

**ABSTRAK**

**PERBEDAAN KADAR P *SELECTIN* DARAH TEPI ANTARA UNIVALVULAR DAN MULTIVALVULAR PADA PENYAKIT JANTUNG REMATIK**

Fanty Filianovika, Achmad Lefi, Rochmad Romdoni

**Latar Belakang:** Penyakit Jantung Reuma (PJR) merupakan gejala sisa dari demam reumatik akut karena infeksi kuman infeksi kuman Grup A beta *Hemolitiycus* Streptokokus (GAS) di daerah faring, terjadi lesi katup jantung yang progresif dan menetap, menyebabkan perubahan morfologi dan hemodinamik sehingga terjadi kerusakan endotel dan peningkatan aktivasi platelet, digambarkan dengan peningkatan kadar P *selectin*

**Tujuan:** Membuktikan adanya komparasi antara kadar P *selectin* darah tepi pada multivalvular dan univalvular pada penyakit jantung reumatik

**Metode:** Jenis penelitian adalah analitik observasional dengan bentuk *cross sectional* Terdapat 37 sampel penderita PJR yang dianalisis, dimana kelompok univalvular (stenosis mitral) dan multivalvular masing-masing 18 orang, dan 19 orang dengan kontrol 22 orang sehat. Sampel P *selectin* diperoleh di poli jantung, ruang ekokardiografi, dan ruang rawat inap jantung, saat pasien terdiagnosa PJR, melalui ekokardiografi. Komparasi antara kedua variabel menggunakan uji komparasi *independent sample T-test* untuk menentukan perbedaan kadar P *selectin* darah tepi. antara dua variable. dengan estimasi risiko dan kemaknaan berdasarkan nilai  $p < 0,05$ .

**Hasil:** P *selectin* darah tepi pada kelompok multivalvular lebih tinggi dibandingkan dengan kelompok univalvular (2,384 ng/mL vs 2,028 ng/mL;  $p < 0,05$ ).

**Kesimpulan:** Tingginya kadar P *selectin* darah tepi pada PJR stenosis mitral disebabkan karena terus terjadi inflamasi kronis pada pasien tersebut. Penelitian ini membuktikan bahwa terjadi perbedaan kadar P *selectin* darah tepi antara multivalvular dengan univalvular (stenosis mitral). Penelitian ini mengatakan P *selectin* memiliki peranan yang penting pada keterlibatan multivalvular dan univalvular (stenosis mitral) penyakit jantung reuma.

**Kata kunci:** P *selectin* darah tepi, penyakit jantung reuma, univalvular (stenosis mitral), multivalvular

## Difference Of Peripheral P *Selectin* Level Between Univalvular And Multivalvular Of Rheumatic Heart Disease

**F Filianovika, A Lefi, R Romdoni**

*Departement of Cardiology and Vascular Medicine, Soetomo General Hospital,  
Airlangga University, Surabaya, Indonesia*

### ABSTRACT

**Background:** Rheumatic Heart Disease (RHD) was sequelae of acute rheumatic fever, bacterial infection Group A beta Hemoliticus streptococci (GAS) in the pharynx, lesions of heart valves progressive and permanent, cause of morphological changes and hemodynamic causing damage Endothelial and increased platelet activation, illustrated with elevated levels of P *selectin*

**Objective:** To prove the existence of a comparison between the levels of P *selectin* of peripheral blood in multivalve and univalve (mitral stenosis) in rheumatic heart disease

**Methods:** The study was observational analytic cross sectional shape There are 37 patient samples were analyzed RHD, where the group univalve (mitral stenosis) and multivalve respectively 18 and 19 people with 22 healthy controls. Samples obtained from the poly P *selectin* heart, space echocardiography, and cardiac inpatient room, while the patient is diagnosed RHD, through echocardiography. a comparison between two variables using comparison test independent sample t-test to determine differences in average levels of P *selectin* of peripheral blood between two variables with an estimated risk and a value of  $p < 0.05$  was considered statistically significant.

**Results:** Peripheral P *selectin* in multivalve group was higher than univalve group (2,384 ng/mL vs 2,028 ng/mL;  $p < 0,05$ ).

**Conclusion:** High levels of peripheral P *selectin* in rheumatic mitral stenosis heart disease due to ongoing chronic inflammation in these patients. This study proves that there is a difference of peripheral blood levels of P *selectin* between multivalve with univalve (mitral stenosis). P *selectin* plays an important role in relation multivalve and univalve (mitral stenosis) rheumatic heart disease.

**Keywords:** Peripheral P *selectin*, rheumatic heart disease, univalve (mitral stenosis), multivalve