

Endocrinological Sequelae-Associated Post-Acute-Covid-19-Illness

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Endocrinological sequelae in post-acute-COVID-19 phase may be caused by iatrogenic complications, immunological and inflammatory damage, and direct SARS-CoV-2 (COVID-19) invasion, including apparently pre-existing diabetes mellitus during acute COVID-19 phase and can be long-term treated with antidiabetic agents other than insulin, although initially related to diabetic ketoacidosis (DKA) [1]. Primary deficit in insulin production may be mediated by several factors, such as infection stress response accompanying peripheral insulin resistance or inflammation [1]. Thus, reversion of COVID-19-related diabetes, nor that its outcomes difference in COVID-19 long haulers is not confirmed [2]. Lasting damage of the pancreatic β cells is still not confirmed although demonstrated ACE 2 and TMPRSS2, involving in SARS-CoV-2 (COVID-19)-cell-entry expression in pancreatic β cells [3]. Interruption of anabolic or antiresorptive agents, vitamin D insufficiency, exposure to corticosteroids, immobilization, and bone demineralization associated with systemic inflammation are also the COVID-19 risk factors [2]. Patients with newly diagnosed diabetes mellitus in the absence of traditional risk factors for type 2 diabetes should be performed serologic testing for type 1 diabetes-related autoantibodies repeated post-prandial C-peptide measurements at the follow-up, while patients with such risk factors can be similarly treatable to ketosis-prone type 2 diabetes [4]. New-onset Graves' disease should be excluded before treating post-acute-COVID-19-illness patients with incident hyperthyroidism with corticosteroids due to SARS-CoV-2 (COVID-19)-associated destructive thyroiditis [5].

In conclusion, new or incident diagnosis in the post-acute-COVID-19-illness phase for a specific condition, such as endocrinological sequelae might be due to an exacerbation of a pre-existing condition in patients who did not receive medical care within the months of window period created by the continuous enrolment criteria in the studies, whereas the group with no-pre-existing comorbidities might have been misclassified. Some physicians might have underestimated some clinically significant outcomes during early COVID-19 pandemic.

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