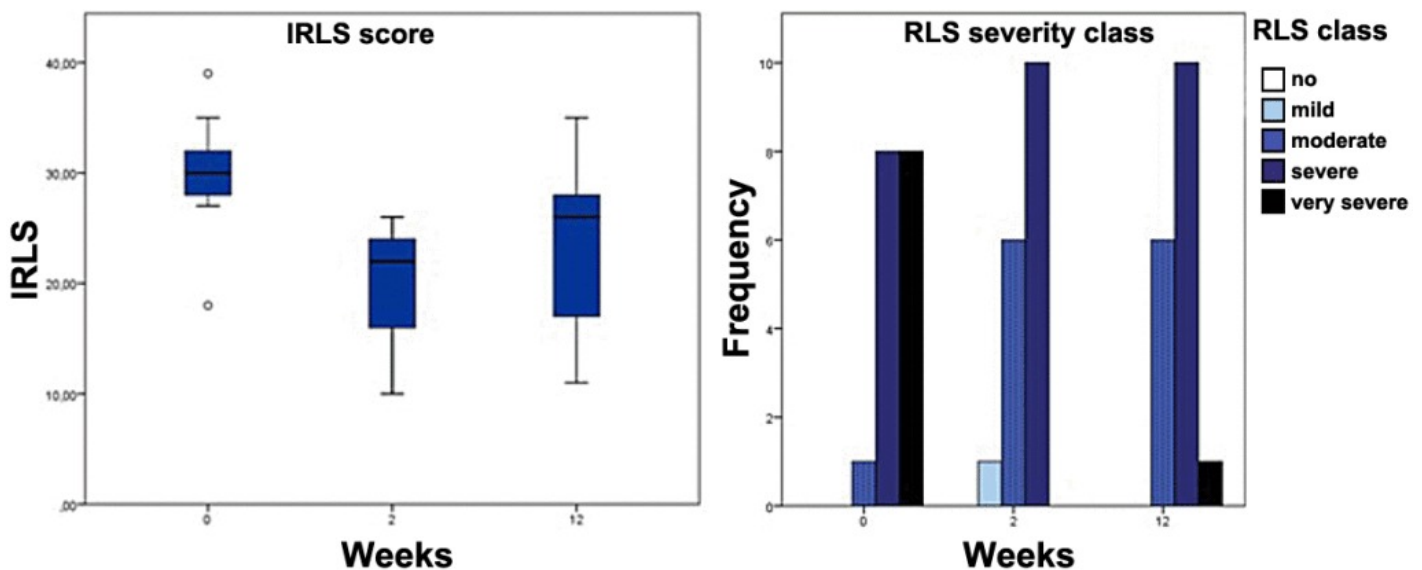


Iron can help improving symptoms of Restless Legs Syndrome

Despite many treatment options for Restless Legs Syndrome (RLS) the therapy is still not satisfactory. Even treated patients suffer from insomnia and pain. The decreasing effectiveness of treatment over the years associated with a deterioration of RLS-symptoms is still a big problem. A relationship between a lack of iron and the development of a special form of RLS (iron deficiency associated RLS, IDARLS) is known. It could be shown that the severity of IDARLS symptoms correlates with the degree of iron deficiency and even the loss of treatment effect over the years can be linked to iron deficiency. Unfortunately, until today no study has analyzed yet the effect of intravenous iron therapy on geriatric IDARLS patients. Results of previous studies revealed that iron supplementation is beneficial in iron deficiency associated RLS; however, an IV iron therapy is not generally recommended, due to missing studies. We therefore initiated an observational study on the effect of IV iron therapy on RLS symptoms and the improvement of geriatric tests in IDARLS patients.



For this observational study geriatric patients were included by following inclusion criteria: Patients with RLS and a medically prescribed IV iron therapy due to an iron deficiency defined by ferritin less than 50 $\mu\text{g/L}$ or transferrin saturation (TFS) less than 16 %. During the study period the severity of RLS was measured three times based on IRLS score (a questionnaire about symptoms of the disease): immediately, 2 and 12 weeks after iron administration. In addition, the ferritin values (= iron level) and changes in the RLS medication were recorded. The impact of RLS on activities of daily living (ADL) was evaluated.

Of more than 100 patients screened for the study, only 17 patients fulfilled inclusion criteria. 13 females and four males with an average age of 73.2 ± 5.9 years took an average of 1.8 ± 1.2 drugs

for RLS treatment. Eight of 17 (47%) patients had a very severe RLS before iron administration according to IRLS score. One patient fell back to this level after 12 weeks. Two weeks after iron therapy no patient had a very severe RLS due to IRLS score. ADL improved from severe to moderate within 2 weeks after iron therapy.

The correlation of iron levels with the IRLS score revealed that a low IRLS score was associated with higher iron levels.

The present study shows a significant improvement in IRLS score, two weeks after the first IV iron therapy which results in longer sleep times and symptom-free intervals for the patient. The results of our study are comparable to previous studies in younger patients. Although estimation of ferritin levels is recommended to identify patients in need of iron substitution, it has to be noted that ferritin values tend to be higher in older patients due to age-associated inflammation. Thus, they may mask an iron deficiency.

Results of the present study showed that iron substituted patients showed an improvement in ADL: patients regained more independence in ADL and were less dependent on support. From the geriatric point of view this finding underlines a vital success of treatment. Finally, it should be noted that none of the 17 enrolled patients reported adverse effects of IV iron therapy.

In conclusion, the present study shows that in geriatric IDARLS patients an IV iron therapy may be an effective complementary treatment to dopamine therapy, because severity of RLS as well as ADL competences improved.

Publication

[Intravenous iron administration in restless legs syndrome : An observational study in geriatric patients](#)

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