Peran Kolkisin terhadap Perubahan Tumor Necrosis Factor alpha (TNF-alpha) Serum Pasien Infark Miokard Akut-elevasi Segmen ST dengan Tindakan Intervensi Koroner Perkutan Primer = Role of colchicine on serum Tumor Necrosis Factor alpha (TNF-alpha) in ST-segment elevation acute myocardial infarct patient with primary percutaneous coronary intervention.

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Abstrak

Tumor necrosis factor alpha (TNF-alpha) adalah salah satu sitokin proinflamasi yang berperan pada timbulnya cedera iskemia-reperfusi pasien infark miokard akut yang menjalani tindakan intervensi koroner perkutan primer (IKPP). Kolkisin merupakan salah satu obat antiinflamasi yang diduga memiliki pengaruh terhadap TNF-alpha. Penelitian ini bertujuan untuk mengetahui peran kolkisin terhadap kadar TNF-alpha serum pasien infark miokard akut dengan tindakan intervensi koroner perkutan primer. Desain penelitian uji klinis acak tersamar ganda menggunakan sampel sisa serum penelitian dari subjek pasien infark miokard akut Rumah Sakit dr. Cipto Mangunkusumo. Subjek penelitian dibagi menjadi dua kelompok. Kelompok studi diberikan loading dose kolkisin 2 mg, kemudian dilanjutkan 2 x 0,5 mg per hari secara oral selama 48 jam, sementara kelompok kontrol diberikan plasebo. Analisis kadar TNF-alpha menggunakan metode ELISA yang diperiksa sebelum dan 48 jam pasca-IKPP untuk mendapatkan delta perubahan kadar TNF-alpha. Terdapat 64 subjek yang dianalisis terdiri dari 30 kelompok kontrol dan 34 kelompok studi. Delta kadar TNF-alpha pasca-IKPP kelompok kontrol (2,2) terhadap delta kadar TNF-alpha kelompok studi (0,7). Penelitian ini merupakan penelitian pertama tentang pengaruh kolkisin terhadap kadar TNF-alpha pada pasien infark miokard akut dengan tindakan intervensi koroner perkutan primer di Indonesia. Pengukuran TNF-alpha perlu dilakukan lebih dari dua kali untuk melihat dinamika kadar TNF-alpha pada pasien infark miokard akut yang menjalani tindakan intervensi koroner perkutan primer dan penelitian lanjutan diperlukan untuk menilai peran kolkisin sebagai obat antiinflamasi dengan pemeriksaan menggunakan metoda ELISA dengan reagen high-sensitive.

.....Tumor necrosis factor alpha (TNF-alpha) is a proinflammatory cytokine that plays a role in the emergence of ischemia-reperfusion injury in patients with acute myocardial infarction undergoing primary percutaneous coronary intervention (PCI). Colchicine is an anti-inflammatory drug believed to affect TNF-alpha. This study aimed to determine the role of colchicine on serum TNF-alpha levels in acute myocardial infarct patients undergoing primary percutaneous coronary intervention. The research design was a double-blind, randomized clinical trial using residual research serum samples from patients with acute myocardial infarction at Dr. Hospital. Cipto Mangunkusumo. The research subjects were divided into two groups. The study group was given a loading dose of 2 mg colchicine and then continued at 2 x 0.5 mg per day orally for 48 hours, whereas the control group was given a placebo. Analysis of TNF-alpha levels using the ELISA method was performed before and 48 hours after primary percutaneous coronary intervention to obtain the delta of changes in TNF-alpha levels. There were 64 subjects analyzed, comprising 30 control groups and 34 study groups. The delta of TNF-alpha levels post-PCI in the control group (2.2) compared with the delta of TNF-alpha levels in the study group (0.7). This is the first study on the effect of colchicine on TNF-alpha

levels in acute myocardial infarction patients with primary percutaneous coronary intervention in Indonesia. TNF-alpha measurements need to be carried out more than twice to determine the dynamics of TNF-alpha levels in patients with acute myocardial infarction undergoing primary percutaneous coronary intervention, and further research is needed to assess the role of colchicine as an anti-inflammatory drug by ELISA with high-sensitive reagents.