Reviewer's report

Title: Relationship between epicardial adipose tissue, coronary artery disease and adiponectin in a Mexican population

Version: 1 Date: 20 June 2014

Reviewer: Francesco Stea

Reviewer's report:

Epicardial adipose tissue is a novel subject in the evaluation of cardiovascular risk and the paper sheds additional light on this measurement, at the same time evaluating a direct endocrine effect of the adipose tissue.

Major Compulsory Revisions
- Results page 9 and Table 4: How were the parameters for multiple regression analysis selected? There is no mention of a univariate association of each of them with CAD and, for instance, on page 8 it is waist-hip ratio that was different in CAD+/-, not waist circumference.

Minor Essential Revisions
- Page 4, lines 4-7: "However" appears three times. Please cut to one.
- Page 5, line 5: readers might not be familiar with those particular cut-offs. Ref. 16 should be put also immediately after "80 cm in women".
- Page 6, Evaluation of...: since measurement of epicardial fat thickness is far from routine but also far from being universally standardized, references should be added in this paragraph showing similarities or differences in methods between this paper and others.
- Page 7, last three lines: this is a result and should go in the Results sections before dealing with ultrasound measures.
- Page 8, Results, Clinical ch., line 2: this sentence is missing something.
- EAT thickness and...: "range 0-9.8" and "range 0-11.8" seems in contrast with Methods, page 6, where a measurement in thickness is stated to be considered if >1 mm. Please clarify the issue.
"Data not shown" should be omitted.
- Association of epicardial adipose tissue...: as epicardial tissue could be determined by body size rather than adiposity, all significant and non significant correlations should be shown: height, weight, body surface area, BMI, waist, hip, waist-hip ratio, waist-height ratio, accurately choosing the variables for the subsequent multivariate analysis.
- Discussion, page 10, last three lines: it seems unplausible that the paracrine effect of EAT exerts itself directly determining an atherosclerotic stenosis in a discrete anatomical site in a coronary artery. An effect on the whole coronary
circulation, not to mention the endocrine effect on the systemic circulation, is much more biologically plausible. Please remove the sentence about the lack of association.

- Discussion, page 12, lines 8-9: it is not clear that here we are not talking about echocardiography in general, but with echocardiographic measurement of EAT.

- Table 1 and caption: "Obesity was defined as increased waist circumference" is unacceptable. If this is the definition, "obesity" can be replaced by "central obesity".

- Table 2: the mention of ejection fraction only can not be termed "echocardiographic findings". Either describe at least basilar echocardiographic characteristics of the hearts, or remove even ejection fraction and describe adipose thickness only, possibly removing the whole table and putting them in the text.

- Table 3 should specify "univariate" correlations.

- Table 4 is not clear. Is "OR" the adjusted beta index? Or the variation with 1 SD or one unit change in the selected parameters?

**Level of interest:** An article of importance in its field

**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