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CASE REPORT

THE FUNGUS THAT BLINDS BEFORE KILLING" CASE REPORT

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ABSTRACT

Abstract: Mucormycosis is a significantly lethal infection affecting immunocompromised individuals. We report a case of Sino-orbital-cerebral mucormycosis in a middle aged diabetic lady post renal transplantation.

Materials and methods: A 47year old lady, diabetic since twenty years and underwent renal transplantation 6 months back for chronic renal failure, presented with history of loss of vision in the right eye of two hours duration. On examination, her vision was perception of light negative. She had total ophthalmoplegia and with severe proptosis. A clinical diagnosis of orbital apex syndrome was made.

Results: An MRI showed invasive sinusitis with cerebritis, orbital cellulitis with proptosis, thickening of extraocular muscles, inflammatory changes in extraconal and intraconal fat. She underwent Maxillary antrostomy and lavage. Following surgerythe patient went into sepsis and could not be revived.

Conclusion: Sino orbital cerebral mucormycosis is a potentially sight and lifethreatening complication in immunocompromised individuals.

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INTRODUCTION

ZYGOMYCOSIS (mucormycosis) is an invasive opportunistic fungal infection that has increased incidence during recent decades, producing a high morbidity and mortality (Chayakulkeeree). It is caused by organisms of the family Mucoraceae (including the genera *Mucor, Absidia,* and *Rhizopus*) (Ribes). Despite antifungal therapy and aggressive surgical intervention, mucormycosis can cause serious and rapidly fatal infections if delayed diagnosis or therapeutic management occurs. When the fungus invades the paranasal sinus mucosa, it may spread directly to the orbital apex and from there gain intracerebral access. By the time signs of orbital apex involvement develop, it is often too late to save the patient vision, or even the patient's eye or life. The presentation is typicallya rapidlyprogressive infection, and the disease is associated with a high mortality rate. We report a case of Sino-orbital-cerebral mucormycosis in a middle aged diabetic lady post renal transplantation on long term steroids.

CASE REPORT

A 47 year old lady, diabetic since twenty years and underwent renal transplantation 6 months back for chronic renal failure and on long term steroids presented with history of loss of vision within hours of duration.

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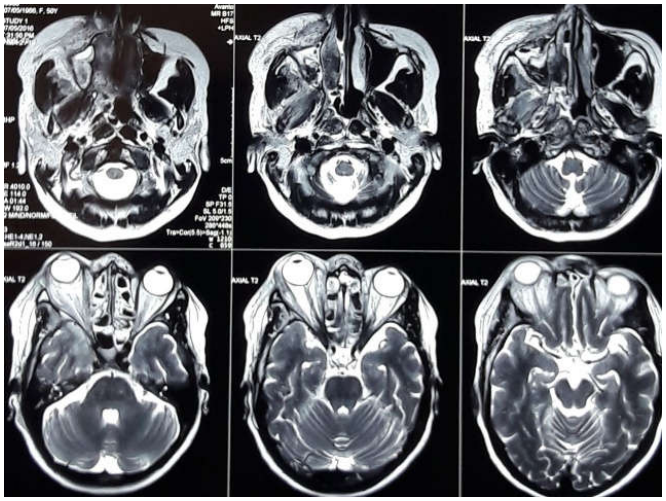
At the time of admission on examination her visual acuity in the right eye was perception of light negative and left eye was 6/6.Right eye proptosis with total ophthalmoplegia was present and left eye was normal. Anterior segment examination of the right eye revealed periorbital ecchymosis with hazy cornea and horizontal folds, pupil was 5mm dilated. Left eye was within normal limits. On fundus examination pale disc with arteriolar attenuationand inferior retinal detachment was present. Left eye fundus appeared to be normal. A clinical diagnosis of ORBITAL APEX SYNDROMEwas made and investigated for further evaluation.Within 24 hours her vision in the left eye deteriorated to perception of light present and projection of rays inaccurate and only abduction was present on extraocular movements assessment. Periorbital ecchymosis with hazy cornea and horizontal folds pupil 5mm dilated was found in the left eye. Fundus of both eyes could not be visualised. An MRI done showed invasive sinusitis with cerebritis, orbitalcellulitis with proptosis, thickening of extraocularmuscles, inflammatory changes in extraconal and intraconal fat. In view of above findings ENT opinion was sought. CT showed evidence of proptosis with extensive preseptal soft tissue thickening and swelling in theintraorbital soft tissues. Evidence of retrorbital fat stranding with bulky extraocular muscles suggestiveof inflammatory changes was noted. Nasal endoscopy done revealed a blackish eschar in the middle turbinate encroaching into posterior and roof of maxillary sinus was seen, surgical debridement and middle meatal antrostomy was done. Inspite of starting her o systemic antifungals and

antibiotics following surgery patient went into sepsis and could not be revived.



DISCUSSION

Zygomycosis is an invasive and opportunistic fungal infection associated with some systemic disorders, especially Diabetes mellitus, acquired or hereditary immune deficiencies, malignancies, and neutropenia (Ribes). Although candidiasis and aspergillosis are most common invasive mycoses in such patients the incidence of zygomycetes has increased over the past decade.Among the few reported post transplantation cases, renal grafts have been the primary situations (Roden and Almyroudis). Intensified immunosuppressive regimen is a major underlying condition that increases the risk of mucormycosis among transplant recipients. The rapid evolution of the disease in our case emphasizes the need for rapid invasive diagnostic and therapeutic actions to save vital organs and life (Shoham), despite preventive administration of antibiotics and antifungal drugs (Pedemonte-Sarrias). Awaiting microbiological cultures may waste time in this regard. Indeed, a high suspicion plays an effective role in taking appropriate timely treatment.

Conclusion

In conclusion invasive and opportunistic fungal infections such as zygomycosis should be suspected in transplanted recipients especially in presence of coexistent conditions such as diabetes or augmented immunosuppression. The short interval between demonstration of the primary limited manifestation and the invasive surgical-medical action, reduces the risk of mortality and the extent of morbidity.

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