UNIVERSITAS ANDALAS

PERBEDAAN AKURASI ELEKTROKARDIOGRAFI MENURUT KRITERIA PEGUERO - LO PRESTI DAN KRITERIA TRADISIONAL DALAM DIAGNOSIS GEOMETRI VENTRIKEL KIRI ABNORMAL PADA PASIEN HIPERTENSI

TESIS

Oleh :

NIKKO NUGRAHA
1450311204

Pembimbing :
dr. HAUDA EL RASYID, SpJP (K)
dr. YERIZAL KARANI, SpPD, SpJP (K)

PROGRAM STUDI PENDIDIKAN PROFESI DOKTER SPESIALIS-1
ILMU PENYAKIT JANTUNG DAN PEMBULUH DARAH
FAKULTAS KEDOKTERAN UNIVERSITAS ANDALAS
PADANG
2020

ABSTRAK

Nama	:	Nikko Nugraha
Program Studi	:	Ilmu Penyakit Jantung dan Pembuluh Darah
Judul	:	Perbedaan Akurasi Elektrokardiografi Menurut Kriteria Peguero-Lo Presti Dan Kriteria Tradisional Dalam Diagnosis Geometri Ventrikel Kiri Abnormal Pada Pasien Hipertensi

Latar Belakang: Pola geometri ventrikel kiri (VK) adalah pola dimensi ventrikel berdasarkan diameter ruang dan ketebalan dinding. Kedua parameter ini merupakan ekspresi peningkatan beban kardiovaskular secara struktur akibat hipertensi. Ekokardiografi masih merupakan pemeriksaan baku emas, tetapi belum dapat digunakan di semua fasilitas pelayanan kesehatan. Beberapa kriteria elektrokardiografi (EKG) seperti Kriteria Peguero-Lo Presti (PLP) atau kriteria tradisional diduga dapat dijadikan untuk menilai abnormalitas geometri VK dan hipertrofi ventrikel kiri (HVK).

Metode Penelitian: Penelitian ini bersifat retrospektif, observasional analitik dengan desain kasus kontrol, dan dilakukan di Instalasi Pelayanan Jantung Terpadu (IPJT) RSUP Dr M Djamil Padang dari bulan September sampai dengan Desember 2019. Mesin elektrokardiografi menggunakan KENZ Cardio 601 dan ekokardiografi menggunakan Phillips Epic 7. Parameter EKG diukur menggunakan kaliper digital Krisbow KW06-351. Semua data diolah menggunakan SPSS 25

Hasil Penelitian: Geometri VK abnormal menurut Kriteria Peguero-Lo Presti mempunyai sensitivitas 42,1%, spesifisitas 96,1%, NPV 62,6% dan PPV 91,4% dengan akurasi 69,2%, AUC 74,5%. Dalam hal mendiagnosis HVK, kriteria PLP mempunyai sensitivitas 47,5% dan spesifisitas 92,8%, nilai prediksi negative 73,4% dan nilai prediksi positif 80,8%.

Kesimpulan : Kriteria Peguero-Lo Presti mempunyai akurasi yang lebih baik dibanding kriteria tradisional dalam hal mendiagnosis Geometri VK abnormal dan HVK pada pasien hipertensi

Kata Kunci : Kriteria Peguero-Lo Presti, kriteria elektrokardiografi, hipertrofi ventrikel kiri, geometri ventrikel kiri

ABSTRACT

Name : Nikko Nugraha
Study program : Heart Disease and Blood Vessels
Title : Electrocardiographic Accuracy Differences According to Peguero-Lo Presti's Criteria and Traditional Criteria in Diagnosis of Left Ventricular Geometry in Hypertension

Background: Left ventricular (LV) geometry pattern is a pattern of ventricular dimensions based on the diameter of the chamber and wall thickness. Both of these parameters are expressions of an increased cardiovascular load structurally due to hypertension. Echocardiography is still a gold standard examination, but it cannot be used in all health care facilities. Several electrocardiographic (ECG) criteria such as the Peguero-Lo Presti Criteria (PLP) or traditional criteria can be used to expected abnormalities in LV geometry and left ventricular hypertrophy (LVH).

Research Methods: This research was retrospective, analytical observational with case control design, and was performed at Dr M Djamil Padang RSUP Integrated Heart Services Installation from September to December 2019. Electrocardiographic machines using KENZ Cardio 601 and echocardiography using Phillips Epic 7. ECG Parameters was measured using a Krisbow KW06-351 digital caliper. All data were processed using SPSS 25.

Results: LV Geometry abnormal according to Peguero-Lo Presti Criteria had a sensitivity of 42.1%, specificity 96.1%, NPV 62.6% and PPV 91.4% with an accuracy of 69.2%, AUC 74.5%. In terms of diagnosing left ventricular hypertrophy (LVH), Peguero-Lo Presti's criteria had a sensitivity of 47.5% and specificity of 92.8%, negative predictive value of 73.4% and positif predictive value of 80.8%.

Conclusion: Peguero-Lo Presti's criteria had better accuracy than traditional criteria in terms of diagnosing abnormal VK and LVH geometries in hypertensive patients.

Keywords: Peguero-Lo Presti’s Criteria, electrocardiographic criteria, left ventricular hypertrophy, left ventricular geometry