Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Spotlight on Special Topics

NEUROCARDIOGENIC SYNCOPE DURING HEAD-UP TILT TABLE (HUTT) TESTING IN PATIENTS WITH POST-ACUTE SEQUELA OF COVID-19 (PASC): A PROSPECTIVE EVALUATION

Poster Contributions
For exact presentation time, refer to the online ACC.22 Program Planner at https://www.abstractsonline.com/pp8/#!/10461

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Background: There is increasing recognition of "Long COVID" or Post-Acute Sequela of COVID-19 (PASC) occurring well after recovery from the initial acute illness. Symptoms may include palpitations, fatigue, and perceived heart rate increase upon standing or on minimal exertion. Somewhat less commonly, patients experience syncope. Autonomic dysfunction may explain these findings, and we have previously shown orthostatic intolerance (OI) on head-up tilt table (HUTT) in 22 of 24 prospectively studied subjects with PASC symptoms. Our objective was to investigate if autonomic dysfunction causes neurocardiogenic syncope on HUTT in PASC patients.

Methods: This was an IRB approved, prospective, longitudinal, observational study. We included PASC patients complaining of tachycardia with standing or minimal activity, palpitations, and fatigue with exertion. Patients with an alternate medical explanation for these symptoms, pre-existing autonomic dysfunction, or history of syncope prior to PASC symptom development were excluded. Subjects underwent HUTT testing using a standard protocol. OI, postural orthostatic tachycardia syndrome (POTS), and neurocardiogenic syncope were classically defined.

Results: HUTT was performed on 24 consecutive patients (4 males, mean age 43 years), reporting PASC symptoms for 6 $\pm$ 4 months. Three demonstrated pure neurocardiogenic syncope. Four demonstrated POTS, with 1 progressing to neurocardiogenic syncope. Fifteen developed OI after sublingual nitroglycerin, and five of these subjects progressed to neurocardiogenic syncope. Neurocardiogenic syncope occurred in 9 of 24 (38%) PASC patients during HUTT testing.

Conclusion: Neurocardiogenic syncope was demonstrated in 38% of PASC study patients. Our findings suggest autonomic dysfunction contributes to PASC symptom development. In patients with PASC, OI is commonly seen on HUTT.