



Title: Restless legs syndrome and mortality in hemodialysis patients

Author(s): Stefanidis, I.; Vainas, A.; Giannaki, C.D.; Dardiotis, E.; Spanoulis, A.; Soundaki, M.; Eleftheriadis, T.; Liakopoulos, V.; Karatzaferi, C.; Sakkas, G.K.; Zintzaras, E. and Hadjigeorgiou, G.M

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Letter to the Editor

## **Restless legs syndrome and mortality in hemodialysis patients**

*To the Editor:*

We thank Elias et al. for their concerns regarding our findings [1] of missing association between Restless Legs Syndrome (RLS) and mortality in hemodialysis, contradicting previous survival studies [2,3]. However, there was agreement on RLS prevalence between our study (26.6%) and the studies by La Manna et al. (31%) and Lin et al. (25%) [1–3].

We agree that predictors of RLS in hemodialysis may also influence mortality and might have confounded survival analyses so

far. In our study RLS hemodialysis patients were younger than those without RLS [1]. However, RLS patients had higher diabetes prevalence in the study by Lin et al. [3], while patients had lower frequency of rest-diuresis >500 ml/d in the study La Manna et al.[2]. Age, diabetes, and missing rest-diuresis are all indubitably strong mortality predictors. While of course adjustments for confounders were done, whether in our study or in past studies, confounding bias might not be abolished, even with properly planned multivariate analysis. Serum intact parathormone (iPTH) and phosphorus, predicting uremic RLS in our study, were not associated with mortality in either univariate or multivariate analyses. These negative findings remained, whether iPTH and phosphorus were examined in different multivariate models or in subgroup analyses, ie, subgroups with high (>150 ng/ml) or low iPTH (<150 ng/ml).

Furthermore, investigating prevalent cases [1–3] using a cross-sectional design may lead to significant survivor bias. In the only previous survival report [4] that investigated incident hemodialysis patients, RLS screening was not based on the international criteria and might have had limited reliability [5].

The above facts, along with the high probability of publication bias [1] and lack of power in some reports [2], implicate a rigorous need for more prospective investigations of mortality risk in uremic RLS.

### **Conflict of interest**

None.

### **References**

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**Authors & Affiliations:**

I. Stefanidis \*, A. Vainas

*Department of Nephrology, School of Medicine, University of Thessaly, Larissa, Greece*

C.D. Giannaki

*Department of Life and Health Sciences, University of Nicosia, Cyprus, Greece*

E. Dardiotis

*Department of Neurology, School of Medicine, University of Thessaly, Larissa, Greece*

A. Spanoulis, M. Sounidaki, T. Eleftheriadis, V. Liakopoulos

*Department of Nephrology, School of Medicine, University of Thessaly, Larissa, Greece*

C. Karatzaferi, G.K. Sakkas

*School of Physical Education and Sport Science, University of Thessaly, Trikala, Greece*

E. Zintzaras

*Department of Biomathematics, School of Medicine, University of Thessaly, Larissa, Greece*

*Institute for Clinical Research and Health Policy Studies, Tufts University School of Medicine, Boston, MA, USA*

G.M. Hadjigeorgiou

*Department of Neurology, School of Medicine, University of Thessaly, Larissa, Greece*

\* Address: School of Medicine, University of Thessaly, Panepistimiou str. 3, 41500 Larissa, Greece.

Tel.: +30 2413501667 8; fax: +30 2413501667.

E-mail address: [stefanid@med.uth.gr](mailto:stefanid@med.uth.gr) (I. Stefanidis)