

An Atypical Case of Restless Legs Syndrome Affecting Only the Toes and Exacerbated by Lithium

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Abstract

Restless legs syndrome (RLS) is a disorder characterized by an urge to move the lower limbs primarily at night. The urge is present at rest and is relieved by movement. However, in some cases the presentation is not straight forward and the diagnosis relies on a variety of supportive data rather than the formal diagnostic criteria alone. The present case is a representative example of this with atypical symptoms involving the urge to only move the toes rather than the legs. It highlights further unique features of RLS in that the patient's symptoms were exacerbated by lithium and associated with nocturnal eating syndrome.

Introduction

Restless legs syndrome (RLS), also known as Willis-Ekbom disease, is a common disorder affecting 2-10% of the general population. It is characterized by an urge to move primarily the lower limbs, while at rest, in the evening or night. The symptoms can be alleviated for brief periods with movement or walking which, when attempted at night, can significantly disturb sleep and quality of life. Drug-induced and drug-exacerbated RLS has been documented with antidepressant treatment and to a lesser extent with lithium and antipsychotics [1-4]. Here we report a unique case of RLS affecting only the toes that was exacerbated by lithium.

Case Report

A 51-year-old female with a history of anxiety and depression presented with an abnormal sensation in her toes described as a strong urge to squeeze her toes together while attempting to fall asleep at night. The symptoms were bilateral and would go away briefly when she pressed her toes together. She denied any symptoms extending to her legs, daytime symptoms, or involuntary movements. She also reported waking up to eat chocolate and sugary foods after two hours of sleep. She was awake and aware when she did this and regretted her large caloric intake the next morning.

Her nocturnal urge to move her toes began when she was a teenager and progressively worsened over the years, however she did not seek medical evaluation. She recalls that the urge worsened when she was treated with antidepressants (fluoxetine and sertraline) and as a result she stopped taking these medications. At age 49, she was started on gabapentin for back pain, thought to be related to degenerative disk disease in her lumbar spine, and noticed that her toe-related symptoms completely resolved. She remained symptom-free until six weeks prior to being seen in our sleep clinic when she was started on lithium for her mood disorder. She noticed that her urge to move her toes at night returned with the additional symptom of the urge to eat chocolate in the middle of the night. She had no change in her appetite during the day while she was awake. She was distraught about her poor sleep since starting the medication and decided to see a sleep specialist. Her gabapentin dose, 1200 mg at bedtime, remained the same and she reported no other changes in her smoking habits, medications, or caffeine intake. Her ferritin level was in the normal range at 64 ng/mL. On exam, she had symmetric reflexes in her lower extremities with no gross evidence of abnormalities in pain sensation or proprioception. She reported that her brother and father had a similar nocturnal urge to move their toes.

As RLS was suspected and given the temporal relationship of her symptom worsening to starting lithium, the medication was discontinued and she was started on a low dose of quetiapine at bedtime instead. This resulted in a complete resolution of both the urge to move her toes at night as well as the nocturnal eating episodes. She also reported an improvement in mood.

Discussion

At first glance, specifically in the setting of known degenerative disk disease and back pain, the patient's symptoms were suggestive of the "painful legs and moving toes" syndrome. This is a condition that may develop in the setting of spinal cord injury or peripheral neuropathy [5]. However, notable features differentiating her presentation from this syndrome include relief with movement, circadian pattern, and the voluntary nature of her movements, all which were more suggestive of RLS.

Although the patient's symptoms were atypical in that only the toes were affected in the absence of leg involvement, the remainder of the diagnostic criteria for restless legs syndrome were met: a circadian pattern, aggravation with rest, and relief with movement [6]. In addition, the positive family history and relief with gabapentin were supportive of the diagnosis. Furthermore, she had several associated features of RLS that have been documented to various degrees in the medical literature. These include concomitant psychiatric disorder [7], nocturnal eating syndrome [8], and exacerbation by lithium [3,4]. The resolution of her symptoms after lithium was discontinued is strongly suggestive of it acting as a trigger for her symptom onset. Her symptoms were unlikely to be secondary to the side effect of restlessness with lithium because they had a circadian pattern, occurring only at night, and they were present before her treatment with antidepressant, antipsychotic, and pain medications. Finally, it is important to highlight that gabapentin

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adequately treated her symptoms and quetiapine, which has been noted to exacerbate RLS [2], did not worsen her symptoms in this case. Gabapentin is a reasonable alternative treatment for RLS, specifically when there is concern about using a dopamine agonist [9].

Cases such as this one with no leg involvement suggest that restless legs syndrome is a misnomer for the condition. Clinicians should be aware that there are atypical presentations of RLS. Questioning about the temporal onset of symptoms and associated features can help differentiate RLS from other conditions. Furthermore, clinicians should be aware that the effects of medications may differ significantly between patients and that multiple medications may need to be tried when treating a concomitant psychiatric disorder in RLS patients.

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