

Obesity and Covid 19: Possible Risks!

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The coronavirus disease 2019 (COVID-19) is the respiratory disease triggered by coronavirus that was most recently discovered. This latest virus and disease was unknown in December 2019, until the epidemic began in Wuhan, China [1]. COVID-19, caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is now a global pandemic which affects many countries [1]. Older adults and individuals of all ages who may have serious underlying health problems - coupled with obesity - may be at elevated risk for extreme illness from COVID-19. While general obesity is a risk factor for several diseases, many clinical studies have shown that the accumulation of visceral fat, which is the fat in the viscera, is most closely related to several health conditions, like cardiovascular diseases, insulin resistance and type 2 diabetes mellitus [2,3]. The key three clinical conditions among those diagnosed with COVID-19 is asthma, chronic lung disorder and cardiovascular disease.

Although it is still early to provide solid evidence to confirm this in this pandemic, it is reasonable to believe that certain patients with obesity - especially extreme obesity with a body mass index over 40-will have many obesity-related health problems that may be linked with a more serious path of COVID-19 disease. Usually, patients with severe obesity are a more difficult demographic to treat in the intensive care environment, and may fail to recover if they experience some serious disease, particularly a respiratory infection such as COVID-19. For example, asthma, restrictive lung disorder or obstructive sleep apnea may impair the respiratory function of patients with obesity [4]. Cardiovascular disease is particularly common in patients with obesity and this could mean that if COVID-19 causes heart problems, such patients may have fewer functional capacity [5]. Although, state of the art, we have not seen any evidence describing obesity as an independent risk factor or indicator for hospitalization or death with COVID-19, it is fair that people with obesity should be at greater risk due to their underlying disorders which are closely linked with obesity [6]. Most obesity patients have at least one obesity-related comorbidity, and among the most common are type 2 diabetes and cardiovascular disease. Hypertension, hyperlipidemia, chronic kidney failure, cancer or a history of cancer, and non-rheumatoid arthritis are other underlying disorders. This checklist of chronic diseases outlines the variety of conditions that we see in our patients receiving obesity care every day [7].

Also, there are still open concerns regarding potential risk factors that we don't learn yet, so we believe it's fair to conclude that patients with obesity and comorbidity that impair their cardiac or lung capacity are likely to be at greater risk of experiencing extreme COVID-19 illness, just as the non-obesity patients with those risk factors. Ever more people all over the world are asking: What is the correlation with COVID-19 between obesity and seriousness of disease and death? If the elevated body mass index (BMI) plays a causative function in deteriorating the lungs and the capacity of the body to combat the infection, is merely a sign of less-optimal fitness, or is actually too widespread across the world - the case of one pandemic hitting another - are both concerns that drive an extremely intense discussion. The signal that ties the trajectory of COVID-19 disease with obesity could be simply "anatomic," since individuals with a very large BMI might often have reduced respiratory function; in the other side, the cause may be more biochemical, as several studies have indicated that, irrespective of the body mass index, individuals with increased waistline, for example, have a greater chance of developing insulin resistance or type 2 diabetes, elevated blood pressure and so on [8-10].

We also think that it is quite important, and particularly in relation to COVID-19, that individuals who have elevated waistlines often probably have increased inflammatory markers. For example, the so-called inflammatory storm may result from an overactive immune system, and such individuals with elevated waistlines will have elevated rates of inflammatory markers such as CRP, IL-6, or IL-1. On the other side there are also the rapidly emerging theories that connect coagulation markers with intensity of COVID-19 [11]. And just as the obesity theory dovetails beautifully with the evolving inflammatory theory of COVID-19 pathology, it also links in with evidence linking to higher morbidity and mortality in ethnic and socio-economic marginalized groups where food deprivation, as well as obesity and metabolic syndrome are still prevalent [12].

It is unlikely at this stage to eliminate the effect of health inequalities on the incidence of diseases, not to mention the genetic fundamental principles for both obesity and COVID-19 morbidity and mortality. It should be expected that improvements in government policies based on enhancing the nutrition of the population that not only save hundreds and even thousands of lives around the world in the months to come, but also deter possible pandemics from swamping health services now plagued with patients with chronic illnesses related to poor nutrition [13].

We believe we're going to be locked up for a few of weeks, because if people adjust their lifestyle tomorrow, we believe it's not only going to have an effect on their wellbeing, it's going to dramatically decrease the likelihood of COVID-19 complications in a short period. Asking people to be better to lose weight to remain busy to workout throughout this period because there are clearly a lot of people lying around doing nothing, consuming fast food, not walking, having heat, etc. it's a rational idea from a common sense point of view, but to offer somebody the impression that there are evidence to confirm that by doing this they're going to minimize the risk of infection or their chance of dying from infection, it's just naive nonsense to me. It is unhelpful.

It is something like a warning for health care professionals to have it on their heads that obesity is a potential factor for development, whether we have anyone that is either morbidly obese or obese with certain medical problems, we will hesitate, probably, before discharging them to seek more examination. Fat-shaming individuals in the middle of a pandemic, particularly because too many people are unemployed with tighter food budgets, and more prohibitive exposure to nutritious products than normal, is not the best solution. I believe that as we convey the information to the public, we need to be very vigilant as individuals who become diagnosed with the latest coronavirus, have to cope with fear and being contaminated with a possibly lethal virus, which will make them feel very depressed. I believe in giving people treatment and kindness, because the last thing they need is to accuse someone, whether they're a peer or a family or the media, to making them feel ashamed about contracting the infection, when it's not real and it's not their responsibility.

What the whole epidemic has brought to attention are the very troubling health inequalities in many countries across the world, which continue to rise year after year. So I hope this pandemic would just allow us easier on certain safety inequalities.

Disclosure Statement

The author declare that there are no conflicts of interest.

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