Reviewer's report

**Title:** Association between Left Ventricular Global Longitudinal Strain and Natriuretic Peptides in Outpatients with Chronic Systolic Heart Failure

**Version:** 3  **Date:** 6 April 2015

**Reviewer:** victoria delgado

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The present study proposes an interesting hypothesis by correlating LV GLS with NT-proBNP in patients with heart failure. However, the authors assumed that both parameters are merely surrogates of LV wall stress. The lack of invasive measurements of wall stress (as it should be measured) is an important limitation. In addition, there are other ways of measuring LV wall stress with echocardiography that have not been taken into consideration (Grossman et al J Clin Invest 56: 56, 1975; Reichek et al. Circ 1982). The authors should include that parameter and redo the analysis to investigate the association between GLS, natriuretic peptides and LV wall stress. Other comments:

1. what are the clinical implications of the present findings?
2. what is the inter and intraobserver reproducibility of the measurements?
3. please include the measurement of LV wall stress as previously described (Grossman et al J Clin Invest 56: 56, 1975; Reichek et al. Circ 1982)
4. what is the heart failure etiology?
5. please add the units of GLS anytime in the main text.
6. what do the authors mean by GLS below the median or above the median? The non-expert reader may understand that patients below the median are worse than their counterparts while below the median indeed means more preserved since it is more negative. Is this assumption correct? Please clarify.

**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:**

nothing to disclose