Reviewer’s report

Title: Use of near-infrared light to reduce symptoms associated with Restless Legs Syndrome: a case report

Version: 2 Date: 8 February 2010

Reviewer: Stephany Fulda

Which of the following best describes what type of case report this is?: Other

If other, please specify:

Unusual treatment of a common disease

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: Yes

Is the anonymity of the patient protected?: Yes

Comments to authors:

The restless legs syndrome (RLS) is a highly prevalent neurological sleep disorder affecting about 2-10% of the population in the US and Europe. The pathophysiology of RLS is ultimately unclear and so far current treatment options for idiopathic RLS are only symptomatic and life-long in many cases. Therefore, new and safe treatments for RLS are very welcome and I have read Dr. Mitchell’s case report on the effect of NIR in a patient with RLS with great interest.

I have the following comments:
Introduction

I would wish for a more up-to-date description of the treatment options for RLS. Today, dopamine agonists are considered first line treatment for RLS, but efficacy has also been shown for non-dopamine substances such as gabapentin and in addition, opioids can be part of the treatment options. The efficacy of supplemental iron, however, depends on the iron status of the subject and there is only limited evidence for exercise as a treatment for RLS [1].

Case presentation

The International RLS Study Group defined consensus diagnostic features for the diagnosis of RLS [2]. They defined four essential criteria, but also three supportive features, that can help resolve diagnostic uncertainties. These are all the more helpful, since it is becoming increasingly clear that several conditions e.g. leg cramps can satisfy all four diagnostic criteria for RLS and thereby “mimic” RLS [3]. The three supportive features for RLS are the family history (negative for this patient), the presence of periodic limb movements during wake or sleep (not described), and the response to dopaminergic treatment (negative for this patient). Nearly all people with RLS show at least an initial positive therapeutic response to either L-dopa or a dopamine-receptor agonist even if this initial response is not universally maintained. It is therefore very unusual that the patient had not responded to ropinirole within two weeks, which could shed doubts on the diagnosis of RLS in this patient. To clarify this issue I would like to know the prescribed dosage of ropinirole and I would suggest asking the patient specifically about an early positive response.

On page 6 it is stated that “she had a hard time falling asleep and could only do so after taking sleeping pills”. Please state what sleeping pills she is taking.

Clonazepam is a benzodiazepine, a sedative hypnotic, and would not be considered a primary muscle relaxant, although some muscle relaxation is part of the effect.

The patient has been taking fluoxetine for 25 years and had RLS symptoms for 30 years. Because antidepressants are known to trigger or worsen RLS [4] it would be informative to know whether during the 25 years there was any change in the dosage of fluoxetine and how this affected RLS symptoms.

Discussion

The discussion is very short and only focuses on the placebo effect. Given that response rates in RLS trials (percentage of patients “much” or “very much” improved) can be up to 50% (about 40% on average for a 12-week trial)[5] this should be more critically discussed. For example, most RLS trials see the patient two to three times at the beginning and then only once every two weeks, or weekly at most, while here sessions were scheduled three times per week.

More importantly, however, I would wish for a discussion of possible mechanisms of NIR in relation to RLS. There is, for example, other evidence for a contribution of the vascular system such as response to vasodilative agents or reports of cold
In addition, there are two reports about treatment with enhanced counterpulsation in RLS that address very similar questions [7,8].

References

Quality of written English: Acceptable

Declaration of competing interests:

I have received fees from Roche Pharma AG for educational activities.