Medication for attention deficit/hyperactivity disorder and risk for depression: A nationwide longitudinal cohort study

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Abstract

Background
Attention-deficit/hyperactivity disorder (ADHD) is associated with high rates of psychiatric comorbidity, including depression. However, it is not yet clear whether ADHD medication increases or decreases the risk for depression.

Methods
We studied all individuals born between 1960 and 1998 and diagnosed with ADHD in Sweden (n= 38,752). We obtained data for prescription of ADHD medication, diagnosis of depression and other psychiatric disorders, and socio-demographic factors from population-based registers. The association between ADHD medication and depression was estimated with Cox proportional hazards regression.

Results
ADHD medication was associated with a reduced long-term risk for depression (i.e., three years later), after adjustment for a number of socio-demographic and clinical confounders (HR=0.58, 95% CI: 0.51-0.67). The risk was lower for longer duration of ADHD medication. ADHD medication was also associated with reduced rates of concurrent depression; within-individual analysis suggested that occurrence of depression was 20% less common during periods when patients received ADHD medication compared with periods when they did not (HR=0.80, 95% CI: 0.70–0.92).

Conclusions
Our study suggests that ADHD medication does not increase the risk of later depression; rather, medication was associated with a reduced risk for subsequent and concurrent depression.