

The Pandemic Paradox: Concurrence of Covid-19 and Metabolic Syndrome

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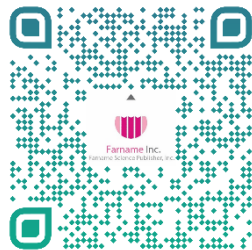
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Dear Editor

Metabolic syndrome is a condition with unknown etiology that includes a number of risk factors in diabetes and cardiovascular diseases such as hyperglycemia, insulin resistance, dyslipidemia, hypertension and obesity. The major treatment obstacles are the inability to detect the disease at its early stages, obesity and having the sedentary lifestyle (1).

COVID-19 pandemic, which originated in Wuhan, China, has spread over the world and caused numerous important changes in all aspects of the individuals' life. Its symptoms range from asymptomatic conditions to severe respiratory failure that may result in death (2).

COVID-19 development and prognosis are influenced by a combination of excessive cholesterol levels, obesity, high blood pressure and diabetes as predictive variables in the higher incidence of mortality in the patients with metabolic syndrome (3).

Continuous inflammation caused by high levels of adipokines and pro-inflammatory cytokines in metabolic syndrome induces a delayed and diminished immunological response, as well as activation of macrophages. Immune memory (both cellular and humoral immunity) is also impaired in these individuals, which reduces their immunization (4).

Due to the nature of COVID-19 mortality, patients with weak health conditions such as arterial hypertension, diabetes, hypertension, heart failure and arrhythmia, as well as the elderly and patients with delayed referral to a health care setting, are thought to be more likely to suffer from viral complications. On the other hand, many

patients with metabolic diseases may be left without the appropriate health care and might be affected by the insufficient physical activity caused by the state restrictions, quarantine and lockdowns (5).

The health-care system should be ready to deal with a large number of COVID-19 patients who may require critical care. Patients with severe consequences should have well-rehearsed and structured protocols for quick identification, isolation, triage and care plans. Therefore, it is critical to handle these patients quickly, not just to protect caregivers, but also to make the most appropriate utilization of financial and clinical resources (6).

In conclusion, diabetes, hypertension and, more specifically, cardiovascular diseases are significant risk factors for illness severity and death in infected persons. Higher incidence of metabolic syndrome combined with COVID-19 shows that concurrence of these two disorders, as well as the therapeutic and care issues they cause, should be thoroughly investigated to improve defense against disease along its course, and more caution and special supportive care should be taken to avoid future problems.

Conflict of Interest

None declared.

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