

Cardiovascular drug therapy and surrogate COVID-19 outcomes: which is the impact of the “miraculous” sodium-glucose co-transporter-2 inhibitors?

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Kardiol Pol. 2021;
79 (9): 1048–1049;
DOI: 10.33963/KPa2021.0067

Received:

June 26, 2021

Revision accepted:

July 2, 2021

Published online:

July 16, 2021

TO THE EDITOR

We really appreciated the results of the observational study conducted by Terlecki et al. [1], who demonstrated that, in a total of 1729 patients admitted to hospital due to coronavirus disease 2019 (COVID-19), history of diabetes mellitus significantly increased the odds of in-hospital death by 53%, while those patients with concomitant heart failure (HF) experienced a two-fold increase in the corresponding odds. Researchers have also shown in their cohort that prior treatment with renin-angiotensin-aldosterone system blockers, statins, antiplatelet drugs, or beta-blockers was associated with a significant decrease in the odds of in-hospital death, confirming a protective role of these drug classes against the most surrogate COVID-19 outcome [1].

Recently, there has been a vivid and ongoing discussion concerning the place of sodium-glucose co-transporter-2 (SGLT-2) inhibitors in the therapeutic management of patients with COVID-19 [2]. This drug class has an established role in the treatment of type 2 diabetes mellitus, while it has gained significant ground in the treatment armamentarium against HF, especially in patients with HF with reduced ejection fraction (HFrEF), even without concomitant type 2 diabetes mellitus [3].

According to a recently published nationwide cohort study from the National Diabetes Audit in England, prescription of SGLT-2 inhibitors is associated with a significant decrease in

the risk for COVID-19 related death by 18% [4]. However, relevant data remain scarce and conflicting, as far as pathophysiologic background is concerned, and thus, further research on this field is required [5].

Therefore, it would be very interesting and would increase a value of the initial report, if Terlecki et al. [1] could provide data concerning the usage rates of SGLT-2 inhibitors in their cohort and the association with crude outcomes, such as mechanical ventilation and in-hospital death, since this “miraculous” drug class has attracted scientific interest, with an established role in the secondary prevention of cardiovascular disease. Data from such real-world studies may influence decision-making and improve therapeutic strategy if we confront another COVID-19 pandemic wave in the near future.

Article information

Conflict of interest: None declared.

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How to cite: Patoulas D, Papadopoulos C, Kassimis G, Doumas M. Cardiovascular drug therapy and surrogate COVID-19 outcomes: which is the impact of the “miraculous” sodium-glucose co-transporter-2 inhibitors? *Kardiol Pol.* 2021; 79(9): 1048–1049, doi: 10.33963/KPa2021.0067.

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