

Influence of obesity to Covid-19

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EDITORIAL

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In January 2020, WHO announced that epidemic of Corona Virus called COVID-19 has occurred.¹ Today, the COVID-19 has become a pandemic and an infectious disease that harms humans. Some factors aggravating a condition of COVID-19 patients have been overserved, for example: age, gender and comorbidity. One of factors aggravating the COVID-19 is overweight and obesity. Obesity is also considered as a factor aggravating symptoms of H1N1 virus.²

Some theories about overweight or obesity that aggravate the COVID-19 appear. In obese patients, mediators of inflammation that decrease compounds of anti-inflammation such adiponectin and increase oxidative stress occur. The increase of oxidative stress contributes for decreased ability of cell immune to fight for the infection.³ Obesity also can increase thrombosis causing disseminated intravascular coagulation (DIC) and thrombosis vena.⁴ Thrombosis also occurs in blood vessels in the lungs that can decrease the volume and capacity of the lung functions; consequently, this can complicate the clinical condition of COVID-19 patients.⁵ Increases of fat tissue in obesity can produce leptin which interferes heart functions and causes atherosclerosis. These conditions can aggravate the COVID-19 and increase mortality of COVID-19 patients.⁶

A main factor of death in COVID-19 patients is that fibrosis occurs in the lungs. In obese patients, there is an increase in lipofibroblasts in lung tissue containing fatty granules that cause fat deposits in the lungs. If the lungs are infected, lipofibroblast will be tuned into myofibroblast causing pulmonary fibrosis.⁷ Obese patients also often experience complications such as glucose metabolism disorders that cause hyperglycaemia. Hyperglycaemia can cause fluid and electrolyte disorders, blood coagulation problems, and aggravating infectious process. These will complicate the condition of COVID-19 patients.⁸

Based on the discussion above, we should have efforts to maintain an ideal weight and lose weight for the overweight and obesity. However, the efforts will be difficult because the pandemic situation contributes for stress that can cause appetite in certain people to increase. In addition, the current situation requires us to do work from home that causes fewer physical activities and becomes a risk factor of overweight. Therefore, we must maintain a diet and exercise at home.⁹

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