

# In Reference to Effects of Preoperative Anxiety on Postoperative Delirium in Elderly Patients [Response to Letter]

Aolin Ren<sup>1,\*</sup>  
Na Zhang<sup>1,\*</sup>  
He Zhu<sup>1</sup>  
Kang Zhou<sup>1</sup>  
Yuan Cao<sup>1</sup>  
Jindong Liu<sup>1,2</sup>

<sup>1</sup>Department of Anesthesiology, Affiliated Hospital of Xuzhou Medical University, Xuzhou, Jiangsu, People's Republic of China; <sup>2</sup>Jiangsu Province Key Laboratory of Anesthesiology, Xuzhou Medical University, Xuzhou, Jiangsu, People's Republic of China

\*These authors contributed equally to this work

## Dear editor

We have received and gladly read the letter related to our recently published study. We would like to thank Dr. Li and colleagues for their interest in our paper and for taking the time to express their concerns.

First of all, the results of traditional univariate analysis such as the chi-square test are almost consistent with those of univariate logistic regression analysis. Compared to traditional univariate analysis, univariate logistic regression analysis provides more information including unadjusted OR and 95% CI. It seems a bit redundant to use the two methods meanwhile to carry out two rounds of variable selection. We accept that the second method is more prevalent. However, it's not uncommon to use traditional univariate analysis to make a variable selection in some studies.<sup>1,2</sup> After determining the variables with  $P < 0.05$  in univariate analysis, VIF was used to diagnose multicollinearity. As we did not find the existence of multicollinearity and thus the number of covariates was unchanged, we did not report the results of multicollinearity. We are sorry for causing any misunderstanding regarding this issue.

Second, the cut-off p-value for entry of variables into the multivariable model is often not fixed, and 0.05 is also very common. In addition, considering the limitation of the number of covariates in the logistic regression model, we used a strict level of 0.05 as a cut-off significance value. Although it means that some potential factors may be ignored, possibly resulting in inaccurate model results, the goodness of fit test of the final model enhances the robustness and reliability of our results.

Third, risk factors for postoperative delirium are numerous. The variables were collected from evidence-based and consensus-based guideline<sup>3</sup> and the previously published studies exploring the relationship between preoperative anxiety and POD.<sup>4</sup> And postoperative complications are not routinely reported especially in non-cardiac surgery. Some factors may be unmeasured in our study, as what is mentioned in the limitation part, we still believe that most of the significant variables associated with POD have been collected.

Finally, we provided patients with adequate postoperative analgesia including regional nerve block and patient-controlled intravenous analgesia. Although we did not collect the VAS pain score after surgery, we think the difference between POD and No POD groups is minimal as we have observed in the postoperative follow-up.

Correspondence: Jindong Liu  
Department of Anesthesiology, Affiliated Hospital of Xuzhou Medical University, Huaihai West Road #99, Xuzhou, Jiangsu, 221000, People's Republic of China  
Email liujindong1818@163.com

## Disclosure

The authors report no conflicts of interest in this communication.

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