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BNT162b2 mRNA COVID-19 Vaccine to Fight COVID

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Fernando P Polack, M.D., Stephen J. Thomas, M.D., Nicholas Kitchen, M.D., Judith Absalon, M.D., et al., from the clinical trial group, " Safety and Efficacy of the BNT162b2 mRNA COVID-19 vaccine" , The New England Journal of Medicine 2020; 383:2603-2614, December 31, 2020, DOI: 10.1056 INEJ Moa 2034577 :: Reviewed by **Vaishna Das K.S**.

In this article they worked on the safety and efficacy of BNT162b2 mRNA COVID-19 vaccine. This is an mRNA vaccine which codes for SARS-COVID-2 spike protein. The main objective of their study was to have a check on the safety of the vaccine as well as to find out how far it is effective to prevent COVID-19 spread.

They conducted their study through intramuscular administration of 2 doses of 30 microgam vaccine, 21 days apart and was compared with placebo. BNT162b2 is a lipid nano particle and the vaccine was given as a novel formulation. The safety and efficacy was compared between the placebo candidate and vaccinated candidate.

They obtained results in statistical manner according to the age groups. Two dose regimen of BNT162b2 mRNA COVID-19 vaccine was found to be conferring protection against this COVID-19 in persons belonging to the age group of 16 years or older. Safety profile obtained from the study revealed that local reactions like swelling, pain and systemic reactions like fever, headache, myalgia was occurred in vaccinated candidates at higher rate than the placebo recipients.

The study was conducted in healthy or hard stable chronic medical conditions. The study did not include other populations like, people having medical history of COVID-19, those who are undergoing immunosuppression and those who are diagnosed with immuno compromising conditions. The study does not confer for the efficacy beyond 2 months. They could have studied for the effects on missing the second dose.

They provides an excellent information on the prophylactic use of BNT162b2 mRNA COVID-19 vaccine for COVID-19 and this can be used as a major tool in the advancement of vaccine preparations to fight the COVID-19.

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