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Circulating plasma angiotensin-converting enzyme 2 concentration is elevated in patients with kidney disease and diabetes

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This commentary refers to ‘Circulating plasma angiotensin-converting enzyme 2 concentrations in patients with kidney disease’, by I.M. Schmidt et al., doi: 10.1093/eurheartj/ehaa523.

In the commentary entitled ‘Circulating plasma angiotensin-converting enzyme 2 concentrations in patients with kidney disease’, Schmidt et al.¹ corroborate our work on plasma angiotensin-converting enzyme 2 (ACE2) levels in heart failure patients² by extending it to patients with kidney diseases. They did this by measuring plasma ACE2 levels from 551 patients in the Boston Kidney Biopsy Cohort³ and came to similar conclusions that (i) higher plasma ACE2 is observed in men than women; (ii) in those with diabetes; and (iii) do not appear to be increased by use of angiotensin-converting enzyme inhibitor/angiotensin-receptor blocker (ACE-I/ARB). Interestingly, it is now known that the use of ACE-I/ARB is not positively associated with mortality in COVID-19 patients.⁴

In a sub-analyses wherein we pooled both cohorts of our study, male sex, renal disease, diabetes, blood glucose, and glycated HbA1c were significantly more predominant ($P < 0.05$) in the group of patients with elevated (\geq median) compared to low ($<$ median) plasma ACE2 concentrations; further reinforcing the work of Schmidt et al.

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Conflict of interest: none declared.

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