

INTISARI

Hubungan Kadar *Vascular Endothelial Growth Factor A* Dengan Tingkat Keparahan *Chronic Limb Threatening Ischemia*

Pratama, B.A., Ismail, M.T., Hariawan, H.

Latar Belakang: *Chronic limb threatening ischemia* (CLTI) merupakan spektrum akhir dari penyakit arteri perifer (PAP) dan telah menjadi permasalahan kesehatan saat ini dengan tingginya angka amputasi dan kematian. Sampai saat ini belum adanya suatu *biomarker* yang dapat memprediksi keparahan hingga menentukan prognosis amputasi dan kematian.

Tujuan Penelitian: Mengetahui hubungan kadar *Vascular Endothelial Growth Factor A* dengan tingkat keparahan *Chronic Limb Threatening Ischemia*.

Metode Penelitian: Penelitian ini merupakan studi observasional analitik dengan desain *cross sectional*. Penelitian ini dilakukan pada pasien CLTI yang menjalani rawat inap di RSUP Dr. Sardjito Yogyakarta periode Juli 2021 – Februari 2023.

Hasil: Terdapat 42 subjek yang memenuhi kriteria inklusi dan eksklusi. Sebanyak 27 (64%) subjek merupakan laki-laki dengan rerata usia 65 ± 13 tahun. Mayoritas subjek 24 (57%) memiliki tingkat keparahan CLTI pada derajat IV, derajat I sebanyak 6 (14%), derajat II sebanyak 4 (10%) dan derajat III sebanyak 8 (19%). Median kadar VEGF A pada derajat I sebesar 18,5 (4,9–35,3) pg/ml, derajat II sebesar 39 (24,7–60,3) pg/ml, derajat III sebesar 61,9 (49,8–76,7) pg/ml dan derajat IV sebesar 160 (68,4–644) pg/ml. Terdapat perbedaan bermakna antara kadar VEGF A dengan tingkat keparahan CLTI ($p=0,000$). Hasil uji menunjukkan korelasi kuat kadar VEGF A dengan tingkat keparahan CLTI ($r=0,865$).

Kesimpulan: Terdapat hubungan positif kadar *Vascular Endothelial Growth Factor A* dengan tingkat keparahan *Chronic Limb Threatening Ischemia*

Kata kunci: *Vascular Endothelial Growth Factor A*, *Chronic Limb Threatening Ischemia*, Penyakit Arteri Perifer

ABSTRACT

Relationship Vascular Endothelial Growth Factor A Levels with The Severity of Chronic Limb Threatening Ischemia

Pratama, B.A., Ismail, M.T., Hariawan, H.

Background: Chronic limb threatening ischemia (CLTI) is the end spectrum of peripheral arterial disease and has become a current health problem with high rates of amputation and death. However, there is no biomarker that can predict the severity and determine the prognosis of amputation and death.

Objective: To determine relationship between Vascular Endothelial Growth Factor A levels with the severity of Chronic Limb Threatening Ischemia.

Methods: It was an analytical observational study with a cross sectional design. The study was conducted on CLTI patients who hospitalized in Dr. Sardjito Yogyakarta Hospital from July 2021 to February 2023.

Results: There were 42 patients (mean age 65 ± 13 years, 27 (64%) male who met the inclusion and exclusion criteria. The majority of subjects 24 (57%) had CLTI severity at grade IV, grade I was 6 (14%), grade II was 4 (10%) and grade III was 8 (19%). The median level of VEGF A in grade I was 18,5 (4,9–35,3) pg/ml, grade II was 39 (24,7–60,3) pg/ml, grade III was 61,9 (49,8–76,7) pg/ml and grade IV was 160 (68,4) –644) pg/ml. There was a significant difference between VEGF A levels and CLTI severity ($p=0,000$). The test results showed a strong correlation between VEGF A levels and the severity of CLTI ($r=0,865$).

Conclusion:

There is a positive relationship between Vascular Endothelial Growth Factor A levels with the severity of Chronic Limb Threatening Ischemia

Keywords: Vascular Endothelial Growth Factor A, Chronic Limb Threatening Ischemia, Peripheral Arterial Disease