Reviewer's report

Title: Ultrasound entropy may be a new non-invasive measure of pre-clinical vascular damage in young hypertensive patients

Version: 3 Date: 17 February 2015

Reviewer: ELISABETTA BIANCHINI

Reviewer's report:

This study aimed to investigate whether ultrasound entropy might be considered a new non-invasive vascular biomarker in young hypertensive patients.

Despite this manuscript addressed an innovative and interesting topic, it suffers some limitations (as reported in subsequent “Major Compulsory Revisions” section) and it should be considered for publication in “Cardiovascular Ultrasound” only after that major revisions will be correctly answered.

Major Compulsory Revisions:

1. Methods, page 7: the method section is too long and difficult to be read. In particular the “wavelet analysis” paragraph should be made shorter, by focusing just on information useful for the manuscript.
2. Methods, page 9: please specify all the elements in the equation.
3. Methods, page 10: please specify how reproducibility was estimated (i.e. coefficient of variation).
4. Discussion: I would suggest shortening this section: discussion should be focused on results interpretation (I would avoid self-comments on the level of interest of the work!) and consideration of how they can impact on cardiovascular diagnostics.

Level of interest: An article of importance 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