



## Letter to: “The Effect of Different Doses of Intrathecal Hyperbaric Bupivacaine Plus Sufentanil in Spinal Anesthesia for Cesarean Sections”

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### Dear Editor,

I read with great interest the article that you are going to publish in your journal entitled “The Effect of Different Doses of Intrathecal Hyperbaric Bupivacaine Plus Sufentanil in Spinal Anesthesia for Cesarean Sections” (1). In their study, Alimian et al. concluded that according to the similar effects of different doses of bupivacaine, administration of lower doses of bupivacaine (8 mg) is more reasonable for spinal anesthesia for cesarean section. As you know, tissue damages during surgery can lead to two alterations in the responsiveness of the nociceptive system: peripheral sensitization and central sensitization. Unrelieved acute pain after surgery usually elicits pathophysiologic neural alterations, including not only peripheral but also central sensitization, which evolves into chronic pain syndromes (2). Thus, in studies that have been conducted, different drugs have been used as an adjuvant for regional anesthesia to compare their effects on the duration of analgesia and complications. For example, under the conditions of Wilwerth et al. study, sufentanil 5 µg was the opioid of choice, as compared to fentanyl in combination with hyperbaric bupivacaine in intrathecal anesthesia that was associated with the best quality of anesthesia without increased incidence of side effects (3). Furthermore, in another study, administering intrathecal hyperbaric bupivacaine plus fentanyl achieved a similar duration of analgesia like sufentanil with faster return of motor block and ambulation, and the authors preferred it as an additive for cesarean section surgery (4). In addition, Faiz et al. studied the effects of adding neostigmine or magnesium sulfate to bupivacaine and concluded that magnesium sulfate is a safe and effective adjuvant to increase the onset time of motor block (5). Imani studied the effects

of adding tramadol to 2% lidocaine in epidural anesthesia and concluded that addition of tramadol to epidural 2% lidocaine offers advantages in cesarean section (6). Besides, bupivacaine at a concentration of 0.5% became popular and a drug of choice for cesarean section because of its long-term blockade, sensory blockade separated from the motor blockade, relative lack of tachyphylaxis, and limited placental transfer. Therefore, one way to increase the duration of analgesia is the use of different doses of hyperbaric bupivacaine; in this way, we do not need to add adjuvants. As we know, every drug has its side effects and if we can use less drug we have less side effects that have been down to this point ever since. In this research, they examined the effect of different doses of hyperbaric bupivacaine on the duration of analgesia, which in my opinion it is a worthwhile issue.

### Footnote

**Conflict of Interest:** The author declare that she has no conflict of interest.

### References

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