ABSTRAK

FAKTOR PROGNOSTIK PRAOPERATIF DAN INTRAOPERATIF YANG BERPENGARUH TERHADAP MORBIDITAS PEMANJANGAN WAKTU PENGGUNAAN VENTILATOR DAN OKUPANSI ICU PASCA OPERASI MITRAL VALVE REPLACEMENT DI RSUP DR. SARDJITO YOGYAKARTA

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Tujuan

Didapatkan faktor prognosis praoperatif dan intraoperatif dengan disertai besaran probabilitas munculnya morbiditas pemanjangan waktu penggunaan ventilator dan okupansi ICU pasca operasi MVR.

Metodologi

Penelitian kohort retrospektif pada 70 pasien operasi MVR di RS Sardjito Yogyakarta Indonesia dari Januari 2013-Desember 2018, diidentifikasi variabel independen praoperatif (usia, jenis kelamin, fraksi ejeksi ventrikel kiri, gagal jantung, insuffisiensi renal, hipertensi pulmonal, penyakit paru kronik, endokarditis aktif), variabel independen intraoperatif (durasi *AOX Time* dan *CPB Time*) dan variabel dependen morbiditas pemanjangan waktu pemakaian ventilator (>24 jam) dan okupansi ICU (>4 hari/96 jam) pasca operasi MVR. *Cut-off AOX time* dan *CPB time* ditentukan berdasarkan kurva ROC dengan metode *Youden index*. Besaran probabilitas variabel independen praoperatif dan intraoperatif menimbulkan variabel dependen dinyatakan dalam *odds ratio* (OR) dan 95% *Confidential Interval* berdasarkan uji regresi logistik .

Hasil

Durasi CPB >126,5 menit berisiko 10 kali (OR : 10 (95%CI = 2.581-41.252), Insuffisiensi renal berisiko 14 kali (OR : 14 (95%CI = 1.487-150.970) dan Endokarditis aktif berisiko 7 kali (OR :7 (95% CI= 1.257-45.213) mengalami morbiditas pemanjangan waktu penggunaan ventilator (> 24 jam) pasca operasi MVR. *Heart Failure NYHA Class III* berisiko 9 kali (OR : 9 (95%CI = 1.45-67.23), durasi CPB >126.5 menit berisiko 14 kali (OR : 14 (95%CI = 1.859-58.18) dan Umur ≥ 40 tahun berisiko 5 kali (OR :5 (95% CI= 1.819-35.23) mengalami morbiditas pemanjangan waktu okupansi ICU (> 4 hari/96jam).

Kesimpulan

Usia, *Heart Failure*, Insuffisiensi Renal, Endokarditis Aktif dan durasi *CPB Time* merupakan faktor prognostik praoperatif dan intraoperatif munculnya morbiditas pemanjangan waktu penggunaan ventilator dan okupansi ICU pasca operasi MVR.

Keyword : faktor kardiak, faktor komorbid, durasi *AOX Time*, *CPB Time*, pemanjangan waktu penggunaan ventilator dan okupansi ICU pasca operasi MVR.

ABSTRACT

PREOPERATIVE AND INTRAOPERATIVE PROGNOSTIC FACTORS OF THE PROLONGATION OF VENTILATOR USE AND ICU OCCUPANCY TIME AFTER MITRAL VALVE REPLACEMENT SURGERY IN RSUP DR. SARDJITO YOGYAKARTA

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Objective
This paper aims to obtain preoperative and intraoperative prognostic factors as well as the probability of the emergence of the morbidity of the prolongation of ventilator and ICU occupancy time after MVR surgery.

Methodology
A retrospective cohort study of 70 MVR surgery patients at Sardjito Hospital Yogyakarta Indonesia from January 2013 to December 2018; preoperative independent variables (age, sex, left ventricular ejection fraction, heart failure, renal insufficiency, pulmonary hypertension, chronic pulmonary disease, active endocarditis)), intraoperative independent variables (duration of AOX Time and CPB Time) and the dependent variables are prolongation of ventilator use time (>24 hours) and ICU occupancy time (>4 days/ 96hours) after MVR surgery were obtained. The cut-off AOX time and CPB time are determined based on the ROC curve using the Youden index method. The probability of preoperative and intraoperative independent variables giving rise to the dependent variable is expressed in the odds ratio (OR) and 95% Confidential Interval based on logistic regression tests.

Results
CPB Time Duration ≥ 126.5 minutes were at a 10-time risk (OR: 10 (95% CI = 2.5 -41.2), Preoperative Renal Insufficiency was at a 14-time risk (OR: 14 (95% CI = 1.4-150) and active Endocarditis was at a 7-time risk (OR : 7.5 (95% CI = 1.25-45.2) of experiencing the morbidity of the ventilator-use prolongation post MVR surgery. Heart Failure *NYHA Class* III was at a 9-time risk (OR: 9.8 (95% CI = 1.4-67.2), the duration of CPB Time ≥ 126.5 minutes was at a 14 time-risk (OR: 14 (95% CI = 1.859-58.1) and Age ≥ 40 years old was at a 5-time risk (OR: 5.3 (95% CI = 1.8-35.5) of experiencing the morbidity of the prolongation of ICU occupancy time.

Conclusion
Age, Heart Failure, Renal Insuffiency, Active Endocarditis and the duration of CPB Time are preoperative and intraoperative prognostic factors in the emergence of the morbidity of the prolongation of ventilator use and ICU occupancy time after MVR.

Keywords: cardiac factors, comorbid factors, duration of AOX Time, CPB Time, prolongation of the use of ventilators and ICU occupancy time after MVR surgery.