



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

Primary Care Diabetes

journal homepage: <http://www.elsevier.com/locate/pcd>


Letter to the Editor

COVID-19 and steroid therapy: Impact on diabetes



To the Editor,

We read an interesting article by Papadokostaki et al. in a recent issue of the Primary Care Diabetes regarding the evolving relationship of COVID-19 and diabetes mellitus [1]. Understanding this bidirectional relationship is essential for optimizing long term patient outcomes [2]. Authors have highlighted the common challenges faced for the same during this pandemic. In this regard, we would like to add another issue of the use of steroid therapy for moderate to severe disease, leading to worsening of hyperglycemia and precipitating ketoacidosis. In our clinical practice, we have noticed this happening while patients are presenting to tertiary care hospital from peripheral hospitals, where they have been initiated on steroid therapy. As per data from other countries as well, the use of steroids is common for moderate to severe COVID-19 despite the conflicting evidence. The recent data from RECOVERY (Randomised Evaluation of COVid-19 thERapY) trial regarding the usefulness of dexamethasone therapy is encouraging but is likely to affect glycemic control in individuals with diabetes or hyperglycemia due to COVID-19 [3,4]. The initial published results have not described the impact of steroid therapy on glycemic control [5]. As we are awaiting the full results of the RECOVERY trial, it is prudent to keep a watch on glycemic control in patients being initiated on dexamethasone therapy, especially elderly and diabetic individuals.

Funding

None.

Financial disclosures

None of the authors have any financial disclosures.

Conflict of interest

None of the authors have any conflict of interest.

References

- [1] E. Papadokostaki, N. Tentolouris, E. Liberopoulos, COVID-19 and diabetes: what does the clinician need to know? *Prim. Care Diabetes* (July) (2020).
- [2] F. Rubino, S.A. Amiel, P. Zimmet, G. Alberti, S. Bornstein, R.H. Eckel, et al., New-onset diabetes in Covid-19, *N. Engl. J. Med.* (June) (2020).
- [3] Low-cost dexamethasone reduces death by up to one third in hospitalised patients with severe respiratory complications of COVID-19 – RECOVERY Trial [Internet]. [cited 2020 Jun 18]. Available from: <https://www.recoverytrial.net/news/low-cost-dexamethasone-reduces-death-by-up-to-one-third-in-hospitalised-patients-with-severe-respiratory-complications-of-covid-19>.
- [4] D. Qi, T. Pulinilkunnil, D. An, S. Ghosh, A. Abrahani, J.A. Pospisilik, et al., Single-dose dexamethasone induces whole-body insulin resistance and alters both cardiac fatty acid and carbohydrate metabolism, *Diabetes* 53 (July (7)) (2004) 1790–1797.
- [5] RECOVERY Collaborative Group, P. Horby, W.S. Lim, J.R. Emberson, M. Mafham, J.L. Bell, et al., Dexamethasone in hospitalized patients with Covid-19 – preliminary report, *N. Engl. J. Med.* (July) (2020).

Saurabh Mittal*

Karan Madan

Anant Mohan

Department of Pulmonary, Critical Care and Sleep Medicine, All India Institute of Medical Sciences (AIIMS), New Delhi, India

* Corresponding author at: Department of Pulmonary Medicine and Sleep Disorders, All India Institute of Medical Sciences (AIIMS), Ansari Nagar, New Delhi, 110029, India.

E-mail address: Saurabh_kgmu@yahoo.co.in (S. Mittal)

23 July 2020

Available online 30 July 2020