Association between medication prescription for atopic diseases and attention-deficit/hyperactivity disorder.

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Abstract

BACKGROUND:
Data on the association between atopic diseases and attention-deficit/hyperactivity disorder (ADHD) have been inconclusive.

OBJECTIVE:
To assess whether children with drug-treated ADHD are more likely to receive treatment for asthma, allergic rhinitis, or eczema before the start of ADHD medication use compared with controls and to examine the effect of parents receiving medication for ADHD and atopic diseases on ADHD medication use in their offspring.

METHODS:
We conducted a retrospective nested case-control study among children (6-12 years of age) using the Groningen University prescription database. Cases were defined as children with at least 2 prescriptions of methylphenidate within 12 months. For each case, 4 controls were matched on age, sex, and regional area code. Parental prescription data were linked to cases and controls to assess the influence of parents receiving medication for ADHD and atopic diseases on ADHD medication use in their offspring.

RESULTS:
We identified 4257 cases and 17,028 matched controls. Drug treatment for asthma, allergic rhinitis, and eczema was more common in cases than controls (adjusted odds ratios [aORs], 1.4 [95% confidence interval (CI), 1.3-1.6], 1.4 [95% CI, 1.1-1.8], and 1.3 [95% CI, 1.1-1.5], respectively). Medication for allergic rhinitis and asthma among parents was associated with ADHD treatment in their children (aORs, 1.3 [95% CI, 1.1-1.5] and 1.2 [95% CI, 1.1-1.3], respectively).

CONCLUSION:
This study provides further evidence to support the hypothesis that atopic diseases are associated with ADHD. The parental-offspring association suggests a possible genetic and/or environmental component.