Reviewer’s report

**Title:** EXPLORING THE PRESENCE OF NARCOLEPSY IN PATIENTS WITH SCHIZOPHRENIA

**Version:** 0 **Date:** 29 Nov 2015

**Reviewer:** Emmanuel Mignot

**Reviewer’s report:**

This is a well written study on the frequency of narcolepsy-cataplexy in 366 schizophrenia patients. The sample size is sufficient to address the question asked and the fact CSF hypocretin was assessed in some patients is a strength.

In my opinion, there is a significant weaknesses that needs to be addressed and discussed more. Considering the nature of schizophrenia, not all patients may have been willing to respond or able to comprehend the questions on cataplexy or the Epworth. Similarly, patients may not have been able to drive or do some of the things requested by the Epworth, thus the Epworth may have been underestimated. This is especially important in the absence of PSG-MSLT.

The fact questions on symptoms were asked by a psychologist trained in sleep medicine partially protects against this, but is not sufficient; sleep medicine psychologists are not necessarily very well trained in narcolepsy identification or in handling patients with schizophrenia symptoms, How many psychologists conducted these interviews? Were these made aware/educated re the main symptoms of narcolepsy and schizophrenia? How was this handled? For sure a portion of cases must have been difficult to assess and should thus have "missing data". This information is missing and the portion of patients difficult to assess should be reported in the flowchart of Fig.2.

In addition, even with zero cases out of 366, a 95% confidence interval of prevalence could be given. This is also important as it is likely quite large, so that even if the prevalence is 30 times higher than in the general population (for ex. 1%) it could still have been missed.
Finally, it would be good to describe a bit better the population of schizophrenia/SAD patients and the referring psychiatric unit in term of in versus outpatients etc. The evolution/disposition of dual narcolepsy-schizophrenia patients may be different than regular psychiatric patients, thus it is important to assess how representative of all schizophrenic the population screened is. In this regard, the problem is a bit similar to that of the prevalence of anti NMDA encephalitis in such samples, which is about 1% but vary quite a bit across samples (see Psychol Med. 2014 Sep;44(12):2475-8), although in this case the assay is also an issue.

Details:

DQB1*0602 is now DQB1*06:02; also it is not an "haplotype" but an allele of that locus (line 26). ref 13 could be replaced by the more recent: Narcolepsy and predictors of positive MSLTs in the Wisconsin Sleep Cohort. Goldbart A, Peppard P, Finn L, Ruoff CM, Barnet J, Young T, Mignot E. Sleep. 2014 Jun 1;37(6):1043-51. doi: 10.5665/sleep.3758.

discussion:

polisomnography is polysomnography; schizofrenia should be Schizophrenia

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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