Reviewer’s report

**Title:** Optimal dose of pretreated-dexmedetomidine in fentanyl-induced cough suppression: a prospective randomized controlled trial

**Version:** 0  **Date:** 17 Feb 2019

**Reviewer:** Massimo Meco

**Reviewer's report:**

I have carefully read this paper on the optimal dose of dexmedetomidine in the prevention of fentanyl-induced cough.

First of all I would like to congratulate the authors, it is an interesting study, well conceived and which has certainly required a lot of effort for its execution.

While reading the study, however, many questions have arisen in my mind that I would like to share with the authors.

In the study the authors used very high doses of fentanyl (4 mcg / kg). You affirm that this is the dose that you normally use in your daily clinical practice.

Don't you think it's too high?

In a time when all efforts are aimed at reducing the amount of opioids used during anesthesia, this dose is, in my opinion, excessively high.

In daily clinical practice in our center, we use much lower doses (0.8-1 mcg / kg) and fentanyl-induced cough is an extremely rare event.

In addition, all studies performed on the subject have shown that an independent risk factor for fentanyl-induced cough is the administered dose.

The authors state that this is a double-blind study. They should better describe how this study was conducted.

A double-blind study predicts that those involved in the study are completely unaware of the group to which the patients belong. Please clarify better how this condition has been achieved.

How were the different doses of dexmedetomidine decided? Do you have a previous clinical experience? Do you have any literature data? Please clarify.

The calculation of the sample size is well done, it is correct to base the sample size on the data of previous studies.
The choice of statistical tests is correct.

The whole discussion seems confusing, it would probably be more effective if it were shorter.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

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