

ABSTRAK

Latar Belakang: Posisi kepala dan leher yang optimal berperan penting dalam keberhasilan intubasi endotrakeal. Bantal sniffing modifikasi dirancang untuk menghasilkan fleksi leher dan ekstensi kepala yang lebih konsisten dibandingkan bantal sniffing konvensional. Penelitian ini bertujuan membandingkan kemudahan intubasi antara kedua metode tersebut pada pasien dewasa dengan karakteristik jalan napas normal.

Metode: Penelitian ini merupakan *randomized controlled trial* pada 104 pasien ASA I–II yang menjalani anestesi umum elektif di RSUP Dr. Sardjito Yogyakarta. Subjek dibagi secara acak menjadi kelompok sniffing konvensional ($n=52$) dan bantal sniffing modifikasi ($n=52$). Kemudahan intubasi didefinisikan sebagai keberhasilan intubasi pada percobaan pertama, visualisasi glotis Cormack lehane (CL) I–II dan tanpa manuver tambahan. Luaran sekunder meliputi kebutuhan manuver tambahan, derajat CL, jumlah percobaan, dan waktu intubasi.

Hasil: Karakteristik dasar kedua kelompok sebanding, dengan mayoritas pasien ASA II (96,2%) dan parameter *airway* dalam batas normal. Kemudahan intubasi lebih tinggi pada kelompok bantal modifikasi dibandingkan konvensional (75% vs 44,2%; $p=0,001$; OR 3,89; 95% CI 1,65–8,69). Kebutuhan manuver tambahan lebih rendah pada kelompok modifikasi (15,4% vs 42,3%; $p=0,002$). Tidak terdapat perbedaan bermakna pada derajat CL, jumlah percobaan, maupun waktu intubasi ($p>0,05$).

Kesimpulan: Bantal sniffing modifikasi meningkatkan kemudahan intubasi terutama melalui penurunan kebutuhan manuver tambahan dibandingkan bantal sniffing konvensional.

Kata kunci: intubasi endotrakeal, posisi sniffing, bantal sniffing modifikasi, Cormack lehane.

ABSTRACT

Background: Optimal head and neck positioning plays an important role in successful endotracheal intubation. The modified sniffing pillow was designed to produce more consistent neck flexion and head extension compared with the conventional sniffing pillow. This study aimed to compare the ease of intubation between these two methods in adult patients with normal airway characteristics.

Methods: This study was a randomized controlled trial involving 104 ASA I–II patients undergoing elective general anesthesia at Dr. Sardjito General Hospital, Yogyakarta. Subjects were randomly allocated into the conventional sniffing group ($n=52$) and the modified sniffing pillow group ($n=52$). Ease of intubation was defined as successful intubation on the first attempt with Cormack lehane (CL) grade I–II glottic visualization without additional maneuvers. Secondary outcomes included the need for additional maneuvers, CL grade distribution, number of attempts, and intubation time.

Results: Baseline characteristics between the two groups were comparable, with the majority of patients classified as ASA II (96.2%) and airway parameters within normal limits. The ease of intubation was higher in the modified pillow group compared with the conventional group (75% vs 44.2%; $p=0.001$; OR 3.89; 95% CI 1.65–8.69). The requirement for additional maneuvers was lower in the modified group (15.4% vs 42.3%; $p=0.002$). No significant differences were observed in CL grade, number of attempts, or intubation time ($p>0.05$).

Conclusion: The modified sniffing pillow improves the ease of intubation primarily by reducing the need for additional maneuvers compared with the conventional sniffing pillow.

Keywords: Endotracheal intubation, sniffing position, modified sniffing pillow, Cormack lehane