexample.

Topicalantifungal treatment: voriconazole 1%, natamycin 5% (either single or combined treatment).

Systemic antifungal treatment, e.g., itraconazole 100 mg.

Intracornealinjection of antifungal agents, e.g., voriconazole.

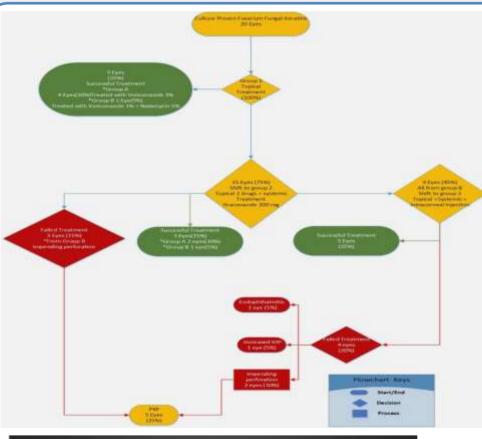
• End result of treatment for each case, e.g., resolution of infection, impending perforation, or endophthalmitis.

*Follow-up:* Follow up was done bi-weekly for 3 months.

Every modality was assessed every week, patients were monitored for progression, resolution, stabilization, or deterioration.

In case of deterioration or stabilization within one week; modality was changeduntil a clinical response was reached.

### Results



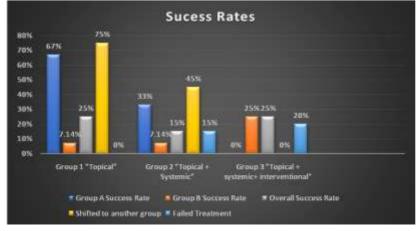


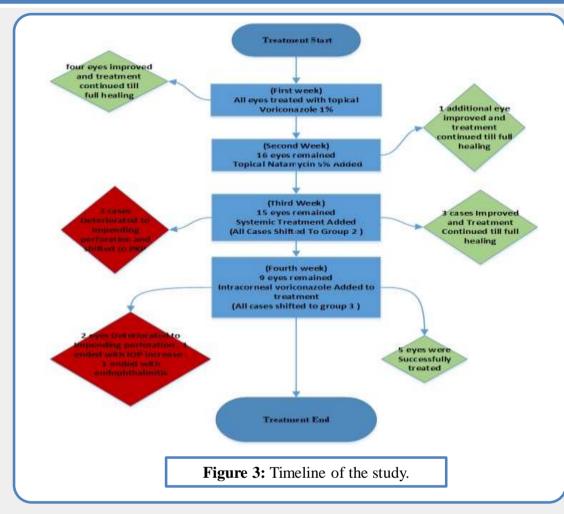
Figure 2:
Success rate in the study population.

**Figure1:** Distribution of the study

regards

follow up.

population as



### Conclusion

- Fusarium is a serious problem and difficult to treat. Early suspicion and detection is mandatory for resolution of infection and minimalizing potential complication.
- Our study concluded that starting topical "combined" therapy with voriconazole 1% and natamycin 5% in addition to adopting lower threshold for interventional treatment in infection with moderate or poor response to topical therapy is associated with higher rates of elimination of infection and reduction of complications.



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