

Lus pour vous! Für Sie gelesen!

A genetic risk factor for periodic limb movements in sleep.

Stefansson H, Rye DB, Hicks A, et al
N Engl J Med. 2007; 357(7): 639–47.

Background: The restless legs syndrome (RLS) is a common neurologic disorder characterized by an irresistible urge to move the legs. It is a major cause of sleep disruption. Periodic limb movements in sleep are detectable in most patients with RLS and represent an objective physiological metric.

Methods: To search for sequence variants contributing to RLS, we performed a genomewide association study and two replication studies. To minimize phenotypic heterogeneity, we focused on patients with RLS who had objectively documented periodic limb movements in sleep. We measured serum ferritin levels, since iron depletion has been associated with the pathogenesis of RLS.

Results: In an Icelandic discovery sample of patients with RLS and periodic limb movements in sleep, we observed a genomewide significant association with a common variant in an intron of BTBD9 on chromosome 6p21.2 (odds ratio, 1.8; $P=2 \times 10^{-9}$). This association was replicated in a second Icelandic sample (odds ratio, 1.8; $P=4 \times 10^{-4}$) and a U.S. sample (odds ratio, 1.5; $P=4 \times 10^{-3}$). With this variant, the population attributable risk of RLS with periodic limb movements was approximately 50%. An association between the variant and periodic limb movements in sleep without RLS (and the absence of such an association for RLS without periodic limb movements) suggests that we have identified a genetic determinant of periodic limb movements in sleep (odds ratio, 1.9; $P=1 \times 10^{-17}$). Serum ferritin levels were decreased by 13% per allele of the at-risk variant (95% confidence interval, 5 to 20; $P=0.002$).

Conclusions: We have discovered a variant associated with susceptibility to periodic limb movements in sleep. The inverse correlation of the variant with iron stores is consistent with the suspected involvement

of iron depletion in the pathogenesis of the disease.

Commentaire

(Rudolph Schlaepfer, La Chaux-de-Fonds)

En complément de l'article de Silvano Vella, cette publication toute récente apporte une preuve supplémentaire à l'origine génétique du syndrome des jambes sans repos (Restless Legs Syndrome RLS), ainsi qu'à sa corrélation avec une déplétion en fer.

Restless legs syndrome: prevalence and impact in children and adolescents – the Peds REST study.

Picchietti D, Allen RP, Walters AS, et al.
Paediatrics 2007; 120(2):253–66

Objectives: Restless legs syndrome, a common neurologic sleep disorder, occurs in 5% to 10% of adults in the United States and Western Europe. Although approximately 25% of adults with restless legs syndrome report onset of symptoms between the ages of 10 and 20 years, there is very little literature looking directly at the prevalence in children and adolescents. In this first population-based study to use specific pediatric diagnostic criteria, we examined the prevalence and impact of restless legs syndrome in 2 age groups: 8 to 11 and 12 to 17 years.

Methods: Initially blinded to survey topic, families were recruited from a large, volunteer research panel in the United Kingdom and United States. Administration was via the Internet, and results were stratified by age and gender. National Institutes of Health pediatric restless legs syndrome diagnostic criteria (2003) were used, and questions were specifically constructed to exclude positional discomfort, leg cramps, arthralgias, and sore muscles being counted as restless legs syndrome.

Results: Data were collected from 10,523 families. Criteria for definite restless legs syndrome were met by 1.9% of 8- to 11-year-olds and 2.0% of 12- to 17-year-olds. Moderately or severely distressing restless legs syndrome symptoms were reported to occur ≥ 2 times per week in 0.5%

and 1.0% of children, respectively. Convincing descriptions of restless legs syndrome symptoms were provided. No significant gender differences were found. At least 1 biological parent reported having restless legs syndrome symptoms in $> 70\%$ of the families, with both parents affected in 16% of the families. Sleep disturbance was significantly more common in children and adolescents with restless legs syndrome than in controls (69.4% vs 39.6%), as was a history of «growing pains» (80.6% vs 63.2%). Various consequences were attributed to restless legs syndrome, including 49.5% endorsing a «negative effect on mood.» Data were also collected on comorbid conditions and restless legs diagnosis rates.

Conclusions: These population-based data suggest that restless legs syndrome is prevalent and troublesome in children and adolescents, occurring more commonly than epilepsy or diabetes

Commentaire:

(René Tabin, Sierre)

Cette enquête épidémiologique utilisant l'internet, effectuée auprès de 10523 foyers au USA et en Grande Bretagne, indique que la prévalence du syndrome des jambes sans repos est sous-estimée par les pédiatres: bien que 46.9% des enfants et adolescents atteints aient consultés plus d'une fois leur médecin pour ce problème, un diagnostic n'a été posé que dans 11 % des cas; 40 % des adolescents atteints signalent une fatigue, 46 % des troubles de l'attention. 47 % une humeur dépressive. Le diagnostic se pose par l'anamnèse! Il importe d'y penser.