LAMIA study (Left Atrial throMbus in rheumatIc mitrAl stenosis) hubungan antara nilai red cell distribution width, mean platelet volume, hematokrit, serta jumlah trombosit terhadap kejadian trombus atrium kiri pada mitral stenosis rematik = LAMIA study (Left Atrial throMbus in rheumatIc mitrAl stenosis) association between red cell distribution width, mean platelet volume, hematocrit, and platelet counts on the incidence of left atrial thrombosis in rheumatic mitral stenosis

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Abstrak

Introduksi: Belum banyak studi yang meneliti parameter laboratorium sederhana sebagai prediktor trombus di atrium kiri pada subset stenosis mitral rematik. Selain itu, saat ini masih sangat sedikit studi yang menjelaskan patomekanisme trombus atrium kiri yang berkaitan dengan komponen hemorheologi pada pasien dengan mitral stenosis rematik. Tujuan: menilai hubungan parameter hemorheologi dari laboratorium sederhana Red Cell Distribution Width, Mean Platelet Volume, hematokrit, dan jumlah trombosit dengan kejadian trombus atrium kiri pada stenosis mitral rematik. Metode: Dilakukan studi potong lintang analitik LAMIA Study dengan pengumpulan data terhadap pasien stenosis rematik yang signifikan dimulai dari tanggal 1 Januari 2018 hingga 31 Juli 2021. Evaluasi trombus ditegakkan dari ekokardiografi transtorasik atau transesofagus. Pemeriksaan lab diperiksa dalam waktu 10 hari sebelum evaluasi ekokardiografi. Subjek dengan regurgitasi mitral yang signifikan akan dieksklusi. Hasil: Dari 318 subjek dengan stenosis mitral rematik signifikan yang diikutsertakan dalam penelitian, didapatkan sebanyak 102 pasien (32%) memiliki trombus di atrium kiri. Dari seluruh pasien, diketahui subjek dengan ritme atrial fibrilasi sebanyak 63.8% dan ritme sinus 36.2%. Hematokrit 45.15 % (OR 2.98; IK 95% 1.27 - 6.98, p = 0.012), Irama atrial fibrilasi (OR 2.39; IK 95% 1.10-5.20, p = 0.028), fraksi ejeksi ventrikel kiri 56.68 % (OR 0.42; IK 95% 0.23 - 0.77, p = 0.005), dan TAPSE 18.10 mm (OR 0.44; IK 95% 0.230 - 0.83, p = 0.011) berhubungan secara signifikan dengan kejadian trombus atrium kiri dari hasil analisis multivariat. Kesimpulan: Peningkatan hematokrit berhubungan secara signifikan dengan kejadian trombus atrium kiri, sedangkan nilai RDW dan jumlah platelet tidak berhubungan dengan kejadian trombus di atrium kiri pada stenosis mitral rematik. Kata kunci: LAMIA study, hematologi sederhana, trombus atrium kiri, stenosis mitral rematik

.....Introduction: Only few studies have investigated simple laboratory parameters as predictors of left atrial thrombus in subset of rheumatic mitral stenosis. In addition, there are currently very few studies describing the pathomechanism of left atrial thrombus related to the hemorheological component in patients with rheumatic mitral stenosis. Objective: A study was conducted to assess the causal relationship of hemorheological parameters from a simple laboratory Red Cell Distribution Width (RDW), Mean Platelet Volume (MPV), hematocrit, and platelet count with the incidence of left atrial thrombus in rheumatic mitral stenosis. Methods: A cross-sectional analytical, LAMIA Study, was conducted with data collection on patients with significant rheumatic stenosis starting from 1 January 2018 to 31 July 2021. Thrombus evaluation was established by transthoracic or transesophageal echocardiography. Lab tests were performed within 10 days prior to the echocardiographic evaluation. Subjects with significant mitral regurgitation will be excluded. Results: Of the 318 subjects with significant rheumatic mitral stenosis included in the study,

102 patients (32%) had a thrombus in the left atrium. Of all the patients, it was known that subjects with atrial fibrillation rhythm as much as 63.8% and sinus rhythm 36.2%. Atrial fibrillation rhythm (OR 2.39; 95% CI 1.10-5.20, p = 0.028), left ventricular ejection fraction 56.68 % (OR 0.42; 95% CI 0.23 - 0.77, p = 0.005), TAPSE 18.10 mm (OR 0.44; 95% CI 0.230 - 0.83, p = 0.011), and hematocrit 45.15% (OR 2.98; 95% CI 1.27 - 6.98, p = 0.012). Conclusion: Increased hematocrit was significantly associated with the incidence of left atrial thrombus, whereas RDW and platelet count were not associated with the incidence of left atrial thrombus in rheumatic mitral stenosis.