**Reviewer’s report**

**Title:** Ultrasound Assessment of Tensile Stress in Carotid Arteries of Healthy Human Subjects with Varying Age

**Version:** 0  **Date:** 07 Sep 2019

**Reviewer:** Shouxian Tang

*Reviewer's report:*

The circumferential tensile stress (TS) derived from Laplace's law can be used to assess the transmural pressure of vascular, which is one of the mechanical properties of the artery wall. TS could exhibit different responses of the arterial wall to blood pressure, blood flow and arterial structure, and is an important indicator of atherosclerosis. Shear wave-based elastography techniques have received wide attention for noninvasive assessment of elasticity and viscosity properties. This manuscript demostraed that ultrasonic shear wave imaging could be used to quantitatively assess carotid viscoelasticity and the carotid TS was related to its elasticity while little related to its viscosity.

There are some errors need to be addressed.

Leave a blank space between some symbols and numbers. such as in page 2 line 50, r = 0.359 instead of r=0.359 would be better. There are many similar problems.

In page 6 line 48, cm2 should superscript 2.

In page 7 line 6, P &lt; 0.05 instead of P&lt;0.05, and so on.

In page 9 line 23, patterns instead of patters.

Tank you.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal