

Perbandingan Efektivitas Dexmedetomidine Dengan Morfin Sebagai Adjuvan Anestesi Spinal Pada Pasien Operasi Seksio Sesarea

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Latar Belakang: Penggunaan adjuvan pada anestesi spinal bertujuan meningkatkan kualitas blok dan analgesia serta menurunkan efek samping. Dexmedetomidine dan morfin merupakan dua adjuvan yang sering digunakan pada operasi seksio sesarea, namun perbandingan efektivitas keduanya masih memerlukan evaluasi lebih lanjut.

Tujuan: Mengetahui perbandingan efektivitas dexmedetomidine dan morfin sebagai adjuvan anestesi spinal pada pasien operasi seksio sesarea.

Metode: Penelitian ini merupakan randomized controlled trial yang melibatkan 36 pasien yang menjalani seksio sesarea dengan anestesi spinal. Subjek dibagi menjadi dua kelompok, yaitu kelompok dexmedetomidine (bupivakain hiperbarik 10 mg + dexmedetomidine 2,5 mcg) dan kelompok morfin (bupivakain hiperbarik 10 mg + morfin 0,1 mg). Parameter yang dianalisis meliputi onset blok sensorik dan motorik, durasi blok motorik, skor nyeri VAS, serta kejadian hipotensi, bradikardia, mual muntah, dan menggigil. Analisis statistik menggunakan independent t-test dan Mann–Whitney sesuai distribusi data.

Hasil: Onset blok sensorik lebih cepat pada kelompok dexmedetomidine dibandingkan morfin ($4,17 \pm 0,99$ vs $5,44 \pm 1,34$ menit; $p=0,003$). Tidak terdapat perbedaan bermakna pada onset blok motorik ($p=0,080$). Durasi blok motorik lebih lama pada kelompok morfin dibandingkan dexmedetomidine ($p<0,001$). Skor nyeri VAS lebih rendah pada kelompok dexmedetomidine dibandingkan morfin ($2,5$ [1–4] vs 4 [3–6]; $p<0,001$). Kejadian hipotensi ($11,1\%$ vs $50,0\%$; $p=0,011$), bradikardia ($11,1\%$ vs $50,0\%$; $p=0,011$), mual muntah ($5,6\%$ vs $38,9\%$; $p=0,016$), dan menggigil (0% vs $33,3\%$; $p=0,007$) lebih rendah pada kelompok dexmedetomidine.

Simpulan: Dexmedetomidine sebagai adjuvan anestesi spinal pada operasi seksio sesarea memberikan onset blok sensorik yang lebih cepat, kualitas analgesia yang lebih baik, serta kejadian efek samping yang lebih rendah dibandingkan morfin, meskipun durasi blok motorik lebih panjang pada morfin.

Kata kunci: dexmedetomidine, morfin, anestesi spinal, seksio sesarea, analgesia

Comparison of the Effectiveness of Dexmedetomidine and Morphine as Spinal Anesthesia Adjuvants in Patients Undergoing Cesarean Section

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Background: The use of adjuvants in spinal anesthesia aims to improve block characteristics, enhance analgesia, and reduce adverse effects. Dexmedetomidine and morphine are commonly used adjuvants in cesarean section; however, their comparative effectiveness requires further evaluation.

Objective: To compare the effectiveness of dexmedetomidine and morphine as adjuvants in spinal anesthesia for cesarean section.

Methods: This study was a randomized controlled trial involving 36 patients undergoing cesarean section under spinal anesthesia. Subjects were divided into two groups: dexmedetomidine group (hyperbaric bupivacaine 10 mg + dexmedetomidine 2.5 mcg) and morphine group (hyperbaric bupivacaine 10 mg + morphine 0.1 mg). Outcomes measured included onset of sensory and motor block, duration of motor block, postoperative pain using VAS score, and incidence of hypotension, bradycardia, nausea-vomiting, and shivering. Statistical analysis was performed using independent t-test and Mann-Whitney test according to data distribution.

Results: Sensory block onset was significantly faster in the dexmedetomidine group compared to morphine (4.17 ± 0.99 vs 5.44 ± 1.34 minutes; $p=0.003$). No significant difference was found in motor block onset ($p=0.080$). Motor block duration was significantly longer in the morphine group ($p<0.001$). VAS pain scores were significantly lower in the dexmedetomidine group (2.5 [1–4] vs 4 [3–6]; $p<0.001$). The incidence of hypotension (11.1% vs 50.0%; $p=0.011$), bradycardia (11.1% vs 50.0%; $p=0.011$), nausea-vomiting (5.6% vs 38.9%; $p=0.016$), and shivering (0% vs 33.3%; $p=0.007$) was significantly lower in the dexmedetomidine group.

Conclusion: Dexmedetomidine as an adjuvant in spinal anesthesia for cesarean section provides faster sensory block onset, better analgesic quality, and fewer adverse effects compared to morphine, although morphine results in a longer motor block duration.

Keywords: dexmedetomidine, morphine, spinal anesthesia, cesarean section, analgesia