Efek pemberian atorvastatin terhadap respon inflamasi pada pasien infark miokardium akut dengan elevasi segmen ST pasca intervensi koroner perkutan primer = Effect atorvastatin on inflammatory response in patient with ST segment elevation myocardial infarction post primary percutaneous intervention

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Abstrak

Latar belakang. Nekrosis miokardium menginduksi reaksi inflamasi yang hebat dan penempelan netrofil melalui Intercellular Adhesion Molecule (ICAM). Hasil studi ARMYDA-CAMS menunjukkan bahwa pemberian Atorvastatin secara kontinyu pra-Intervensi Koroner Perkutan (IKP) dapat menurunkan kadar ICAM pasca-tindakan pada pasien dengan Angina Pektoris Stabil (APS). Hingga saat ini belum ada penelitian yang melihat efek akut pemberian Atorvastatin 80 mg pada pasien Infark Miokardum Akut dengan Elevasi Segmen ST (IMA-ST) yang menjalani Intervensi Koroner Perkutan Primer (IKPP).
Metode. Penelitian ini merupakan suatu uji klinis acak tersamar ganda. Evaluasi dilakukan pada 76 pasien IMA-ST yang menjalani IKPP di Pusat Jantung Nasional Harapan Kita dari bulan Februari hingga bulan Agustus 2014. Pasien dibagi secara acak tersamar ganda menjadi dua kelompok (Atorvastatin 80 mg dan Plasebo). Pemeriksaan ICAM diambil dua kali (0 dan 24 jam pasca-IKPP). Dilakukan analisis statistik untuk menilai efek pemberian Atorvastatin yang dinilai dengan delta ICAM.
Hasil. Tidak terdapat perbedaan bermakna pada data dasar kedua kelompok dalam hal klinis, pemeriksaan penunjang, dan angiografik. Nilai delta ICAM menunjukkan perbedaan yang signifikan, yaitu pada kelompok Atorvastatin 80 mg (-13,0±38,5 ng/mL) dan Plasebo (26,1±67,0 ng/mL, p 0,003). Analisa regresi linear (adjusted analysis; sesuai usia, jenis kelamin, diabetes, dan insufisiensi renal) menunjukkan koefisiensi -31,17 ng/mL dengan p 0,037.
Kesimpulan. Pemberian Atorvastatin 80 mg secara akut pada pasien IMA-ST menurunkan respon inflamasi endotelium yang dinilai dengan kadar ICAM.
.....Background. Myocardial necrosis triggers complement activation and neutrophyl adhesion which is mediated by Intercellular Adhesion Molecule (ICAM). Results from ARMYDA-CAMS, showed that Atorvastatin continuous treatment reduced ICAM value in patients with stable angina pectoris. To date, there are no study yet which investigates the effect of acute Atorvastatin 80 mg treatment in patients with ST Segment Elevation Myocardial Infarction (STEMI) post Primary Percutaneous Coronary Intervention (PPCI).
Methods. This is a randomized, double-blinded, controlled trial. Evaluations were performed on 76 STEMI patients who underwent PPCI at National Cardiac Center Harapan Kita (NCCHK) from February 2014 to August 2014. Patients were randomly classified into two groups (Atorvastatin 80 mg and Placebo). Laboratory data on ICAM were taken twice (0-hour and 24-hour post PPCI) and examined at Prodia?s Laboratorium. Statistical analyses using SPSS were performed to evaluate the effect of Atorvastatin treatment, which was measured by delta ICAM.
Results. There were no difference between two groups (Atorvastatin vs. Placebo) in terms of clinical, supporting data, and angiographic findings. Delta ICAM values showed significant difference between two

groups, which are Atorvastatin 80 mg (-13,0±38,5 ng/mL) and Plasebo (26,1±67,0 ng/mL, p 0,003). Linear regression analysis (adjusted analysis; according to age, sex, diabetes, and renal insufficiency) showed coefficient of -31,17 ng/mL with p 0,037.
Conclusion. This study showed that acute Atorvastatin 80 mg treatment pre-PPCI reduces endothelial inflammatory response which was measured by ICAM.