



First-dose methylphenidate-induced changes in the anti-saccade task performance and outcome in adults with attention-deficit/hyperactivity disorder

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Abstract:

Objective. We examined whether the anti-saccade task (AST) changes induced by the first methylphenidate (MPH) dose could be associated with subsequent clinical outcome in adults with attention-deficit/hyperactivity disorder (ADHD).

Methods. Ninety-seven drug-naïve DSM-5 ADHD adults participated in this study. The AST parameters were measured at baseline, after the first MPH-dose (10 mg orally), and 6 months after chronic MPH treatment. Results were compared with those of 50 healthy control (HC) subjects.

Results. At baseline, ADHDs showed longer saccadic reaction times and more direction errors than HCs (both $p < 0.00001$). Acute and chronic MPH administration resulted in normalization of the AST performances. Multivariate regression analysis after adjusting for age, sex, weight, and severity of symptoms at baseline, revealed that a low percentage of direction errors after the first MPH-dose (i.e., $\leq 10\%$) could predict remission at month 6 (OR: 5.84; 95% CI: 2.00-17.11; $p = 0.001$).

Conclusions. Our findings indicate that: (1) impairments of motor planning and response inhibition in adults ADHD are improved with MPH, and (2) a low direction error percentage after the first MPH-dose may be an independent predictor of remission.

Biography:

Fabrice Duval has completed his M.D. (specialization Psychiatry) at the age of 29 years (University of Strasbourg I, and Paris V - UER Necker, France). He is head of adult psychiatric pole 8/9. He has published more than 100 papers in reputed journals and is serving as an editorial board member of Psychoneuroendocrinology since 2006.



Publication of speakers:

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Citation: Dr. Fabrice Duval; First-dose methylphenidate-induced changes in the anti-saccade task performance and outcome in adults with attention-deficit/hyperactivity disorder; CADD 2020 ; December 04, 2020; London, UK.