Reviewer's report

**Title:** Feasibility of a new 2D-based method for myocardial velocity strain and strain rate quantification in a normal adult and paediatric population. Comparison with Tissue Doppler Imaging.

**Version:** 1 **Date:** 2 January 2009

**Reviewer:** Luna Gargani

**Reviewer's report:**

This is an interesting and useful manuscript, assessing feasibility of feature tracking for myocardial velocity strain and strain rate quantification, both in a normal adult and paediatric population, compared to Tissue Doppler Imaging.

This is the first paper evaluating reference values for this 2D method, and validating this specifically designed tissue tracking software.

There are a few issues that authors should address:

1) A single observer performed and analyzed all the examinations. Data on inter- and intra-observer variability for this method should be provided, being this topic one of the most important issues in the comparison between 2D- and TDI-based methods for strain and strain rate quantification. This is especially important, due to the potential competing interests of the observer.

2) Some paragraph are not easily readable, thus I would suggest a quick revision from an English native speaker. A quick revision of punctuation is also suggested, as a larger use of commas would facilitate the reading of some long and conceptually difficult paragraphs.

3) Figures are very beautiful, but they should appear in the text in chronological order. The same should be applied to references.

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

**Quality of written English:** Needs some language corrections before being published

**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.