Efficacy of lisdexamphetamine to improve the behavioural and cognitive symptoms of attention deficit hyperactivity disorder: treatment monitored by means of the AULA Nesplora virtual reality test

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INTRODUCTION:
Lisdexanfetamine (LDX) is the drug for attention deficit hyperactivity disorder (ADHD) undergoing the largest research volume in the latest years. However, no studies certify its usefulness for the improvement of cognitive functioning in ADHD.

AIM:
To evaluate the efficacy of LDX in the behavioral and cognitive improvement of a group of patients with ADHD. Such efficacy was measured by means of the administration of AULA Nesplora virtual reality test before the prescription of pharmacological treatment and right after the treatment with LDX.

PATIENTS AND METHODS:
The sample comprised 85 patients between 6 and 16 years, with clinical diagnosis of ADHD, who attended treatment in a neuropediatrics consultation. All patients started pharmacological treatment with the proper dose of LDX after the clinical interview and the first administration of AULA test. After an average treatment of 7.5 months, AULA was administered again and the treatment progress based on cognitive and motor symptomatology was assessed.

RESULTS:
Results showed highly significant improvements in selective and sustained attention, quality of attention focus and hyperactivity; moderate improvements in impulsivity; and an incidence close to zero in processing speed.

CONCLUSIONS:
LDX constitutes an adequate treatment for the substantial improvement of attention and hyperactivity; such improvement can be monitored accurately by means of AULA virtual reality test.