Reviewer's report

Title: Acute effects of remote ischemic preconditioning on cutaneous microcirculation - a controlled cross-over trial

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Reviewer: Derek J Hausenloy

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The study is novel and interesting and aims to investigate potential mechanisms underlying RIPC. However, it needs further data to confirm preliminary findings.

• Major Compulsory Revisions
1. The authors demonstrated improvements in tissue oxygenation and capillary blood flow and resistance in direct response and at the time of the RIPC stimulus in the arm. However, the authors need to demonstrate that the microcirculatory changes are present up to 3 hours after RIPC stimulus as this would correspond to when surgery on any flap would be occurring.
2. The observed changes may only be haemodynamic response to RIPC stimulus elsewhere – the authors need to provide evidence that they actually contribute to protection.
3. It would be interesting to see if the microcirculatory response to proportional to the RIPC stimulus by undertaking RIPC on other leg.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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