Impact of Levodopa in Lung Functions in Patients with Parkinson’s Disease

Sir,

I read the interesting study by Tandon et al., published in May-June 2020 issue of the Annals of Indian Academy of Neurology. They found that 39% of Indian patients with Parkinson’s disease had restrictive ventilatory dysfunctions prior to morning administration of dopamine. Of these, 40% developed improvement after administration of levodopa. The following methodological limitation deserves consideration. In the study methodology, Tandon et al. mentioned that they utilized European Respiratory Society (ERS)/European Community for Coal and Steel (ECCS) as a predictive reference (PR) for spirometry with the adjustment of normogram values for gender, height, and weight to evaluate the recordings of the various elements of pulmonary function tests (PFT). The impact of this limitation could be disclosed in dual aspects. On the one hand, ERS/ECCS PR of spirometry was released more than two decades ago and primarily derived for Caucasian populations. On the other hand, normal lung function is influenced by nutritional, physiological, genetic, psychological, socioeconomic, environmental, and ethnic determinants. Based on these determinants and to avoid misinterpretation of PFT, many populations-specific PR of spirometry have been developed to be applied in clinical and nonclinical work. Interestingly, India is among pioneer countries that have already determined pulmonary function components in normal healthy people and derived reliable PR of spirometry. I wonder why Tandon et al. employed ERS/ECCS PR of spirometry in the methodology rather than national standard. I, therefore, assume that the above-mentioned methodological limitation together with the few study limitations addressed by Tandon et al. could importantly question the accuracy of the study results.
Letters to the Editor

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Conflicts of interest
There are no conflicts of interest.

Mahmood D. Al-Mendalawi
Professor in Paediatrics and Child Health, Consultant Paediatrician, Department of Paediatrics, Al-Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

Address for correspondence: Prof. Mahmood D. Al-Mendalawi, P.O.Box 55302, Baghdad Post Office, Baghdad, Iraq. E-mail: mdalmandalawi@yahoo.com

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