
New tools for investigating response inhibition in adults with ADHD

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Résumé

Several theoretical models suggest that the core deficit in children with Attention Deficit Hyperactivity Disorder (ADHD) relies on response inhibition. However, research concerning the persistence of this deficit in adulthood is lacking.

This has been studied by comparing performances obtained by adults with ADHD and control subjects in a Simon Reaction Time (RT) task. The inhibition of inappropriate responses elicited by irrelevant information was evaluated through 1/ the analysis of RT and accuracy distribution (slope of the delta plots) and 2/ the analysis of electromyographic activity (EMG), which provided the possibility to identify partial errors (subthreshold EMG burst associated with incorrect response and preceding the correct one).

The classic analysis of mean RT indicated a larger Simon effect in adults with ADHD suggesting difficulties in inhibiting the automatic activation produced by the non relevant stimulus. However, in contrast, distribution analyses as well as analysis of partial errors revealed that the ability to suppress the automatic response remains intact in these patients.

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