

Summary:

Spinal anesthesia is commonly used for the cesarean section because of avoiding the risks of general anesthesia. The quality and duration of sensory and motor block and decrease postoperative pain is important in the cesarean section. Opioids and other drugs such as magnesium sulfate, clonidine, midazolam and neostigmine added to local anesthetics to this purpose.

One of the primary aims of anesthesia is to alleviate the patient's pain and agony, by permitting the performance of surgical procedures without any discomfort. Relief of postoperative pain has gained real importance in recent years considering the central, peripheral and immunological stress response to tissue injury. Any expertise acquired in this field should be extended into the postoperative period, which is the period of severe, intolerable pain requiring attention. So there is a need for extended analgesia without any side effects to achieve this goal.

Regional techniques employing either epidural or intrathecal routes are currently the most popular methods of pain relief during labor and delivery. These techniques can provide excellent pain relief yet allow the mother to be awake and co-operative during labor.

There are physiological changes which occur with pregnancy. These changes affect all systems of the mother's body directly or indirectly like cardiovascular system, respiratory system, gastrointestinal system, renal system and CNS.

The aim of the study is to compare efficacy and duration of analgesia produced by adding magnesium sulfate to intrathecal bupivacaine (10mg) plus midazolam (1mg) in patients undergoing cesarean section.

In our study : A total of sixty (60) patients aged 18 to 35 years of American Society of Anesthesiologists (ASA) class I and II were scheduled for cesarean section under intrathecal block and randomly divided into 3 groups :

Control group (group C): Twenty patients received (10mg/2ml) intrathecal 0.5% hyperbaric bupivacaine and (1ml) preservative free saline.

Midazolam group (group M): Twenty patients received (10mg/2ml), Intrathecal 0.5% hyperbaric bupivacaine, preservative free midazolam (1mg/0.2ml) and (0.8ml) preservative free saline.

Magnesium Midazolam group (group MM): Twenty patients received (10mg/2ml) intrathecal 0.5% hyperbaric bupivacaine, preservative free midazolam (1mg/0.2ml), preservative free magnesium sulfate (50mg/0.5ml) and (0.3ml) preservative free saline.

Summary

Standard monitoring devices including electrocardiogram, finger tip pulse oximetry, and non invasive blood pressure (NIBP) were used to measure the hemodynamic variables. The onset and duration of both sensory and motor block, total dose of analgesia and adverse effects were recorded.

The main finding in this study was that in patients undergoing the caesarean section under hyperbaric bupivacaine spinal anesthesia, the addition of 50 mg magnesium sulfate to 0.2 ml midazolam led to a significant delay in the onset of both sensory and motor blockade, and also prolonged their duration without side effects.