Weight, Height, and Body Mass Index in Patients with Attention-Deficit/Hyperactivity Disorder Treated with Methylphenidate


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ABSTRACT

Objective: To describe the methylphenidate (MPH) effects on weight, height, and body mass index (BMI) in a Spanish sample diagnosed with attention-deficit/hyperactivity disorder (ADHD).

Methods: Patients (6–18 years) diagnosed with ADHD treated at our Unit with MPH in the last 10 years were included in an observational longitudinal study. Weight, height, and BMI Z scores were measured at baseline and at last follow-up.

Results: Three hundred forty-two patients (mean [standard deviation] age: 10.7 [3.8] years, 80% males) were included. Mean dose was 1.25 (0.40) mg/(kg·d). After 27 (14–41) months taking MPH, weight and BMI standard deviation score (SDS) were reduced by treatment (baseline weight-SDS: 0.34 [1.22], follow-up weight-SDS: −0.06 [1.38], t-test p < 0.001; baseline BMI-SDS: 0.35 [1.10], and follow-up BMI-SDS [SDS]: −0.23 [1.08], t-test p < 0.001). In the whole sample, no differences in height before and after treatment were observed. However, considering only the group of patients who were children 6–12 years (68.6%) when starting treatment, height was slightly affected (baseline height-SDS: 0.04 [1.14], follow-up: −0.10 [1.11], p < 0.001). This effect was not observed if treatment was started during adolescence. Linear regression analysis showed that age starting MPH (B = 0.07, p = 0.003), dose (B = −0.50, p = 0.001), and duration of treatment (B = 0.07, p = 0.031) affect follow-up height.

Conclusion: MPH slightly decreased weight and BMI in this group of ADHD patients followed naturalistically over 2.2 years, and slightly affected height only if treatment was started before the age of 12. Girls, children who started treatment being younger or children on higher MPH doses, showed greater impact in height.