Reviewer’s report

Title: The study of calcified atherosclerotic arteries: an alternative to evaluate the composition of a problematic tissue reveals new insight.

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Reviewer: Marie-Francoise Heymann

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CPAT-D-15-00012

The study of calcified atherosclerotic arteries: an alternative to evaluate the composition of a problematic tissue reveals new insight.

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BMC Clinical Pathology

COMMENTS FOR THE AUTHOR:

The authors analyzed a cohort of 24 vascular adult tissues (calcified and uncalcified) with 17 fetal tissues as controls to study the preservation of the cellular content of heavily calcified plaques with a new rapid fixation using the Carnoy's solution followed by an enzymatic tissue digestion with type II collagenase. Adult and fetal tissues were compared by immunochemistry, and DNA content and RNA preservation were studied respectively by Feulgen staining and RT-PCR.

This method affords the opportunity to simplify the study of calcifications.

The manuscript is well written, but perhaps unclear about the real advantage between the present method of decalcification and the others. A comparison between the present method and the others, especially ETDA, would have been interesting. The different figures are not clearly described.
Minor comments:

Page 14

- line 36 : define IHC in the text
- from line 50 to 60 : the type of the different cells immunostained is important. Could they be precised ? The same precision is required page 15-line 21 : what are « the highly mitotic tissues »?

Page 30

The numbering of table 2 is wrong.

Figure 1 (osteocalcin) :

How do you explain the nuclear immunostaining (B and C) ?

Is osteocalcin expressed by osteoclasts normally? (B) ?

Are the methods appropriate and well described?

If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?

If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?

If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?

If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English

Please indicate the quality of language in the manuscript:

Acceptable

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