Reviewer’s report

Title: Bradykinin and adenosine receptors mediate desflurane induced postconditioning in human myocardium: role of reactive oxygen species

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Reviewer: P Pagliaro

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The article by Lemoine et al. describe the postconditioning-like effect of desflurane against stunning in human right atrial trabeculae. A role for adenosine, bradykinin, and ROS is observed in this protection. The mechanisms are similar to those observed with other protective manoeuvres and drugs, including other anaesthetics.

- Major Compulsory Revisions

Although the literature data strongly support a role for A2b adenosine receptors (AR) in cardioprotective signaling in ischemic postconditioning, A2aAR may also play a role. At this time specific receptors antagonists must be used to show which of these receptors are responsible of the effects.

The authors should discuss controversy on anti-stunning effects of postconditioning. See for example Halkos et al. and Couvreur et al.. Penna et al. Moreover, authors should consider that adenosine protection may not include ROS-signaling (Cohen and Downey suggested that adenosine may not require ROS signaling).

How authors choose the doses of antagonists and scavenger? Please, quote some articles.

Limitations pointed out by the authors in the discussion are for some aspect well considered. Since, it is mandatory to include a control group, it is not necessary to point out that a control group was included.

English language must be revised by a mother tongue.

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

Quality of written English: Needs some language corrections before being published

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