HUBUNGAN *MEAN ARTERIAL PRESSURE* (MAP) DENGAN NILAI *BISPECTRAL INDEX* (BIS) PASCA-INDUKSI PADA PASIEN *General anesthesia* OPERASI BEDAH SARAF DI RSUP SURABAYA

Muhammad Haikal[1], Sri Arini Winarti Rinawati[2], Harmilah[3]
Jurusan Keperawatan Poltekkes Kemenkes Yogyakarta
Jl. Tatabumi No. 3 Banyuraden, Gamping, Sleman
Email: muhammadhaikal@y7mail.com

ABSTRAK

Latar Belakang: Pemantauan *Mean Arterial Pressure* (MAP) dan *Bispectral Index* (BIS) merupakan bagian penting dalam mempertahankan stabilitas hemodinamik dan kedalaman anestesi selama tindakan bedah saraf. Hubungan kedua parameter tersebut perlu diketahui untuk mendukung pengelolaan anestesi yang optimal.
Tujuan: Menganalisis hubungan antara *Mean Arterial Pressure* (MAP) dengan nilai *Bispectral Index* (BIS) pasca-induksi *General anesthesia* pada pasien operasi bedah saraf.
Metode: Penelitian kuantitatif analitik dengan pendekatan *cross-sectional* melibatkan 30 pasien operasi bedah saraf. Data dianalisis secara deskriptif, diuji normalitas menggunakan *Shapiro–Wilk*, dan hubungan antarvariabel dianalisis menggunakan uji korelasi *Pearson*.
Hasil: Rerata MAP pasca-induksi adalah 75,68 mmHg, sedangkan rerata BIS sebesar 46,42. Kedua variabel berdistribusi normal. Uji *Pearson* menunjukkan terdapat hubungan positif yang kuat dan bermakna antara MAP dan BIS ($r=0,739$; $p<0,001$).
Kesimpulan: Terdapat hubungan positif yang kuat dan signifikan antara *Mean Arterial Pressure* dan *Bispectral Index* pasca-induksi *General anesthesia* pada pasien operasi bedah saraf. Temuan ini menunjukkan adanya keterkaitan antara MAP dan BIS pasca-induksi, sehingga keduanya dapat dipertimbangkan sebagai parameter pemantauan yang saling melengkapi.

Kata kunci: *Mean Arterial Pressure, Bispectral Index, General anesthesia,* bedah saraf, pasca-induksi.

[1] Mahasiswa Keperawatan Poltekkes Kemenkes Yogyakarta
[2] Dosen Keperawatan Poltekkes Kemenkes Yogyakarta
[3] Dosen Keperawatan Poltekkes Kemenkes Yogyakarta

RELATIONSHIP BETWEEN MEAN ARTERIAL PRESSURE (MAP) AND BISPECTRAL INDEX (BIS) VALUES POST INDUCTION IN GENERAL ANESTHESIA PATIENTS UNDERGOING NEUROSURGERY AT SURABAYA GENERAL HOSPITAL

Muhammad Haikal[1], Sri Arini Winarti Rinawati[2], Harmilah[3]
Department of Nursing, Health Polytechnic of the Ministry of Health Yogyakarta
Jl. Tatabumi No. 3 Banyuraden, Gamping, Sleman
Email: muhammadhaikal@y7mail.com

ABSTRACT

Background: *Monitoring Mean Arterial Pressure (MAP) and the Bispectral Index (BIS) is essential for maintaining hemodynamic stability and adequate anesthetic depth during neurosurgical procedures.*
Objective: To analyze the relationship between Mean Arterial Pressure (MAP) and Bispectral Index (BIS) values post induction of General anesthesia in neurosurgical patients.
Methods: *This analytical cross-sectional study included 30 neurosurgical patients. Data were analyzed descriptively, normality was assessed using the Shapiro–Wilk test, and the relationship between variables was evaluated using Pearson's correlation test.*
Results: *The mean post-induction MAP was 75.68 mmHg and the mean BIS was 46.42. Both variables were normally distributed. Pearson analysis demonstrated a strong positive and statistically significant correlation between MAP and BIS ($r=0.739$; $p<0.001$).*
Conclusion: *A strong positive and significant relationship exists between Mean Arterial Pressure and Bispectral Index post induction of General anesthesia in neurosurgical patients. Simultaneous monitoring of both parameters may support physiological stability and adequate anesthetic depth.*

Keywords: *Mean Arterial Pressure, Bispectral Index, General anesthesia, neurosurgery, post-induction.*

[1] Student of the Department of Nursing Poltekkes Kemenkes Yogyakarta
[2] Lecturer of the Department of Nursing Poltekkes Kemenkes Yogyakarta
[3] Lecturer of the Department of Nursing Poltekkes Kemenkes Yogyakarta