

INTISARI

Agitasi adalah efek samping yang sering terjadi pada penggunaan sevoflurane pada anak. Dexmedetomidin mempunyai efek sedatif, analgesia, menurunkan aktifitas simpatik dan menyeimbangkan neurotransmitter, sehingga dapat digunakan untuk mengurangi insiden agitasi setelah anestesi sevoflurane.

Telah dilakukan penelitian untuk membandingkan daya guna antara dexmedetomidin 0,6 µg/kgBB intravena dengan fentanyl 1 µg/kgBB intravena untuk mengurangi insiden agitasi setelah anestesi pada anak 2-5 tahun.

Rancangan penelitian adalah uji kontrol acak tersamar ganda. Subyek penelitian terdiri dari 80 pasien laki-laki dan perempuan, usia 2-5 tahun, status fisik ASA I-II, yang menjalani operasi elektif dengan anestesi umum di GBST RS Dr. Sardjito dan RS jejaring pendidikan. Subyek dibagi menjadi 2 kelompok, yaitu kelompok A dan B. Tiap-tiap kelompok ada 40 pasien. Semua kelompok diberikan midazolam 0,05 mg/kgBB di ruang persiapan dan diamati tingkat kecemasan dengan skor Ramsay. Di ruang operasi diberikan fentanyl 1 µg/kg BB kemudian dilakukan induksi inhalasi sevoflurane dan dilakukan intubasi dengan fasilitas intubasi atracurium 0,5 mg/kgBB, pemeliharaan anestesi dengan O₂, N₂O dan sevoflurane 2 vol%, sekitar 10 menit sebelum operasi selesai kelompok A diberikan dexmedetomidin 0,6 µg/kgBB intravena dan kelompok B diberikan fentanyl 1 µg/kgBB intravena. Di ruang pulih sadar diamati lama pulih sadar dan insiden agitasi.

Hasil penelitian menunjukkan insidensi agitasi antara kedua kelompok secara statistik ada perbedaan yang bermakna ($p < 0,05$). Insidensi agitasi pada kelompok dexmedetomidine 0,6 µg/kgBB sebesar 5% dan kelompok fentanyl 1 µg/kgBB sebesar 27,5%.

Dari penelitian ini disimpulkan bahwa dexmedetomidin 0,6 µg/kgBB intravena mempunyai daya guna yang lebih baik dalam mengurangi insiden agitasi setelah anestesi sevoflurane pada anak usia 2-5 tahun dibandingkan fentanyl 1 µg/kgBB.

Kata kunci: dexmedetomidin, fentanyl, agitasi

ABSTRACT

Agitation is an adverse effect which frequently found in pediatrics after general anesthesia under sevoflurane. Dexmedetomidin had several effects as sedative, analgesia, reduce the sympathetic activity and also maintenance neurotransmitter regulation, therefore it could be a choice to reduce the incidence of agitation in pediatrics after general anesthesia under sevoflurane.

We performed a research to compare the efficacy of intravenous demedetomidin 0.6 $\mu\text{g/kgBW}$ with intravenous fentanyl 1 $\mu\text{g/kgBW}$ to reduce the incidence of agitation in 2 to 5 year-old pediatric patients after general anesthesia under sevoflurane.

The design of this research was double blind randomized controlled trial. Subjects were 80 male and female patients, aged 2 to 5 years old, physical status ASA I and II, underwent elective surgery under general anesthesia in the Surgery Center Building at Dr. Sardjito General Hospital and affiliated teaching hospitals. Subjects were divided into two groups, Group A and Group B. Each group involved 40 patients. Midazolam 0.05 mg/kgBW was given in the preparation room to all patients in both groups. The anxiety score was evaluated with Ramsay score. In the operating room we gave fentanyl 1 $\mu\text{g/kg BW}$ followed with induction with inhaled sevoflurane. Intubation was facilitated with atracurium 0.5mg/kgBW, general anesthesia was maintained under O₂, N₂O and 2 vol % of Sevoflurane. Around 10 minutes prior to the end of surgery, we gave intravenous dexmedetomidin 0.6 $\mu\text{g/kgBW}$ for patients in Group A, and intravenous fentanyl 1 $\mu\text{g/kgBW}$ for patients in Group B. The time of full recovery and agitation were evaluated in the recovery room.

We found that there was a significant difference ($p < 0.05$) between two groups in the term of the incidence of agitation. The incidence of agitation in Group A was 5% and 27.5% in group B.

We concluded that intravenous dexmedetomidin 0.6 $\mu\text{g/kgBW}$ had superior efficacy to reduce the incidence of agitation after general anesthesia under sevoflurane in 2 to 5 year-old pediatric patients compared to intravenous fentanyl 1 $\mu\text{g/kgBW}$.

Key words: dexmedetomidin, fentanyl, agitation