Anti-Yo Antibodies in Children With ADHD - First Results About Serum Cytokines

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Abstract

Objective:
We investigated whether ADHD children who are positive to Purkinje cell antibodies display pro-inflammatory activity associated with high cytokine serum levels.

Method:
Fifty-eight ADHD outpatients were compared with 36 healthy, age- and sex-matched children. Forty-five of the ADHD children were positive to anti-Yo antibodies, whereas 34 of the control children were negative. Interleukin 4 (IL-4), IL-6, IL-10, IL-17, tumor necrosis factor alpha (TNFα), and interferon gamma (IFNγ) cytokine serum levels were tested in ADHD children who were positive to anti-Yo antibodies and in the control children who were negative.

Results:
Anti-Yo antibodies were present to a greater extent in the ADHD group: 77.58% versus 22.42%. Significant differences emerged between the two groups in IL-6 and IL-10, with higher cytokine levels being detected in ADHD children than in controls.

Conclusion:
Immune processes in ADHD are likely to be associated with mediators of inflammation, such as cytokines. These results contribute to our understanding of action of neural antibodies and cytokines in ADHD.