Reviewer's report

Title: Evaluation of propofol anesthesia in morbidly obese adolescents

Version: 1 Date: 18 November 2012

Reviewer: Hendrikus Lemmens

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Major Compulsory Revisions:

Experienced clinicians know that propofol titrated to the infusion rates and durations as described in this study will result in delayed emergence not only in obese patients but also in the normal weight population. The rapid offset of action of propofol as mentioned in the first sentence of the introduction does not apply to the clinical scenario of this study. Nevertheless, this is an important and clinically relevant study.

Regarding the design, specifically the choice between propofol up titration or administration of fentanyl at signs of inadequate anesthesia seems arbitrary. Please comment on this issue.

In this report only mean propofol concentrations during maintenance and emergence of anesthesia are mentioned. However, blood samples for propofol concentration determination are taken at intervals that seem specifically designed to characterize the pharmacokinetics of propofol. Together with the wealth of clinical effect parameters and the BIS data a full population pharmacokinetic/pharmacodynamic model can be developed which one of the authors is “expertly” and perfectly able to perform. In my view, it is not a good practice to split up the results of one study in different papers.

Reference 23 is incorrect.
Servin (reference 14) never mentioned the IBW equation as mentioned under study protocol in the methods.

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.