Reviewer's report

Title: Higher atherosclerotic burden and disturbed subcortical blood flow related to mild depressive symptoms in a population-sample of octogenarian men.

Version: 1 Date: 6 March 2013

Reviewer: Irene Romera

Reviewer's report:

This study explores the relation of depressive symptoms and cerebro vascular impairment as well as atheroesclerosis in an elderly population. This study is of value given the few studies that try to understand the correlates between depression/depresssive symptoms and biological markers, specially in elderly population. Main issue of the manuscript is the lack of clarity, specially in methods and discussion. Authors should do an effor to improve the clarity and flow of information, in order to have a manuscript easy to read

Major compulsory revision

Study population is not clear in the abstract nor in the methods.

It should be clearly appear the n and the main caracteristics of the sample. N= 120 ? Patients of 82 years old without a history of stroke and without dementia ?It seems that the authors give much information about the process of sample selection than on the description of the final study population, specially in the abstract. in method section a figure could help to describe the process of getting to the final sample.

In the abstract the study type should appear, information about study measures and study population is mixed up.

Authors should specify who performed the Mini and the diagnosisnof dementia Zung, why is the sample divided into quartiles? Has been done before? Is this any references. Authors should explain in methods why they did not split the sample in the standard ranges that already exist with the Zung Statistics. It would be helpful to explain the main correlations that were studied and later are explained in the results section

Authors refers in the result section to " non depressed subjects" it should be better to be consistent and name the studybgroups using the same terms always, control group? Positive and negative depresssive symptoms?And also it should be taken into account, based on Zung ranges that almost none of the patiens have depression.

Discussion. The main isssue is the flow of information that could be improved. At the beggining of this section authorshould highlight and sumarized the main
study results, compare them with previous studies, explain the main clinical implications. Finalize with study strengths and limitations and other points like the way they split the population in percentiles, the selection bias that is mentioned at the beginning of the discussion, etc.,

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

**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 interest