Naturalistic Pharmacotherapy Compliance among Pediatric Patients with Attention Deficit/Hyperactivity Disorder: a Study Based on Three-Year Nationwide Data

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Abstract

We examined short- and long-term medication compliance among youth with attention-deficit hyperactivity disorder (ADHD), using data from the National Health Insurance database in Korea. Of the 5,699,202 6–14-year-old youth in 2008, we chose those with at least 1 medical claim containing an ICD-10 code for diagnosis of ADHD (F90.0) and no prescription for ADHD within the previous 365 days. We tracked the data every 6 months between 2008 and 2011, to determine treatment compliance among newly diagnosed, medicated patients. Further, we checked every 1 month of the 6 months after treatment commencement. Treatment continuity for each patient was calculated by sequentially counting the continuous prescriptions. For measuring compliance, we applied the medication possession ratio (MPR) as 0.6, 0.7, and 0.8, and the gap method as 15- and 30-days’ intervals. There were 15,133 subjects; 11,934 (78.86%) were boys. Overall 6-month treatment compliance was 59.0%, 47.3%, 39.9%, 34.1%, 28.6%, and 23.1%. Monthly drop-out rates within the first 6 months were 20.6%, 6.5%, 4.7%, 3.7%, 3.0%, and 2.5%, respectively. When applying MPR more strictly or shorter gap days, treatment compliance lessened. This is the first nationwide report on 36-month treatment compliance of the whole population of 6–14-year-olds with ADHD. We found the beginning of the treatment, especially the first month, to be a critical period in pharmacotherapy. These results also suggest the importance of setting appropriate treatment adherence standards for patients with ADHD, considering the chronic course of ADHD.