

## **Polysomnographic Picture and Successful Management of Augmentation in Restless Legs Syndrome/Willis-Ekbom Disease**

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**Introduction:** Dopamine agonists (DA) represent the first-line treatment in restless legs syndrome (RLS), however, in the long term, a substantial portion of patients will develop augmentation, which is a severe drug-related exacerbation of symptoms and the main reason of late DA withdrawal.

Polysomnographic features and mechanisms underlining augmentation are unknown. The aim of this study was to evaluate the efficacy of extended-release pramipexole for the treatment of augmentation in patients with RLS.

**Methods:** An open-label clinical case series in 24 consecutive outpatients affected by RLS with clinically significant augmentation during treatment with immediate-release DA was performed. All patients underwent a full night polysomnographic recording during augmentation. A switchover from immediate-release DA (L-Dopa, pramipexole, ropinirole, rotigotine) to the long-acting, extended-release formula of pramipexole.

**Results:** Fifty-seven per cent of patients presented more than 15 periodic limb movements per hour of sleep during augmentation, showing a longer sleep latency and a shorter total sleep time than subjects without periodic limb movements. In all patients, resolution of augmentation was observed within 2 to 3 weeks during which immediate-release dopamine agonists could be completely withdrawn. Treatment efficacy of extended release pramipexole persisted, so far, over a mean follow-up interval of 11 months.

**Conclusions:** Pramipexole extended release could be an easy, safe, and fast pharmacological option to treat augmentation in patients with RLS. As such it warrants further prospective and controlled investigations. This observation supports the hypothesis that the duration of action of the drug plays a key role in the mechanism of augmentation.