Reviewer's report

Title: Telomere shortening in leukocyte subpopulations in depression

Version: 5 Date: 3 May 2014

Reviewer: Thomas Elbert

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Depression may arise from different causes and not all of them are known. Differences in etiology, however, may result in marked differences in pathophysiology, even if clinical symptoms look similar. One important factor, especially for depression, concerns the history of childhood maltreatment. Individuals with childhood adversities have an earlier onset, more severe course, more comorbidities, more remissions and they respond more poorly to treatments than their depressive counterparts without substantial childhood maltreatment. Investigations of the biological differences between subjects with and without a history of depression therefore must consider this factor. The present study confirmed that individuals with a history of unipolar depression (with and without current depressive symptoms) present substantially shorter telomeres in each of the three investigated lymphocyte subpopulations. This finding is of substantial interest and worth reporting. However, it seems a bit disappointing that a study from the Kolassa-lab with its high reputation in studies of molecular psychiatry and clinical psychology has not taken into account the findings on depression and childhood adversities.

The paper is well written and concise. The Method gives a description of the subjects, and the elaborated procedures, sufficiently detailed that others could replicate the investigations. Statistical analysis was elegant and results are presented in a way that (only?) expert readers can understand them. The discussion relates to the essential findings.

Level of interest: An article of outstanding merit and interest 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