Reviewer's report

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

Version: 2 Date: 23 April 2014

Reviewer: Christopher Lysakowski

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The utility of applanation tonometry (SphygmoCor) in estimation of hemodynamic changes during laparoscopic cholecystectomy was investigated.

The study is correctly designed with one major weakness that SphygmoCor was the only method of measurement used. However if we consider this trial as the pilot investigation this weak point is less important. The introduction section should be shortened; the first paragraph concerning the surgical aspect of laparoscopic cholecystectomy can be deleted. The methods are correctly described excepted the definition of “Time 4”, which should be clarified.

Results illustrate what have been done during this trial in form of two tables correctly designed and one figure, which in my opinion is not complete. The data on significant changes observed during the study should be included.

The discussion is reasonable and the conclusions reliable with study results. The authors should take some position concerning the clinical relevance of observed changes, can “cut off values of safety” be defined.

The abstract needs several changes notably the expressions like “moderate increase” and “marked increase” should be replaced by the data with mention of significant differences (P values included).

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

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

Christopher Lysakowski