Differences in Utilization Patterns among Medications in Children and Adolescents with Attention-Deficit/Hyperactivity Disorder: a 36-Month Retrospective Study Using the Korean Health Insurance Review and Assessment Claims Database.


Abstract

We evaluated the differences in utilization patterns including persistence and adherence among medications in children and adolescents with attention deficit hyperactivity disorder (ADHD). The current study was performed using data from the Korean Health Insurance Review and Assessment claims database from January 1, 2009 to December 31, 2013. Our study sample consisted of 10,343 children and adolescents with ADHD who were not given their newly prescribed medication in 360 days before the initial claim in 2010. Data were followed up from the initiation of treatment with ADHD medications in 2010 to December 31, 2013. Discontinuation rates for 4 ADHD medications in our sample ranged from 97.7% for immediate-release methylphenidate to 99.4% for atomoxetine using refill gap more than 30 days and from 56.7% for immediate-release methylphenidate to 62.3% for extended-release methylphenidate using refill gap more than 60 days. In the number of discontinued, we found significant differences among medications using refill gap more than 30 days. Among 4 ADHD medications, extended-release methylphenidate and atomoxetine had more days than immediate-release methylphenidate and osmotic-controlled oral delivery system methylphenidate. In logistic regression analyses, extended-release methylphenidate, osmotic-controlled oral delivery system methylphenidate, and atomoxetine showed less discontinuation compared to immediate-release methylphenidate group when a refill gap more than 30 days was used. In logistic regression analysis of adherence, we could not find any differences among 4 medication types. We suggest that the utilization patterns should be assessed regularly in order to improve future outcomes in children and adolescents with ADHD.