

**FAKTOR RISIKO KEJADIAN ARITMIA PASCAOPERASI GANTI
KATUP JANTUNG ELEKTIF DEWASA DI RUMAH SAKIT KARIADI
SEMARANG**

ABSTRAK

Latar Belakang: Aritmia pascaoperasi merupakan komplikasi yang sering terjadi setelah operasi ganti katup jantung. Neutrophil-Lymphocyte Ratio (NLR) telah dikaji sebagai indikator inflamasi sistemik yang berpotensi berperan dalam kejadian aritmia pascaoperasi.

Metode: Studi ini menggunakan desain observasional analitik dengan pendekatan case-control. Data dikumpulkan dari rekam medis pasien di RSUP Dr. Kariadi Semarang. Analisis data dilakukan menggunakan uji bivariat (Mann-Whitney U, dan Independent T-test) serta analisis multivariat regresi logistik untuk menilai faktor-faktor yang berkontribusi terhadap kejadian aritmia pascaoperasi.

Hasil: Dari 48 pasien yang dianalisis, 24 pasien (50%) mengalami aritmia pascaoperasi (APO), sementara 24 pasien (50%) tidak mengalami APO. Analisis statistik menunjukkan bahwa peningkatan NLR berhubungan signifikan dengan kejadian aritmia pascaoperasi ($p = 0,011$, $OR = 3,985$).

Kesimpulan: Peningkatan NLR secara signifikan berhubungan dengan kejadian aritmia pascaoperasi pada pasien yang menjalani operasi ganti katup jantung. NLR dapat menjadi biomarker potensial untuk memprediksi risiko aritmia pascaoperasi dan membantu dalam manajemen pasien bedah jantung.

Kata kunci: Aritmia pascaoperasi, Neutrophil-Lymphocyte Ratio (NLR), operasi ganti katup jantung, inflamasi sistemik, prediktor aritmia.

RISK FACTORS FOR ARRHYTHMIA FOLLOWING ELECTIVE HEART VALVE REPLACEMENT SURGERY IN ADULTS AT KARIADI HOSPITAL, SEMARANG

ABSTRACT

Background: Postoperative arrhythmia is a common complication following heart valve replacement surgery. The Neutrophil-Lymphocyte Ratio (NLR) has been studied as a systemic inflammatory indicator with potential involvement in the occurrence of postoperative arrhythmia.

Methods: This study employed an analytical observational design with a case-control approach. Data were collected from patient medical records at RSUP Dr. Kariadi Semarang. Statistical analysis was performed using bivariate tests (Mann-Whitney U, and Independent T-test) and multivariate logistic regression analysis to assess factors contributing to the incidence of postoperative arrhythmia.

Results: Among the 48 patients analyzed, 24 (50%) experienced postoperative arrhythmia (POA), while 24 (50%) did not. Statistical analysis revealed that an increased NLR was significantly associated with the occurrence of postoperative arrhythmia ($p = 0,011$, OR = 3,985).

Conclusion: An elevated NLR is significantly associated with the incidence of postoperative arrhythmia in patients undergoing heart valve replacement surgery. NLR may serve as a potential biomarker for predicting postoperative arrhythmia risk and assisting in the management of cardiac surgery patients.

Keywords: Postoperative arrhythmia, Neutrophil-Lymphocyte Ratio (NLR), heart valve replacement surgery, systemic inflammation, arrhythmia predictor.