PERBANDINGAN DEXMEDETOMIDINE DAN MIDAZOLAM TERHADAP KEJADIAN ARITMIA PADA PASIEN PASCA OPERASI KATUP JANTUNG
(Kajian Biomarker NT-ProBNP)

ABSTRAK

Pendahuluan: Aritmia pasca operasi jantung adalah komplikasi umum yang meningkatkan morbiditas dan mortalitas. Fibrilasi atrial merupakan aritmia pasca operasi yang paling sering terjadi. Komplikasi pasca operasi katup jantung mencakup kerusakan otot jantung, salah satunya ditandai dengan peningkatan NT-proBNP.
Tujuan: Menganalisis perbedaan penggunaan dexmedetomidine dan midazolam terhadap kejadian aritmia dan biomarker NT-ProBNP pasca operasi katup jantung.
Metode: Penelitian eksperimental dengan desain *Randomized pre-test post-test* dilakukan pada pasien pasca operasi katup jantung di ICU RSUP Dr. Kariadi Semarang. Total 26 pasien dibagi menjadi dua kelompok, penerima dexmedetomidine dan midazolam. Analisis data menggunakan uji univariat dan uji korelatif bivariat dengan *software* statistik. Data yang diambil menggunakan pemeriksaan EKG portabel untuk memantau kondisi jantung dan pemeriksaan NT-proBNP dilakukan.
Hasil: Dexmedetomidine menurunkan kejadian aritmia secara signifikan dibanding midazolam pada pasien yang menjalani tindakan katup jantung. Dexmedetomidine menurunkan kadar NT-proBNP lebih rendah dibanding midazolam walau hasil statistik tidak menunjukkan signifikansi. Pasien yang mengalami aritmia memiliki NT-proBNP yang lebih tinggi dibanding kelompok yang tidak mengalami aritmia walau hasil statistik tidak menunjukkan signifikansi.
Kesimpulan: Dexmedetomidine dapat menurunkan kejadian aritmia dan menurunkan kadar NT-proBNP pada pasien yang menjalani operasi katup jantung lebih baik daripada Midazolam.
Kata Kunci: Aritmia, Dexmedetomidine, Midazolam, NT-ProBNP, Operasi Katup Jantung.

COMPARISON OF DEXMEDETOMIDINE AND MIDAZOLAM ON THE INCIDENCE OF ARRHYTHMIA IN POST-HEART VALVE SURGERY PATIENTS
(A Study of NT-ProBNP Biomarker)

ABSTRACT

Introduction: *Postoperative cardiac arrhythmias are common complications that elevate morbidity and mortality rates. Atrial fibrillation is the most frequent arrhythmia post-heart surgery. Postoperative complications following heart valve surgery often include cardiac muscle damage, as indicated by elevated levels of NT-proBNP.*
Objective: *To analyze the difference in the use of dexmedetomidine and midazolam on the incidence of arrhythmias and the NT-ProBNP biomarker following heart valve surgery.*
Methods: *An experimental study with a Randomized pre-test post-test design was conducted on post-heart valve surgery patients in the ICU of Dr. Kariadi General Hospital, Semarang. A total of 26 patients were divided into two groups: those receiving dexmedetomidine and those receiving midazolam. Data analysis was performed using univariate and bivariate correlational tests with statistical software. Data collection involved portable ECG monitoring for heart condition assessment and NT-proBNP examinations.*
Results: *Dexmedetomidine significantly reduced the incidence of arrhythmias compared to midazolam in patients undergoing heart valve surgery. It also lowered NT-proBNP levels more than midazolam, although the statistical results did not show significant differences. Patients experiencing arrhythmias exhibited higher NT-proBNP levels compared to those without arrhythmias, although the statistical results did not show significant differences.*
Conclusion: *Dexmedetomidine could reduce the incidence of arrhythmias and reduce NT-proBNP levels in patients undergoing heart valve surgery better than Midazolam.*
Keywords: *Arrhythmia, Dexmedetomidine, Heart Valve Surgery, Midazolam, NT-ProBNP.*