Acute and chronic effects of exercise on restless legs syndrome (RLS) symptoms

Giorgos Sakkas, MD, University of Thessaly, Greece

Restless legs syndrome (RLS) can be divided in two categories based on whether or not it is secondary to another disorder: idiopathic RLS and symptomatic RLS. The latter occurs in association with various background conditions, such as end stage renal disease (uremic RLS). Uremic RLS affects ~40% of patients receiving dialysis therapy while the idiopathic version of the syndrome affects ~5-10% of the general population. Even though there is a high prevalence of this syndrome, most of the patients remain undiagnosed.

Patients' anecdotal reports have linked any intense exercise training with a worsening of RLS symptoms. In contrast, we have recently shown that four months of aerobic exercise training ameliorates RLS symptoms by 42% and improves functional capacity and parameters related to quality of life in patients with uremic RLS. In addition, in a recent study we observed that even a single bout of exercise – independently of intensity – could reduce the motor signs of RLS by 34% (PLM/h) in patients with uremic RLS. In a study currently underway comparing a 6-month exercise training group with a sham-exercise control group, we are observing that the exercise group (N=12) has a 52% lower score on the International RLS (IRLS) scale compared to 14% in the sham-exercise group (N=9), this mild reduction is not statistically significant. TO date, our data show that both chronic or acute exercise reduces RLS-induced discomfort and improves quality of life.

In another recent study we assessed the functional status of idiopathic and uremic RLS patients including 15 idiopathic RLS and 26 uremic RLS patients. There were significant gender differences between the two groups, while the IRLS severity score was higher in the uremic RLS group compared to idiopathic patients, in parallel to the low quality of life score and depressive symptoms of this patient group. Uremic RLS patients scored lower in physical health parameters and lower in fatigue according to the SF36 questionnaire. However, there were no statistically significant differences in functional capacity tests between the two groups. We expect that that both groups of patients could benefit from an exercise training regime in order to improve functionality and reduce RLS symptoms.

Our research to date indicates that exercise should be considered a safe and effective approach for the amelioration of RLS symptoms in idiopathic and uremic RLS patients.