Effects of maternal symptom ratings and other clinical features on short-term treatment response to OROS methylphenidate in children and adolescents with ADHD in a naturalistic clinical setting

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Abstract

Objective:
To investigate the effect of Attention Deficit Hyperactivity Disorder (ADHD), antisocial behavior and anxiety/depression ratings of mothers, and child and adolescents’ age, gender, ADHD subtype, and comorbidity on one-month drug treatment response to OROS methylphenidate in ADHD in a naturalistic setting.

Methods:
The analyses included 223 subjects (191 boys, 32 girls; age 6-15 years, mean: 9.4) treated with OROS methylphenidate (18-72 mg/day, mean: 31 mg/d; 0.4-1.4 mg/kg/d) for one-month. Treatment response was defined as larger than 25% or more decrease in pretreatment the Conners Parent Rating Scale (CPRS) or the Conners Teacher Rating Scale (CTRS) total scores and the Clinical Global Impression improvement with drug treatment 3 (minimally improved) or higher. Maternal ADHD, antisocial behavior and anxiety/depression ratings were obtained by the Adult Self Rating (ASR). Logistic regression analyses were computed in order to calculate the effects of gender; age; ADHD subtype; comorbid anxiety disorder, learning disorder, oppositional defiant/conduct disorder; maternal ASR Anxiety/Depression, ADHD and Antisocial scores.

Results:
35.2% of subjects had statistically significant 25% or more decrease in pretreatment CPRS total scores and 38.6% of subjects had statistically significant 25% or more decrease in pretreatment CTRS total scores. The subjects with comorbid anxiety disorder had the poorest drug response. Maternal self-reported antisocial and anxiety/depressive symptomatology were statistically significantly associated with worse response to treatment in terms of CPRS (respectively, OR=0.83, 95% CI: 0.75-0.92, p<0.01; OR=0.95, 95% CI: 0.9-0.99, p<0.05) and CTRS total scores (OR=0.9, 95% CI: 0.82-0.99, OR=0.95, 95% CI: 0.91-1, p<0.05). Baseline rating scores were also important predictors of drug treatment response. Effects of age, gender and maternal ADHD were not statistically significant.

Conclusion:
ADHD children and adolescents with comorbid anxiety disorders and those whose mothers have more self-reports of antisocial and depressive symptoms showed less favorable short-term response to OROS-MPH. These subjects may require further attention and additional interventions to augment treatment with OROS methylphenidate.