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Kerala Gets Nod for Trial of Plasma Therapy

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Why in News

Recently, **Kerala** has got the **Indian Council of Medical Research (ICMR) approval** for the clinical protocol exploring the feasibility of **convalescent plasma transfusion** which may be administered to severe **Covid-19** patients.

Key Points

- A proposal was submitted to ICMR saying that the **Transfusion Medicine Department of the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Kerala** would help the Health Department in exploring the possibility of Convalescent Plasma (CP) therapy for Covid-19 treatment.
- The move was taken as a **precautionary step** to be prepared for the more severe second and third waves of the **novel coronavirus** pandemic.
- Kerala had also sought ICMR's early clearance for **using HIV antivirals (lopinavir/ritonavir)** for treating Covid-19 after reports on their potential use surfaced.
- Kerala might need to **submit an expanded access protocol to ICMR** and **Drugs Controller General's approval** and **Institutional Ethics Committee approval** would be necessary before the administration of the treatment.
- One **major challenge** is the **non-availability of the kit for checking the antibody level in the plasma of a recovered person.**
 - It is not available in India and has to be **brought from Germany.**
 - The **cancellation of international flights** would lead to **delay** in importing the desired number of kits.

Convalescent Plasma Therapy

- Convalescent plasma (CP) therapy is not a new therapy and banks on the age-old concept of **passive immunity.**

- **Basis of the Therapy:**
 - The convalescent plasma therapy seeks to make **use of the antibodies developed in the recovered patient** against the coronavirus.
 - The **whole blood or plasma** from such people is taken, and the plasma is then injected in critically ill patients so that the **antibodies are transferred** and boost their fight against the virus.
- **Time Period for Infusion:**
 - A study in The Lancet Infectious Diseases stated that a Covid patient usually **develops primary immunity against the virus in 10-14 days**.
 - Therefore, if the plasma is **injected at an early stage**, it can possibly help fight the virus and prevent severe illness.
- **Infusion into Covid-19 Patients:**
 - The plasma can be **infused into two kinds of Covid-19 patients**, those with a **severe illness** or individuals at a **higher risk of getting the virus**.
 - However, while plasma transfers immunity from one person to another, it is **not known if it can save lives** in Covid-19 infection.
 - The treatment could be **effective for patients in the age group 40-60**, but **may be less effective for people aged beyond 60 years**.
- **Previous Application:**
 - The **United States** used plasma of recovered patients to treat patients of **Spanish flu** (1918-1920).
 - Hong Kong used it to treat **SARS (Severe Acute Respiratory Syndrome)** patients in 2005.
 - In 2009, the **Swine flu (H1N1)** patients were treated with plasma.
 - It has also been used to treat critically ill patients during **Ebola** as well.
- The report of a study, **Proceedings of National Academies of Sciences (U.S.)**, highlighted that CP therapy shows a potential therapeutic effect and low risk in the treatment of severe Covid-19 patients.
- According to the study, **one dose (200 ml) of convalescent plasma with a high concentration of neutralising antibodies** is **well-tolerated** by patients and it can **rapidly reduce the viral load in patients** and **improve clinical symptoms** significantly.

Source: TH