ABSTRACT

BACKGROUND

Spinal anaesthesia which has been the most common anaesthetic technique for elective caesarean section, various adjuvants have been added to local anaesthetics to reduce the incidence of side effects and to provide adequate anaesthesia and prolonged post operative analgesia. Fentanyl, a lipophilic opioid has been a commonly used adjuvant to intrathecal bupivacaine for caesarean section, as it augments analgesia and also minimizes adverse effects of bupivacaine. Dexmedetomidine, a highly selective centrally acting α2 agonist is nowadays used as a spinal adjuvant.

AIM OF STUDY

The aim of this study is to evaluate and compare the effect of adding intrathecal dexmedetomidine (5µgm) and intrathecal fentanyl (25µgm) as adjuvant to 0.5% hyperbaric bupivacaine in elective caesarean section.

METHODS AND METHODOLOGY

60 females scheduled for elective caesarean section aged between 18 to 35 years of ASA class I and II, were randomized in to two groups. Group A (n=30) received intrathecal dexmedetomidine 5µgm with 0.5% hyperbaric bupivacaine
1.5ml (7.5mg). Group B (n=30) received intrathecal fentanyl 25µgm with 0.5% hyperbaric bupivacaine 1.5ml (7.5mg).

RESULTS

The onset time and time to peak sensory blockade was not significant between group A and group B. The onset of motor blockade was significantly faster in group A. Time to two segment regression was also not significant between the groups. Sedation score was better in group A in the initial half hour. Hemodynamically group A was more stable than group B. Neonatal outcome was unaffected in two groups. Incidence of pruritis is significantly high in group B (64%). No other adverse effects were noticed in two groups. The time to first rescue analgesia was significantly prolonged in group A (53%) than group B.

CONCLUSION

Intrathecal dexmedetomidine is a good alternative to intrathecal fentanyl for caesarean section as it produces good intra operative anaesthesia along with prolonged post operative analgesia with minimal side effects to the mother and no adverse effects on the fetus.