

Controlling blood sugar level key to preventing black fungus after Covid

Doctors say steroids given in severe Covid raise sugar level, fungus thrives on it

Pushpa.Narayan@timesgroup.com

Most critically ill patients, including those recovering from a transplant surgery in intensive care units, receive the broad-spectrum antifungal drug amphotericin-B. This drug ensures such patients, who have a strained immune system, don't get any fungal infection, particularly mucormycosis or 'black fungus', which is in the news now.

"Most people in ICUs across India now are Covid patients who have a favourable condition for the fungi to survive," says senior transplant surgeon Dr Mohamed Rela. "There are strands of evidence to show that the chances of a person in India getting the infection are at least 80% higher compared to the West. This is because the mucor (fungus) is ubiquitous here."

Scientists estimate three out of ten such infections occur in patients within the hospital, but hospitals and clinics for post-Covid complications are now reporting an increasing number of infections among people who have recovered from moderate or critical Covid.

What is mucormycosis?

Fungus – a group of spore-producing organisms feeding on organic matter – can cause havoc if it enters a human body, particularly one with a weak immune system. Mucormycosis, a type of fungal infection, affects the sinuses and can spread to the space around the eyeballs and brain. In rare cases it affects the lungs. Most people who get this infection have uncontrolled sugar levels – drug-induced or due to diabetes. In hospital, doctors monitor sugar levels and look for symptoms, but once Covid-19 patients are discharged, they are expected to report to hospitals when they see the earliest sign of fungal infection.



Why in Covid patients?

Doctors themselves are debating the causes, but one thing they all agree upon is that it's caused by elevated sugar levels in blood. Covid-19 patients – diabetic or healthy – are given steroids during their hospital stay. Steroids are known to increase blood sugar levels. Even among non-diabetics, the sugar level rises up to 400. Spores of fungus thrive in a high-sugar environment. The fungus can force the pancreas to alter insulin secretion, causing insulin resistance and increase in blood sugar levels.

and in some cases patients present with symptoms as early as 5-6 days after testing positive for Covid.

Dr Nisar Sonam Poonam, associate consultant at the department of orbit and oculoplasty at Sankara Nethralaya, says her hospital has seen more than a dozen cases in a week. The youngest was 17 years old. "We can save the patient and the vision if they come in early. Now, many people report to the hospital with serious complications, such as complete loss of vision. We have seven so far," she said.

To prevent complications, patients must report to hospital when they have a stuffy nose with bloody, blackish or brown discharge from the nose, blackish discoloration of the skin, swelling or numbness around the cheek, one-sided facial pain, toothache or jaw pain, drooping of the eyelids or eyelid swelling, double vision, red eye and decrease in vision.

Having these symptoms does not mean you have the infection, but it is best left to the decision of doctors.

Testing and treatment

An MRI scan (sinus, orbit and brain) with contrast is the investigation of choice and gives an idea to assess the extent of the disease. A biopsy, usually from the nose, can confirm the diagnosis. Treatment is done by specialists depending upon where the fungus is. Most patients with infection are admitted to hospitals and doctors prescribe anti-fungal medications. In most people the infection settles down. Some may require surgery to debulk or reduce the fungal load. In some cases, doctors may remove parts of the eye or sinus system, leading to partial or complete vision or hearing loss. Sometimes, when the infection spreads all over the body, patients die.



TOI, in association with Unicef, has put together a panel of experts to answer questions about Covid-19 and vaccination. Scan the QR code or visit bit.ly/3gKqS6h to ask your question



Care at home

Doctors say it is important to keep sugar levels under strict control with a balanced diet, medication and mild-to-moderate physical exercise. If you have a glucometer at home, doctors may suggest physical recording of blood sugar levels every day. For people without diabetes, frequent lab tests may be required. Maintain good personal

hygiene and wear protective gear during gardening or while handling soil, and wear a mask when you enter a dusty area. Mucormycosis is not transmissible and does not spread from one person to another.

When should you report to the hospital?

Most infections can be managed or cured when they are reported early on. Patients have told hospitals that symptoms appeared 2-3 weeks after they were discharged from hospital,