Diabetes and Covid: Severity is inevitable???

Dear Readers,

In the last 30 years, diabetes has become more frequent, with more than 400 million individuals worldwide living with the disease. Unfortunately, around half of them are unaware that they have diabetes. They have not been diagnosed, and those who have been diagnosed lack access to the medicines and health services they require. COVID-19 and diabetes mellitus have a complex and bidirectional connection.

Infections, such as skin infections, genito-urinary tract infections, and (bacterial) respiratory tract infections, are known to be more common in diabetic patients. Diabetic people have been found to be at a higher risk of acquiring severe disease and dying as a result of corona virus infection throughout the pandemic. Clinical evidence suggests that monocyte-macrophage immune responses are impaired in Covid infected individuals and in diabetic wounds that do not heal. When diabetes patients with severe covid-19 infection were compared to Covid patients without diabetes in the ICU, interferon, an essential cytokine important for viral immunity, was lower.

In addition, a recent epidemiological study found that those infected with Covid-19 were 40% more likely than healthy people to acquire diabetes a year later. These patients were resistant to or did not make enough insulin, and the severity of Covid enhanced the risk of diabetes. SARS-CoV-2, the underlying mechanism, could destroy insulin-producing cells in the pancreas, resulting in type 1 diabetes. Autonomic dysfunction, an overactive immune system, or autoimmunity, and chronic low-grade inflammation all contribute to insulin resistance.

One unanswered concern is whether the metabolic abnormalities seen in COVID-19 patients last longer than a year. More research is needed to understand long-term patterns in new-onset diabetes in the general population and to figure out what's driving them. It is critical for health care workers in the field, as well as diabetic patients, to understand the impact they have on lowering their COVID-19 severity risk as much as feasible.

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