Reviewer’s report

Title: Neuropsychological and cerebral morphometric aspects of negative symptoms in schizophrenia. Negative symptomatology is associated with specific mnestic deficits in schizophrenic patients

Version: 4 Date: 2 May 2014

Reviewer: Susanne Karch

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The aim of the present study was to assess the relationship between negative symptoms, neuropsychological functioning and cerebral volumes in schizophrenic patients. Patients were divided into two subgroups in order to distinguish between patients with high vs. low levels of negative symptoms (using the SANS). The results suggest an association between negative symptoms and verbal memory functions. The manuscript is well written and informative. However, the sample size is comparatively small (N=20) keeping in mind that the patient group was divided into two subgroups (N=10) and the structural data of 5 patients are lacking.

Major Compulsory Revisions

1. Abstract: The conclusion should be more cautious in its wording.
2. The results of the “confounding variables” e.g. family history, chlorpromazine-equivalents are not presented in the manuscript.
3. The statistical analysis included UNIANOVAS when comparing the results of the subgroups with high and low SANS scores. In general, this statistical procedure is only used for greater sample sizes.
4. The structural data of 5 patients are not included in any further analysis. The information about how many patients from each subgroup are affected is lacking.

Minor Essential Revisions

5. Table 5 does not seem to be included in the manuscript.
6. Overall, the results of many different statistical tests are presented in the manuscript. However, the sample size is comparatively small. The authors should comment on the problem of multiple statistical testing.
7. Table 3: Post-hoc analysis: 1 vs. 2 etc.: these abbreviations are not clear: Which group is 1, 2 and 3?
8. Typo: graph 1: .. anterior cingulated cortices ...

Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

nothing