

## Addressing the confounding role of joint hypermobility syndrome and gastrointestinal involvement in postural orthostatic tachycardia syndrome

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**Abstract** Quantitative and qualitative abnormalities in visceral function have been demonstrated in postural orthostatic tachycardia syndrome. Joint hypermobility is frequently associated with both postural orthostatic tachycardia syndrome and gastrointestinal symptoms. Future studies in this area should appropriately and systematically control for the presence of joint hypermobility syndrome.

**Keywords** Postural orthostatic tachycardia syndrome · Joint hypermobility syndrome

Dear Sir,

We commend Khurana on his recent study examining visceral sensitization in postural orthostatic tachycardia syndrome (POTS) [5]. POTS is an autonomic disturbance characterized by a plethora of symptoms and signs including orthostatic intolerance, palpitations, anxiety, fatigue and exercise intolerance. There has been considerable debate regarding the underlying pathophysiology of POTS particularly focusing on whether such aberrations are physiological or psychological in nature. However, two lines of contemporary evidence point towards a biological cause in POTS patients: (a) qualitative data citing hypersensitivity of the viscera [5] and (b) quantitative physiological data suggesting enhanced variability of gastric myoelectrical activity [6]. An important diagnostic “confounder” in

POTS, which Khurana has not controlled for and Seligman et al. incorrectly diagnosed, is coexisting joint hypermobility syndrome (JHS). JHS is a multi-faceted non-inflammatory heritable disorder of connective tissue, whose clinical features include demonstrable joint hypermobility in association with myriad of articular and extra-articular symptoms including POTS, which is found in 78 % [3, 4]. We have recently prospectively evaluated the gastrointestinal manifestations of JHS, which include abdominal pain, alternating bowel habit, globus, dysphagia, waterbrash, regurgitation, postprandial symptoms and bloating [2]. Hitherto, many patients with underlying JHS have been diagnosed as having a functional gastrointestinal disorder (FGID), themselves frequently characterised by visceral hypersensitivity [1]. Such patients may potentially represent a distinct category, based on a pathology that resides in connective tissue, facilitating their removal from conventional FGID definition thereby allowing heightened refinements of interventions. Thus, we would recommend that future studies that examine both qualitative and quantitative changes within the viscera in POTS’ cohorts appropriately control for the presence or absence of JHS.

Yours sincerely,

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**Conflict of interest** The authors have no conflicts of interest to declare.

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