

To the Editor

Comment On: “Spinal Block and Delirium in Oncologic Patients After Laparoscopic Surgery in The Trendelenburg Position: A Randomized Controlled Trial”

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With great interest, we have read the article published by Junior and colleagues evaluating whether general anesthesia (GA) and general anesthesia plus a spinal block (GSA) could have different effects on postoperative delirium for oncologic patients undergoing laparoscopic surgery in the Trendelenburg position (TP). The main conclusion was that patients in GSA group exhibited a lower incidence of postoperative delirium than GA group [1]. The overall design of this paper is excellent. However, for this essay, we would like to offer some comments to the authors.

First, regarding the dose of bupivacaine, the GSA group adopted a fixed dose with 0.5% (15 mg). Nevertheless, considering heterogeneity of the population and different types of surgery in the paper, we deem an individual dosage scheme might better reach desired sensory level block T6, according to height, weight, age, etc [2].

Second, desflurane, the only drug to maintain depth of anesthesia in the paper, had higher concentration in GA group. Some previous studies demonstrated that the depth of anesthesia was closely correlated with delirium [3,4], while depth of anesthesia between both groups was not compared in this study. So, the higher concentration of desflurane might increase the risk of delirium in GA group, thus contributing to bias in results to a certain extent.

Third, previous research confirmed that postoperative pain was identified as an independent risk factor for delirium [5]. Whereas, apart from the dose of morphine in the PACU, the authors should compare the total dose of morphine postoperatively and the degree of postoperative pain by a numeric rating scale(NRS), which might make a difference in the incidence of postoperative delirium between groups.

Forth, pneumoperitoneum in combination with Trendelenburg position could lead to deterioration of cerebrovascular autoregulation, such as increased intracranial pressure, altered cerebral blood flow and others, which were described as risk factors for postoperative delirium [6,7]. Also, a study showed that longer duration of Trendelenburg position could make cerebrovascular autoregulation deteriorate, which resulted in cerebral neurological complications [8]. However, in the paper, time in the Trendelenburg position had no connection with postoperative delirium via multiple logistic regression models, though existing a statistical difference between two groups. The reason we speculate was probably owing to small sample size of the study.

In summary, we hope the problems we have raised regarding this paper can draw more attention to the writers and enhance the value of this study.

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Declaration of Competing Interest

All authors declare no conflict of interest for this study.

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