Editorial

Wearing Off Immunity to COVID-19

Attapon Cheepsattayakorn[1,3]*, Ruangrong Cheepsattayakorn[2] and Porntep Siriwanarangsun[3]

[1]10th Zonal Tuberculosis and Chest Disease Center, Chiang Mai, Thailand
[2]Department of Pathology, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand
[3]Faculty of Medicine, Western University, Pathumtani Province, Thailand

*Corresponding Author: Attapon Cheepsattayakorn, 10th Zonal Tuberculosis and Chest Disease Center, Chiang Mai, Thailand.

A recent study on more than 365,000 randomly selected people in England with home finger-prick testing, published by Imperial College London and Ipsos MORI, a market research company revealed that there was a more than 26% significant decline in SARS-CoV-2 (COVID-19) antibodies over three months. The investigators observed more than three rounds of the national surveillance by using a self-administered lateral flow test at 12, 18 and 24 weeks after the first peak of SARS-CoV-2 (COVID-19) infections in England. These findings on SARS-CoV-2 (COVID-19) that individuals' detectable antibody levels followed in longitudinal studies that decreased over time are consistent with evidence that immunity to seasonal coronaviruses decreases over 6 to 12 months after infection. At the beginning of the study, in June 2020, 6% of the tested people had IgG antibody responses to SARS-CoV-2 (COVID-19) and by September 2020, only 4.4% of them had. The rates of IgG antibody responses among the healthcare workers were the same. The tests were not designed to detect other types of antibodies that may persist longer than IgG antibody responses does.

The study also demonstrated that asymptomatic SARS-CoV-2 (COVID-19)-infected people are prone to lose detectable IgG antibody responses earlier than those with more severe SARS-CoV-2 (COVID-19) infection. People older than 75 who survived had a faster loss of IgG antibody responses, compared to younger people who had recovered from COVID-19. The limitations of this study are that the specimens were taken from the different people over time. There are still unclear questions involving playing role in protection of T-cell immunity and the body's memory responses to viruses like SARS-CoV-2 (COVID-19) in case of repeated exposures to the novel coronavirus. Effective immunity to SARS-CoV-2 (COVID-19) and how long immunity to SARS-CoV-2 (COVID-19) reinfection sustainability.

In conclusion, further urgent studies are needed to explore the immune responses to SARS-CoV-2 (COVID-19) post-infection or reinfection. All people must continue complying with the government guidelines, such as social (physical) distancing, getting a test if someone has symptoms or risks, self-isolating, etc. with remembering "Hands, Face, Space".