



International Journal of Medical Research & Health Sciences

www.ijmrhs.com

Volume 2 Issue 4 Oct - Dec

Coden: IJMRHS

Copyright ©2013

ISSN: 2319-5886

Received: 29th July 2013

Revised: 18th Aug 2013

Accepted: 27th Aug 2013

Case report

CASE REPORT OF A RARE FUNGAL CORNEAL ULCER

Rajvin Samuel Ponraj¹, Srinivasan M², Sundararajan D³, Senthamarai S⁴, Sivasankari S⁵, Anitha C⁶, Amshavathani SK⁷

¹Post graduate student, ²Professor & Head, ³Associate Professor, Dept of Ophthalmology, Meenakshi Medical College, Kanchipuram, Tamilnadu, India

⁴Associate professor, ⁵Asst. professor, ⁶Tutor, ⁷Professor & HOD, Department of Microbiology, Meenakshi Medical College, Kanchipuram, Tamilnadu, India

*Corresponding author email: samuelprj25@gmail.com

ABSTRACT

The dematiaceous fungi appear to be an increasing cause of human disease. This was a case of a patient coming with complaints of watering and irritation of right eye following injury to her eye by a stick. Scrapings from corneal ulcer were sent for gram stain, bacterial and fungal culture. *Cladosporium* species of fungus was isolated from a patient who presented with a corneal ulcer not responding to natamycin drops. Ointment fluconazole was prescribed along with natamycin, moxifloxacin and atropine drops. The corneal ulcer began to respond and healed completely.

Keywords: *Cladosporium*, Dematiaceous, Keratomycosis, Conidiophores

INTRODUCTION

Many fungal species can invade the cornea and result in Keratomycosis which is an infective condition of the cornea. It is typically a slow progressive disease. It is mandatory that this be distinguished from its counterpart namely bacterial keratitis. Ocular surfaces which have been compromised or suffered trauma are likely to be caused by fungus. The type of fungi varies with the geographic location and the climate. Due to the profound use of steroids and antibiotic, its incidence has increased over the years. Diagnosis and treatment of keratomycosis has become a challenge to ophthalmologists

because of its resistance to treatment and difficulty in obtaining drug sensitivity.^{1,2}

CASE REPORT

A 50-year old female patient presented with a history of a stick injury to her right eye. Her main complaint was irritation and watering of her right eye. On examination the affected eye had oedema of the eye lid, injected conjunctiva, ulcer on the cornea covered with slough and a sluggish reaction of pupil to light. Scrapings from corneal lesion were taken and sent for bacterial and fungal culture. Gram stain showed few pus cells and no bacteria was seen. Bacterial culture showed no growth. Potassium hydroxide mount

showed actively branching septae and thin hyphae.

Fungal culture on Sabourand Dextrose Agar plate showed dark green to black coloured flattened colonies and rapidly spreading black coloured colonies on the reverse side. Microscopic findings showed blastoconidia in branching chains. The patient was on the following medications during attending the outpatient clinic. Moxifloxacin eye drops-1 drop (8 times per day), Natamycin eye drops-1 drop (8 times per day), Atropine (1 drop twice a day).

The lesion did not respond to the above mentioned treatment. She was prescribed ointment fluconazole to be applied twice a day along with the above mentioned medications. The ulcer responded to treatment and healed completely.



Fig 1: Culture growth of *Cladosporium* colonies

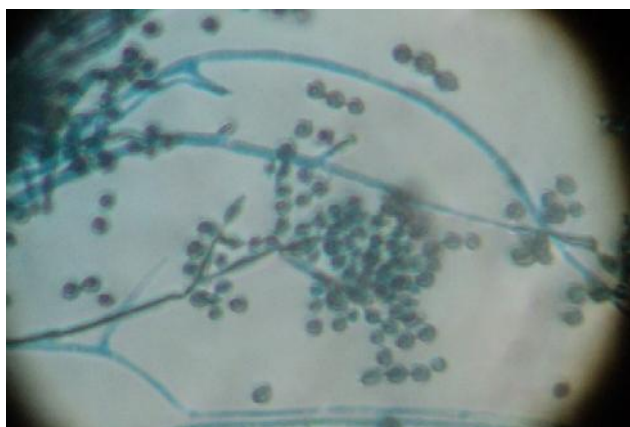


Fig 2: Microscopic appearance of *Conidiophores*, *Conidia*

DISCUSSION

Keratomycosis is most commonly caused by filamentous fungi which can be further classified into two types: pigmented (dematiaceous) fungi which produce characteristic black/brown pigment appreciable clinically and/or on culture media and nonpigmented (moniliaceous) fungi which do not produce such pigments³

Cladosporium is a dematiaceous (pigmented) mould widely distributed in air and rotten organic material and frequently isolated as a contaminant on foods. Some species are predominant in tropical and subtropical regions. The growth rate of *Cladosporium* colonies is moderate on potato dextrose agar at 25°C and the texture is velvety to powdery. Similar to the other dematiaceous fungi, the color is olivaceous green to black from the front and black from the reverse.^{4,5} Most of the *Cladosporium* spp. does not grow at temperatures above 35°C. *Cladosporium* spp. produce septate brown hyphae, erect and pigmented conidiophores, and conidia. *Cladosporium* spp. produce septate brown hyphae, erect and pigmented conidiophores, and conidia.

They have a geniculate appearance. In addition, conidiophores of *Cladosporium herbarum* bear terminal and intercalary swellings. Conidia of *Cladosporium* spp. in general are elliptical to cylindrical in shape, pale to dark brown in color and have dark hila.⁶

REFERENCES

1. Ibrahim MM, Vanini R, Ibrahim FM, Fioriti LS, Furlan EM, Provinzano LM, et al., Epidemiologic aspects and clinical outcome of fungal keratitis in southeastern Brazil. *Eur J Ophthalmol.* 2009; 19(3):355-61
2. Foster CS. Fungal keratitis. Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston. *Infect Dis Clin North Am.* 1992;6(4):851-57
3. Comparative study on the incidence and outcomes of pigmented versus non

pigmented keratomycosis. *Ind J Ophthalmol* 2011 ;59:291-6

4. Dixon DM, Polak-Wyss A. The medically important dematiaceous fungi and their identification. *Mycoses*. 1991;34:1-18.
5. Collier L, Balows A, Sussman M. Topley & Wilson's Microbiology and Microbial Infections, 1998;9th ed, vol .4. Arnold, London ,Sydney , Auckland , New York.
6. Sutton DA, Fothergill AW, Rinaldi MG. *Guide to Clinically Significant Fungi*,.1998; 1st ed. Williams & Wilkins, Baltimore