Reviewer's report

Title: Association of decreased mitochondrial DNA content with colorectal cancer progression

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Reviewer: Hsin-Chen Lee

Reviewer's report:

The authors analyzed mtDNA copy number from 60 patients with colorectal cancer and showed a correlation between a reduced copy number of mtDNA in colorectal cancer and lymph node metastasis. The small sample size might limit the significance of this study. The authors should point out the potential limitations in this study. In addition, a lot of drawbacks are found in the manuscript.

1. The authors should provide clear methods and detail experimental conditions, such as the real-time quantitative PCR analysis (Cyber green? What kind of polymerase was used?). It should be clearly quantified for the template DNA for standard curves, including nDNA (#-actin) and mtDNA (ND1). Were they obtained from the cloned DNA fragments inserted in a plasmid?

2. It is not clear whether any criteria were used for selecting these 60 patients. If any, they should be stated in the Materials and Methods section

3. In the Discussion section, several statements lack citations. Many statements are confused for readers including the sentences on Ref 16 and Ref 17.

4. The authors should make some discussions about many other papers that have been published regarding mtDNA content associated with cancer progression, including gastric cancer, breast cancer and renal cell carcinoma.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

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.