Reviewer's report

**Title:** Early markers of right heart involvement in regular smokers by Pocket Size Imaging Device

**Version:** 1  
**Date:** 10 June 2015

**Reviewer:** Albert Varga

**Reviewer's report:**

Vincenzo Schiano-Lomoriello et al studied 143 regular smokers and 51 healthy controls with Pocket Size Imaging Device. All patients underwent physical examination, quick scan of the right heart with pocket size imaging device and standard echocardiography. The principal aim of the study was to assess the diagnostic power of pocket size imaging devices in the detection of early signs of right heart involvement in regular smoker population. The Authors found significant differences between smokers and healthy controls in measuring simple parameters by pocket size ultrasonography. To validate the accuracy of the pocket size device the authors compared the measurements with the same parameters measured with a standard echocardiography machine and found a good correlation.

This is an interesting, well written paper. I have the following comments and questions.

1. I did not fully understand the rationale of creating different groups according to the amount of cigarettes smoked daily. Could the Authors give any explanation or references for this type of division?

2. The Discussion section should be shortened and more focused on the interpretation and clarification of the obtain results. For instance, many parts of the Results section were repeated in the discussion part and the explanation of the results was largely corroborated only by one reference (No. 28). Please, provide more pertinent references regarding the conclusion of the present research.

3. According to my opinion the deterioration of lung function – highly presumable in smoker subjects - could also influenced the results. Could the Authors provide any information about lung function test results (spirometry) in the smoker group? Furthermore, reporting Pro-BNP values would be interesting as well.

4. Inter and intra observer variability data should be provided.

**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