Sexually Transmitted Infection among Adolescents and Young Adults with Attention-Deficit Hyperactivity Disorder: A Nationwide Longitudinal Study

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Abstract

Objective
Previous studies suggest that ADHD is related to risky sexual behaviors, which have been regarded as a major risk factor of sexually transmitted infection (STI). However, the association between ADHD and subsequent STIs remains unknown.

Method
Using the Taiwan National Health Insurance Research Database, 17,898 adolescents and young adults who were diagnosed with ADHD by psychiatrists and 71,592 age-/sex-matched comparisons without ADHD were enrolled between 2001 and 2009 and followed up to the end of 2011 in our study. Participants who developed any STI during the follow-up period were identified. Cox regression analysis was performed to examine the risk of STIs between patients with ADHD and those without ADHD.

Results
Patients with ADHD were prone to developing any STI (hazard ratio [HR]: 3.36, 95% CI: 2.69~4.21) after adjusting for demographic data, psychiatric comorbidities, and ADHD medications compared with the comparison group. Substance use disorders (HR: 1.94, 95% CI: 1.27~2.98) were also associated with the STI risk. Both short-term use (0.70, 95% CI: 0.53~0.94) of and long-term use (HR: 0.59, 95% CI: 0.37~0.93) of ADHD medications were related to a reduced risk of subsequent STIs. However, an association between substance use disorders and STIs was observed only in women. By contrast, the effect of ADHD medications on the reduction of STI risk was observed only in men.

Conclusion
Adolescents and young adults with ADHD had an elevated risk of developing any STI later in life compared with the non-ADHD comparisons. Patients with ADHD who also had substance use disorders were at the highest risk of subsequent STIs. Treatment with ADHD medications was associated with a reduced risk of subsequent STIs.