Author’s response to reviews

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

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We would like to express our sincere gratitude to the reviewers for their constructive and positive comments and suggestions.

Replies to Reviewer 1

The revisions made by the authors are satisfactory. The clarifications I requested have been fully satisfied. It is a well-designed, well-planned and well-executed study that deserves to be published.

Response: Thank you for your recognition of this study.
Replies to Reviewer 2

The authors addressed my concerns. The language is improved but the paper will still need some more minor language corrections before publication.

Response: Thank you for your constructive advice. We have done some minor language corrections in the manuscript and all corrections are highlighted in yellow. We'll continue to improve our English in the future time.

Replies to Reviewer 3

I want to repeat my main criticism of this study:

The problem of this study is the missing scientific approach. The use of additional co-medication to inhibit OIC is not indicated in clinical practice. Using Dex to inhibit OIC is in the context of induction of anesthesia needs additional time for equilibration. In addition, the revised manuscript offers no data about the causality in the increase in synthetic opioid blood concentration and OIC. Alternative strategies (the injection speed in conjunction with pre-administration of lidocaine) would be an adequate control group.

Response: Thank you for your suggestion about our study.

Patients’ safety and comfort are our pursuits in clinical practice. To reduce the occurrence of fentanyl-induced cough (FIC) is one strategy to provide safety and comfort for patients. So, taking medications to inhibit OIC is important in clinical practice. Yes, using Dex to inhibit OIC in the context of induction of anesthesia needs additional time for equilibration. It is recommended to use Dex loading dose over 10 min before anesthesia induction to achieve a good plasma concentration. And the surgeons and the patients would like to accept the 10-min waiting time for satisfactory anesthesia effect and enhanced recovery. The causality in the increase in synthetic opioid blood concentration and OIC is demonstrated in lines 27-29 on page 7 in the manuscript. The injection speed in conjunction with pre-administration of lidocaine would be alternative strategies, while these are not the focus of the current research.