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Letter to the Editor Regarding: "COVID-19 and Neurosurgery Consultation Call Volume at a Single Large Tertiary Center with a Propensity-Adjusted Analysis"



We read with great interest the article published in your respected journal by Koester et al¹ entitled "COVID-19 and neurosurgery consultation call volume at a single large tertiary center with a propensity-adjusted analysis," in which the authors quantified the effects of the coronavirus disease 2019 (COVID-19) pandemic in the neurosurgery department to which patients were referred from the emergency department and described the characteristics of these consultations. During their study, they obtained a total of 629 consultations, of 471 (75%) were performed before the beginning of the pandemic and 158 (25%) during this calamity. The average number of neurosurgical visits through call per day was significantly lower in the COVID-19 period (5.6 visits) than in the pre-COVID-19 period (16.8 visits). Finally, the number of patients who had presented with nonemergency conditions had decreased from 41% in the pre-COVID-19 period to 28% in the COVID-19 period. Thus, the authors concluded that after the beginning of the pandemic, the number of neurosurgical consultations had decreased; the number of patients presenting for surgical intervention was significantly lower; and the reasons for consultation for nonurgent conditions were reduced.¹

We want to thank Koester et al¹ for providing this evidence. We also wish to emphasize that the provided information is very useful, although we would like to add certain aspects that would help us to understand more of the dynamics of neurosurgery services in the context of the COVID-19 pandemic.

No doubt exists that a considerable reduction has occurred in the number of visits to the neurosurgery department owing to factors that make it difficult to access healthcare services during the pandemic. Such consultations could be interpreted as only consultations or as inter-consultations, which is a completely different scenario because although the average number of consultations decreased during the pandemic, no reference was made to the number of consultations that could have been performed in the inpatient service for patients who had developed complications different from their initial reason for the consultation. García-Moncó et al² reported that of 57 patients with neurological disturbances (100%), 35 patients were found to have COVID-19 (patient could have had >1 complication). In addition, 34 complications (60%) had occurred during hospitalization, and 23 (40%) were the reason for admission.² Likewise, Ghannam et al³ performed a systematic review of 82 patients, of whom 19 (23.2%) were admitted for a neurological syndrome and 63 (76.8%) had presented with an alteration during their hospital stay.

Analysis of the increase in severe cases resulting from abstention from consulting because of fear or personal difficulties should

consider whether these cases were associated with COVID-19 or, in contrast, were independent of it. Evidence has shown that, at least with strokes, the severity of strokes increased during the pandemic, reflected by a higher NIHSS (National Institutes of Health Stroke Scale) score (7.0 vs. 4.8).² Yaghi et al⁴ compared the variables of patients who had experienced a stroke between cases (COVID-19-infected patients), contemporary controls (patients without infection during the same period), and historical controls (patients without infection before the pandemic). They reported that the cases had had a higher NIHSS score at admission and were more likely to be treated with anticoagulant therapy compared with the controls (both contemporary and historical).⁴ In addition, cryptogenic stroke was more frequent, with greater mortality, in the patients with stroke and COVID-19.⁴ Xiong et al⁵ reported that of 39 patients infected with COVID-19 who had experienced a neurological manifestation, 32 of the events (82%) were critical. These findings support the theory that although the pandemic has decreased the number of neurological consultations, the patients who have presented have had more serious cases.

Finally, the nonattendance of patients to emergency services is related to patients' fear of becoming infected with COVID-19,^{4,6} either at the healthcare center or during transport to the institution. Thus, patients with mild or moderate symptoms will prefer to stay at home.^{2,4} Tools are required to enable physicians to provide consultations, recommendations, and, even, action plans that are simple and easy to apply to patients and their families, to educate them about the relevance of possible symptoms associated with basic diseases or diseases requiring urgent care.⁷ Their use would decrease the severity of non-COVID-19 cases and improve the flow of physician-patient communication. We suggest that later studies should include the variables and comments we have provided to allow for more precise analyses of how the pandemic has affected the departments of neurosurgery and neurology, a better understanding of the dynamics of the disease, and better therapeutic decisions to positively affect our patients' health.

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