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## Mucormycosis: New frontiers and challenges

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During the past 2 decades, mucormycosis has emerged as an important fungal infection with high associated mortality rates. It is a life-threatening, invasive infection caused by fungi of the sub phylum Mucoromycotina, order Mucorales. The term mucormycosis was used for years and then was supplanted by zygomycosis for several decades. Based on molecular studies, mucormycosis is currently again the appropriate term. It has emerged as the third most common invasive mycosis in order of importance after candidiasis and aspergillosis in patients with hematological and allogeneic stem cell transplantation. Traditional risk factors for the development of invasive mucormycosis include uncontrolled diabetes, defects in host phagocytes, corticosteroid use, organ or stem cell transplantation and increased levels of available serum iron as a result of acidosis or administration of deferoxamine. In recent years, the disease has been increasingly seen in patients without traditional risk factors. With the advent of effective antifungal agents against *Candida* and *Aspergillus* spp., a growing population of immune-compromised hosts, improved diagnostic tools and possible selection pressure from widespread use of broad-spectrum antifungal agents, mucormycosis has emerged as an important infection. Breakthrough mucor in immune-suppressed patients empirically treated with voriconazole or caspofungin, which have no activity against *Mucor*, is being seen very commonly. The relatively low frequency of mucormycosis in HIV infected patients reflects the uncommon occurrence of mucormycosis in this group compared with other immune-compromised population. Devastating rhino-orbital-cerebral and pulmonary infections are the most common syndromes caused by these fungi. Other organ involvement such as renal and gastrointestinal, are probably underdiagnosed. The need to make a rapid diagnosis is underscored by several hallmark features of mucormycosis including angioinvasion, thrombosis and tissue necrosis. These features result in poor penetration of anti-fungal agents to the site of infection, making radical de-bulking surgery essential in order to affect cure.

### Biography

Mala V Kaneria has been a Faculty in Nair Hospital since the past 24 years. Her special interest is Infectious Diseases and Tropical Medicine and she has wide experience in the diagnosis and treatment of diseases common to the tropics like malaria, leptospirosis, dengue, typhoid, chikungunya and tuberculosis. She has expertise in the treatment of HIV/AIDS and opportunistic infections especially tuberculosis and fungal infections in these patients. She is a Member of the Advisory Board of *JAPI* and Member of prestigious societies like Clinical Infectious Diseases Society, Hospital Infection Society-Mumbai Forum, etc. She has more than 80 publications in peer reviewed journals and has won several awards.

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