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LETTER TO THE EDITOR

Diabetes Mellitus is Associated with Severe Infection and Mortality in Patients with COVID-19: A Systematic Review and Meta-analysis

To the editor,

We greatly appreciate this excellent and well-designed study supporting the hypothesis that Covid-19 disease and diabetes may be related to mortality (1). Multiple hypotheses have been suggested as potential explanations for bidirectional relationship between cardio-vascular disease, diabetes and Covid-19 mortality. However, we have several observations for the authors.

First, no differentiation between type I and type II diabetes mellitus was made. Recent studies demonstrated that important risk factors for the increased total and non-CVD mortality in type I diabetic patients are age, SBP, WHR, pulse pressure, and non-HDL cholesterol (2). At the same time, patients with long-duration (>50 years) type 1 diabetes are relatively protected from clinical diabetic nephropathy and large vessel disease (3). Therefore, mortality is probably associated not only with the presence of Covid-19 infection and with the type of diabetes, but also with the severity of diabetes mellitus.

Secondly, no glycemic control was made regarding the amount of insulin administered to the patients. Distiller L. (3) demonstrated a direct relationship between HbA1c and survival, 400 type I patients who survived for over 50 years with diabetes, the mean HbA1c was 7.6% (± 1.4), with some of these patients having HbA1c levels as high as 8.5–9%. None had an HbA1c below 7%.

Clarification of these aspects would contribute to elucidate whether the type of diabetes mellitus is related to the

increase in the inflammatory status accompanying Covid-19 infection, rather than an independent condition.

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