

Abstract # 08

Intermittent versus Continuous Epidural Infusion on Progress of Labor – Which One is Preferred?

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Introduction and Hypothesis: To compare continuous with intermittent epidural infusions on the duration of labor and patients' satisfaction in multiparous women.

Methods: 100 Multiparous women who requested epidural analgesia during labor were randomly allocated to receive either a continuous infusion of 0.125% bupivacaine with 2 microg/mL fentanyl at a rate of 8 mL/h (group A) or intermittent boluses of 10 mL of 0.25% bupivacaine with 50 microg fentanyl on demand (group B). Controls were 500 Multiparous women who did not receive epidural analgesia (group C). Included were singleton term pregnancies with cervical dilatation between 3 cm and 5 cm and effacement of greater than 50%. A comparison was made between the groups regarding the duration of the active phase and the second stage of labor, and patients' satisfaction. Secondary outcomes investigated were the mode of delivery, analgesia-related complications, and intrapartum and postpartum complications. Apgar score measured neonatal outcome.

Results: During the study, the mean duration of the active phase was not statistically different between groups A and B. Each technique produced comparable analgesia, achieving equivalent maternal satisfaction, with no apparent complications. The active phase of labor was prolonged by an average of 30 minutes regardless of the type of epidural compared with controls. 2nd stage was prolonged by an average of 15 minutes in the group A compared to 25 min in group B. The mode of delivery and maternal and neonatal outcome were not significantly different among the 3 groups. There were no maternal or fetal complications during the study, however there were five 2nd gravidas (10%) in the group B who due to lack of education showed reluctance to follow the commands for bearing down efforts thereby increasing the 2nd stage of labor significantly. As they were given intermittent epidural boluses, we had to wait for the drug to taper off.

Discussion & Conclusion: This study provides evidence that both continuous epidural infusion and intermittent epidural boluses produce comparable analgesia achieving equivalent maternal satisfaction with no difference regarding the duration of labor between them. But considering the inherent technical difficulties associated with the intermittent epidural boluses, we feel it worthwhile to advocate the continuous epidural infusion over the intermittent epidural boluses as a choice for the labor analgesia.