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Rhinocerebral mucormycosis: A case report

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Introduction: Rhinocerebral mucormycosis is a life threatening fungal infection occurring in humans, caused by ubiquitous saprophytic fungi of the order Mucorales. Timely diagnosis in patients with predisposing factors leading to immunosuppression is of great importance in reducing morbidity and mortality.

Case report: We present a case of rhinocerebral mucormycosis involving the paranasal sinuses and the orbit which manifested as unilateral facial numbness/pain, ophthalmoplegia, and ptosis/proptosis. The patient had type II diabetes mellitus for nine years and was also a heavy alcoholic. A high level of clinical suspicion and imaging studies guided the clinical diagnosis. Microbiological and histopathological diagnoses were confirmatory. Direct visualization of broad, aseptate fungal filaments and isolating the fungus which had morphological features of Rhizopus spp. were diagnostic. Surgical removal of the fungal material on several occasions, prompt commencement of systemic anti-fungal therapy with intravenous amphotericin-B and maintaining a good glycaemic control made the management so far, successful. Renal/liver function tests and serum K²⁺/Mg²⁺ levels were closely monitored to prevent adverse effects of the drug. After thirty days of systemic amphotericin-B therapy, our patient achieved a profound clinical recovery. The duration of treatment is highly individualized and depends on repeat imaging and negative biopsies/cultures.

Discussion: A high level of clinical suspicion is essential to make a timely diagnosis. Comprehensive management includes correction of predisposing factors, surgical debulking and systemic antifungal treatment.