New ADHD agent provides nighttime dosing for early-morning symptom control

Parents and caregivers of children with ADHD whose symptoms can be more severe during the early morning routine have a promising new treatment option: a unique oral formulation of methylphenidate, approved under the trade name Jornay PM (Ironshore Pharmaceuticals). The agent, which has both delayed-release and extended-release properties, is taken once daily in the evening at 8:00 pm to target onset of action before awakening.

“Many parents of children with ADHD note that the early morning routine is often one of the most chaotic times of the day. The idea of dosing the medication the night before was our moon-shot solution to meeting this need,” said Randy Sallee, MD, chief medical officer at Ironshore, in a news release.

Jornay PM is the first agent to utilize Ironshore’s drug delivery technology, Delexis, which allows drugs to be dosed at night to improve symptoms in the early morning and throughout the day.

The capsules contain two functional film coatings that act synergistically. The first layer delays the initial release of the active ingredient for up to 10 hours, while the second layer helps to control the rate of release throughout the day. Timing of administration may be adjusted between 6:30 pm and 9:30 pm to optimize tolerability and efficacy. Jornay PM is indicated for patients aged 6 years and older with ADHD. It is not known whether the agent is safe and effective in children younger than 6 years.

Pivotal clinical trials
Approval was based on two multicenter, randomized, double-blind, placebo-controlled Phase III studies conducted in 278 pediatric patients aged 6 to 12 years with a diagnosis of ADHD according to criteria established by the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition.

In addition to the traditional scales that assess efficacy in ADHD clinical trials, such as the Swanson, Kotkin, Agler, M-Flynn, and Pelham rating scale and the ADHD Rating Scale, the trials assessed Jornay PM’s efficacy in the early morning period using the morning subscale of the Daily Parent Rating of Evening and Morning Behavior Scale, Revised, and the Before School Functioning Questionnaire. Both studies demonstrated improvement in ADHD manifestations, increasing attention and decreasing impulsiveness and hyperactivity in the morning and throughout the day.

Contraindications, warnings, and precautions
Jornay PM is contraindicated in patients with known hypersensitivity to methylphenidate or other components of the drug and in those who are taking a monoamine oxidase inhibitor (MAOI) or have used an MAOI within the preceding 14 days. The Schedule II drug includes a boxed warning that central nervous system (CNS) stimulants, including Jornay PM, have a high potential for abuse and dependence. Health professionals should assess the risk of abuse prior to prescribing and monitor for signs of abuse and dependence during treatment.

Patient counseling
Advise patients and parents or caregivers to read the FDA-approved medication guide. Inform them of adverse reactions, including that it can cause slowing of growth and weight in children. Explain that Jornay PM is a Schedule II substance that can be abused or lead to dependence. The drug should not be given to anyone else, and it should be stored in a safe place, preferably locked, to prevent abuse.

Sudden death has been reported in association with CNS stimulants at recommended doses in pediatric patients with structural cardiac abnormalities or other serious heart problems. In adults, sudden death, stroke, and myocardial infarction have been reported. Avoid use in patients with known structural cardiac abnormalities, cardiomyopathy, serious heart arrhythmias, or coronary artery disease.

In addition, use of CNS stimulants may cause psychotic or manic symptoms in patients with no prior history or exacerbation of symptoms in patients with preexisting psychiatric illness. Common adverse reactions are decreased appetite, insomnia, nausea, vomiting, dyspepsia, abdominal pain, weight loss, anxiety, dizziness, irritability, affect lability, tachycardia, and increases in blood pressure. Other adverse reactions in pediatric patients aged 6 to 12 years were headache, psychomotor hyperactivity, and mood swings.

Ironshore plans to make the drug available commercially in the first half of 2019.

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