Reviewer's report

Title: Noninvasive pulse wave analysis for monitoring the cardiovascular effects of CO2 pneumoperitoneum during laparoscopic cholecystectomy

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Reviewer: gilda cinnella

Reviewer's report:

The paper is a clinical trial aimed at evaluating the validity of non invasive pulse wave analysis by applanation tonometry as a tool for hemodynamic monitoring during laparoscopic cholecystectomy. I think the authors tackle an interesting issue even if widely discussed in literature, however, the work do not really add much to current knowledge on the topic of hemodynamics during laparoscopy nor allow to understand the advantages, if any, of this technique as compared to other available. Actually, the major drawback of this paper is the lack of a control monitoring technique.

Moreover, the applanation tonometry is only superficially presented and discussed in the last part of the discussion section, without any explanation of its pro-and con.

Authors restricts their presentation to the description of hemodynamic changes during laparoscopy, but from tables and figures it is not evident if these changes are really of clinical interest, since the mean values of many parameters (i.e. systolic, diastolic and pulse pressures), do are statistically different but not of clinical relevance (systolic pressure changes from 116.8 to 125.17 in table 1 and the same is for the other two parameters).

The bibliography cited is partly outdated: in literature a great amount of papers have been published on the topic that are not taken into account.

The English should be reviewed and decimal numbers in tables should be correctly written with a full stop instead of a comma.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

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'