- Virus

Six ways to avoid Covid-19 -associated black fungus

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OPPORTUNISM is the practice of taking advantage of circumstances — sometimes when the opponent is weak. In nature, there are a group of opportunistic fungi that do not affect healthy individuals but strike when there is an "opportunity" (lowered immunity).

There are several conditions that make a person susceptible, such as the use of steroids or immune suppressive drugs, and diseases like diabetes and cancer. Infection with SARS-CoV 2 also lowers the immunity.

There is a prefatory siren with the emergence of Covid-19- associated mucormycosis, or CAM. Caused by mucor, a ubiquitous organism present in the environment, mucormycosis is popularly termed as "black fungus". It causes many an affliction — from loss of vision to death.

Interestingly, the next set of emerging fungal infections were named white fungus and yellow fungus. But what draws attention is the sudden outbreak of this otherwise rare disease. India has declared this as a notified disease. Most reported CAM cases had diabetes.

Malaysia is a country with a significant diabetic population coupled with the rapid increase in Covid-19 cases. As such, it needs to take precautions to prevent the emergence of such infections. The following precautions should be taken to avoid them.

FIRST, it needs to be understood that mucor is commonly found as a saprophyte living in soil, plants, manure, and on dead and organic matter, such as rotten fruits and vegetables.

The spores of mucor are prevalent in the air and could be inhaled by any healthy person without any harm. But when the person has a lowered immunity, as in the case of SARS-CoV-2, it can cause a life-threatening disease. The route of entry of this fungus is by inhalation, so it is advisable to keep the house "mold-free".

Wearing face masks can prevent the inhalation of the spores. However, repeated use of the same face mask can harbour fungal spores. Mold and mildew thrive in a humid environment, so it is important to keep the home clean and properly ventilated.

SECOND, overuse and improper early initiation of steroids in Covid-19 treatment is not recommended. Steroids are to be used with precaution and according to guidelines.

For instance, oral steroids are contraindicated with patients with normal oxygen saturation. Patients in self-quarantine should avoid self-medication.

THIRD, Covid-19 patients recuperating and discharged from hospital should consult their doctors if any of the following symptoms appear: swelling around the nose or eyes, stuffy or bleeding nose, nasal blockage or coloured discharge, facial pain, pain near eyes, dental pain, loosening of teeth and blackening of the palate.

FOURTH, indiscriminate use of anti-microbials can kill the beneficial normal flora and make a person susceptible to infection.

FIFTH, the overwhelming number of new Covid-19 cases can stretch hospital resources to the limit. This could compromise the availability of hygienic ventilators, oxygen masks and humidifiers, resulting in outbreaks of mucormycosis.

Therefore, it is the responsibility of all to strictly follow the standard operating procedures to reduce the burden on the healthcare system.

SIXTH, the risk of CAM is significant in a population with high prevalence and poorly controlled diabetes. It is important to monitor the health of those with high risk.

Though the exact causes of the sudden outbreak of mucormycosis is still a mystery, it is believed that the SARS-CoV-2 virus that causes Covid-19 can damage airway tissue, thereby increasing the susceptibility to the disease. Higher ferritin level that comes with Covid-19 infection, also provides extra iron that favours the growth of mucor.

The only consolation amid this major threat is the fact that the fungus is not contagious. The spectrum of fungal infections is just the tip of the iceberg. At the epoch of immune suppression, any fungus from A-Z (aspergillus to zycomycetes), can emerge into an opportunistic pathogen!