Hubungan kadar P-selectin dengan fungsi atrium kiri pada stenosis mitral rematik = Correlation between - selectin level and left atrial function in rheumatic mitral stenosis / Prafithrie Avialita Shanti

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Abstrak

ABSTRAK
Latar Belakang. Stenosis Mitral (SM) tinggi prevalensinya di negara berkembang karena erat terkait dengan prevalensi penyakit jantung demam rematik (PJR). Pasien SM sedang-berat terdapat peningkatan regio turbulensi dan shear stress mengakibatkan kerusakan endotel pembuluh darah sehingga meningkatkan resiko tromboemboli. P-selectin merupakan molekul adhesi berperan dalam proses inflamasi dan sebagai faktor protrombotik yang diekspresikan secara cepat. Indeks volume atrium kiri (IVAK) merupakan parameter superior untuk mengukur fungsi atrium kiri dengan ekokardiografi.
Metode. Penelitian potong lintang melibatkan 20 pasien SM sedang-berat dengan MVA <1.5 cm2 yang menjalani Komisuratomi Mitral Transvena Perkutan (KMTP) yang diambil secara konsekutif pada bulan Mei 2013 sampai Oktober 2013 di Pusat Jantung Nasional Harapan Kita Jakarta. Pasien diambil sampel darah pra dan pasca KMTP untuk diperiksa kadar P-Selectin. Kemudian hasilnya dianalisa secara statistik.
Hasil. Dalam studi ini, tidak didapatkan asosiasi antara IVAK dengan ekspresi kadar P-selectin pra dan pasca KMTP. Hal ini ditunjukkan dengan nilai pra KMTP = -0.103 (95% CI -0.251,0.045) p=0.16 dan pasca KMTP = 0.009 (95% CI -0.155,0.172) p=0.91. Setelah dilakukan regresi linier dengan penyesuaian (adjusted) terhadap variabel perancu yakni usia, jenis kelamin, dan atrial fibrilasi tetap tidak didapatkan asosiasi antara IVAK dengan kadar P-selectin dengan nilai pra KMTP = -0.154 (95% CI -0.340,0.032) p=0.09 dan pasca KMTP = -0.049 (95% CI -0.250,0.152) p=0.61.
Kesimpulan. Tidak ada perbedaan nilai P-selectin pra dan pasca KMTP. Nilai IVAK yang sudah jelek tidak berhubungan dengan kadar P-selectin pra dan pasca KMTP pada pasien SM.
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ABSTRACT
Background. The prevalence of Mitral stenosis (MS) remains significant in developing countries related to prevalence of Rheumatic Heart Disease (RHD).In moderate-severe MS patients enormous increase in turbulent region and shear stress causing dysfunction of vascular endothelial, as consequence it increase the risk of thromboembolic complication. Pselectin is an adhesion molecule that play role in inflammation process, it express rapidly in minutes. Left Atrial Volume Index (LAVI) is superior parameter compare with other echocardiography two dimension method to assess left atrial function.
Methods. Study was designed as cross-sectional study involving 20 MS moderate-severe patients with MVA< 1.5 cm2 who performed successful Percutaneous transvenous Balloon Mitral Valvulotomy (PBMV). Samples were taken consecutively from May 2013 to October

2013 at the National Cardiovascular Center Harapan Kita Jakarta. Blood samples of Pselectin were collected pre and post PBMV. The result was statistically analyzed by using echocardiography data of LAVI prior PBMV to describe any association between expression of P-selectin and atrial function.

Result. In our study, we found no association between LAVI and expression of P-selectin level pre and post PBMV MS patient. This data describe in each of value of pre PBMV = -0.103 (95% CI -0.251,0.045) p=0.16 and post PBMV = 0.009 (95% CI -0.155,0.172) p=0.91 After we performed linear regression with adjusted confounding variable including sex, age, and atrial fibrillation, still we found no association between LAVI and P-selectin level. This data describe in each of value of pre PBMV = -0.154 (95% CI -0.340,0.032) p=0.09 and post PBMV = -0.049 (95% CI -0.250,0.152) p=0.61.

Conclusion. We found there is no difference in P-selectin level pre and post PBMV. There is no association between poor LAVI value and expression of P-selectin pre and post PBMV in MS.