

## Keefektifan analgesia spinal pada bedah sesar: perbandingan antara 8 mg bupivakain 0,5% hiperbarik + 12,5 mg bupivakain 0,5% hiperbarik

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### Abstrak

Latar Belakang : Hipotensi adalah komplikasi yang paling sering terjadi pada analgesia spinal. khususnya pada pasien obstetrik. Hipotensi terjadi karena blok simpatis. Salah satu cara untuk menurunkan insiden hipotensi adalah dengan menurunkan dosis obat analgetika lokal dan kombinasi dengan opioid untuk analgesia infra dan postoperatif. Fentanil intratekal memiliki rmla kerja yang lebih cepat dibanding morfin dan memberikan analgesia postoperatif yang cukup singkat. Intratekal fentanil menurunkan ketidaknyamanan ibu intraoperatif saat penarikan peritonium atau manipulasi uterus.

Metode : 86 ibu hamil yang akan menjalani operasi bedah sesar elektif maupun darurat dibagi secara random dalam 2 kelompok. Kelompok I diberikan 10 mg bupivakain 0.5;o hiperbarik plus 12,5 gig fentanil dan Kelompok II diberikan 12,5 mg bupivakain 0.5% hiperbarik. Tinggi hambatan maksimal, masa kerja dan masa pulih sensori diuji menggunakan uji pin-prick. Mula kerja, masa kerja dan masa pulih motorik dinilai dengan skala Modifikasi Bromage. Tekanan darah, frekuensi denyut nadi dan frekuensi nafas dicatat setiap 2 menit dalam 20 menit pertama. Insiden hipotensi, mual muntah, pruritus dan depresi nafas dicatat.

Hasil : Data demografik dan data dasar tidak berbeda bermakna. Insiden hipotensi tidak berbeda bermakna antara kelompok fentanil dan kontrol (39,5% banding 48.8%; $p>0.05$ ). Median tinggi maksimal blok sensori tidak berbeda bermakna antara kedua kelompok ( $T_5$ :  $p>0.05$ ). Masa kerja dan masa pulih hambatan sensori lebih lama pada kelompok fentanil dibanding kontrol ( $104,21\pm 29,199$  vs  $72,60\pm 19,538$  menit;  $153.21\pm 30.671$  vs  $124,88\pm 21,001$  menit ;  $p<0.05$ ). Masa kerja dan masa pulih hambatan motorik lebih singkat pada kelompok fentanil dibanding kontrol ( $99.44\pm 20.466$  vs  $65.95\pm 17.845$  menit ;  $49.60\pm 18.611$  vs  $114.14\pm 11.823$  menit :  $p<0,05$ ). Insiden mual muntah tidak berbeda bermakna antara kedua kelompok. Tidak ada pasien pada kedua kelompok mengalami insiden depresi nafas. Insiden pruritus berbeda bermakna ( $p>0,05$ ).

Kesimpulan : Insiden hipotensi tidak berbeda bermakna antara kedua kelompok. Dosis bupivakain yang lebih rendah akan menyebabkan masa kerja blok motorik lebih singkat tanpa berpengaruh pada blok sensori. Penambahan fentanil- intratekal akan memperpanjang masa kerja hambatan sensori. Insiden pruritus berbeda bermakna pada kelompok fentanil jika dibandingkan dengan kelompok bupivakain.

**Backgrounds** : Hypotension was the most common complication ,franc spinal analgesia. especially in obstetric patients. Hypotension developed because of svmpatlretic blockade. One method to reduced hi pnten.vwn incidence in caesarean .section was two reduced the doses of local atutlge& drugs and combined with opioul for infra and post operative analgesia. hrtratltecal lipophilic opioid had faster onset of sensory blockade than nrorfne and produced a brief post operative analgesia. Intrathecal feuitanvl decreased maternal discomfort intraoperatively when peritoneum pulled or uterus exreriation.

Methods : 86 parturients undergoing elective or emergency cesarean section were randomized into one of 2 groups. In group I, spinal analgesia was performed with 111 mg 0,5% hyperbaric bupivacaine plus 2,5 µg fentanyl and in Group II with 12,5 mg 0,5% hyperbaric bupivacaine. The maximum sensory blockade, duration of analgesia and recovery time were tested using pin-prick test. Onset, duration and recovery of motor blockade were assessed using modified Bromage scale. Blood pressure, heart rate and respiratory rate were recorded every 2 minutes in the first 20 minutes. The incidence of hypotension, nausea vomiting, pruritus and respiratory depression were recorded.

Results : There were no significant differences in demographic and baseline values. Incidence of hypotension did not significantly differ between fentanyl group and control (39,5% versus 48,8%:  $p=0.115$ ). T10 median maximum block height did not significantly differ between two groups (75 ;  $p=0.05$ ). Duration of analgesia and sensory recovery time was significantly longer in fentanyl group compared to control (104,21-29.199 vs 72.60-19.538 minute 153,21-30.671 vs 124,88-21,001 minute :  $p<0,05$ ). Onset of motor blockade did not significantly differ between two groups. Duration and recovery time of motor blockade was more, shorter in fentanyl group compared to control (99,44-20,466 vs 65,95-17,845 minute ; 49,60,18,611 vs 114,14 -11.823 minute  $p<0,05$ ). Incidence of nausea and vomiting did not significantly differ between two groups. None of the patients in either group had respiratory depression episode. Pruritus incidence significantly different ( $p=0.05$ ).

Conclusion : Incidence of hypotension did not significantly differ between two groups. Smaller doses of bupivacaine result in shorter time of motor blockade with no effect on sensory block. Adding fentanyl intrathecally will prolong the duration of analgesia. Pruritus incidence significantly different with intrathecal fentanyl when compared with bupivacaine alone.