

Metabolic Syndrome and COVID 19: Current Condition!

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Received: May 22, 2020; **Published:** June 01, 2020

The coronavirus disease 2019 (COVID-19) is the respiratory disease triggered by coronavirus that was most recently discovered [1]. This latest virus and disease was unknown in December 2019, until the epidemic began in Wuhan, China [2]. The speed of its spread around the world, and the changeable mortality in various countries is an anomaly. Their symptoms range from mild, self-limiting fever to frank pneumonia, acute respiratory distress syndrome and death. Recommendations have been made that old patients, frail patients, patients suffering from diabetes and hypertension - the two key elements of metabolic syndrome - and patients with comorbidities reported poorer clinical outcomes and survival.

Traditionally, in human beings with metabolic syndrome, viral influenza was not good. Diabetes was one of the major risk factors for higher morbidity and mortality in patients diagnosed with H1N1 Influenza - a coronavirus pandemic, severe acute respiratory syndrome (SARS) - and middle east coronavirus respiratory syndrome (MERSCoV) [3,4]. Variable blood glucose control, tight glycemic history, end tissue damage incidence, impaired and altered immunity all contribute to poor clinical outcomes in diabetes-patients. Therefore, all main recommendations habitually suggest immunization with the influenza vaccine and pneumococcal vaccine for all persons above 2 years of age.

Past pathogenic coronaviruses, such as the SARS virus, have been shown to bind to their target cells by angiotensin-converting enzyme 2 (ACE2), which is expressed by heart, kidney, intestine, blood vessel and epithelial cells of the lung [5], the function of which is up - regulated in patients treated with ACE inhibitors and angiotensin II type-I receptor blockers (ARBs), which are actually the drugs of choice for the treatment of hypertension in metabolic syndrome. Many drugs associated with increased expression of ACE2 include ibuprofen and thiazolidinediones, including pioglitazone [6,7]. At this point, it would be inappropriate to suggest that ACE inhibitors or ARBs not be used to regulate hypertension in patients with metabolic syndrome and diabetes.

It's because the scientific theory cited above is entirely theoretical. Elevated ACE2 expression, on the conversely, has been proven to be helpful and has been associated with a reduction inflammation in the lungs and is a possible therapy area in patients who live with inflammatory lung disease [8]. The picture would also be further complicated by patients with different ACE2 polymorphisms. This, nevertheless, remains an interesting research topic and the picture will probably be easier to understand in the near future.

To ensure better results in people with COVID-19 infection, ensuring good blood pressure control and blood glucose control is of prime importance as of today. How we accomplish the aim is of minor value. Insulin remains the gold standard of diabetes therapy in hospital admitted ill patients. In persons with asthma, metabolic syndrome, coronary artery diseases and COVID-19 infection, there is no reason for abrupt shutdown of ACE inhibitors and ARB. Such medications have documented advantages in enhancing cardiovascular results. In such cases, a sudden change without sufficient coverage of alternative pharmacotherapy can precipitate hypertensive crisis or cardiovascular emergency [9].

In addition, SARS can cause long-term metabolic changes in patients who have been diagnosed with the virus COVID-19 [10]. Moreover, diligent cardiometabolic surveillance of patients who have endured serious COVID-19 disease may be needed.

Disclosure Statement

The author declare that there are no conflicts of interest.

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Volume 5 Issue 7 July 2020

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