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## Letters

### POTS May Be Underestimated in Post-COVID Assessments



We thank Jamal et al<sup>1</sup> for describing their prospective evaluation of autonomic disorders in individuals with postacute sequela of COVID-19 (PASC). The authors reported that a minority of individuals with PASC met criteria for postural orthostatic tachycardia syndrome (POTS), while a majority demonstrated provoked orthostatic intolerance (POI) in response to a prolonged head-up tilt table (HUTT) and nitroglycerin.

The authors' protocol might underestimate the prevalence of POTS in PASC for 2 reasons. First, beta-blockers were not discontinued before the HUTT. Although no patients diagnosed with POTS were on beta-blockers, some individuals not meeting the POTS heart rate criterion were on beta-blockers during HUTT.<sup>2,3</sup> It is possible that some of those individuals might have had excessive orthostatic tachycardia if beta-blockers were held for HUTT. Second, whereas the diagnosis of POTS requires both the excessive orthostatic tachycardia and orthostatic intolerance symptoms, the published criteria do not require these symptoms to be present during the HUTT itself.<sup>2,3</sup>

The assessment of POI in this study is novel and interesting. Although nitroglycerin provocation is a standard part of the Italian HUTT protocol for assessing vasovagal syncope, symptoms are not usually reported in the absence of a vasovagal reaction. Nitroglycerin likely increases the sensitivity for orthostatic intolerance symptoms (and perhaps hypotension) but may lower the specificity for the reproduction of clinical symptoms. To interpret these findings, data are needed on the provocation of POI in healthy control subjects. In addition, lack of continuous beat-to-beat blood pressure and heart rate monitoring might have reduced the sensitivity for diagnosing orthostatic disorders on HUTT. Finally, it

is not clear how PASC patients were recruited for HUTT. If only patients with orthostatic intolerance were referred, it is difficult to assess the true prevalence of orthostatic intolerance in PASC.

We ultimately thank the authors for their contribution and look forward to more research on autonomic complications of PASC.

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Dr Raj has served as a consultant to Lundbeck LLC, Theravance Biopharma, Amneal Pharma, Servier Affaires Medicales, Regeneron, and argenx BV; has received honoraria from Spire Learning and Medscape; has served as the data monitoring and safety board Chair for a Phase 2 study of an irritable bowel syndrome medication for Arena Pharmaceuticals with compensation; and is the Past-President of the American Autonomic Society (without financial compensation). Dr Miglis has served as a consultant for MED-IQ, 2<sup>nd</sup> MD, Infinite MD, and Included Health; and receives royalties from Elsevier. Asst Prof Stiles has reported that she has no relationships relevant to the contents of this paper to disclose.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the [Author Center](#).

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