Free Press (Indore), 29th January 2022, Page-02

Covid-19 may impair phagocytic immune-cell response to fungus: IIT Indore study

OUR STAFF REPORTER
Indore

SARS-CoV-2 may impair the phagocytic immune cell response to the fungus, which is the main defence mechanism against mucormycosis, through viral-induced lymphopenia or the therapeutic use of corticosteroids, according to a study by IIT Indore.

IIT Indore has summarised the study to understand post Covid-19 infection in terms of adjunct therapies and steroidal after-effects.

The study was conducted by the group leader of Infection Bioengineering at IIT Indore, Dr Hem Chandra Jha along with his research scholars Charu Sonkar, interns Vaishnavi Hase, Durba Banerjee, Dr Rajesh Kumar alongwith Dr Awanish Kumar from NIT Raipur. The article was published in Canadian Journal of Chemistry.

Inducibility and catastrophic effects of the virus can be found in a variety of organs, including lungs, kidneys, heart, skin, neurons, and others. The interaction of the SARS-CoV-2 virus and the host receptor causes cytokine storms in Covid-19 patients, which can lead to a variety of immunopathological consequences, including death. It has affected millions of people around the world so far, but there is no effective treatment. It is critical to have a thorough understanding of drugs and their devastating consequences. Patients who recovered from Covid-19 complications showed extensive clinical symptoms that were similar to those seen with previously circulating coronaviruses.

In Covid-19 patients, the use of steroids as a treatment resulted in a variety of health issues and side effects. The study discussed the history of coronavirus epidemics, Post-Covid 19 complications (PCC), and multiple organs damaged by it. In addition, the group derived updated information on Covid-19 therapeutics, adjunctive therapeutics, and corticosteroids.

Dr Jha said "Long-term use of corticosteroids is known to cause serious side effects. Covid-19's side effects, the receptors it targets, and the alternative drugs that can be used for Covid-19 have all been briefly discussed. Information on ARDS drugs and Covid-19 immunotherapies, that are still being tested, have also been included. The study includes information about antibodies that have been granted emergency use authorization. The fact that corticosteroids are an important treatment for Covid-19 have been considered. A thorough understanding of its receptors and side effects, on the other hand, would help provide accurate information about its use and when an alternative could be used. As a result, extensive information on PCC, therapeutics under investigation, adjunct therapeutics for Covid-19 management, and other Covid-19 investigational immunotherapies has been provided."

The discussed complications can affect a person in a single or multiple ways, and they can cause health problems for varying lengths of time. The goal of the article is not only to educate the reader about the topics, but also to point out and emphasize the importance of systematic disease management and control in order to raise awareness and prevent future epidemics.