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Journal search and commentary

Article reviewed: Restless Legs Syndrome: a clinical study in general Chilean population and in uremic patients ☆

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Study objectives

To calculate the prevalence and clinical characteristics of Restless Legs Syndrome (RLS) in the general population and in uremic patients in Chile.

To correlate biochemical and clinical parameters in uremic patients.

Study design

Between group comparisons of clinical data obtained by interview; correlation of clinical and laboratory data.

Study Population

One hundred healthy adults who were relatives of outpatients in a General Hospital and 166 uremic patients undergoing chronic hemodialysis

Methods

All subjects were interviewed. RLS was diagnosed according to criteria of the International Restless Legs Study Group (IRLSG) [1]). Severity of symptoms was assessed by means of the Spanish version of the RLS severity rating scale of the IRLSG. Positive cases underwent a neurological examination and blood tests. No EMG, nerve conduction studies or polysomnograms were performed. Correlations between RLS status and age, gender, duration of dialysis, severity of anaemia, ferritin, phosphate and intact parathyroid hormone (iPTH) plasma levels were analyzed.

Results

The general population sample consisted of 31 men and 69 women, with a mean age of 49 years (range 18–85). RLS was diagnosed for 13% of both males (four cases) and females (nine cases). RLS was severe in two cases (15%) and moderate in six (45%). Three cases (23% of RLS cases) also reported diabetes mellitus with peripheral neuropathy. A family history of RLS was found in four cases (30%).

The uremic sample included 105 males and 61 females, with a mean age of 52 years. Forty-three patients (26%) were diagnosed with RLS, compared to 13% in the general population sample. RLS was more frequent and severe in females than in males. No correlations were found between biochemical parameters and clinical features.

Conclusion

The authors conclude that RLS is a common disor-

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der in Chile, showing prevalence rates about the same as the 10% for a general Caucasian American population reported by Phillips et al. [2] and 25% by for the uremic population reported by Collado-Seidel et al. [3]. No biochemical or endocrine abnormalities were associated with RLS in the uremic population. However, 10 out of 43 patients had clear signs of neuropathy, compared to only 1 out of 32 in Collado-Seidel's study [3]. The authors emphasize the need to increase medical awareness and attention to possible diagnosis of RLS, both in general and in uremic populations, particularly since effective treatments are available.

Comment

Over the last few years, several studies have investigated the prevalence rates of RLS both in general and special populations such as patients undergoing hemodialysis. So, for example, Rothdach [4] found prevalence rate of 9.8% in the elder German population. Similarly, Phillips [2] and Lavigne [5] found 10% prevalence rates in Kentucky and in Quebec, respectively, on phone surveys followed by a personal interview. These results are similar to those reported in this study for the general Chilean population. This study, however, did not find the higher prevalence in women that has often been reported in other general population studies.

One of the main methodological advantages of this study compared to most previous ones was that all subjects were personally interviewed and examined by a neurologist experienced with sleep disorders. However, the population in this study does not represent the general population in Chile. RLS is associated with several medical disorders. Recruitment among relatives of outpatients, as done in this study, faces the risk of overestimating the prevalence and excludes those not living in this area and those who would not, for economic or other reasons, seek this type of medical help.

Most of the previous studies on RLS prevalence had been performed in Central Europe and North America. This is, to our knowledge, the first study to be performed in a Spanish speaking country. The lack of significant differences in prevalence rates across countries and continents suggests there may not be significant differences between ethnic groups represented. However, the authors provided no information on the ethnic background of the subjects studied, and the urban population of Chile will likely be largely European descendents and not include other ethnic groups. So far, there have been few ethnic group differences documented. A higher rate was found for French- than for English speaking Canadians [5], but this may be an artefact of a particularly unique founder population rather than a more general ethnic difference. A much lower prevalence rate of less than 1% was reported for the Asian population in Singapore [6]. Most clinical populations in North America appear to have few Asians or African Americans, but despite obvious genetic significance these differences have not been documented in adequate population based studies.

Interestingly, the prevalence rate for uremic RLS was about the same as previously reported by Collado-Seidel [2]. However, the finding of a decreased plasma concentration of iPTH in RLS-uremic patients compared to non-RLS uraemia reported in Collado-Seidel's study could not be replicated. This may not be surprising as results could well have occurred by chance given the failure in that study to adjust the statistics for the large number of analyses performed. No other biochemical or endocrine abnormalities were found, nor did differences in the length of renal failure differentiate non-RLS and RLS uremic patients.

Overall, the present study expands our knowledge by indicating RLS may be a common sleep disorder throughout the world. RLS may, however, still occur predominately, if not almost exclusively, in populations of European descent. Further studies performed in populations with better ethnic definition would be helpful to clarify relevant questions on the aetiology and pathophysiology of RLS.

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