

P-347 - EFFECTS OF METHYLPHENIDATE ON PUPIL SIZE IN CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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Introduction: Methylphenidate is a central dopamine reuptake inhibitor used to treat attention deficit hyperactivity disorder (ADHD). Sympathomimetic effects of methylphenidate have been shown in a number of studies in attention deficit and hyperactivity disorder.

Objectives/aims: The purpose of this study is to investigate the effect of methylphenidate on pupil sizes in 6-11 aged boys diagnosed ADHD.

Methods: Fifteen boys with ADHD were participated in this study. We tried to minimize confounding factors by exclusion of any other psychiatric disorders. Pupil diameter changes of the participants were measured in photopic and mesopic conditions before oral administration of methylphenidate and after 1 hour of drug intake. The differences between the groups were assessed using the **Wilcoxon signed-rank test**.

Results: There was a statistically significant difference between photopic pupil diameters of left eye before and after oral administration of methylphenidate ($p=0.03$), but not between photopic pupil diameters of right eye ($p=0.09$). The mesopic pupil diameters for two eyes before and after oral administration of methylphenidate didn't show any statistically significant difference.

Conclusions: Although methylphenidate may produce to increase pupil size by sympathomimetic effects; our findings demonstrate that methylphenidate decreases the size of left pupil in photopic conditions. This may be related to an increased response to light.