Reviewer’s report

Title: Electronic cleansing in computed tomography colonography using AT layer identification with integration of gradient directional second derivative and material fraction model

Version: 0 Date: 10 Jun 2017

Reviewer: Shingo Iwano

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In this article, the authors compared new electronic cleansing (ECprop) in CT colonography with previous methods (ECprev). As a consequence, the ECprop can improve the EC. In this article, the authors compared new electronic cleansing (ECprop) in CT colonography with previous methods (ECprev). As a consequence, the ECprop can improve the EC.

This article does not keep the rules of manuscript submission, and Methods, Results, and Discussion are Mixed. Then, it is very difficult to understand the content.

The abstract is too long. The abstract should not exceed 350 words according to the manuscript submission rules, although it exceeds 500 words in this article.

The background is also too long. As this is a research article, you do not have to write all the history of previous studies. Instead, you should explain your new algorithm that can solve all of the EC issues. What is the difference between your algorithm and previous studies? Why did you focus on the algorithm?

The abbreviations (CTC, ST, and ECsyngo) are used in the text they should be defined in the text at first use.

The results and discussion section were described independently.

The first and second paragraph in Results and Discussion should be described in the Methods. In addition, write collectively in the Methods what did the radiologist evaluate.

The image quality of CTC depends on the radiation dose of CT. Please show us the tube current and voltage of the CT scans in the test cases.

Are ECsyngo and ECprev same or not? They are confusing.

Were there statistically significant differences between ECsyngo and ECprop in Table 6 and ECprop and ECprev in Table 7?

How long did it take to make ECprop images?
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Were there statistically significant differences between ECsyno and ECprop in Table 6 and ECprop and ECprev in Table 7?

How long did it take to make ECprop images?

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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.

No

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

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