Reviewer's report

Title: The value of diastolic function parameters in the prediction of left atrial appendage thrombus in patients with nonvalvular atrial fibrillation

Version: 1 Date: 30 January 2014

Reviewer: Eustachio Agricola

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General comments

The topic of the manuscript is interesting, the methodology of the study is well conducted and the paper is well written. However, I have some remarks should be considered by the authors in any revision.

Major comments

The sample size is small and the prevalence of LAAT is low to be conclusive.

Even though the findings of the study indicate that echocardiographic diastolic parameters are associated with LAAT independently of clinical, LVEF and left atrium, however in the several logins model analysed the OR of E:e' ranges from 1.0 to 1.1. Thus the clinical effect in terms of risk of LAAT in presence of high filling pressure is modest.

Some strong statements in the discussion should be avoided since not supported by the data. In particular, in page 10, last paragraph "We suggest that E:e', e' velocity, and other simple echocardiographic parameters may be useful in predicting systemic thromboembolism in nonvalvular AF as a complement or a replacement to the CHADS2 score". And in page 11, first paragraph: "Therefore, if validated, the main strength of this parameter could potentially obviate the need for a TEE before restoration of sinus rhythm in lower risk individuals". Fourth, the discussion is too long and should be shortened.

If we read the mean values of pulmonary pressure in the 2 groups, we noted that the mean values in both groups are < 30 mmhg, or even into the normal range. This aspect should be better specify.

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Minor comments

Page 3 "pure atrial flutter". This definition is not correct, the most correct one is typical atrial flutter.

In page 4 is reported the figure 2, whereas this figure corresponds to figure 1.
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.