



Does late-onset ADHD share the same neurocognitive markers as childhood-onset ADHD?

By Dr. Jessica Edwards

Researchers in the Netherlands have published their findings from a 6-year prospective, longitudinal study that aimed to identify neurocognitive markers of late-onset attention-deficit/hyperactivity disorder (ADHD). Shahrzad Ilbegi and colleagues extracted data from the Dutch section of the International Multicenter ADHD Genetics (IMAGE) study that included individuals with childhood-onset (persistent) ADHD ($n=193$), as well as siblings with late-onset (after age 12 years) ADHD ($n=34$), stable unaffected siblings ($n=111$) and healthy controls ($n=186$). After assessing for ADHD, the researchers collected data on neurocognitive function, such as time reproduction, reaction time, motor control and working memory.

Ilbegi *et al.* found that, for these neurocognitive measures, siblings with late-onset ADHD were similar to individuals with childhood-onset ADHD. Both groups had longer reaction times and higher error rates on all neurocognitive measures at baseline and follow-up compared to healthy controls. They also showed greater variability in reaction time and timing production at baseline compared to stable unaffected siblings. Additionally, the researchers found no evidence of a change in neurocognitive function over the 6-year study period.

These findings suggest that late-onset ADHD might be linked with the same underlying neurocognitive impairments as childhood-onset ADHD. Simply, the phenotypical manifestations of ADHD are delayed. To confirm this hypothesis, further studies are needed that include a larger number of young people with late-onset ADHD, additional measures of neurocognitive function, and ADHD assessments made later in development. The researchers consider that, in future, assessing reaction time and timing production variability might help identify children at risk of late-onset, familial ADHD.

Referring to:

Ilbegi, S., Buitelaar, J.K., Hoekstra, P.J., Hartman, C.A., Franke, B., Faraone, S.V., Osterlaan, J., Luman, M., van Lieshout, M. & Rommelse, N.N.J. (2020), Neurocognitive markers of late-onset ADHD: a 6-year longitudinal study. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13272.