

Chapter 8

Plasma Therapy Towards COVID Treatment



Apart from the drugs used in the treatment of COVID, it is necessary to try several other routes through which the recovery of the victims can be made possible. India has now laid its steps towards implementing the Plasma Therapy as an approach towards the treatment of COVID19. Here the Plasma is collected from the individuals who have recovered from the infection, as they have already developed antibodies against the pathogen. The plasma from these individuals is expected to contain antibodies against COVID which can be used further for treating the patients affected with this pathogen.

Plasma is a liquid portion of the blood that contains 90% of water and 10% of blood proteins [1]. These blood proteins mainly include antibodies, coagulation factors, serum albumin etc. The plasma of the blood can be easily separated as the supernatant by simple centrifugation of the whole blood [2]. Being highly rich in proteins and immunoglobulins plasma can be a better choice for the treatment of such diseases which do not have a perfect medication and solution. Many of the rare chronic conditions are treated with blood plasma. Plasma has been termed as a Gift of Life by some of the health organizations [3]. The concept of plasma therapy was first practically performed in the year 1982. In order to treat Diphtheria serum was collected from the animals and used for the therapy. This is a successful protocol with some mild side effects also been observed. The plasma obtained from the COVID recovered individuals who have developed the antibodies is transfused into the patients to be treated. These injected antibodies impart passive immunity to the patient.

However the chances of success are not 100% as some of the cases even revealed an elevation of infection rather than recovery. In case of dengue the use of convalescent serum has failed to provide immunity rather it had enhanced the virus replication in the host. Apart from the pathogen that is targeted in the Plasma therapy there are chances that a new pathogen may enter the victim along with plasma used for therapy causing other infections.