Reviewer’s report

Title: Comparison of ropivacaine combined with sufentanil for epidural anesthesia and spinal-epidural anesthesia in labor analgesia

Version: 2 Date: 25 May 2019

Reviewer: Antonio Ragusa

Reviewer's report:

In this study, the authors have compared retrospectively the use and effectiveness of two anaesthetic techniques: continuous epidural anesthesia (CEA) and combined spinal-epidural anesthesia (CSEA), using the ropivacaine (a local anesthetic) combined with the sufentanil (an opioid) in primiparous women at term pregnancy. Results indicate that the use of the two drugs with the combined technique CSEA can reduce the times of labor with an improved maternal satisfaction.

For the specific aim of this study, a continuous background infusion via pump with additional dose controlled by the patient (patient-controlled analgesia (PCA)) was chosen.

In the recent literature, no scientific articles that compare the two techniques of anesthesia in labor using the two drugs disclosed (ropivacaine combined with sufentanil) and with the technique of patient-controlled analgesia (PCA) were found.

There is a Cochrane Review from 2018 (not cited in the bibliography of this article) which compares epidural versus non-epidural or epidural versus no analgesia in labor, and found out that epidurals may reduce pain during labor more effectively than any other form of pain relief.

The main limitation of this study is its retrospective design. Hence, additional prospective and adequately powered studies are needed to confirm findings and determine the optimal combination of volume, rate, time, and drug concentration.

Moreover, in this study only primiparous women were included. Further research should be conducted on this topic including multiparous women.

Interestingly, the authors have also evaluated some adverse drug reaction in two groups of patients. It would have been interesting to evaluate other drugs collateral effects such as headache, fever, shivering and hypotension. However, the small amount of cases doesn't allow such evaluation.

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

Yes

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.

Yes
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Not relevant to this manuscript

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