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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ROPIVACAINE
BUPIVACAINE
LOCAL ANESTHETIC
OBSTETRIC ANALGESIA

Background
Ropivacaine is an amide local anesthetic. 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 10ml (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 comparison 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.

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