

DIFFERENCES IN HEMODYNAMIC STATUS BEFORE AND AFTER ENDOTRACHEAL TUBE INSERTION IN NEUROSURGERY PATIENTS AT BANDUNG CITY HOSPITAL

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ABSTRACT

Background: Endotracheal tube intubation is an important procedure in anesthesia, especially in neurosurgical patients, which can trigger significant changes in the patient's hemodynamic status. Monitoring of hemodynamic status before and after intubation is essential to maintain the stability of the patient's condition during surgery.

Objective: To determine the change and difference in hemodynamic status before and after endotracheal tube intubation in neurosurgical patients at the Central Surgical Installation of Bandung City Hospital.

Research Method: This study is a type of analytical observational research using quantitative design and cross-sectional approach. A total of 30 neurosurgical patients who received endotracheal tube intubation were selected as research samples through the total sampling method. The research instrument used an observation sheet containing patient's hemodynamics that measured by a bedside monitor and intubation procedure related to the depth of the endotracheal tube was measured by marker attached to the endotracheal tube. The Wilcoxon test was used to analyze the difference of hemodynamic status before and after the intubation procedure.

Results: The hemodynamic status before and after intubation had an average heart rate (pulse) increased from 73.97 beats per minute to 83.07 beats per minute, systolic blood pressure increased from 108.77 mmHg to 114.93 mmHg, diastolic blood pressure increased from 66.80 mmHg to 70.37 mmHg, and oxygen saturation decreased from 97.87% to 96.13%. The results of the Wilcoxon test showed the p-value was smaller than 0.05.

Conclusion: There were significant differences in hemodynamic status, especially in increasing heart rate (pulse), blood pressure, and decreasing oxygen saturation after endotracheal tube intubation.

Keywords: Hemodynamics, Endotracheal tube intubation, General Anesthesia.

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**PERBEDAAN STATUS HEMODINAMIK SEBELUM DAN
SESUDAH PEMASANGAN *ENDOTRACHEAL TUBE*
PADA PASIEN BEDAH SARAF
DI RSUD KOTA BANDUNG**

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ABSTRAK

Latar belakang: Intubasi *endotracheal tube* merupakan tindakan penting dalam prosedur anestesi, terutama pada pasien bedah saraf, yang dapat memicu perubahan pada status hemodinamik pasien. Pemantauan status hemodinamik sebelum dan sesudah intubasi sangat penting untuk menjaga stabilitas kondisi pasien selama operasi.

Tujuan: Mengetahui perubahan dan perbedaan status hemodinamik sebelum dan sesudah dilakukan intubasi *endotracheal tube* pada pasien bedah saraf di IBS RSUD Kota Bandung.

Metode Penelitian: Penelitian ini merupakan jenis penelitian observasional analitik dengan desain kuantitatif dan pendekatan *cross-sectional*. Sebanyak 30 pasien bedah saraf yang mendapatkan tindakan intubasi *endotracheal tube* dipilih sebagai sampel penelitian melalui metode *total sampling*. Instrumen penelitian menggunakan lembar observasi yang berisi hemodinamik pasien yang diukur menggunakan *bedside monitor* dan tindakan intubasi berkaitan dengan kedalaman *endotracheal tube* yang diukur menggunakan penanda yang melekat pada *endotracheal tube*. Uji *Wilcoxon* digunakan untuk menganalisis perbedaan status hemodinamik sebelum dan sesudah tindakan intubasi.

Hasil Penelitian: Status hemodinamik sebelum dan sesudah dilakukannya tindakan intubasi masing-masing memiliki rata-rata denyut jantung (nadi) meningkat dari 73,97 kali per-menit menjadi 83,07 kali per-menit, tekanan darah sistolik meningkat dari 108,77 mmHg menjadi 114,93 mmHg, tekanan darah diastolik meningkat dari 66,80 mmHg menjadi 70,37 mmHg, dan saturasi oksigen menurun dari 97,87% menjadi 96,13%. Hasil uji *Wilcoxon* menunjukkan nilai *p-value* lebih kecil dari 0,05.

Kesimpulan: Terdapat perbedaan yang signifikan pada status hemodinamik terutama pada peningkatan denyut jantung (nadi), tekanan darah, serta penurunan saturasi oksigen setelah dilakukan tindakan intubasi *endotracheal tube*.

Kata Kunci : Hemodinamik, Intubasi *endotracheal tube*, Anestesi Umum.

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