Oxcarbazepine Treatment of Restless Legs Syndrome
Three Case Reports
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Abstract: Restless legs syndrome is a sensorimotor neurological condition that affects sleep and daytime functioning. The 4 classes of medication most used for restless legs syndrome include dopaminergic agents, benzodiazepines, opioids, and anticonvulsants such as gabapentin or carbamazepine. Here, we report 3 cases of restless legs syndrome successfully treated with oxcarbazepine, the keto-derivative of carbamazepine.

Key Words: restless legs syndrome, oxcarbazepine, sleep disorders, movement disorders
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Restless legs syndrome (RLS) is a sensorimotor neurological condition that affects sleep and daytime functioning. Theories regarding the pathophysiology of primary RLS include abnormalities of iron metabolism and dopaminergic dysfunction, possibly caused by iron abnormalities.

The 4 classes of medication most used for RLS include dopaminergic agents, benzodiazepines, opioids, and anticonvulsants such as gabapentin or carbamazepine. Here, we report 3 cases of RLS successfully treated with oxcarbazepine, the keto-derivative of carbamazepine.

All 3 cases were attended in an outpatient psychiatric setting. Restless legs syndrome was comorbid to other psychiatric conditions. Restless legs syndrome was diagnosed clinically by evaluating the patient's history and symptoms using the International Restless Legs Syndrome Study Group diagnostic criteria.

Neurological examination and serologic tests (including iron, ferritin, creatinine, and hematocrit) were assessed to rule out secondary forms of RLS. Oxcarbazepine was used for treating both RLS and the comorbid psychiatric conditions. Dopaminergic therapy was not used because of the risk of exacerbation of psychiatric symptoms.

CASE REPORTS
Case 1 is a 40-year-old woman with a history of anxiety, binge eating disorder, and RLS. She was experiencing 2 to 3 awakenings due to RLS symptoms every night. Treatment with clonazepam and topiramate had been ineffective. Her family history was positive for RLS.

Oxcarbazepine was started at a dosage of 300 mg at bedtime. Within 3 weeks, she showed a moderate improvement in her symptoms. She had experienced 1 to 2 awakenings due to RLS symptoms every night. Treatment with clonazepam had been partially effective, but she had discontinued the treatment due to excessive sedative effects. In addition to RLS, her history included previous thyroid surgery and fibromyalgia. Her family history was positive for RLS.

Oxcarbazepine was started at a dosage of 300 mg at bedtime. Within 4 weeks, she showed a moderate improvement in her symptoms. She had experienced 1 to 2 awakenings due to RLS during 6 nights of the 4-week period. She did not report any adverse effects, but she refused to increase oxcarbazepine dose to 600 mg/d. Six months after the prescription, the remission is stable in time without adverse effects.

Case 3 is a 63-year-old woman with a history of bipolar disorder and RLS. She was experiencing 5 to 6 awakenings due to RLS every night. Treatment with clonazepam had been ineffective. In addition to RLS, her history included anemia. Her family history was negative for RLS.

Oxcarbazepine was started at a dosage of 600 mg at bedtime. Within 6 weeks, she reported a complete remission of the RLS symptoms. She only reported dizziness during the first week of oxcarbazepine treatment as an adverse effect. Six months after the prescription, the improvement is stable in time without adverse effects.

DISCUSSION
Here, we present 3 cases of successful RLS treatment with oxcarbazepine, the keto-derivative of carbamazepine. The efficacy of carbamazepine in the treatment of RLS has been demonstrated in double-blind studies more than 20 years ago. Telstad et al examined 174 patients who had RLS in a double-blind placebo-controlled study in general practice for 5 weeks. Carbamazepine was significantly more effective than placebo \((P < 0.03)\), especially from the third to the fifth week of treatment. Although 2 other studies confirmed the efficacy of carbamazepine on RLS, a recent systematic review of randomized or quasi-randomized, double-blind trials on anticonvulsant treatment for RLS concludes that there is no scientific evidence on RLS treatment with anticonvulsants for clinical practice.

Oxcarbazepine has shown the same efficacy as carbamazepine with lower adverse effects in conditions such as epilepsy or bipolar disorder, but there is just 1 report of oxcarbazepine use for RLS to date. The results of this case series suggest that oxcarbazepine is an effective agent for the management of RLS. It proved to be effective even at low doses (300–600 mg/d). The efficacy of oxcarbazepine and the low incidence of adverse effects showed in these 3 cases are promising, but it should be confirmed in placebo-controlled studies using larger samples.
REFERENCES


