Peran blok servikal superfisialis terhadap konsumsi fentanil intraoperatif pada timpanomastoidektomi dalam anestesia umum = The role of superficial cervical block on intraoperative fentanyl consumption in tympanomastoidectomy under general anesthesia

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Abstrak

Latar belakang : Blok perifer yang digunakan saat pasien teranestesi akan mengurangi kebutuhan anestesia dan analgesia selama pembedahan, dan mengurangi kebutuhan opioid sebagai analgetik pasca operatif. Berkurangnya pemakaian opioid intraoperatif akan mengurangi morbiditas pasca operatif yang berkaitan dengan opioid. Penelitian dilakukan untuk mengetahui peran BPSS menggunakan bupivakain 0,5% dalam mengurangi konsumsi fentanil intraoperatif, stabilitas hemodinamik intraoperatif, dan kecepatan waktu pulih pada timpanomastoidektomi dalam anestesia umum.
Metode : Penelitian ini merupakan uji klinis acak tersamar tunggal pada 32 pasien usia 19-65 tahun, ASA I-III dengan berat badan 35-80 kg, yang dibagi menjadi dua kelompok, yaitu kelompok BPSS dan kelompok kontrol. Pada kelompok BPSS dilakukan BPSS sebelum induksi menggunakan bupivakain 0,5%. Pada kelompok kontrol dilakukan anestesia umum tanpa BPSS. Anestesia dipertahankan dengan FGF 0,8-1,6 lpm, compress air:O2 (konsentrasi O2 40%); isofluran ± 1 MAC dan atrakurium 0,25 mg/kgBB setiap 30 menit untuk menjaga nilai BIS 45-60. Fentanil diberikan setiap ada peningkatan tekanan darah sistolik atau frekuensi nadi 20% dari nilai 5 menit sebelumnya. 30 menit sebelum operasi selesai diberikan parasetamol 1 gram iv dan ondansetron 4 mg iv.
Hasil : Dari hasil penelitian didapatkan median konsumsi fentanil intraoperatif kelompok BPSS lebih rendah bermakna secara statistik dibandingkan kelompok kontrol {(150 mcg vs 262,5 mcg), p<0,001)}. Perbedaan median TDS antara kelompok BPSS dan kelompok kontrol bermakna secara statistik psaat insisi { 104 (90-112) vs 120 (110-130), p<0,001}, dan median frekuensi nadi kelompok BPSS lebih rendah secara bermakna dibandingkan kelompok kontrol {68 (62-86) vs 80 (68-100); p<0,001}.
Simpulan : BPSS menggunakan bupivakain 0,5% sebelum induksi mengurangi konsumsi fentanil intraoperatif, menekan respon hemodinamik terhadap insisi kulit, dan mempercepat waktu pulih.
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Background : The peripheral nerve block which is used in combination with general anesthesia will reduce anesthesia and analgesia requirement intraoperatively. The reduction in opioid consumption will reduce pasca operative morbidity which is related to opioid. The aim of this study was to assess the role of superficial cervical plexus block (SCPB) using bupivakain 0,5% before induction in reducing fentanyl consumption, stabilized intraoperative hemodynamic, and reach early emergence in tympanomastoidectomy under general anesthesia.
Methods : The design of this study is single blind randomized clinical trial. The study was done to 32 consenting ASA I-III patients, 13-65 years old, with body weight 35-85 kg which were randomized to be SCPB group and control group. SCPB was done in block SCPB before induction using bupivacaine 0,5%. General anesthesia without SCPB was done in control group. Anesthesia was maintained with FGF 0,8-1,6 lpm, compress air:O2 with O2 consentration 40%, isoflurane ± 1 MAC, and atracurium 0,5 mg/kgBW every

30 minutes to keep BIS level 45-60. Fentanyl intermittent was given intraoperative due to 20% increased in SBP or heart rate from the data 5 minutes earlier. Paracetamol 1 g iv and ondansetron 4 mg iv were given 30 minutes before the end of the surgery.
Results : During surgery the median fentanyl consumption were significantly reduced in SCPB group compared with control group {(150 mcg vs 262,5 mcg), p<0,001)}, and during skin incision, the median SBP and the median heart rate were significantly reduced in SCPB group compared with control group { 104 (90-112) vs 120 (110-130), p<0,001} and {68 (62-86) vs 80 (68-100); p<0,001}. The median emergence time were also significantly reduced in SCPB group compared with control group {(10 minutes vs 20 minutes), p<0,001)}.
Conclusion : SCBP using bupivacaine 0,5% before induction reduced the fentanyl consumption intraoperative, more stabilized hemodynamic in response to skin incision and provided more rapid awakening.