

## **RLS and its Comorbidities in Children with Attention Deficit/Hyperactivity Disorder (ADHD)**

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Paediatric restless legs syndrome (RLS) is a relatively rare condition often associated with comorbid developmental disorders such as attention deficit/hyperactivity disorder (ADHD) and Tourette syndrome; other frequent comorbidities include iron deficiency anaemia and migraine.

Early onset RLS often has familial antecedents but is still misdiagnosed with nosologic entities such as growing pains, character and psychiatric disorders. Early and accurate diagnosis enables specific therapeutic management with improvement/remission of psycho-cognitive accompanying symptoms.

We present data on 14 RLS paediatric patients all of whom have comorbid ADHD and two who also have migraine. They showed overall moderate severity on the International Restless Legs Syndrome rating scale (IRLS-RS) (18.6 mean score); on video-polysomnography (PSG) they obtained a mean periodic limb movement of sleep (PLMS) index of 30 and a mean periodic limb movement while awake (PLMW) index of 33.7. Low serum ferritin was significantly related to the PLMW index. Co-morbid sleep disorders included other sleep related motor disorders (SRMD) such as bruxism and sleep rhythmic disorder and disorders of arousal less often such as obstructive sleep apnoea syndrome (OSAS). ADHD subtypes H/I and combined (C) were strongly related to RLS co-morbidity and had higher scores on behavioural scales. Levetiracetam (750-1000 mg) consistently improved night and daytime symptoms with normalization of IRLS-RS.