

COVID-19, Herd Immunity and Vaccine

Dear Editor,

Herd immunity for coronavirus disease 2019 (COVID-19) in the absence of a vaccine is an interesting issue in the current situation that the new vaccine is still not sufficient. Herd immunity in the absence of a vaccine might be a possible and/or viable path.^[1] Khalife and Van Genep^[1] concluded that “*If possible, achieving herd immunity would impose a large burden on society.*” For a new disease, it takes a long time for existence of herd immunity. The important consideration is it safe to wait for the natural occurrence of herd immunity. Nevertheless, COVID-19 pandemic is a very large scale of outbreak and asymptomatic infection exists, the herd immunity might or might not already occur in some population during the one-year period of outbreak. At present, there are some reports on the present status of herd immunity. For example, the seroprevalence is among local Palestinians in Palestine is equal to 0% with 95% confidence interval 0% - 0% to 0.0043%.^[2] Qutob *et al.* provided a measure of seroprevalence for the Palestinian population, which was at or near-zero. This suggested limited exposure to severe acute respiratory syndrome coronavirus -2 (SARS-CoV-2) at the time of study (June 2020). These findings immunity already occurred but do not allow us to infer herd immunity being reached.^[1] This can show that the local people can still develop antibody although Palestine is a limited area for access by external visitors. In another report from Nicaragua, 30.35% of healthcare workers are seropositive but had 54.92% of those seropositive subjects had no previous symptom.^[3] Based on these data, there might be a trend that herd immunity already occurs in some areas of the world. It can also confirm the importance of silent asymptomatic infection in disease spreading and generation of herd immunity. Nevertheless, although reports of herd immunity being reached are suggested, no present publication definitively supports such a conclusion. Asymptomatic infection in COVID-19 is widely accepted.^[4] However, the presence of asymptomatic infection by itself does not allow us to infer that a trend towards herd immunity has been found. Whereas we wait for sufficient distribution of new COVID-19 vaccine, the population immunity still presently act its role in generating herd immunity for protection of our species.

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Conflicts of interest

There are no conflicts of interest.

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