Behavior Problems and Attention Deficit Hyperactivity Disorder in Children and Adolescents with Neurofibromatosis Type 1

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DOI: 10.19080/AJPN.2017.05.555716

Abstract

Aim:
To estimate the prevalence of Attention Deficit Hyperactivity Disorder (ADHD) and of behavioral disorders in children and adolescents with Neurofibromatosis Type 1 (NF1), evaluating possible associations between them.

Method:
Patients with NF1 were consecutively enrolled from the outpatient clinic of a pediatric hospital, with their parents as informants. To assess behavior disorders Child Behavior Check List (CBCL) was administered, and parents inattention disease scale (SDAG) with teachers inattention disease scale (SDAI) were used to identify ADHD according to the criteria of the DSM-IV.

Results:
Sixty-eight patients with NFI were investigated (mean age 9 years 6 months). Twenty-nine of them fulfilled the criteria of ADHD, with a prevalence of 42.6%. Thirty-one of the patients disclosed problems of behavior (45.6%), with an higher prevalence of internalizing problems in comparisons of externalizing behaviors. Scores of behavior problems were significantly higher in patients with inattentive or combined ADHD than in patients without. Combined ADHD was associated to externalized behavioral problems while the inattentive type was associated to internalized problems.

Interpretation:
Behavioral problems and ADHD are common in children and adolescents with NF1 and a link between ADHD and psychological problems can be suggested, but the origins of this relationship remain to be elucidated.