Attention and Executive Disorders in Neurofibromatosis 1: Comparison Between NF1 with ADHD Symptomatology (NF1 + ADHD) and ADHD Per Se

Laurence Lion-François, Vania Herbillon, Emeline Peyric, Catherine Mercier, Daniel Gérard, Tiphanie Ginhoux, Virginie Coutinho, Isabelle Kemlin, Behrouz Kassai, Vincent Desportes, George A. Michael

Journal of Attention Disorders, 2017
DOI: https://doi.org/10.1177/1087054717707579

Abstract

Objective:
To compare children with Neurofibromatosis type 1 and associated ADHD symptomatology (NF1 + ADHD) with children having received a diagnosis of ADHD without NF1. The idea was that performance differences in tasks of attention between these two groups would be attributable not to the ADHD symptomatology, but to NF1 alone.

Method:
One group of children with NF1 + ADHD (N = 32), one group of children with ADHD (N = 31), and one group of healthy controls (N = 40) participated in a set of computerized tasks assessing intensive, selective, and executive aspects of attention.

Results:
Differences were found between the two groups of patients in respect of several aspects of attention. Children with NF1 + ADHD did not always perform worse than children with ADHD. Several double dissociations can be established between the two groups of patients.

Conclusion:
ADHD symptomatology in NF1 does not contribute to all attention deficits, and ADHD cannot account for all attention impairments in NF1.