

Cardiovascular testing in patients with postural orthostatic tachycardia syndrome and Ehlers–Danlos syndrome type III

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We read with interest the study by Cheng et al. that found no difference in the results of the 2D cardiac echocardiography and applanation tonometry between nine patients with postural orthostatic tachycardia syndrome (POTS) and Ehlers–Danlos syndrome (EDS) type III and age-matched controls [1]. We disagree with the authors' conclusion that their study comprehensively assessed the cardiovascular profile of patients with POTS and EDS type III. First, the tests were performed in the supine position, despite orthostatic intolerance being the hallmark of POTS. Second, arterial wall stiffness is a marker of arteriosclerosis and atherosclerosis, none of which are prevalent in the predominantly young POTS/EDS type III population. Third, to our knowledge, the utility of the applanation tonometry in connective tissue disorders, such as EDS type III, has not been studied, and as such, the efficacy of this method in assessing arterial wall compliance in EDS/POTS is unknown. Fourth, invasive cardiopulmonary exercise testing of patients with POTS documented low ventricular filling pressures as a cause of exercise intolerance vs. high

filling pressures in deconditioned patients [2, 3]. Lastly, adrenergic antibodies in patients with POTS should be considered as a possible alternative explanation for the orthostatic intolerance [4, 5].

Compliance with ethical standards

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Conflict of interest None.

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This is a letter commenting on J. L. Cheng et al. *Clin Auton Res* 2016.

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