



Analysis of More Post Covid Mucormycosis Cases Observed in Bharat/India

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Mucormycosis which is also called black fungus, because of the black hyphae or black colonies shown in the culture. This is considered a very serious fungal infection, usually observed in immunosuppressed patients. Symptoms of this disease depend upon the location or site of the infection in the body. These infections are most generally observed in the nose, sinuses, eye, and brain resulting in a runny nose, even one-sided facial swelling and pain, headache, fever, blurred vision, swollen and bulging of the eyes, and tissue loss. Other characteristics of the disease include infection of the lungs, stomach, and intestines, and skin. The most common transmission is through the spores of Mucorales molds, and the most common is through inhalation, contaminated food, or contamination from open wounds. These fungi are commonly found in soil, decomposing organic matter (such as rotten fruits and vegetables), and animal manure, but they generally do not affect humans.

One of its most important characteristics is that it does not spread from person to person. The most important predisposing factors are diabetes with persistently high blood sugar or diabetic ketoacidosis, low white blood cells, cancer cells, cancer, cells, cancer, organ transplantation, iron overload, kidney problems, long-term use of steroids, or immunosuppressants, and less Degree of HIV/AIDS. Laboratory diagnosis is commonly carried out by biopsy, KOH preparation, and medical imaging for knowing the extent of the disease. At some point, it may look similar to aspergillosis. The treatment options are generally amphotericin

B and surgical debridement. Preventive measures include wearing masks in dusty areas, avoiding contact with the water-damaged buildings, and many more others.

Mucormycosis tends to grow quickly and be deadly in about 1/2 of sinusitis instances and almost all of the generalized type. Mucormycosis is as such very rare, affecting fewer than two people per million human beings every 12 months in San Francisco, but is now ~80 instances more common in India. People of all ages can be affected, including premature babies. The first known case of mucormycosis may have been described by Friedrich Küchenmeister in 1855. During the COVID19 2020\21 pandemic, an association between mucormycosis and COVID19 has been reported. This association is believed to be linked to decreased immune function during the disease process and may also be linked to glucocorticoid therapy for COVID19. Mucormycosis is a fungal infection caused by fungi in the order Mucorales. In most cases it is due to an invasion of the genera *Rhizopus* and *Mucor*, common bread molds. Most fatal infections are caused by *Rhizopus oryzae*.

Fungal spores are present in the environment, can be detected in moldy bread and fruit, and are breathed in frequently, again causing health problems in some people. In addition to being inhaled for deposition in the nose, sinuses, and lungs, these spores can also enter the pores and skin through the bloodstream or all at once through an open sore or sore, or increase in the intestine if ingested. Once deposited, the fungus grows branch-like filaments

that penetrate the blood vessels, causing blood clots and death of surrounding tissue. Other reported causes include contaminated ice. Mucormycosis has been reported following the use of elastoplast and lingual decompression devices to hold the venous catheter in place.

Outbreaks have also been linked to hospital linens, negative pressure rooms, water leaks, poor ventilation, contaminated medical equipment, especially humidifier bottles from patients breathing oxygen and construction work. Another reason can be hot and humid weather, dusty air and unhygienic habits.

Likewise, during COVID19, patients prescribed heavy and prolonged steroids may have weakened immune systems. Lancelot Pinto, Pulmonary Pathologist at the P.D. of Bombay. Hinduja Hospital and Medical Research Center. There is a misconception amongst docs that the more severe the case [COVID19], the higher the dose of steroids needed, which has not been confirmed via any trials to date." Steroids can raise blood sugar levels, which can be in particular hard for patients with uncontrolled diabetes. Higher blood sugar and more acidic blood create a fertile surroundings for the growth of mucosal fungi.

In these predisposed patients, the spores germinate to form elongated tubular structures that can develop in the sinuses, in the bones, and in the blood. Signs and symptoms and signs and symptoms of mucormycosis and its improvement can vary from person to person; These include throbbing headache, fever, face and nose pain, black runny nose, decreased vision, toothache, loose teeth, swelling of the upper jaw, and sometimes facial paralysis.

Hohl says this is a terrible infection and can disfigure. "If not treated, the infection can penetrate the central nervous system and become more dangerous." When the infection reaches the brain, the risk of death is over 50%.

Early diagnosis can save lives. But infections can be extremely difficult to treat, even in the early stages. Patients were prescribed antifungal therapy such as amphotericin B liposomal injection at least 10 days to several weeks after diagnosis. But these essential drugs have the potential to cause significant side effects, including kidney damage.

In most cases, surgery is required. If it's not that severe, your doctor will insert an endoscope into your nasal cavity to remove

the lesioned tissue. It may be necessary to surgically remove the eye or jaw if the infection gets worse.

Several instances of mucormycosis, aspergillosis and candidiasis associated with immunosuppressive therapy for COVID19 have been stated all through the COVID19 pandemic in India in 2020 and 2021. An evaluation in early 2021 printed a hyperlink association between mucormycosis and COVID19 suggested eight instances of mucormycosis; three from the United States, two from India and one from Brazil, Italy and the United Kingdom. The most common underlying medical condition is diabetes. Most were hospitalized with severe shortness of breath due to COVID19, recovered, and developed mucormycosis 10 to 14 days after being treated for COVID19. Five had abnormal kidney function tests, three in the sinuses, eyes, and brain, three in the lungs, one in the gastrointestinal tract, and one with widespread disease. In two of the seven fatal cases, a diagnosis of mucormycosis was made after autopsy. These three lacked traditional risk factors that led the authors to question the use of steroids and immunosuppressants. However, there are cases who do not have diabetes or who do not use immunosuppressive drugs. Cases have been reported even in children. In May 2021, the BBC reported an increase in the cases in India. In a review of eye problems related to COVID19, inflammation of the mucous membranes affecting the eyes was reported up to several weeks even after recovering from COVID19.

While cases of mucormycosis in India represent only a fraction of the total number of COVID19 cases in the country, the increase is worrying. To prevent such infections in the first place, medical experts point out that hospitals must maintain hygiene, especially for oxygen delivery devices, like humidifiers. Some have even suggested that the humidifier bottle should be filled with methylene blue, which is a fungicidal instead of water, even in the post-recovery period.

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