

Study Reveals that Convalescent Plasma is Ineffective for Critically Ill Covid-19 Patients

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INTRODUCTION

Convalescent plasma, or blood plasma from persons who have recently recovered from an infection, includes antibodies that may be able to combat the same infection in others [1]. Although there is limited evidence for its benefit in critically ill patients, several institutions have started using convalescent plasma to treat COVID-19.

With the probable exception of people with compromised immune systems, a comprehensive research has recently shown that the medication had little benefit for critically ill patients. Proponents of the therapy say that if given early enough, before the inflammatory phase of the disease begins, convalescent plasma can save lives [2].

For almost a century, doctors have used plasma from patients who have recovered from an infection, also known as convalescent plasma or passive antibody therapy, to treat bacterial and viral infections including influenza and Ebola. The Food and Drug Administration (FDA) issued an emergency use authorization for convalescent plasma to treat patients hospitalised with COVID-19 in August 2020, which was amended in February 2021.

Antibodies are no longer useful

Proponents of convalescent plasma therapy, on the other hand, told Medical News Today that the treatment is unlikely to help patients in the later stages of the disease, when the greatest threat to their survival is the body's excessive inflammatory reaction rather than the virus itself.

"COVID-19 has two phases: a viral phase, in which the patient's illness and damage are caused by viral replication, and an inflammatory phase, triggered by the patient's immune response to the virus, in which the patient's illness and damage are caused by the immune response, with viral replication often no longer detectable.

"Because convalescent plasma efficacy is dependent on antiviral activity," it should not be expected to be successful in patients with severe disease characteristic of the inflammatory phase." Early intervention is critical. It is important to note, however, that some recent studies suggest that convalescent plasma is useful if given

early in the course of an infection and includes sufficiently high concentrations, or "titers," of antiviral antibodies [3].

Treatments with Monoclonal Antibodies

Monoclonal antibodies to treat and prevent COVID-19 have recently received approval in the United States and the United Kingdom. The medication is recommended by the World Health Organization (WHO) for individuals at high risk of hospitalisation who do not yet have severe COVID-19, as well as patients with severe or critical disease who have impaired immunity.

Unfortunately, it was either given outside of clinical studies or in trials that weren't aimed at critically ill patients, which slowed our ability to see if it helped. Finally, these findings allow us to stop using convalescent plasma in our sickest COVID-19 patients and instead focus on treatments that we know work, as well as creating and testing new ones [4].

Patients with an "impaired immune system" may nevertheless be able to benefit

"It's possible that patients with a compromised immune system, who are unable to mount an effective immune response, could benefit from the antibodies present in COVID-recovered patients' blood plasma, especially early in the illness," said corresponding author Dr. Lise Estcourt, an associate professor of haematology and transfusion medicine at Oxford University's Radcliffe Department of Medicine and director of the National Health Service Blood and Transfusion Service in the United Kingdom.

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