Reviewer's report

Title: Left Ventricular Strain and Strain Rate by 2D Speckle Tracking in Chronic Thromboembolic Pulmonary Hypertension before and after Pulmonary Thromboendarterectomy

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Reviewer: Luna Gargani

Reviewer’s report:

This study evaluates Left Ventricular Strain and Strain Rate in Chronic Thromboembolic Pulmonary Hypertension before and after Pulmonary Thromboendarterectomy. The paper is clear and well written, and provides some new data on this important surgical procedure.

I have some minor concerns:

- The echocardiographic parameters provided, apart from strain analysis, are poor. Analysis of right ventricular strain and strain rate, as well as other right heart function parameters would have been useful. Your group has already published a similar paper on Tei index in this setting; anyway it would have been interesting to see whether those data were confirmed also in these patients. I would add also some data on left ventricular Tissue Doppler Imaging, as well as on left atrium volume or area (or at least dimension), which is always a very easy and dynamic way to assess changes in left ventricular diastolic filling. If these data are available, they should be added for a more comprehensive view. Otherwise, this should be highlighted in the limits of the study.

- Please improve the comparison with previous studies, discussing some recent similar papers (i.e. strain and strain rate on right ventricle - Giusca S et al. Heart. 2010 -).

- You don’t provide any biochemical values. It would have been useful to see how natriuretic peptides would change after PTE, although there are already data on that (Suntharalingam J, Respir Med. 2007). Please mention it in the discussion.

- Please spell CTEPH before using it in the abstract.

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

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.