

## Journal of Clinical and Cellular Immunology

Editorial

## Editorial on Mucromycosis

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## **EDITORIAL**

Fungi Mucromycosis, commonly called as black fungus is a life threatening infection usually found in people with weak immunity because of organ transplantation, neutropenia, and diabetes or due to increased serum levels of available iron. Mucromycosis is caused by exposure to mucor and is a very rare infection. It is commonly found in soil, plants, manure, decaying fruits and vegetables and even in the nose and mucous of healthy people. Mucromycosis is fungal infection caused by fungi belonging to the order mucorales. Species in the mucor, rhizopus, absidia and cunninghamella genera are most often implicated. This infection is usually characterized by hyphae growing in and around blood vessels and is life-threatening I case of diabetes or immunocompromised individuals.

COVID associated mucromycosis (referred to as black fungus) is an aggressive fungal infection that is associated with COVID-19 infection. A clinical manifestation sometimes referred to it as the 'rhino-orbital- cerebral mucromycosis' as it has been reported around the nose, eyes and brain. 8 cases were reported in January 2021 throughout the world. The most common risk for mucromycosis was diabetes. Early aggressive treatment is essential in this case. 70% of all mucromycosis cases are due to Rhizopus oryzae, the most common organism isolated from patients with mucromycosis. There is 100% mortality rate among patients with disseminated disease or those with persistent neutropenia. The major risk factors apart from diabetes include bone marrow transplantation, neutropenia, trauma and burns, malignant hematologic disorders, and deferoxamine therapy in patients receiving hemodialysis. Individuals who lack phagocytes or have impaired phagocytic function are at higher risk for mucromycosis.

Symptoms of rhino cerebral mucromycosis include One-sided facial swelling, Headache, Nasal or sinus congestion, Black lesions on nasal bridge or upper inside of mouth that quickly become more severe, Fever. Symptoms of pulmonary mucromycosis include Fever, Cough, Chest pain, Shortness of breath. High index of suspicion, recognition of host factors and assessment of clinical manifestations are prerequisites for the diagnosis of mucromycosis. Histology, microbiology and other advanced molecular methods have been used for testing the samples. Signs of this infection include diplopia in patient with diabetes. The most common clinical presentations of Mucorales infection are rhino cerebral, pulmonary, soft tissue, and disseminated disease. Even though infection is confined to particular areas, virtually any organ can be affected. Multiple nodules and pleural effusion are most commonly reported in mucromycosis radiologically. Reverse halo sign (RHS) finding on computerized tomography scan indicates the strong presence of mucromycosis. RHS was more common in patients with mucromycosis whereas clusters of centrilobular nodules, peribronchial consolidations are common in Aspergillosis. These cannot be taken as conclusions so they may be used as indicators to start aggressive diagnostic laboratory tests. Positron emission tomography-computed tomography (PET/CT) with [18F]- Fluorodeoxyglucose (FDG) is another imaging technique that is used in diagnosis and management of mucromycosis.

To avoid this infection, certain precautionary measures need to be followed. Use N95 masks, wash the reusable mask regularly, dry them properly, avoid frozen food and avoid eating preserved foods. This infection needs to be treated with anti-fungal drugs usually Amphotericin B, Posconazole or isavuconazole through IV administration or posaconazole, isavuconazole are administered orally. Other medications like voriconazole, fluconazole do not work against mucromycosis. In order to cut the infected tissue, surgery may be required. If avoid or evade from this definition we'll never get a correct answer to even one question If we do any sort of treatment by assuming that the temperature of fever is to extend blood circulation, the body will accept, at an equivalent time body will resist whatever treatment to decrease blood circulation. If we measure the warmth energy used that activities in fever, we'll know the aim of the temperature of fever. No further evidence is required to prove the temperature of fever is to extend blood circulation. When the disease made by the virus becomes threat to life or organs blood circulation decreases, Temperature of fever will emerges to extend prevailing blood circulation. And it acts as a protective covering of the body to sustain life. The temperature of fever isn't a surplus temperature or it's to not be eliminated from the body.

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