

## **Restless legs syndrome does not affect 3-year mortality in hemodialysis patients in Greece**

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**Introduction:** In a recent survey that took place in Greece we found a 26.6% prevalence of restless legs syndrome (RLS) (a.k.a. Willis-Ekbom Disease [WED]) in patients on chronic hemodialysis (HD); this is significantly higher than the prevalence of RLS in the general Greek population. In general, RLS has been previously associated with enhanced mortality, however, studies in the general population report inconsistent results.

**Objectives:** The aim of the present study was to investigate the relationship between RLS and mortality in the above-mentioned population of Greek HD patients.

**Methods.** We recorded 3-year mortality in a population of 579 HD patients in Greece after assessing for RLS symptoms. In addition, we analysed the 5-year mortality after disease onset (i.e. commencement of HD). This population was previously included (2010) in a cross-sectional survey on RLS prevalence. RLS diagnosis was based on the essential clinical criteria of the International RLS Study Group. Mortality data were acquired from the national end stage renal disease registry. Survival probability was calculated by means of the Kaplan Meier method and analysed by the log-rank (Mantel Cox) test. For multivariate survival analysis we implemented a proportional hazards regression (Cox regression) model.

**Results.** During the 3-year follow-up period we documented 118 deaths (overall 3-year mortality 20.6%), 94 in patients with no RLS (mortality 22.3%) and 24 in patients with RLS (mortality 15.6%). On survival analysis there was no significant association of RLS and 3-year mortality ( $p=0.079$ ), even in an age and gender adjusted model ( $p=0.267$ ) or in a multivariate adjusted model ( $p=0.122$ ). Similarly, there was no association of RLS with 5-year mortality after disease onset in univariate ( $p=0.063$ ) and multivariate ( $p=0.157$ ) analysis

**Conclusion:** Diagnosis of RLS according to the essential clinical criteria of the International RLS Study Group does not seem to influence the 3-year mortality in HD patients. Our findings are in contrast to some previously reported statistics and reinforce the need for further investigations of RLS and mortality in HD patients.