ICU
MANAGEMENT & PRACTICE

Treating Early COVID-19 Infection

There have been over 47 million cases of COVID-19 globally and 1.2 million deaths. According to Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases (NIAID), the treatment of patients with early COVID-19 infection requires urgent focus. Treating these patients early in the course of infection could help speed up their recovery and could also reduce the likelihood of severe outcomes. Early treatment would also reduce demand on healthcare systems.

Many COVID-19 patients experience mild symptoms early in infection but soon progress to severe disease that often leads to hospitalisation. Approximately 20% of symptomatic patients progress to severe or critical disease and suffer from pneumonia, ARDS, multiorgan dysfunction, hypercoagulation and hyperinflammatory manifestations. Some patients experience long recovery times and could also develop long-lasting fatigue, mental health issues and problems with their heart and lung function.

So far, there has been very little success with drugs that could potentially treat the infection at an early stage. Remdesivir has been found to be effective in reducing time to recovery in hospitalised patients, but it requires daily infusions for up to 10 days and is not suitable for treatment at the early stage of the disease. Similarly, dexamethasone reduces mortality in hospitalised patients requiring mechanical ventilation but has not been tested in early, mild disease. There is thus an urgent need for research in this direction to identify interventions that could be administered early on so that the disease would not progress and long-term complications could be avoided. These treatments should be safe and with few side effects, and should also be easy to administer.

Work is already underway, with scientists exploring the effectiveness of early treatment with therapies such as convalescent plasma and monoclonal antibodies. Also, strategies to deliver therapies by alternative routes such as inhalation or intramuscular injection are also being explored. However, a lot more needs to be done, and current treatment candidates need to be further refined. There is also a need to develop new drugs and treatments that can be administered early and are available at a low cost.

Clearly, there is a need for robust drug discovery and rigorous clinical trials, and this will require commitment from scientists, clinical trialists, pharmaceutical companies, and study volunteers. Healthcare systems are already overburdened by this pandemic. Early treatments that are effective could prevent healthcare systems from being burdened even more and could help patients recover faster.

Source: JAMA
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Published on : Sat, 14 Nov 2020