Conflicts of interest

The authors declare no conflicts of interest.

References


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Comparison of effects and complications of unilateral versus standard spinal anesthesia in orthopedic surgery of lower limbs

Comparação dos efeitos e das complicações de raquianestesia unilateral versus raquianestesia padrão em cirurgia ortopédica de membros inferiores

Dear Editor:

It is always a great satisfaction to see articles published in our Brazilian Journal of Anesthesiology investigators from outside Brazil.1 The theme proposed although simple is very interesting and has practical utility.

I congratulate the investigators for the study. The distinct dosages (12.5 mg and 7.5 mg) used between groups justifies some differences we already know, such as latency, but also interferes with the hemodynamic stability. It would also be interesting to compare equal doses to infer the fact that the unilateral blockade and not the lower dose is the cause of increased stability.

I also have a few suggestions: one must be careful about how to describe the statistical analysis methodology, so that it does not lack credibility. In Method, it is described that "If blood pressure decreased by more than 25% of the baseline value and heart rate fell below 50 bpm, the patient was considered as hypotensive or bradycardic, respectively", and later that "For the statistical analysis of hemodynamic changes, the paired Student’s t-test was used". It was reported that a test was applied to compare numeric variables in dichotomous variables. The Student’s t-test calls attention because it does not make sense in this situation. Fisher’s exact test is a simple and suitable option.2 Fortunately, the value of $p=0.02$ (precisely 0.02493) is compatible with the proper test, Fisher’s exact test.

For other tests like headache, I cannot say the same. It is easy to replicate the analysis of dichotomous variables, and the correct $p$-value is 0.0847, according to Fisher’s exact test. The same occurs with bradycardia, whose correct $p$-value is 0.05389; while in the article it is written 0.02. In other situations, the test was more conservative, the correct $p$ for nausea is 0.00505, while the article claims to be 0.02.

Although not interesting to the authors, the differences between groups in Table 2 should be described in a full manner, as explicit in Consort, with exact $p$-values and not simply $p>0.05$.3 It draws much attention the mean age of 26 years in the unilateral group versus 31 years in the bilateral group, with $"p>0.05"$, and it is possible to replicate the analysis whose $p$-value for the t-test is 0.0028 (two-tailed). This sort of information is relevant because young patients are hemodynamically more stable, although we may consider both groups as young adults and give little importance to this data in the study. The real problem is that, assuming an unintentional mistake, it seems that there was an insufficient review of the statistical analysis. This type of error can compromise the credibility.

As a suggestion for improvement, I leave the online address for a document detailing the analysis of the dichotomous variables of the study http://rpubs.com/gabrielmg/revb延安est2014643.

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