

Commentary **Excessive Use of Antibiotics Quite Impeded for Black Fungus during the COVID-19 Pandemic**

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1. Description

India continues to suffer with escalating COVID-19 cases during 2020-21, a deadly fungal infection known as mucormycosis or black fungus has emerged as a new health threat. Over approximates 50000 cases of black fungus infection have been detected across the country, prompting state governments to designate the outbreak as an epidemic. In coronavirus positive patients, this unusual fungal illness that developed during the second wave of coronavirus has been widely associated to inappropriate use of steroids and uncontrolled hyperglycemia. Experts were pressed to investigate into the widespread usage of zinc in combination with antibiotics to treat Covid-19 infections, suspecting that it was connected to the mucormycosis outbreak. Mucormycosis has become a global concern, producing severe morbidity and mortality in people with COVID-19 or who are otherwise immune compromised. Infection is debilitating and deadly, resulting in organ loss and psychological suffering. Although radiographic signs are not specific, diagnosis can be made by examining materials taken from necrotic lesions under a microscope. Because the fungus enters through the eyes and nose, and may even reach the brain, treatment requires multidisciplinary knowledge. Resistance and toxicity limit the use of the many antifungal medicines available, but nanoparticles can overcome these constraints by reducing toxicity and boosting bioavailability. Although the lipid forms of amphotericin-B (liposomal Am-B) is the first-line treatment for mucormycosis in COVID-19 patients, its high Copyright © 2022 T. Bangaru cost and limited availability have prompted a shift toward surgery, and so surgical Naidu. This is an open-access debride-ment to remove all necrotic lesions remains the hallmark of effective mucormycosis terms of the Creative Com- treatment in COVID-19. The pathophysiology, clinical manifestations, and therapy of mons Attribution License, mucormycosis in COVID-19 patients are study in this review.

use, distribution, and repro- The number of recorded cases of mucormycosis has increased dramatically, according to epduction in any medium, pro- idemiological evidence. In India, the prevalence of black fungus infection has never been so vided the original author and high. As a result, the current outbreak of this fungus in India was unexpected. Due to comorbidities, excessive steroid treatment, organ transplants, exposure to ventilation, oxygen therapy, poor hospital hygiene, and other factors, black fungus is an opportunistic disease that affects immune-compromised individuals. According to a recent report on the Indian black fungus outbreak, 94 percent of patients had diabetes. COVID-19 and post-COVID-19 patients are the majority of black fungus sufferers in India. Because of the humidity and moisture present during ICU ventilation, black fungus thrives in the airways of COVID patients. Furthermore, the excessive use of steroids and antibiotics for the treatment of COVID-19 patients may provide an opening for this aggressive fungus to thrive. Thus, during the devastating second wave of the COVID-19 pandemic in India, health authorities primarily suspected overmedication, hospital cleanliness, and comorbid conditions as major contributing factors for this significant surge in black fungus infection. Furthermore, unconventional therapies for COVID-19.



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Excessive usage of medicine, according to doctors, could be a contributing factor in black fun-gus infection. To control the ongoing pandemic, the public health authorities should oversee the sensible use of steroids and antibiotics. Furthermore, the government should immediately prohibit the use of antibiotics and steroids over-the-counter. Stopping the spread of the infection requires early detection and awareness. Diabetic individuals should be advised and encouraged to keep their blood sugar levels under control. For black fungus, there should be enough testing facilities. For early assessment and detection of this dangerous black fungus infection, health-care authorities should keep continuous communication with all covid and post-covid patients. Antifungal drugs and treatment for black fungus infection should be made more affordable and accessible to the general public. Antibiotics were primarily used to treat 100% of the COVID-19 patients who were later diagnosed with mucormycosis. Antibiotics such as azithromycin, dox-ycycline, and carbapenems are known to increase the risk of fungal infections in Covid patients in India. Antibiotics such as azithromycin, doxycycline, and carbapenem, however, can in-crease the risk of fungal infection.

Despite the fact that the patient has suffered from black fungus, another argument connects the growing number of fungal cases in the country to the use of industrial oxygen cylinders. With the country's growing demand for oxygen, a significant amount of industrial oxygen has been diverted for medicinal use. Industrial oxygen cylinders have been substituted for medical oxygen cylinders in a number of locations. Industrial oxygen cylinders are not as good as medical oxygen cylinders, despite the fact that industrial oxygen is purer than medical oxygen. Several micro leaks exist, and they are not kept clean. Fungus could potentially grow in industrial oxygen cylinders that contain contaminated water and dirt. However, exploratory research is required in this regard to keeping up with the emerging COVID -19 stains.