Effects of sitting up for five minutes versus immediately lying down after spinal anesthesia for Cesarean delivery on fluid and ephedrine requirement; a randomized trial

Les effets sur les besoins liquidiens et d’éphédrine d

Essam E. Abd El-Hakeem, MD • Abdullah M. Kaki, MBBS • Adnan A. Almazrooa, MBChB • Nisma M. Al-Mansouri, MBBS • Jamal A. Alhashemi, MBBS

Abstract:

Abstract Background Patient position after spinal anesthesia has had variable effects on blood pressure and ephedrine requirements. The aim of this study was to determine the effects that sitting the patient up for five minutes after spinal anesthesia would have on intraoperative fluid and ephedrine requirements. Methods The study included 120 women at term gestation who were scheduled for Cesarean delivery under spinal anesthesia. After anesthetic administration, the women were randomized either to sit up for five minutes then lie down (Group S) or to lie down immediately (Group L) to a tilted supine position. A blinded observer recorded sensory block level, systolic blood pressure, heart rate, ephedrine and fluid requirements, adverse events, and time to motor recovery (modified Bromage score of 2). Results Group S had a lower intraoperative sensory block height than Group L [T4 (1) vs T2 (1), respectively; P=0.001]; Group S also required less ephedrine (8% vs 47%, respectively; P=0.001), received less fluid [709 (59) mL vs 789 (90) mL, respectively; P=0.001], and experienced less nausea and vomiting (5% vs 22%, respectively; P=0.014) and shortness of breath (3% vs 28%, respectively; P=0.001) intraoperatively. In Group S, the odds of requiring ephedrine were 0.09 compared with 0.89 in Group L (odds ratio 0.10). There were no differences in systolic blood pressure (P=0.127) or heart rate (P=0.831) over time between groups. Time to a modified Bromage score of 2 was longer in Group S than in Group L [101 (15) min vs 88 (14) min, respectively; P=0.001]. Conclusions Sitting the patient up for five minutes rather than laying the patient down immediately after spinal anesthesia for Cesarean delivery decreased intraoperative sensory block height, ephedrine and fluid requirements, and intraoperative nausea, vomiting, and shortness of breath without affecting systolic blood pressure or the success of the anesthetic. However, the method resulted in delayed postoperative motor recovery.

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