The World Health Organization (WHO) has recently brought up some crucial concerns regarding the application of the BCG, or Bacille Calmette-Guerin, vaccine in the fight against COVID-19. Originally designed to combat tuberculosis (TB), the BCG vaccine is now being investigated for its possible efficacy in lessening the impact of the coronavirus pandemic.

Need for Randomised Controlled Trials

Before general administration can be considered, WHO underscores the importance of randomised controlled trials to confirm both the safety and effectiveness of the BCG vaccine against COVID-19. Currently, these types of studies are ongoing in countries like the Netherlands and Australia. The goal of these trials is to ascertain whether this vaccine can indeed lower the number and severity of COVID-19 cases.

BCG Vaccination and Lower Coronavirus Cases

An initial study suggests a correlation between countries that offer universal BCG vaccination and a reduced number of coronavirus cases. It argues that nations with established BCG vaccine programs have reported fewer COVID-19-related fatalities. This hinges on the theory that the BCG vaccine boosts the body's innate immune response to subsequent infections, potentially diminishing viral load after exposure to the novel coronavirus. This could result in milder COVID-19 cases and faster recovery times.

Perspective from India

According to the Translational Health Science and Technology Institute (THSTI) in Faridabad, India, the thought that the BCG vaccine may offer protection against COVID-19 is biologically plausible, as it is known to prevent intracellular infections. However, even with a nation-wide TB vaccination policy in place since 1968, India is still cautioning against overconfidence in these early findings.

Five Reasons to Await Randomised Controlled Trial Results

There are several factors that warrant patience for the results of randomised controlled trials. Primarily, the correlation of fewer COVID-19 cases in countries with universal BCG vaccination is based on population data, not individual-level data.

Questioning Long-Term Efficacy

Doubts exist about whether the benefits of the BCG vaccine administered at birth can diminish the severity of COVID-19 decades later. Moreover, there are concerns that these beneficial effects could be altered by subsequent administration of a different vaccine and become less effective over time.

Potential Risks of the BCG Vaccine

There is also a small chance that the BCG vaccine could overstimulate the immune system, which might worsen COVID-19 symptoms in a small patient population with severe disease. In some patients, the coronavirus triggers an overwhelming immune response known as a cytokine storm, which could lead to

additional complications and even death.

False Sense of Security and Shortage Concerns

If the BCG vaccine is ineffective against the novel coronavirus, it could give people a false sense of security, which could be dangerous during a pandemic. Furthermore, using the vaccine without concrete evidence of its benefits could risk depleting the existing limited supply of the BCG vaccine.

With the world eager for a solution to the ongoing health crisis, it is crucial to remember the importance of solid scientific research and controlled testing before jumping to conclusions.

