pISSN 2394-6032 | eISSN 2394-6040

Letter to the Editor

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20212635

Mucormycosis and COVID-19: a skeleton in the closet and double burden for India

Sir,

Coronavirus (SARS-CoV-2) chaos has enveloped India with highest daily death toll on 11th May with 4202 deaths and quite high positivity rates, over 21% countrywide.1 After the United States, India is the second worst nation to suffer from pandemic having 3742015 active cases and 20.80% share in global numbers.1 According to WHOs weekly situation report, released on 11th May, the exponential surge in cases attributes to combination of earlier easing of lockdown, increased transmissibility of new variant, poor adherence to social and physical distancing, political rallies, farmers protest and weeks long 'Kumbh Mela' in Haridwar. A fear reinforced by dozens of COVID-19 victim's bodies on Gangas river banks, crematoriums operating all the time and running out of firewood, tells that actual disease burden is much worse than the official statistics. The disease pattern of COVID-19 ranges from mild to severe and life-threatening pneumonia with associated microbial coinfections from bacteria and fungi.² As India reels under second wave, the mucormycosis or 'black-fungal' infection seems to have reared its ugly head again. Mucormycosis is an opportunistic angioinvasive fungal infection particularly in severely immunosuppressed hosts caused by fungi of the class zygomycetes and mucorales order with 50% mortality rate. Based on clinical manifestations, it is classified as rhino-cerebral, cutaneous, pulmonary, gastrointestinal and disseminated. The COVID-19 recovered patients or those battling the virus with associated comorbidities (like diabetes mellitus, diabetic ketoacidosis, chronic obstructive pulmonary disease) and immunocompromised conditions (from prolonged steroids administration, ventilation and intensive care unit stay) are more vulnerable to develop the opportunistic black-fungal infections.3 Corticosteroid therapy is a double-edged sword as it is the main cause of drug induced hyperglycemia and immunosuppression.⁴ Fungal infection often triggered by COVID-19, starts with bleeding from nose, facial swelling and distortion. Patients suffer from potential loss of eyesight and destruction of jaw bones. In some cases, it may turn fatal and patients succumb after cerebral involvement. Nearly 300 mucormycosis cases have been diagnosed in Morbi district of Gujrat. Apart from Morbi, Surat reported 40 cases and eight lost vision.⁵ The killer disease has affected Ahmedabad with 44 people already being hospitalized for the illness. It has so far killed 9 people in Ahmedabad. On 12th May, the Health Minister of Maharashtra said that "there could be over 1500 mucormycosis patients in the state as of now".6 Mucormycosis has claimed 52 lives in Maharashtra so far since the beginning of pandemic in March 2020.⁵ Those with uncontrolled diabetes and heavy use of steroids to survive COVID-19 complications are worst affected. A potentially fatal black-fungal infection is cropping up among COVID-19 patients in India. This alarming affliction, although rare is not new. However, the rapid increase in the numbers seen in unsuspected recovering COVID-19 patients, typically pushing them back into ICUs is causing the grave concern. As the country battles second wave, another outbreak of a deadly fungal disease has put the authorities on high alert.

Ahmad Saeed^{1*}, Muhammad Uzair², Saadia Eiman², Hadia Younas³, Komal Saeed⁴

¹Punjab Medical College, Faisalabad, Pakistan ²Allama Iqbal Medical College, Lahore, Pakistan ³Services Institute of Medical Sciences Lahore, Pakistan ⁴University of Agriculture, Faisalabad, Pakistan

*Correspondence to

Ahmad Saeed,

E-mail: ahmadsaeedgorayaacg@gmail.com

REFERENCES

- Johns Hopkins University Center for Systems Science and Engineering (JHU CSSE). Covid-19 Repository, 2020. Available at: https://www.arcgis.com/apps/dashboards/bda759474 0fd40299423467b48e9ecf6. Accessed on 11 May 2021.
- 2. Farnoosh G, Alishiri G, Hosseini ZSR, Dorostkar R, Jalali FA. Understanding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19) based on available evidence-A narrative review J Mil Med. 2020;22:1-11.
- 3. Mehta S, Pandey A. Rhino-Orbital Mucormycosis Associated With COVID-19. Cureus. 2020;12(9):10726.
- 4. Raalte DH, Ouwens DM, Diamant M. Novel insights into glucocorticoid-mediated diabetogenic effects: towards expansion of therapeutic options?. Eur J Clin Invest. 2009;39(2):81-93.
- India Today. Black fungus detected in COVID-19 survivors, 8 lose eyesight in Surat, 2021. Available at: https://www.indiatoday.coronavvid19survivors-8-yesight-surat-fungal-infection-s. Accessed on 11 May 2021.

6. The Tribune. Black fungus has claimed 52 lives in Maha so far: Official, Maharashtra health minister Rajesh Tope had said there were 1,500 cases of black fungus in the state, 2021. Available at: https://www.tribuneindia.com/news/nation/blackfungus-has-claimed-52-lives-in-maha-so-faofficial-252781. Accessed on 14 May 2021.

Cite this article as: Saeed A, Uzair M, Eiman S, Younas H, Saeed K. Mucormycosis and COVID-19: a skeleton in the closet and double burden for India. Int J Community Med Public Health 2021;8:3721-2.