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Meta-analysis: RAAS inhibitors and COVID-19 positivity and/or mortality

There does not appear to be a significant association between treatment with renin-angiotensin-aldosterone system (RAAS) inhibitors and testing positive to COVID-19 and/or mortality in COVID-19-positive patients, according to the results of a meta-analysis reported in the *American Journal of Cardiology*.

The study involved searching PubMed and Scopus in May 2020, which identified 8 studies involving 62 706 patients. The 20 316 patients treated with ACE inhibitors or angiotensin receptor blockers (ARBs) were compared with 42 390 nonusers.

Compared with nonusers, the risk of testing positive for COVID-19 was not significantly increased in ACE inhibitor users (odds ratio [OR] 0.96, 95% CI 0.88, 1.04). In addition, there was no significant increase for ARB users (OR 0.99; 0.91, 1.08).

Although the risk of mortality in COVID-19 patients was not significantly increased (OR 0.74; 0.34, 1.58), the authors note that due to the lack of data, they were unable to analyse ACE inhibitor and ARB uses separately. In addition, "patients using RAAS are older and have a higher burden of comorbidities, and this may have confounded our results"

"Our results support the consensus by multiple speciality societies", conclude the authors, "which recommend continued usage of RAAS inhibitors in COVID-19 patients and among the general public who have been prescribed these medications".

Usman MS, et al. A Meta-analysis of the Relationship Between Renin-Angiotensin-Aldosterone System Inhibitors and COVID-19. American Journal of Cardiology : 2 Jun 2020. Available from: URL: http://doi.org/10.1016/j.amjcard.2020.05.038