

Joint Hypermobility/Panic Disorder Linked to Amygdala

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FROM THE ANNUAL MEETING OF THE
AMERICAN NEUROPSYCHIATRIC
ASSOCIATION

DENVER – The common denominator between joint hypermobility and panic disorder might lie in the significantly enlarged amygdalae shown to be present in

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individuals with lax joints in a recent study.

Joint hypermobility is far more prevalent among patients with panic disorder than in the general population. Joint hypermobility also has been linked to mitral valve prolapse, irritable bowel syndrome, and fibromyalgia. The new finding that enlargement of the amygdalae is seen bilaterally in individuals with lax joints is consistent with the notion that joint hypermobility merely represents one readily observable feature of a broader multisystem phenotype, Dr. Jessica Eccles asserted at the meeting.

She reported on the findings of brain imaging using MRI with voxel-based morphometry conducted in a selected sample of 72 subjects. Thirty-six of the 72 subjects met criteria for joint hypermobility syndrome based on their Beighton hypermobility score, which awards points for the ability to bend one's thumb back so it's touching the forearm, bend the fifth finger back more than 90 degrees, and so forth.

The joint hypermobility group had significantly larger amygdalae, with increased gray matter volumes bilaterally, compared with the nonhypermobility group. And within the hypermobility group, the degree of hypermobility correlated with the volume of the left lateral occipital cortex and correlated negatively with the right superior temporal and bilateral inferior parietal gray matter volumes, according to Dr. Eccles, academic clinical fellow in psychiatry at the Brighton and Sussex Medical School, U.K.

The amygdala is a brain center that figures prominently in emotional reactions. An alteration in this brain structure seen with joint hypermobility fits nicely with the concept that this connective tissue disorder is associated with panic disorder, she added.

Subjects with joint hypermobility also exhibited significantly greater interoceptive awareness – that is, sensitivity to stimuli originating inside the body, such as heart beat – as assessed on the Porges Body Perception Questionnaire. They also scored higher than nonhypermobility subjects on the Beck Anxiety Inventory.

The initial link between joint hypermobility and panic disorder was discovered in a case-control study by Spanish investigators. They found that joint hypermobility syndrome as assessed by blinded raters was present in 68% of outpatients with an anxiety disorder, compared with 10% of psychiatric patient controls and 12.5% of medical patients (Am. J. Psychiatry 1998;155:1578-83).

This work triggered further published studies, all of which were included in a recent analysis that concluded joint hypermobility is more prevalent in patients with panic disorder or agoraphobia, and that individuals who present with joint hypermobility have an increased prevalence of panic disorder and agoraphobia (Curr. Psychiatry Rep. 2011;13:18-25).

Dr. Eccles declared having no financial conflicts.

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