Reviewer's report

Title: Variation of perioperative plasma mitochondrial DNA correlate with peak inflammatory cytokines caused by cardiac surgery with cardiopulmonary bypass

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Reviewer: Antonio Miceli

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In the manuscript "Variation of perioperative plasma mitochondrial DNA correlate with peak inflammatory cytokines caused by cardiac surgery with cardiopulmonary bypass", Qin et al evaluated the inflammatory response in 44 patients undergoing CABG surgery. Specifically, IL6, IL8, IL10 and mitochondrial DNA were evaluated at 4 times. The novelty is in the evaluation of mtDNA. Interestingly authors found that mtDNA increases as increased other inflammatory markers and that there is a statistical correlation between the peaks of mtDNA with each marker.

The problem is well stated and statistical analysis correct.

I have very few comments:

Major: From a methodological point of view, I suggest to remove those patients who had acute renal failure and low cardiac output syndrome as these patients represent a bias and your data might be stronger.

Minor:

In Table 1, you should report more information on baseline characteristic to delineate your patients.

More information on baseline characteristics

Remove all patients who had low output cardiac syndrome and that who had acute renal failure. These data may alter your results.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests