## "Restless bladder" and the boundaries of the restless legs syndrome

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## Case report #1

A 43-year-old lady, suffers since the age 38 from unpleasant symptoms that are present every night. These symptoms appear when she is nearly falling asleep and a few minutes after she goes to sleep. They consist of a troublesome feeling localized at the level of the bladder, not quite similar to the feeling of urgency induced by a full bladder, but intense enough to force her to usually pass a few drops of urine. This provides some relief, but is always transient: micturitions are repeated up to 20 times per night, and cease in the morning. There is no urgency during the daytime, when voiding is always related to a full bladder. The disturbance has progressively worsened over the years, and she has been reduced to sleep in a separate room from her husband.

When asked in detail about her symptoms, she reports that the disturbing sensation may extend from the vesical region to the proximal thighs, in particular the inguinal region. She however does not feel any need to move or rub her legs. She reports that the disturbance may arise also in the evening, when she is sitting down, as for instance when she is dining or when she is watching television or at the cinema. She has undergone many and repeated clinical diagnostic investigations (urologic, cystoscopy, urography, urodynamic tests, MRI of the pelvis), all without relevant pathological findings. Various treatments with antispastic, analgesic, antibiotic and disinfectant drugs, and antidepressants, have had no effect. The patient was then prescribed pramipexole 0.18 mg before bedtime. A week later she presents at the control observation jubilant and reports the complete cessation of any disturbance since the first administration of the drug. She confirms the total absence of symptoms while still on the drug two months later.

## Case report #2

A 47-yr-old man, with a positive family history of restless legs syndrome (RLS), complains of unpleasant sensations at the level of bladder, intense enough as to force him to void. Symptoms are present in the evening while resting, especially when he goes to sleep; they started at the age of 43, and have increased in frequency (in the first years 2-3 times/week; in the last year every night). Voiding allows transient benefit for 20-30 min, and micturitions are repeated several times per night, but they cease around 5:00 a.m.

Unpleasant sensations are localized in the inguinal region, without extension to other body parts. He does not report need to move the legs or the arms.

The patient had undergone many lab tests: cystoscopy, urography, MRI of the pelvis, urologic examination, and all showed normal results. Antispastic and analgesic drugs had no effects on symptoms, nor did amytriptiline. Treatment with pramipexole 0.18 mg at 10:00 p.m. determined the complete cessation of symptoms since the first administration. After one year of pramipexole treatment, the patient confirms the total absence of symptoms.

## Conclusion

These are clearly NOT cases of RLS, but still have disturbing similarities: the persistent disturbing sensation, leading to voiding; the sensation arises in the evening and night only; all examinations are negative; the disturbance strikingly responds to dopaminergic medication. These patients bear many similarities to the syndromes of "overactive bladder" and "persistent genital arousal" that have been reported under the term "restless genital syndrome, RGS" and demonstrated to be clustered together with RLS (Waldinger et al 2009). RGS indeed has been found associated with RLS in 67-82% of the cases. Together with other clinical reports (Bassetti et al 2007; 2009), these cases beg the question of the boundaries of the RLS, and emphasize the need for a high clinical suspicion and thorough clinical examination of RLS patients.