Use and Characteristics of Antipsychotic/Methylphenidate Combination Therapy in Children and Adolescents with a Diagnosis of Attention-Deficit/Hyperactivity Disorder

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Abstract

OBJECTIVE: Children and adolescents with attention-deficit/hyperactivity disorder (ADHD) frequently have comorbidities that are potential indications for antipsychotics (APs). Some studies have suggested that the combined use of methylphenidate (MPH) and APs is increasing in this population group. Longitudinal analyses and in-depth investigations on the substance level are lacking. This study aimed to estimate the cumulative proportion of concomitant AP/MPH use in children and adolescents with ADHD over a follow-up of up to 9 years and to describe patient characteristics stratified by specific AP drug.

METHODS: Based on claims data, concomitant AP/MPH use was identified among 67,595 children and adolescents with ADHD starting MPH treatment between 2005 and 2013. Characteristics and diagnoses—including those indicating appropriateness of AP use according to approved indications and/or guidelines—were examined at the time of first AP/MPH combination therapy. In addition, subsequent use of AP/MPH combination therapy was evaluated.

RESULTS: The cumulative proportion of individuals with any AP/MPH combination therapy rose to over 6% within 9 years after initiating MPH. The most frequent APs first used in combination with MPH were risperidone (72%), pipamperone (15%), and tiapride (8%). Percentages of psychiatric hospitalization in the year preceding the first combination therapy with MPH were 33%, 43%, and 19%, respectively. The proportion of individuals with potentially appropriate use was high (>72%) in risperidone/MPH and tiapride/MPH and low (15%) in pipamperone/MPH combination users. Conduct disorders and tic disorders were frequent in users who were prescribed MPH with risperidone and tiapride, respectively. One-quarter of patients with AP/MPH combination therapy were one-time-only combination users.

CONCLUSION: Our study suggests that a considerable proportion of children and adolescents with ADHD receive MPH in combination with APs and that this is a factor not only during the first years of MPH treatment. ADHD guidelines should specify algorithms concerning the use of AP medication.