What Is Restless Genital Syndrome?
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Editor's Note: A recent report published in JAMA Neurology[1] describes a relatively newly described condition characterized by a restlessness in the pelvic region. Medscape spoke with lead author Camila Henriques De Aquino, MD, a clinical fellow at Toronto Western Hospital, about the pathophysiology, diagnosis, and treatment of what has come to be called "restless genital syndrome." Co-author Anthony Lang, MD, director of the Division of Neurology at University of Toronto, served as a consultant to Dr Henriques De Aquino on some of her responses.

Medscape: Until late last year, I'd never heard the term "restless genital syndrome (RGS)" What exactly is this disorder?

Camila Henriques De Aquino, MD: This is a somatosensory disorder characterized by an unpleasant sensation involving the genital area and pelvis. It has been defined as a spontaneous, intrusive, and unwanted genital arousal (eg, tingling, throbbing, pulsating) that occurs in the absence of sexual interest and desire.

Medscape: When was RGS first described?

Dr Henriques De Aquino: The syndrome was first described in 2001,[2] initially under the terminology of "persistent sexual arousal syndrome" (PSAS). Later, in 2003,[3] it was recognized that the symptoms were caused by a genital sensory abnormality instead of a sexual desire, and then the name was switched to "persistent genital arousal disorder" (PGAD). Finally, in 2009,[4] an association with restless leg syndrome (RLS) was recognized, and the name "restless genital syndrome" was proposed.

Medscape: What clinical symptoms characterize the disorder and how would you recommend that clinicians screen for it?

Dr Henriques De Aquino: Patients complain of a discomfort in their genital area which can be described as a burning sensation, tingling, pain, itching, or throbbing. Often they say that it is difficult to find a word to describe their symptoms. It has been observed that symptoms tend to be worse when patients are sitting or lying down, particularly in the evening, and can be alleviated by standing and walking. In some cases, patients report an urge to get up and move, which would be an important clue for the diagnosis of RGS. The association with typical RLS symptoms and periodic limb movements while asleep would strongly support this diagnosis.

Patients with these symptoms would normally seek care from gynecologists, urologists, or family physicians. Doctors need to be aware of this disorder in order to make a correct diagnosis. Some authors have associated RGS symptoms with pudendal nerve or dorsal nerve of the clitoris neuropathy, Tarlov cysts, or genital vasocongestion, which may justify an investigation for those conditions as a differential diagnosis. However, it is difficult to establish a causal relationship, and treatment of those conditions has not been clearly associated with improvement of the RGS symptoms.

What Causes RGS and How Is It Treated?

Medscape: What is known about the underlying pathophysiology of RGS and, relatedly, RLS?

Dr Henriques De Aquino: Our understanding of the pathophysiology of RLS and its variants is far from complete. To date, several mechanisms have been proposed: reduced iron levels in the central nervous system; and abnormalities in circadian rhythm and in various neurotransmitters, such as dopamine, glutamate, and opioids. In 40%-60%, a family history of RLS can be found, so genetics may play an important role in these disorders. So far, six genes have been identified as risk factors. Acquired conditions, including renal failure, iron
deficiency, neuropathy, myelopathy, pregnancy, multiple sclerosis, and Parkinson disease, have also been associated with RLS; the exact relationship is still unclear. The extent to which these observations also apply to the RGS variant is not known.

**Medscape: What is the relationship of RGS and RLS to Parkinson disease?**

**Dr Henriques De Aquino:** Some studies have suggested that the prevalence of RLS is higher in patients with Parkinson's than in the overall population. The prevalence of RLS in Parkinson's was found to range from 11% to 25%. With respect to RGS, we don't know the prevalence in Parkinson's; however, in the past there were some case reports of genital pain in patients with Parkinson disease that was attributed to "wearing-off" of antiparkinsonian drugs and responded to dopaminergic therapy, such as apomorphine. Also, genital pain has been described as a tardive syndrome associated with drug-induced (ie, neuroleptic) parkinsonism.

**Medscape: How should RGS be treated?**

**Dr Henriques De Aquino:** Considering that RGS is probably within the spectrum of RLS, the same drugs can be applied in both conditions. In our experience, dopamine agonists (eg, pramipexole, ropinirole, rotigotine) can be very effective. This is one of the first-line drug classes for RLS, along with pregabalin, gabapentin, and levodopa (although levodopa more often results in a complication known as augmentation, with symptoms occurring earlier in the day and spreading to other body parts). Opioids and clonazepam have also been successfully used. Finally, iron supplementation is recommended in selected patients, mainly in those with low ferritin levels.

References


