KIDNEY INJURY MOLECULE-1 AS AN EARLY NEPHROTOXICITY MARKER OF AMIKACIN IN SEPTIC PATIENTS HOSPITALIZED IN THE INTENSIVE CARE UNIT

Trisni U Dewi¹, Rianto Setiabudy, Spfk¹, Instiaty Abuhaerah, Spfk¹, Rudianto Sedono, Span², Gestina Aliska, Spfk¹, Muhammad K Azwar³

¹*Pharmacology and Therapeutic, Faculty of medicine, University of Indonesia, Indonesia*, ²*Cipto Mangunkusumo Hospital, Indonesia*, ³*Faculty of Medicine University Indonesia, Indonesia*

Objective: The aim of this study is to find out the correlation between amikacin trough plasma concentration with urinary normalized KIM-1 concentration as an early biomarker of nephrotoxicity in septic patient hospitalized in ICU Cipto Mangunkusumo hospital. **Methods:** This is a pilot study conducted in 12 septic patients treated with amikacin 1000 mg/day within the period of May 2015 to September 2015. The correlation between amikacin trough plasma concentration measured at the third dose with the elevation of urinary normalized KIM-1 concentration measured at the first/second and the third dose were evaluated. **Results:** We observed 3 patients with amikacin trough plasma concentration above the safe level (>10 ug/mL), while 9 patients had amikacin trough concentration within the safe plasma level (<10 ug/mL). Furthermore, we observed 8 out of 12 patients with higher normalized KIM-1 concentration measured at third dose compared to the normalized KIM-1 concentration measured at first/second dose, however there was no correlation between amikacin trough concentration with elevated urinary normalized KIM-1 concentration ($p=0,16$; $r=0,43$). **Conclusions:** Septic patients treated with amikacin 1000 mg/day in ICU RSCM for 3 days had safe trough plasma concentration of amikacin.