**Case Study****Unusual presentation of *mucormycosis*: A brief case study.**

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Abstract

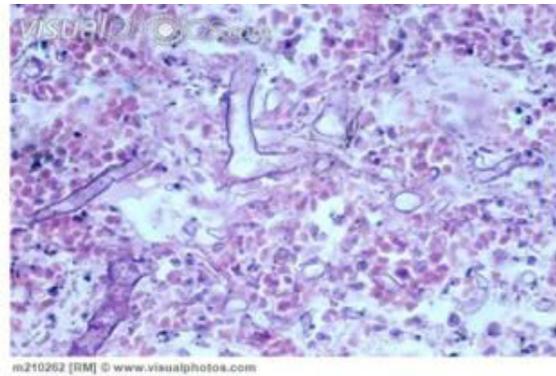
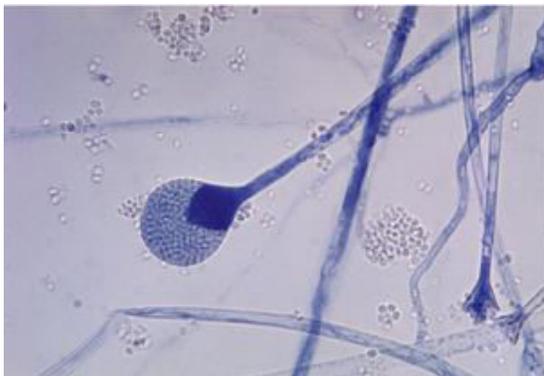
Mucormycosis is a dreadful fungal infection which usually occurs in long standing poorly controlled diabetics, immuno compromised individuals usually involving cerebral & para nasal sinuses, ocular involvement with other systems. In current study, a patient 82 year old female, non-diabetic, immunocompetent, developed a whitish globular lesion in AC after 4 months after uneventful surgery. Debulking the lesion & HPE revealed Mucor mycosis. Mucormycosis is seen in uncontrolled diabetics, immunocompromised individuals but in current study the patient is nondiabetic & immunocompetent with completely good health. Treatment with intracameral, local and systemic amphotercine-B completely cured the lesion. We present a case of Mucormycosis of anterior chamber of eye, post operatively in non-diabetes, immuno competent patient.

Keywords: Mucormycosis, immuno compromised, immuno competent, anterior chamber Debulking, Amphotercine-B.

Introduction

Mucormycosis & aspergillosis infections are aggressive fungal infections that carry high mortality rate. The family mucoracea is divided into the sub species Absidia, Rhizopus, and Mucor. There is some controversy to the terminology used to refer to infections caused by the species. Clinicians more commonly use Mucor mycosis. Mucor mycosis is ubiquitous in nature, found in soil & on

decaying vegetation. It has the ability to rapidly grow and release large number of spores that become airborne and gain entry into human body through ingestion and inhalation. In immuno compromised individuals it has been found that a variety of infections such as orbito rhino cerebral infections, pulmonary, gastrointestinal, cutaneous, isolated CNS infections occur [1].



Patient Profile

82 year old female has come to us with the complaint of defective vision LE for the past 6 months on 06/01/2014.

Slit lamp examination revealed

- RE pseudophakia with pupillary capture of optic IOL
- Vision-6/24 with correction 6/12
- Fundus-WNL
- LE- Nuclear cataract gr3
- Vision-CF 1mtr with ph 6/60
- Pupil reacting
- Fundus-Optic disk & Blood vessels hazily seen but details could not be made out

Investigations

- FBS-86mg/dl
- HIV-Non reactive
- Hbs Ag-Negative

Ocular investigations

- IOP-16mm of hg
- Naso lacrimal passages –patent
- IOL power-23D
- SICS WITH PC IOL was done under Local anesthesia on 19/01/2014.
- Per operative-uneventful.
- Post-operative period: 1st day
- Mild conjunctival congestion
- Cornea clear
- AC-Normal depth
- Pupil reacting
- IOL in situ
- Vision-6/9

Rest of the Post-operative period was uneventful and patient was refracted after 6 weeks and was prescribed glasses.

On 15-4-2014, the patient presented with -

- Redness
- Lacrimation
- O/E conjunctival congestion +
- Corneal epithelial edema+
- A small whitish globular lesion in the AC at 6 'O' clock position.
- Few cells are present
- Vision 6/9

AC wash was performed and patient was reviewed after 4 days. There was reappearance of lesion with few cells in the AC. Again AC tap was done and sent for culture and sensitivity and intra cameral Vorikonazole was injected and patient was started on Vorikonazole drops.

The patient was reviewed after 5 days. There was no improvement and two more lesions appeared by the side of primary lesion. Debulking was done by entering AC at 6 o'clock and material was sent for culture and sensitivity & Biopsy. Intra cameral Amphotericin-B was injected and Amphotericin B drops with Nevenac drops were started. The next day of intracameral injection patient developed severe exudative iridocyclitis and the vision dropped down to CFCF. Specimen sent for KOH preparation showed fungal hyphae typical of Mucor mycosis and culture was also positive for Mucor mycosis. Evaluation of posterior segment with indirect ophthalmoscope and B-scan revealed normal vitreous and healthy retina.

A thorough search for any other lesion somewhere in the body was done by doing MRI of brain, paranasal sinuses, U/S scan of abdomen and were found to be normal. All the blood investigations, TC, DC, Hb, HIV, HbsAg, blood sugar were within normal limits.

The patient was continued on Ampho & Nepafenac & tapered over a period of 6 months.

Liposomal Amphotericin-B (5) 5mg/kg at an infusion rate of 2.5 mg/kg/hr was given with a micro drip under the supervision of physician & anesthetist for 7 days and later it was stopped due to toxicity of drug. Slowly iridocyclitis has come down and vision improved to 6/18 with -2.00 cyl 90deg 6/9.

The patient was last seen on 12th Aug 2015

- There was no recurrence of lesion.
- Posterior segment-normal. PCO+.
- Vision-6/18.

Discussion

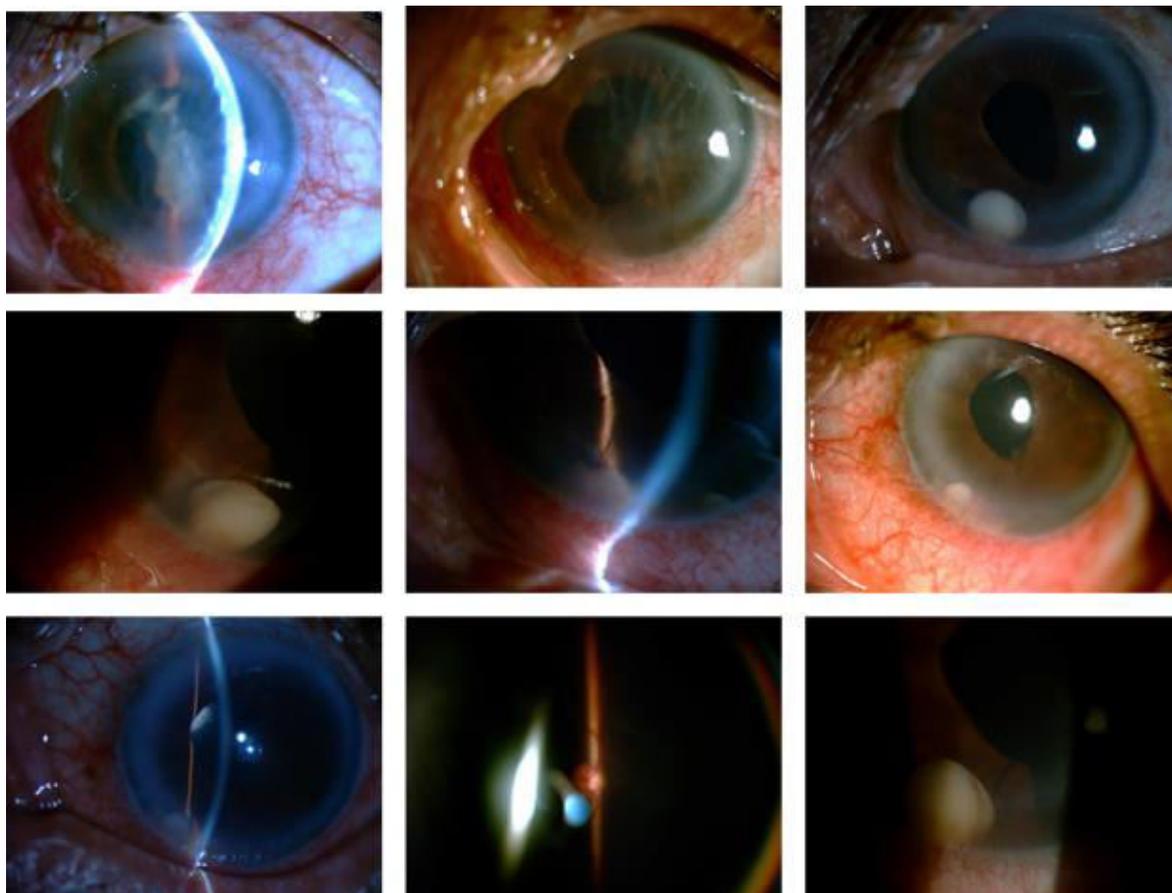
Mucormycosis is a life threatening infection that usually affects patients with diabetes, prolonged use of corticosteroids, hemorrhagic malignancies, renal failure and other immunocompromised individuals. Studies regarding the incidence of Mucor mycosis have demonstrated its occurrence in sinuses (39%) lungs (24%), dermatological (19%) and dissemination developed in 23% of cases.

Presentation of this case varies greatly and differs in terms of the organs reportedly affected as per the literature. A case of orbital Mucor mycosis was reported in an adolescent of 14 yrs, of otherwise healthy child, who was put on steroids for a month for some ailment [2]. A rapidly progressive rhinocerebral Mucormycosis occurred in a well-controlled elderly diabetic after a course of prednisolone therapy [3]. Another case of rhizopus microspores was reported in a patient of mild steroid induced hypo glycemia [4].



Images showing growth of rhizopus microspores at GVP College, Visakhapatnam

To the best of our knowledge, after searching the literature this is the 1st case where, we have seen a case of *Mucor mycosis involving only* anterior chamber of the eye without involving brain, paranasal sinuses in a non-diabetic, immune competent individual with healthy vital organ function.



Conclusion

1. Early clinical diagnosis is important as this disease proves fatal in good percentage of cases if the treatment is delayed. Initiation of appropriate therapy within 5 days of diagnosis yields 80% survival compared to 40% survival if the treatment is delayed beyond 5 days [2].
2. Mucor mycosis, though common in immuno compromised individuals, it can also occur in immuno competent individual [1].
3. The diagnosis can be confirmed by biopsy which reveals broad non septate hyphae

4. Mucormycosis can be successfully treated with amphotercine-B; Lysosomal amphotercine-B [5] is preferred when parenteral management is contemplated.

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None declared

Conflict of Interest

Authors declare that there is no conflict of interest to reveal

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