

All India Institute of Medical Sciences, New Delhi

Covid-19 Infection and Rhino-orbito-cerebral Mucormycosis

Guidance for patients



What is Mucormycosis ? Why the concern?

- “Mucor” is a fungus which is normally present in the environment and in soil. It causes disease only when immunity is critically low.
- Mucormycosis is not a new disease. It is known to occur in patients with low immunity such as in uncontrolled diabetes, post transplant, and some cancer treatments
- A sudden surge is being reported in Mucormycosis in cases with COVID-19. It is a rare but serious complication of Covid-19. Infection with Mucormycosis can cause loss of eye and may be life threatening.
- Mucor infection may occur during Covid-19 infection or a few weeks after recovery from Covid-19.

What is causing this Mucor surge?

- COVID-19 has tendency to worsen diabetes and also cause diabetes in previously normal individuals
- The Covid 19 infection itself causes decrease in some types of white blood cells and decrease in immunity.
- Some medicines like Steroids and Tocilizumab used for treatment of Covid-19 infection can worsen immune status.
- The severity of Mucor infection is largely dependent on the patient's immunity and general health. If Covid – 19 infection, high blood sugar levels, and immunosuppressive treatments are all present then the risk from infection increases.

What are alarming symptoms to watch for?

Rhinocerebral Mucormycosis infection generally starts in the nose and may progress to the Eye and the Brain

- Nose and sinuses Mucor infection (relatively early disease)

Early detection at this stage can enable early treatment and minimize complications.

- Headache and nasal obstruction- especially if persistent or severe and not responding to pain medicines.
 - Nasal crusting and nasal discharge which could be brownish or blood tinged
 - Pain or loss of sensation on face
 - Discolouration of skin of face / localised Facial puffiness
 - Loosening of teeth/ discoloration or ulceration of palate
- Eye / Orbital Mucor infection (moderately advanced disease)
 - Eye swelling or redness, double vision, loss of vision, Eye pain, drooping eyelid



Do's & Dont's for patients

Dont's

- Self medicate, especially steroids
- Delay reporting symptoms of Mucor
- Ignore medical advice

Do's

- Give history of diabetes to doctor
- Get Sugar levels checked
- Watch for early signs of Mucor listed above.
- Maintain basic hygiene and cleanliness.
- Follow medical advice; Take complete course of treatment as suggested by doctor

What to do if you have these symptoms?

- Consult your doctor immediately
- Doctor will examine you clinically. If required, the doctor will take swabs from nose and test them for fungus
- If the infection is strongly suspected or confirmed, you may need treatment with antifungal medications and surgery