Reviewer's report

Title: Elevated Circulating Vascular Cell Adhesion Molecule-1 (sVCAM-1) Is Associated With Concurrent Depressive Symptoms and Cerebral White Matter Hyperintensities in Older Adults.

Version: 2 Date: 16 March 2015

Reviewer: Aurel Popa-Wagner

Reviewer's report:

Aging is associated with depressive symptoms. In human studies, increased concentrations of circulating Vascular Cell Adhesion molecule-1 (sVCAM-1) and Intercellular Adhesion molecule-1 (sICAM-1) are associated with systemic inflammatory and cardiovascular diseases and therefore with an increased risk of hypertension and atherosclerosis. In this study the authors hypothesized that elevated plasma concentrations of circulating CAMs associated with aging may be a marker of depressive symptoms due to cerebral vascular disease. The results of this study showed cross-sectional associations between elevated plasma levels of sVCAM-1 and 1) depressive symptoms, and 2) cerebral white matter damage among older community-dwelling adults.

This is a well done study. However, the inclusion criteria were not very stringent, for example, the inflammatory status should have been evaluated prior to enrollment. The authors should justify this omission. Nevertheless, the percent of patients with depressive behaviour is reasonable.

Several references related to the subject were missed:
J Neural Transm. 2014 Jan 5. [Epub ahead of print]

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests