Restless leg and spinal pathology

Cugy D.[1,3], Balan, J. [2], Leger B.[2]
(1) Réseau girondin de prise en charge des pathologies du sommeil et de la vigilance
(2)CES CPAM de la GIRONDE, (3) Pôle des neurosciences-CHU de Bordeaux.

Objective : Identifying the relationships that may exist between complaints of restless legs and spinal pathology

Méthods : From the database of 239 876 health examinations collected between 2004 and 2022 in the health examination centers of the CPAM in the Gironde, we looked for the links that may exist between sleep complaints, drowsiness, existence of a spinal pathology (neck pain, back pain, low back pain) and restless legs. The data was analyzed using the Chi2 method.

Résults – The observed distribution of restless legs syndrome is consistent with known data regarding sex and age (fig1)(1). A significant association (p<0.0001) was found between the presence of restless legs and sleep complaints. Surprisingly there is no association between sleep complaint and neck pain (p<0.60)but, there is an association between sleep complaint and back pain (p<0.0001), low back pain (p<0001). restless legs being associated with a complaint of neck pain (p<0001) and unrelated to complaints concerning the back (p=0.94) or low back (p=0.25) spine (fig2). The observed prevalence of the neck pain-restless legs association is 4.5 times higher than expected.

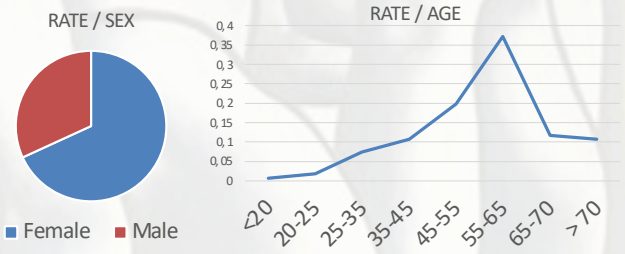

Fig 1 – Sex and Age / RLS complaint

Discussion : restless legs, the prevalence of which is between 2 and 10% of the general population, is usually considered either as symptomatic (inflammatory syndrome, iron deficiency, etc.) or idiopathic. The results observed point in the direction of a central subcortical or high medullary origin as mentioned by Kaplan(2) or Kumru(3).
A previous report was performed in 2017 with less records. Most of the results found in 2022 confirm those already identified in 2017.

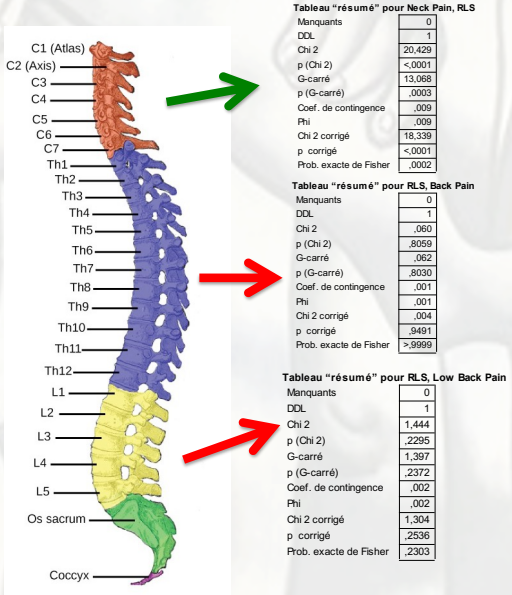

Tableau "résumé" pour Neck Pain, RLS

Manquants	0
DDL	1
Chi 2	20,429
p (Chi 2)	<,0001
G-carré	13,068
p (G-carré)	,0003
Coef. de contingence	,009
Phi	,009
Chi 2 corrigé	18,339
p corrigé	<,0001
Prob. exacte de Fisher	,0002

Tableau "résumé" pour RLS, Back Pain

Manquants	0
DDL	1
Chi 2	,060
p (Chi 2)	,8059
G-carré	,062
p (G-carré)	,8030
Coef. de contingence	,001
Phi	,001
Chi 2 corrigé	,004
p corrigé	,9491
Prob. exacte de Fisher	>,9999

Tableau "résumé" pour RLS, Low Back Pain

Manquants	0
DDL	1
Chi 2	1,444
p (Chi 2)	,2295
G-carré	1,397
p (G-carré)	,2372
Coef. de contingence	,002
Phi	,002
Chi 2 corrigé	1,304
p corrigé	,2536
Prob. exacte de Fisher	,2303

Fig 2 – spine/ RLS complaint

Conclusion : The association of neck pain with restless legs is in favor of a high medullary origin.

Bibliographie :

(1) Tison & al Neurology. July 26, 2005; 65(2)
(2) Kaplan Clin Neurol Neurosurg. 2008 Apr;110(4):408-10.
(3) Kumru Parkinsonism Relat Disord. 2015 Dec;21(12)
(4) Manconi & al Mult Scler. Jan 14. 2008; (1):86-93