ABSTRAK

Latar Belakang Penelitian. Teknik anestesi umum dengan menggunakan gas digunakan sejak awal anestesi modern. *Low flow anesthesia* adalah teknik menggunakan aliran *flow rate* 500-1000 ml/menit. Teknik ini mempunyai beberapa keunggulan diantaranya *low cost*, ramah lingkungan, dan kelembapan udara pernafasan pasien terjaga. Tetapi juga memiliki kelemahan, kecepatan pulih sadar pasien akan melambat. Tujuan dari penelitian ini adalah membandingkan perbedaan kecepatan pulih sadar pasien yang menggunakan teknik anestesi *low flow* dengan teknik anestesi *flow* sehari-hari.

Metode Penelitian. Penelitian uji klinis dengan rancangan *randomized controlled trial*. Sampel diambil dari 60 pasien yang akan menjalani operasi dengan anestesi umum teknik intubasi di RSUP Dr. Sardjito Yogyakarta. Dibagi menjadi dua kelompok yakni kelompok L yang mendapatkan perlakuan *low flow* (1 liter/menit) dan kelompok N mendapatkan *flow* sehari-hari (4 liter/menit). Kemudian kecepatan pulih sadar pasien dinilai dengan menggunakan Aldrete's *score* dan IoC.

Hasil Penelitian. Penelitian ini menunjukkan bahwa pada kelompok L dan N rerata Aldrete's *score* ≥ 9 pada menit 12,80±2,20 dan 12,47±3,26 (p=0,3), rerata nilai IoC ≥ 80-90 dan 91-100 pada 632±161 detik dan 613±164 detik (p=0,353), serta pada 736±154 detik dan 695±178 detik (p=0,121). Secara statistik tidak ada perbedaan bermakna antara dua kelompok (p>0,05).

Kesimpulan. Tidak ada perbedaan yang bermakna kecepatan pulih sadar pasien yang menggunakan teknik anestesi *low flow* dengan teknik anestesi *flow* sehari hari.

Kata Kunci : *low flow,* Aldrete's *score,* IoC, pulih sadar.

ABSTRACT

Background. General anesthesia techniques using gas were used from the beginning of modern anesthesia. Low flow anesthesia is a technique using flow rate at 500-1000 ml/min. This technique had several advantages such as low cost, environmental friendly, and keep humidified air in patient breath. But it also has a weakness, the rate recovery of patient consiousness will be slowing down. The purpose of this study was to compare differences rate recovery of patient consiousness between low flow anesthesia techniques and daily flow anesthesia techniques.

Methods. Clinical trial study with randomized controlled trial design. Samples were taken from 60 patients who enderwent surgery under general anesthesia of intubation technique at Dr. Sardjito General Hospital Yogyakarta. Divided into two groups that group L got low flow (1 liter/minute) technique and group N got daily flow (4 liters/minute) technique. Then rate recovery of patient consiousness had assesed by using Aldrete's score and IoC.

Result. This study showed that in the group L and N, the mean Aldrete's score ≥ 9 at 12.80±2.20 minutes and 12.47±3.26 minutes (p = 0.3), the mean IoC ≥ 80-90 and 91-100 at 632±161 seconds and 613±164 seconds (p = 0.353), and at 736±154 seconds and 695±178 seconds (p = 0.121). There was no statistically significant difference between the two groups (p> 0.05).

Conclusion. There was no significant difference between the rate recovery of patient consiousness who used low flow anesthesia techniques and daily flow anesthesia techniques.

Keywords : low flow, Aldrete 's score, IoC, recovery of consiousness.