Neurotherapeutics
DOI 10.1007/s13311-012-0139-4

Strategies for the Treatment of Restless Legs Syndrome

Mark J. Buchfuhrer

Abstract

Restless legs syndrome (RLS) is a common neurological disorder of unknown etiology that is managed by therapy directed at relieving its symptoms. Treatment of patients with milder symptoms that occur intermittently may be treated with nonpharmacological therapy but when not successful, drug therapy should be chosen based on the timing of the symptoms and the needs of the patient. Patients with moderate to severe RLS typically require daily medication to control their symptoms. Although the dopamine
agonists, ropinirole and pramipexole have been the drugs of choice for patients with moderate to severe RLS, drug emergent problems like augmentation may limit their use for long term therapy. Keeping the dopamine agonist dose as low as possible, using longer acting dopamine agonists such as the rotigotine patch and maintaining a high serum ferritin level may help prevent the development of augmentation. The α2δ anticonvulsants may now also be considered as drugs of choice for moderate to severe RLS patients. Opioids should be considered for RLS patients, especially for those who have failed other therapies since they are very effective for severe cases. When monitored appropriately, they can be very safe and durable for long term therapy. They should also be strongly considered for treating patients with augmentation as they are very effective for relieving the worsening symptoms that occur when decreasing or eliminating dopamine agonists.

Keywords Restless legs syndrome . Dopamine agonists . Ropinirole . Pramipexole . Rotigotine . Gabapentin enacarbil . Opioids . Methadone . Augmentation . Anticonvulsants

Introduction

Restless legs syndrome (RLS) is a neurological sensorimotor disorder that is diagnosed based on 4 essential clinical criteria that were established by the International RLS Study Group in 2003 [1]. These criteria are as follows:

1. An urge to move the legs, usually accompanied or caused by uncomfortable and unpleasant sensations in the legs (e.g., sometimes the urge to move is present without the uncomfortable sensations, and sometimes the arms or other body parts are involved in addition to the legs).
2. The urge tomove or unpleasant sensations begin or worsen during periods of rest or inactivity, such as laying or sitting.
3. The urge to move or unpleasant sensations are partially or totally relieved by movement, such as walking or stretching, at least as long as the activity continues.
4. The urge to move or unpleasant sensations are worse in the evening or night than during the day, or only occur in the evening or night (when symptoms are very severe; the worsening at night may not be noticeable but must have been previously present).

A fifth criterion has just been established by the International RLS Study Group in 2012 that includes ruling out mimics of
RLS (leg cramps, arthritis, neuropathies, claudication, positional
discomfort, and so forth) that might confound the diagnosis. Future diagnostic manuals, such as the International

---

Electronic supplementary material The online version of this article (doi:10.1007/s13311-012-0139-4) contains supplementary material, which is available to authorized users.

M. J. Buchfuhrer
Solo Clinical Practice,
Downey, CA 90241, USA
M. J. Buchfuhrer (*)
Department of Psychiatry and Behavioral Sciences,
Stanford School of Medicine,Stanford, CA, USA