

## Kefektifan analgesia spinal pada bedah sesar: kombinasi 10 mg Bupivakain 0,5% Hiperbarik + 12,5 µg Fentanil dengan 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 intra dan postoperatif. Fentanil intratekal memiliki mule 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% hiperbarik plus 12,5 µg 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 (T5 ; pp>0,05). Masa kerja dan masa pulih hambatan sensori lebih lama pada kelompok fentanil dibanding kontrol (104,21±129,199 vs 72,60±19,538 menit ; 153,21±30,671 vs 124,88±21,001 menit ; p<0,05). Mula kerja, masa kerja dan masa pulih lebih singkat pada kelompok fentanil dibanding kontrol (99,44±20,466 vs 65,95±17,845 minute ; 49,60±18,611 vs 114,14±11,823 minute ; 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 from spinal analgesia, especially in obstetric patients. Hypotension developed because of sympathetic blockade. One method to reduced hypotension incidence in caesarean section was to reduced the doses of local analgesic drugs and combined with opioid for intro and post operative analgesia. Intrathecal lipophilic opioid had faster onset of sensory blockade than morphine and produced a brief post operative analgesia. Intrathecal fentanyl decreased maternal discomfort intraoperatively when peritoneum pulled or uterus exteriorization.

Methods : 86 parturients undergoing elective or emergency cesarean section were randomized into one of 2 groups. In Group I, spinal analgesia was performed with 10 mg 0,5% hyperbaric bupivacaine plus 12,5 µg fentanyl and in Group II with 12,5 mg 0,5% hyperbaric bupivacain. The maximum sensory blockade, duration of analgesia and recovery time were test using pin prick test. Onset, duration and recovery of motor block were assessed using modified Bromage scale. Blood pressure, heart rate and respiration rate were recorded every 2 minute in 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 value. Incidence of hypotension did not significantly different between fentanyl group and control (39,5% versus 48,8%; $p>0,05$ ). The median maximum block height did not significantly different between two groups (5 ;  $p>0,05$ ). Duration of analgesia and sensory recovery time was significantly longer in fentanyl group compared to control (104,211\_29,199 vs 72,60119,538 minute ; 153,21130,671 vs 124,88±21,001 minute ,  $p<0,05$ ). Onset of motor blockade did not significantly different 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 114,14111, 1,823 minute ;  $p<0,05$ ). Incidence of nausea and vomiting did not significantly different between two groups. None of the patient in both groups had respiratory depression episode. Pruritus was significantly different ( $p<0, 05$ ).

Conclusion : Incidence of hypotension did not significantly derent between two groups. Smaller doses of bupivacaine results more shorter time of motor blockade with no effect on sensory block Adding fentanyl intrathecally will prolong the duration of analgesia. Pruritus incidence significantly derent with intrathecal fentanyl when compared with bupivacaine alone.</i>