DEBATE: ARE SLEEP QUESTIONNAIRES A SUBSTITUTE FOR POLYSOMNOGRAPHY (PSG) IN EVALUATING PATIENTS WITH MOVEMENT DISORDERS? - YES

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Studies in patients with movement disorders and sleep disturbances such as Restless Legs Syndrome (RLS), REM Sleep Behaviour Disorder (RBD) or narcolepsy need validated tools for both epidemiology, diagnosis and treatment trials. Polysomnography is an expensive and time consuming method, that is available for movement disorders only in expert centers and can be performed exclusively in small patient populations. In RLS, there are well studied tools to diagnose the syndrome, such as the RLS diagnostic index, the RLS telephone interview and others, that are focusing on the essential diagnostic criteria. Any PSG measure is not part of the criteria, the only parameter, that can be used from PSG studies to support the diagnosis of RLS are period limb movements (PLM) in sleep, a supportive criterium for the diagnosis in RLS. For diagnostic studies therefore, PSG is not needed, not even valid in RLS, as the diagnosis has to be established by history and clinical criteria. The same is true for any efficacy criteria in clinical RLS trials: any drug, that is currently licensed for RLS has been studied by using the IRLS (International RLS Severity Scale), a widely used and well validated 10-question rating scale. Large multi-center trials across countries and populations have used the IRLS in therapeutic trials as well as for research studies in genetics and pathophysiology of RLS. Additional PSG studies have been performed for assessment of periodic limb movements - a rather unspecific parameter in therapeutic RLS trials, that improves with dopaminergic treatment. Sleep quality did not differ when recorded by PSG, but was significantly different and improved when using sleep scales such as the MOS sleep scale in any trial. Especially for long-term studies, sleep scales are mandatory and can not be substituted with PSG, as repeated PSGs are not feasable for a large group of RLS patients. In RBD, the situation is even more peculiar, when RBD is considered as an early marker for neurodegeneration and population based samples have to be investigated to detect early occurrence of RBD. Those affected patients are supposed to enter trials with a probable neuroprotective treatment. It is mandatory, however, that in RBD those scales are validated against PSG, but after validation, no further PSG is needed for epidemiological or large scale trials. Already established scales are available for RBD, such as the RBDSQ and a 1-question screening scale, various screeners from both Europe and Asia, that are well adopted to cultural differences of the syndrome.

Using scales, new horizons can be opened for movement disorders and sleep: RLS for example can be easily assessed in patients with Parkinson disease or dystonia. In those patients, sleep studies are much confounded with nocturnal movements of the underlying neurodegenerative disease itself such as dyskinesias, tremor or even both RBD and RLS. Only different scales may easily disentangle the subjective complaints. Finally, the subjective symptoms and disabilities are the important ones in sleep, that should be treated. In Parkinson disease, for example, none of the PSG studies was able to reflect any treatment difference in sleep efficacy or PLM, but specific sleep scales such as the PDSS-2 or SCOPA- sleep could well demonstrate, that long-acting dopamine agonists for example can significantly improve nocturnal disabilities and overall subjective sleep quality. Sleep scales can even be used easily in clinical practice and outpatient office, and thus open the dors for better assessment and treatment of non-motor symptoms in PD and othere movement disorders.