
Motor regulation problems and pain in adults diagnosed with ADHD.

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BACKGROUND:

Most children who are diagnosed with attention deficit-hyperactivity disorder (ADHD) have moderate-to-severe motor problems using the Motor Function Neurological Assessment battery (MFNU). The MFNU focuses on specific muscle adjustment problems associated with ADHD, especially motor inhibition problems and high muscle tone. Here we investigated whether adults with ADHD/hyperkinetic disorder (HKD) have similar motor problems. In our clinical experience, adults with ADHD often complain about back, shoulder, hip, and leg pain. We also investigate reported pain in adults with ADHD.

METHODS:

Twenty-five adult outpatients diagnosed with ADHD/HKD who were responders to methylphenidate (MPH) were compared to 23 non-ADHD controls on 16 MFNU subtests and using a 'total score' ('TS') parameter. The MFNU test leader was blinded to group identity. The two groups were also compared using the Pain Drawing and Numerical Pain Rating Scale.

RESULTS:

The adult ADHD group had significantly ($p < .001$) more motor problems (higher TS) than controls. On the muscle regulation subtests, 80--96% of the ADHD group showed 'moderate' to 'severe' problems compared to 13--52% of the control group, and 80% of the ADHD group reported widespread pain. Highly significant differences were found between the ADHD and control groups for the variables 'pain level' ($P < .001$) and 'pain location' ($P < .001$). Significant correlations were found between TS and 'pain location' and between TS and 'pain level'.

CONCLUSIONS:

These findings suggest that similar to children with ADHD, adults diagnosed with ADHD also have motor inhibition problems and heightened muscle tone. The presence of significantly higher pain levels and more widespread pain in the ADHD group compared to non-ADHD controls might indicate that pain is a long-term secondary effect of heightened muscle tone and restricted movement that can be demonstrated in children and adults by the MFNU battery.