

Does 10 degree Head Up Position Through Out The Operation Prevent Hypotension During Spinal Anesthesia for Cesarean Section; A Prospective Randomized Control Trial

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Abstract

Background

The study test hypothesis that incidence of hypotension can be reduced in parturients who are induced spinal anesthesia with 0.5% hyperbaric bupivacaine in 10 degree reverse trendelenberg position throughout caesarean section operation compare with parturients who are place in supine position.

Methods

44 women present for caesarean section under spinal anesthesia are randomly assigned to have spinal anesthesia induced in lateral position either in 10 degree head up and horizontal plane. 0.5% hyperbaric bupivacaine 2 ml is injected intrathecally then parturients are placed supine with 15 degree left lateral tilt. In study group the operating table will remain 10 degree head up unless the level of anesthesia is not sufficient. Blood pressure and heart rate will be monitored every minute until surgeon clamp umbilical cord then monitored every 2.5 minute. Ephedrine 6 mg will be given if systolic blood pressure lower than 90 mmHg or blood pressure is lower than 20% of baseline

Results

There is no difference in mean systolic, diastolic and mean arterial blood pressure between two groups. Ephedrine consumption in first 5 min is lower in study group compared to control group (0.78 mg and 3.43 mg P-value = 0.019). Incidence of hypotension and number of parturients who are required ephedrine in first 5 minutes are lower in study group (1 parturient and 7 parturients P-value = 0.019). Number of parturients who required head lowering due to undesirable level of anesthesia is higher in study group (7 parturients and 1 parturient P-value =0.049). There were no difference in neonatal outcome, parturients satisfaction, nausea and vomiting.

Conclusion

In caesarean section, 10 degree head up during induction of spinal anesthesia with 0.5% hyperbaric bupivacaine can lower incidence of hypotension and amount of ephedrine consumption.