The Transition from the use of Bupivacaine to Ropivacaine in the Delivery room, in order to achieve a Better Analgesic Effect

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Keywords

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Background

Ropivacaine is an amide local anesthestic. It is not a new drug. This drug has the specificity to be less cardiotoxic, with reduced motor blockade, and can be used for regional anesthesia such as epidural anesthesia in the delivery room.

In July 2017, it was decided by Pharmaceutical Services in Rambam Health Care Campus, together with the anesthesiologist, to switch to the use of ropivacaine as an alternative to bupivacaine, which had been used for many years in the delivery room purpose

The transition from the use of bupivacaine to the use of ropivacaine for the purpose of regional anesthesia in the delivery room, was carried out in order to achieve a better analgesic effect with minimal motor paralysis compared to bupivacaine

Material and methods

Ropivacaine is commercially available as a solution of 0.2% (200mg/100ml bag). In order to reduce the concentration to 0.1%, the hospital pharmacy added 85ml of normal saline and 10 ml (0.5mg) of fentanyl to each ropivacaine bag.

The preparation was done using aseptic technique, labeled and stored in a refrigerator at 2-8 degrees Celsius, and given a shelf life of 14 days.

Approximately 300 preparations were prepared each month, and provided for the delivery room.

Results

The administration of low-dose Ropivacaine 0.1% over the same time as an alternative to the administration of Bupivacaine at a concentration of 0.125% gave a very good analgesic effect. In addition, Ropivacaine has a reduced motor block in comparisone to Bupivacaine that has significant motor block

Conclusion

The administration of low-dose ropivacaine (0.1%) as a substitute for bupivacaine (0.125%) gave a very good analgesic effect. In addition, the anesthesiologists observed a reduction of motor blockade using ropivacaine in comparison to that of bupivacaine

References and/or Acknowledgements

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