Unilateral Mycotic Keratitis In A Case Of Hyperthyroidism Induces Exophtalmoses Infected With Hyaline Filamentous And Dematiceous Fungi.

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INTRODUCTION:

Fungal infections of the cornea are the most important cause of ocular morbidity and cause the loss of vision in the developing countries like India etc., [1]. The Indian population is mostly prone to the corneal infection which is caused by the diversified pathogenic microorganisms. The epidemiological studies reveals that the tropical region which consist of mostly, the 50% of the people which were predisposed to ocular mycoses and caused much Stromal inflammation [2]. Hyaline filamentous fungus such as Aspergillus spp. and dematiceous fungi such as Curvularia are the most important causative agents of such infections in tropical and subtropical regions [3].Diabetic patients are predisposed to fungal Keratitis. The patient present with gradual onset of reddening,Hypopyon, and white well circumscribed corneal infiltrates which affects the trigeminal nerve its leads to the infectious keratitis and lead to corneal anesthesis [4]. Neurotrophic keratitis may lead to corneal perforation due tothe dystrophic changes in the corneal epithelium [5]. Due to hyperthyroidism which causes the failure of eyelids to close completely, during the hibernation which leads to corneal dryness and damages.

Case study:

We report a case of mycotic keratitis by two different fungi left eye which is said to be as unilateral mycotic keratitis. A 57 old male presented to our hospital with redness, itching and photophobia in the left eye. Examination of the eyes revealed the visual acuity. The left eyes show exopathalmoses condition. The left eye revealed the exopathalmoses with the perforated corneal ulcer. The ulcer is observed at the margin of the pupil (size = 3\,x\,3mm) and shows the blurred vision. The right eye the vision is lost. The clinical examination reveals The lid of the right eye and the left eye get retracted. Ocular movement is seen in both the eyes. The left eye of the fundus examination shows media hazy, pallor in nasal margin and the disc is blurred. The left eye appears with ecstatic corneal infiltrates, opaque with superficial vascularization with dilated pupil. The tension of the left eye is examined at the time of admission is 6.0 - 14.6 8.5 - 4.3. The bio chemical analysis of blood sugar reveals 180mg/dl. The patient blood shows revealed level of thyroxine hormone. Due to corneal infiltrates the corneal scarping was carried out in the left eye. The patient was anaesthetized with local anesthesia. Lignocaine aqueous was poured in to the eye. The corneal scrapings were carried out by using kimura spatula.

The microscopic examination of corneal scrapings revealed gram positive cocci in gram staining and fungal filaments were observed under the KOH mount. The sample is inoculated in to the SDA medium and incubated at room temperature. After 5 days of incubation the medium shows two different types of colony with two different types of reverse morphology.

The colony was teased and observe under LPCB MOUNT LPCB reveals Aspergillus flavus and Curvularia species were idetified

TREATMENT:

The patient was treated with carbamazol, propanolol, ranitidine, moxifloxaclin for 6 days, and lubrox for 4 days. After the review of 15 days the ulcer in the left eye was healed. The patient was treated with gentamycin 80mg , cefixime as an oral drug .The visual acuity is improved with pre existing corneal opacity.

DISCUSSION:

Bilateral mycotic keratitis in case of hyperthyroidism induced exophtalmoses is already reported. They identified the two different fungi in both the eyes. Namely Aspergillus flavus and Penicillium sp., (6). In our studies, the clinical examination reveals that the corneal opacity in the left eye is due to the fungal infection associated with endocrinal disorders. Due to diabetes, the trigeminal nerve was affected and was produce the cornea impairment which leads to infectious
Neurotrophic keratitis (5). Aspergillus and Fusarium species causes a severe corneal ulcer in both immunocompromised patients and healthy individuals (2). In epidemiological studies have shown that 23-32% are mostly affected by the Fusarium keratitis than the Curvularia keratitis. The dematiceous fungi due to curvularia species shows the feathery stromal infiltration, Progression to focal Suppuration and Exophytic inflammation and Perforation (2). Itracanazole a synthetic dioxalane triazole having the best antifungal activity against Aspergillus and Curvularia when its administered orally to 4 times for 6 days(3). In our case study we are reporting the unilateral mycotic keratitis due to two different fungi such as Aspergillus and Curvularia. which causes exophthalmos perforated corneal ulcer in hyperthyroidism associated with diabetes. This report deals with the unilateral exophthalmos perforated corneal ulcer due to the hyperthyroidism and diabetes which is observed with in Chennai population.

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