Journal of Taibah University Medical Sciences (2022) 17(2), 343–344

Taibah University

Journal of Taibah University Medical Sciences

www.sciencedirect.com

Letter to the Editor

Diabetic ketoacidosis, COVID-19 and blood viscosity

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Received 9 October 2021; accepted 18 October 2021; Available online 11 November 2021

Keywords: Blood; COVID-19; Diabetes; Ketoacidosis; Viscosity

Dear Editor, we would like to share ideas on the publication "Diabetic ketoacidosis precipitated by atypical coronavirus disease in a newly diagnosed diabetic girl".[1] Albuali and AlGhamdi reported an interesting case and concluded that "*We conclude that SARS-CoV-2 may trigger the onset of T1DM and may precipitate the occurrence of DKA in paediatric diabetic patients, even in the absence of respiratory symptoms*".[1] Ketoacidosis is an important endocrine problem that might occur in a patient with COVID-19. Affected cases might have diabetes type 1 or 2.[2] The problem is also observable in cases where blood glucose is not that high (<300 mg/dL).[3] Regarding the pathomechanism, according to a publication by Vitale et al., a direct toxic effect of the SASR CoV2 on the pancreatic islets or accelerated inflammatory response is proposed as promoting ketosis.[3] However, as seen in the present case, an overt inflammatory parameter is usually not seen, and it might not explain occurrence in a case with euglycemic status. Another possible pathological process that should be mentioned is hyperviscosity induced by COVID-19. In COVID-19, a high blood viscosity can occur,[4] and hyperviscosity can further induce ketoacidosis.[5,6]

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest

The authors have no conflict of interest to declare.

Ethical approval

The authors confirm that this letter has been conducted in accordance with COPE rules and regulations. Given the nature of the letter, the IRB review was not required.

Authors contributions

Both authors have contributed equally and met all four of the following criteria: Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work AND drafting the work or revising it critically for important intellectual content AND final approval of the version to be published AND agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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Peer review under responsibility of Taibah University.

Production and hosting by Elsevier

 https://doi.org/10.1016/j.jtumed.2021.10.003

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How to cite this article: Mungmunpuntipantip R, Wiwanitkit V. Diabetic ketoacidosis, COVID-19 and blood viscosity. J Taibah Univ Med Sc 2022;17(2):343–344.