Reviewer's report

Title: Daytime sleepiness in Japanese patients with multiple system atrophy: prevalence and determinants

Version: 1 Date: 22 May 2012

Reviewer: Baruch El-Ad

Reviewer's report:

Major Compulsory Revisions:
1. Page 6. Data acquisition. You state that "A PLM index over 5 was defined as abnormal PLMS according to Version 2 of the International Classification of Sleep Disorder". Actually, that's not what it says in ICSD 2. It says that "The PLMS Index exceeds ... 15 per hour in most adult cases" and also that "The PLMS index must be interpreted in the context of the patient’s sleep-related complaint. In adults, values higher than the previously accepted value of five per hour been found in studies that did not exclude respiratory event-related arousals..." etc. You may want to reconsider your definition of PLMS, and the whole discussion of PLMS throughout your study. If you define it less rigorously as pathological, it may turn out that different correlations may or may not appear between PLMS and EDS.

2. Page 8. Sleep Characteristics, line 5. You state the normal values for slow wave sleep (N3; 5.2 ± 1.4; normal value, 20–35%) citing the 2000 3rd edition of the Principles and Practice of Sleep Medicine. I believe these values are incorrect. The correct values for N3 (combined old stages 3+4) are 13%-23% as can be seen in the current 2011 5th edition of the Principles and Practice (and I think the normal values have not changed due to human evolution in these 11 years). I think the current edition should be cited rather than the old one.

3. Pages 10-11. Discussion. The authors should make more comparisons to SLEEMSA study regarding their findings, for example, the correlation found in SLEEMSA study between SDB (based on questionnaires) and EDS as compared to lack of correlation between actual SDB based on polysomnography in the current study. Also, a comment should be made on the similar finding in both studies re. the effect of dopaminergic therapy on EDS.

Minor Essential Revisions:

5. Page 7. Data acquisition. Levodopa equivalent dose calculation stated in ref 22 by Lozano is from 1995 and it only uses levodopa, pergolide and bromocriptine. How did you compute the levodopa equivalent in your 2 patients
who used cabergoline and pramipexole?

6. Page 10, paragraph 1. The statement "whereas SDB scores correlated with the AHI in patients with obstructive SAS" is meaningless. You probably meant "whereas SDB scores correlated with the EDS in patients with obstructive SAS".

7. Reference 12 - the year of publication (2011) is missing

8. Reference 21. The name of the last author is misspelled (should be Montplaisir, r is missing)

9. Tables 1 and 2 - the rows labeled Stages 1, 2, 3 should be renamed to Stage 1, 2, 3, respectively

page 5 paragraph 2. were measured, NOT was measured

Discretionary Revisions:

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests