

LETTER TO THE EDITOR

Editöre Mektup

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Dear Editor;

We read with great interest the article entitled “Changes in Serum Nitric Oxide Levels in COVID-19 Patients” recently published in Bozok Medicine Journal. We would like to share several observations based on our clinical experience.

Nitric oxide (NO) released from neural and endothelial sources is essential for penile erection by promoting cyclic guanosine monophosphate-mediated smooth muscle relaxation, leading to increased intracavernous pressure and penile vasodilation. Disruption in NO production or signaling represents a key pathogenic mechanism in erectile dysfunction (1).

Immunohistochemical analyses have demonstrated reduced endothelial eNOS expression in the corpus cavernosum of COVID-19-positive men compared with COVID-19-negative controls, consistent with endothelial dysfunction. Moreover, the presence of SARS-CoV-2 viral particles and viral RNA has been identified within penile vascular endothelial cells of COVID-19-positive patients, providing further evidence of direct endothelial involvement (2).

In men, a significant decline in sexual function—particularly impaired erectile response—has been consistently reported and is strongly associated with anxiety and depressive symptoms during the COVID-19 pandemic. Given the ongoing pandemic and its psychological burden, which may predispose vulnerable individuals to the development or worsening of erectile dysfunction, sexual and mental health awareness has emerged as an important international public health priority (3). Another perspective suggests that this impairment tends to improve over time, particularly from the first year following the acute infection (4).

As urologists, we frequently encounter patients with organic or psychogenic erectile dysfunction in our outpatient clinics, which prompted us to review your article with great interest. The variations in nitric oxide levels according to disease severity were particularly noteworthy. These findings further underscore the need for more detailed investigation into the relationship between COVID-19 and nitric oxide. Upon careful review of your article, I noted that the mean ages of patients in the study groups were comparable to the age range of patients who commonly present to our outpatient clinics with erectile dysfunction.

In collaboration with the urology department, further evaluation of erectile function in the male patients included in this study since the time of enrollment may be considered. The use of validated questionnaires and comparison with previously measured serum nitric oxide levels could help clarify potential associations. Such an analysis would likely add further value to the existing literature.

Once again, I sincerely thank the authors for their valuable contribution to the literature and appreciate their efforts in advancing knowledge through the present study.

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