

CSSC001: Convalescent Plasma for Prevention

1. What?

Study was focused on preventing COVID-19 **infection*** in individuals exposed to the virus, and it took place before vaccines and other preventive therapies were available. Researchers were trying to determine if **antibodies*** from people who recovered from infection could prevent infection in people who were recently **exposed*** to COVID-19, but not yet infected. 180 exposed volunteers received high-titer “**Convalescent Plasma***” (“CCP”), or **placebo***. Plasma used in this study was “high titer”, which indicates the presence of high levels of antibodies in the blood samples.

2. Why?

This study was done in order to determine if there were effective preventive strategies that could be used during the ongoing coronavirus pandemic. The approach used in this study is known as “passive immunotherapy” – it has been used to control many other infections and chronic diseases, and it has been shown to be very safe. This study was conducted prior to FDA vaccination and prevention approvals.



Key Terms*

Antibody: An immune system protein produced when foreign substances, called antigens, are detected.

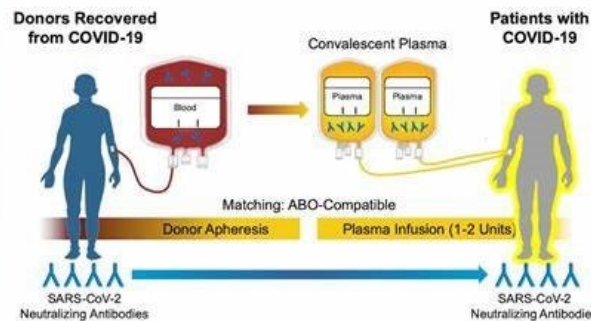
Antigens: are produced by microorganisms (bacteria, fungi, parasites, and viruses), and react with an antibody in the body as they are perceived as foreign to the body, and a threat. This produces a protective response.

Convalescent Plasma: Blood plasma that individuals who have recently recovered from a specific illness and have **donated** with the goal of providing passive immunity to another individual with that specific illness.

Infection vs. Exposure: **Infection** occurs when an individual is *exposed* to a pathogen and actually becomes sick, whereas **exposure** simply means someone has come into contact with that pathogen. Exposure does not always lead to infection.

Placebo: Any substance or medical procedure resembling an actual treatment, without actually acting on a disease or medical condition in an affected individual.

Symptomatic vs. Asymptomatic: Asymptomatic carriers of disease or infection do not actually exhibit any observable symptoms, whereas symptomatic patients exhibit symptoms of infection.



3. Results?



Although CCP administration was safe, it did not prevent COVID-19 infection in people who received it, as this study group did not produce different results than those who *weren't* given the antibodies. There were 180 participants enrolled, and results showed that nearly 14.8% of volunteers who received the CCP *still* developed infection from COVID-19, and 7.4% of this same group also developed **symptomatic*** infection. This is compared to 14.9% and 8% in those who did not get the antibodies.

4. Why Should YOU Care?



Individuals who want to gather more information about preventing COVID-19, and volunteers from the study may be interested in the results of a research study such as this one. However, in this case the intervention did not prevent COVID-19 infection. If it had, it could have been used within populations at high risk of getting severe COVID-19 infection (immunocompromised, the elderly, very young) and those that could not be vaccinated.