Lens opacities in children using methylphenidate Hydrochloride.

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Abstract

PURPOSE:
To assess clinical findings of eye examination in children who is taking methylphenidate hydrochloride with Attention Deficit Hyperactivity Disorder.

METHODS:
Fifty-seven consecutive patients who were diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) and have been under oral methylphenidate hydrochloride treatment for at least one year were involved in this study (Group 1). Sixty healthy subjects (Group 2) who have similar demographic features compared with the group 1, were involved as a control group. All patients were detailed ophthalmological examination.

RESULTS:
One hundred and seventeen consecutive subjects with a mean age of 11.2 ± 2.4 years (7-18 years) were enrolled. Fifty-seven consecutive patients (32 males, 25 females) that have been under oral methylphenidate hydrochloride treatment (Group 1) and 60 healthy control subjects (30 males, 30 females) (Group 2) were recruited for this prospective study. The mean methylphenidate hydrochloride dosage was 0.9 ± 0.1 mg/kg/day and mean duration of methylphenidate hydrochloride usage was for 2.73 ± 0.73 years (1-7 years). High intraocular pressure was not observed in any of the patients in our study. We detected lens opacities in five eyes of five patients in group 1 (p = 0.019). The patient with the highest degree of cataract formation had been using MPH for 84 months and this patient's cataract score is P4.

CONCLUSION:
Long-term use of methylphenidate may cause lens opacities. In particular, patients who have been using methylphenidate longer than two years should be passed through regular eye examination.