

Outcomes in Children with Disorders of Gut-Brain Interaction with Associated Hypermobility and Orthostatic Intolerance

Pediatric patients experience disorders of gut-brain interactions (DGBI) including such entities as irritable bowel syndrome, abdominal migraine, and functional abdominal pain. It is known that DGBI often are associated with hypermobility spectrum disorders such as hypermobile Ehlers-Danlos syndrome and orthostatic intolerance such as postural orthostatic tachycardia syndrome. The authors of this study evaluated the outcomes of patients with hypermobility spectrum disorders and/or orthostatic intolerance who had associated DGBI.

Patient data from a single, tertiary children's hospital was retrospectively obtained over a 4-year period for patients 9 to 21 years of age who fit Rome IV criteria for a DGBI and who also had hypermobility spectrum disorders and orthostatic intolerance. Specific validated scoring system questionnaires were used for these patients including an abdominal pain index, nausea severity scale, pain catastrophizing scale for children, children's somatization inventory, functional disability inventory, pediatric insomnia severity index, screen for child anxiety related disorders, and the patient health questionnaire-9.

A total of 175 patients were included in the study for which 78 patients (45%) had a hypermobility spectrum disorder, 76 patients (43%) had orthostatic intolerance, and 45 patients (26%) had both a hypermobility spectrum disorder and orthostatic intolerance. The mean age of these three groups ranged from 15.9 to 16.6 years, and most patients in the three groups were female (range 90% to 98%) and Caucasian (range 86% to 89%).

The study authors found that patients with both a hypermobility spectrum disorder and orthostatic intolerance had significantly worse scores on the nausea severity scale, children's somatization inventory, functional disability inventory, and the patient health questionnaire-9 when compared to patients who had either a hypermobility spectrum disorder or orthostatic intolerance. These same scoring systems demonstrated that patients with DGBI and a hypermobility spectrum disorder had significantly worse scores compared to patients without a hypermobility spectrum disorder. Alternatively, these same scoring systems showed significantly worse scores for patients with DGBI, and orthostatic intolerance compared to patients with no orthostatic intolerance.

The authors point out that patients with hypermobility spectrum disorders and orthostatic intolerance have a worse quality of life especially if a DGBI is present. The study results show a potential link between hypermobility spectrum disorders, orthostatic intolerance, and DGBI possibly due to autonomic dysregulation or vagal nerve sensitivity. Hopefully, these results will lead to better screening and better treatment for DGBI in this specific patient population.

Santucci N, VonAxelson A, Li J, Graham K, Hardy J, Miller M, Sahay R. Children and Adolescents with Disorders of Gut-Brain Interaction with Comorbid Hypermobility and Orthostatic Intolerance Have Worse Outcomes. *Journal of Pediatric Gastroenterology and Nutrition* 2026; 82: 1394-1399.

