

Les troubles du sommeil neurologiques et rendement professionnel

Emilia Sforza



Mars 2010

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Plan

Insomnie

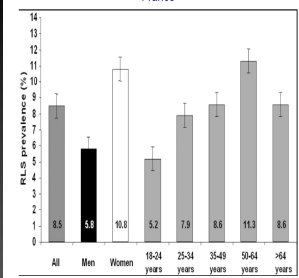
Hypersomnies « centrales »

Parasomnie et épisodes
paroxystiques nocturnes

Conséquences diurnes

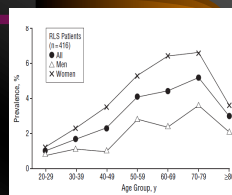
- Cardiovasculaires
- Vigilance, fatigue et somnolence
- Déficits cognitifs
- Troubles psychiatriques

Prévalence du syndrome des jambes sans repos en France



Tison Neurology 2005

5-15%



Rest Study 2005

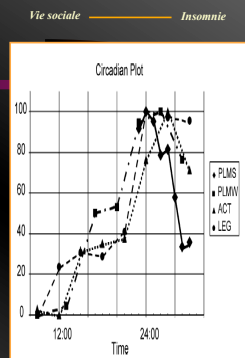
Syndrome des jambes sans repos (SJSR) symptômes primaires

- Envie irrésistible de bouger les membres en association à des symptômes sensitifs
- Activité et agitation motrice localisée à niveau des membres
- Aggravation au repos et amélioration lors des mouvements et de la marche
- Aggravation vespérale et au début de la nuit

Symptômes sensitifs et moteur

- **Dysesthésies-paresthésies:** fourmillement, étirement, élancement, piquûre, tension, douleur, brûlure
- **Activité motrice** « volontaire » pour réduire les symptômes sensitifs et « involontaire » et « irrésistible » pas contrôlable par le patient

A partir de 18 heures avec un pic entre 23 h et 2-4 h de la nuit



Formes primaires

Pathophysiologie

- L'efficacité thérapeutique de la L-dopa et des dopamino-agonistes suggère une dysfonction dopaminergique
- Probable dysfonction du tractus reticulo-spinal: ataxie spino-cérébelleuse et comme conséquence de l'anesthésie péridurale
- Probable dysfonction du cortex moteur: dysfonction de récepteurs D_2 à la PET et SPECT

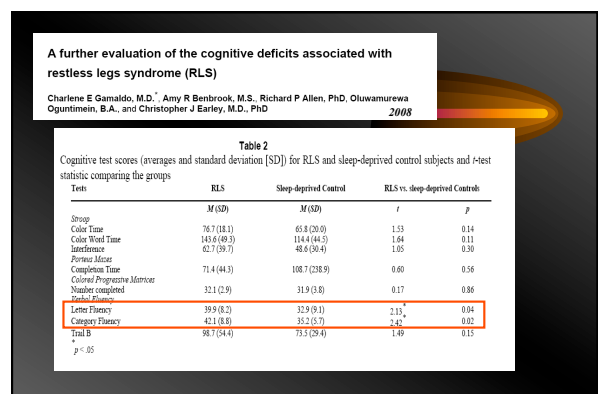
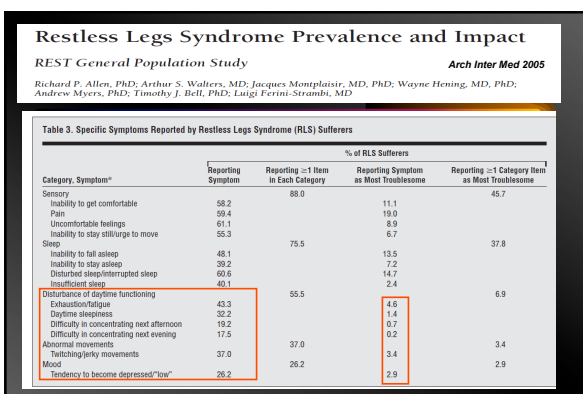
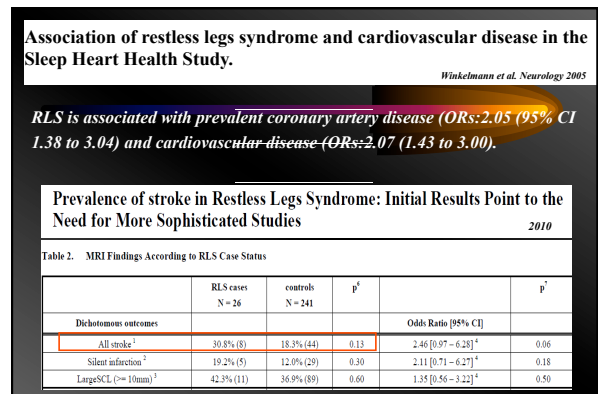
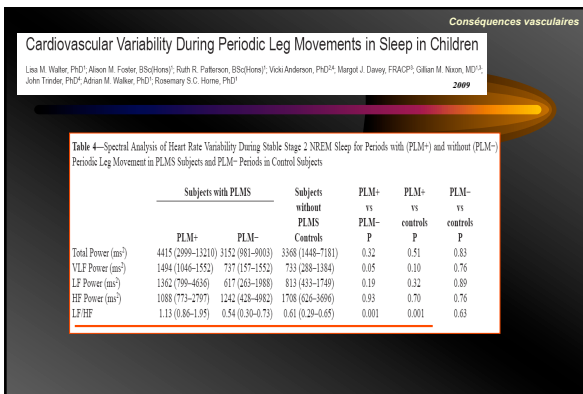
Familliarité et prédisposition génétique

Formes secondaires

- Anémie ferriprive et déficit de vitamine B6 et B12 (pathologie gastrique)
- Diabètes
- Urémie
- Grossesse
- Maladies rhumatoïdes
- Maladie neurologiques
 - Polyneuropathie, hernie discale
 - Maladie neuro-dégénératives (Parkinson, hérédo-ataxie)
- Médicaments
 - tricycliques, SSRI's, lithium, neuroleptiques

Conséquences du SJSR

- Conséquences cardiovasculaires
- Conséquences sur la fatigue et somnolence
- Conséquences cognitives
- Conséquences psychiatriques
- Conséquence qualité de vie



Restless Legs Syndrome Prevalence and Impact

REST General Population Study

Arch Inter Med 2005

Richard P. Allen, PhD; Arthur S. Walters, MD; Jacques Montplaisir, MD, PhD; Wayne Hening, MD, PhD; Andrew Myers, PhD; Timothy J. Bell, PhD; Luigi Ferini-Strambi, MD

Table 4. Reported Effects of Restless Legs Syndrome (RLS) Symptoms on Those Classified as RLS Sufferers

Effect of Symptoms	% Reporting Effect
These symptoms have a negative influence on my mood	50.5
I lack energy when I suffer from these symptoms	47.6
My daily activities are disturbed (eg, home, family, social, or work-life)	40.1
My social life is affected	27.9
These symptoms can distract me from doing my job	26.9
I get a feeling of desperation when I have these symptoms	26.2
My partner is kept awake by me when I am suffering from these symptoms	25.7
My personal relationships are affected	20.9
I have to miss work due to feelings of tiredness	13.2
No answer given	15.4

Restless Legs Syndrome in a Community Sample of Korean Adults: Prevalence, Impact on Quality of Life, and Association with DSM-IV Psychiatric Disorders

Seong-Jin Cho, MD, PhD¹; Jin-Pyo Hong, MD, PhD²; Bong-Jin Hahn, MD, PhD³; Hong-Jin Jeon, MD, PhD⁴; Sung-Man Chang, MD, PhD⁵; Maeng-Je Cho, MD, PhD⁶; Hoshang B. Lee, MD⁷

Table 5—Crude and Adjusted Odds Ratios for DSM-IV Psychiatric Disorders

	RLS (N = 72) N (Unweighted %)	No RLS (N = 6,437) N (Unweighted %)	Unadjusted OR OR (95% CI)	Adjusted OR* OR (95% CI)
Major Depressive Disorder				
Lifetime	11 (15.3)	380 (5.9)	2.87 (1.58, 5.51)	2.57 (1.33, 4.96)
12-month	6 (8.3)	164 (2.5)	3.48 (1.49, 8.14)	2.99 (1.26, 7.06)
Anxiety disorders				
Lifetime	10 (13.9)	429 (6.7)	2.26 (1.15, 4.44)	2.25 (1.14, 4.46)
12-month	8 (11.1)	338 (5.3)	2.26 (1.07, 4.74)	2.27 (1.07, 4.82)
PTSD				
Lifetime	3 (4.2)	9 (0.1)	31.1 (8.23, 117.2)	18.9 (4.72, 75.9)
12-month	2 (2.8)	5 (0.1)	36.8 (7.01, 192.7)	17.6 (3.02, 96.1)
PTSD				
Lifetime	4 (5.6)	85 (1.3)	4.40 (1.57, 12.3)	3.76 (1.32, 10.7)
12-month	2 (2.8)	45 (0.7)	4.06 (0.97, 17.1)	3.27 (0.76, 17.0)

Sleep 2009

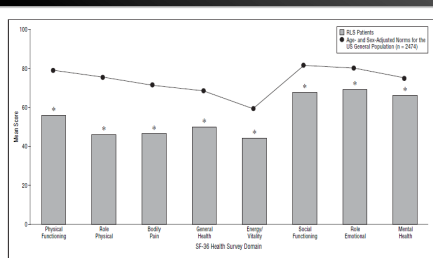


Figure 3. Comparison of mean Short-Form 36 Health Survey (SF-36) scores of patients with restless legs syndrome (RLS sufferers) with age- and sex-adjusted US population norms. Asterisks indicate that the scores of the RLS sufferer group were significantly below the norms for all 8 dimensions.

Hypersomnie et somnolence centrale

• Troubles primaires du sommeil

Narcolepsie, hypersomnie idiopathique

• Homéostatiques

Déficience quantitative et qualitative de sommeil

• Circadiennes

Décalage de phase

• Médicaments

Conséquences des hypersomnie

- Difficultés scolaires et sur le lieu de travail liées aux endormissements
- Accidents de travail et de la route pour la somnolence
- Conséquences cognitives liées à la mauvaise qualité du sommeil
- Conséquences dépressives
- Conséquence qualité de vie

Narcolepsie

Prévalence 0.02-0.04%

Somnolence diurne (100%)

- Accès de sommeil
- Incoercibles et réparateurs
- Durée entre 5 et 20 min., avec un pic entre 10-11 h et 13-15 h
- Comportements automatiques

Cataplexie (90%)

- Perte soudaine du tonus musculaire globale ou partielle
- Déclenchées par les émotions

Paralysies du sommeil (30-50%)

Hallucinations hypnagogiques (20-40%)

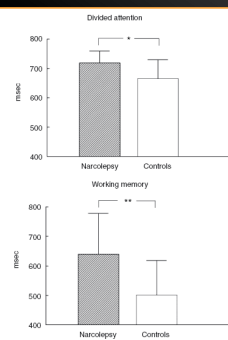


Figure 1. Reaction times for the divided attention and working memory tasks (mean and SD). * $P < 0.05$, ** $P < 0.01$.

Cognitive deficits in narcolepsy

A. NAUMANN, C. BELLEBAUM and J. DAUM
Department of Neurophysiology, Institute of Cognitive Neuroscience, Ruhr-University of Bochum, Bochum, Germany

The overall pattern of results indicates an executive control deficit in narcolepsy which might be related to a reduction of available cognitive processing resources because of the need for continuous allocation of resources to monitoring and maintenance of vigilance.

Health-Related Quality of Life Among Drug-Naïve Patients with Narcolepsy with Cataplexy, Narcolepsy Without Cataplexy, and Idiopathic Hypersomnia Without Long Sleep Time

2008

Atsuko Ozaki, R.N., Ph.D.^{1,2}; Yachi Inoue, M.D., Ph.D.³; Toru Nakagawa, M.D., Ph.D.^{1,2}; Kenichi Hayashida, M.D., Ph.D.³; Makoto Honda, M.D., Ph.D.^{1,2}; Yoko Komada, Ph.D.¹; Ryosuke Takahashi, M.D., Ph.D.^{1,2}

characteristics	Overall	NA with CA	NA without CA	IBS without LST	p value
Number of participants	137	28	27	82	
Occupation (%)					
Employed (full time)	64.7	60.7	55.6	68.3	n.s.
Employed (part time)	11.0	14.3	22.2	6.1	
Housewives	7.4	10.7	7.4	6.1	
Students	15.4	14.3	11.1	17.1	
missing	1.5	0	3.7	2.4	
Mean sleep latency on MSLT (Mean ± SD)	3.1 ± 2.1 (n = 130)	1.7 ± 1.6 (n = 21)	2.6 ± 2.7 (n = 27)	3.6 ± 1.8 ^a (n = 82)	< 0.001
ESS score					
Mean ± SD	16.8 ± 3.3	16.9 ± 3.8	14.4 ± 3.7 ^b	14.1 ± 3.3 ^c	< 0.001

Scores were poor for the dimensions "physical role", "vitality", and "general health perception".

Table 4—Correlation Between the Descriptive Variables and the Involvement of Automobile Accidents or Near-Miss Incidents Among the Subject Patients Having Usual Driving Habits, as Assessed by Logistic Regression Analysis

	Crude			Adjusted		
	OR	95%CI	p value	OR	95%CI	p value
IHS without LST						
NA with CA	3.00	0.85-10.58	n.s.	1.74	0.40-7.57	n.s.
NA without CA	1.00	0.31-3.27	n.s.	1.00	0.27-3.69	n.s.
ESS score						
0-10						
11-15	4.25	0.76-23.81	n.s.	4.68	0.66-33.06	n.s.
16-24	12.06	2.12-68.54	0.005	14.63	1.97-108.67	0.009

OR, odds ratio; 95% CI, 95% confidence interval; NA, narcolepsy; CA, cataplexy; IHS, idiopathic hypersomnia; LST, long sleep time; ESS, Epworth Sleepiness Scale; n = 80

The Economic Consequences of Narcolepsy

Paul Janner, M.D., Ph.D. / Steve Knudsen, M.D. / Jakob Kjellberg, M.D. / 2009

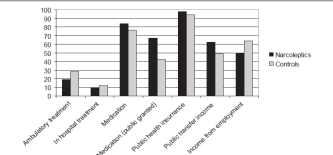


Figure 2—Percentage of people with narcolepsy and control subjects receiving any of the services (public or income).

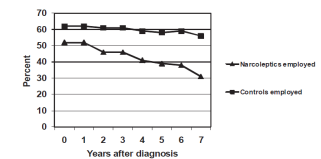


Figure 3—Employment rate at the time of diagnosis and in the

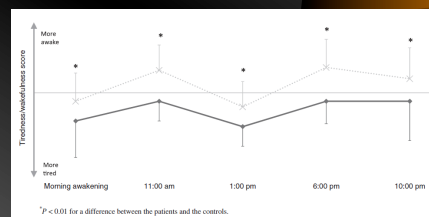
Hypersomnie idiopathique

- Difficultés au réveil matinal et ivresse de sommeil
- Sommeil nocturne >10 h
- Somnolence diurne sans endormissements brutaux
- Siestes prolongées et non récupératrices

Prévalence ?

Subjective symptoms in idiopathic hypersomnia: beyond excessive sleepiness

2009



*P < 0.05 for a difference between the patients and the controls.

Table 2 Cognitive, psychological and functional problems in the patients with idiopathic hypersomnia and the healthy controls

<i>Patients</i>	<i>Idiopathic hypersomnia</i>	<i>Healthy controls</i>
Number	62	50
Cognitive problems		
Memory problems, %	79*	43
Attention deficit, %	55*	18
Maximum concentration duration	1.01 ± 1.15*	3.43 ± 3.30
Difficulty focusing in loud environment, %	69	38
Frequently forgetting something, %	47*	5
Mislaying objects, %	55*	18
Automatic behaviours, %	58*	13
Mind going blank	87	70
Automatic activity	41*	11
Not remembering the beginning of an activity	95	84
Being lost in thought	50*	16
Telling something inappropriate in a conversation	61*	30
Inappropriate mistake during a usual activity		
Psychological problems		
HAD anxiety (0-21)	8.7 ± 3.9*	6.4 ± 3.6
HAD depression (0-21)	7.0 ± 4.7*	3.9 ± 3.2

Conséquences
cognitives et
psychologiques

Distinguishing Sleep Disorders From Seizures

Diagnosing Bumps in the Night

Christopher Paul Derry, MBChB, MRCGP, MRCP, MSc; Murray Johns, FRACP; Katie Rom, BSc; Deborah Glencross, BSc; Carla Marini, PhD; Ingrid E. Scheffer, PhD; Samuel F. Berkovic, MD

2006

- **Caractéristiques cliniques:**
 - Incidence familiale
 - Comportement automatique
 - Confusion mentale
 - Amnésie de l'épisode
 - Faible réactivité aux stimuli externes