

COVID-19 and type 2 diabetes: do shared pathways have therapeutic implications?

September 23 2020

During a special COVID-19 session at this year's online Annual Meeting of the European Association for the Study of Diabetes (EASD), Prof. Daniel J. Drucker (Lunenfeld Tanenbaum Research Institute, Mt. Sinai Hospital, Toronto, Canada) will present a new review the latest clinical findings linking diabetes to risk of infection and differential outcomes in people with COVID-19 infection.

The medications that are used to treat people with [diabetes](#) often include drugs that modulate the expression and activity of the protein ACE2, the principal receptor for SARS-CoV-2 (how the virus enters cells). Furthermore, [observational data](#) suggests that people treated with statins, a widely used class of cholesterol lowering drugs, may experience improved outcomes in the hospital.

He says: "I will review the importance of optimising management of risk factors in people with diabetes during the pandemic, and how to consider adjustment of glucose-lowering drugs in hospitalised patients with COVID-19 [infection](#). Notably, some of the medicines, such as dexamethasone recently shown to be beneficial for severely ill people with COVID-19 may worsen [blood sugar control](#) requiring careful monitoring and preferential use of insulin in people with type 2 diabetes."

He will also discuss the reports of new onset type 1 diabetes and complications such as ketoacidosis in the context of SARS-CoV-2 biology, predisposition for viral infection of the endocrine pancreas, and

the limitations of the available epidemiology so far. There continues to be controversy about whether the SARS-CoV-2 virus directly infects islets and insulin-producing [beta cells](#), leading to insulin deficiency, and in some cases, new onset type 1 diabetes. Dr. Drucker will highlight very new data in this area that illuminates our understanding of where the receptors for the virus are located in different cells within the pancreas.

Dr. Drucker will underline that better control of blood sugar in people with type 1 and type 2 diabetes appears to be an important modifier of COVID-19 severity, further emphasizing the opportunity to optimise the management of diabetes in the community to mitigate the potential consequences of SARS-CoV-2 infection.

Provided by Diabetologia

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