

## ABSTRAK

Dewanto, Bisma. 2016. **HUBUNGAN ANTARA KETEBALAN CAROTID INTIMA-MEDIA DENGAN VOLUME INFARK PADA PASIEN STROKE TROMBOSIS AKUT.** Tugas Akhir, Fakultas Kedokteran Universitas Brawijaya. Pembimbing: (1) dr. Dini Rachma Erawati, Sp.Rad. (2) Dr. dr. Masruroh Rahayu, M.Kes

Stroke adalah penyebab utama kematian dini selain penyakit jantung koroner dan infeksi. Aterosklerosis adalah salah satu dari penyebab paling sering dari stroke. Aterosklerosis adalah suatu bentuk inflamasi yang terjadi pada dinding pembuluh darah. Aterosklerosis terbentuk saat ada akumulasi dari LDL yang mempromosikan agregasi monosit dan berkembangnya *foam cell*. Pembentukan aterosklerosis pada arteri karotis, serebral dan koroner terjadi disaat yang hampir bersamaan. Penelitian ini bertujuan untuk menemukan korelasi antara *carotid intima-media thickness* (CIMT) dan volume infark pada pasien dengan stroke trombotik akut. CIMT diukur dengan menggunakan alat *ultrasonography* GE logiq s6 dengan probe linier (5-13 mhz) oleh 3 dokter radiologi di instalasi radiologi Rumah Sakit Umum dr. Saiful Anwar Malang. Volume infark di ukur dari hasil CT scan pasien saat di UGD menggunakan CT scan 16 slice. Formula yang digunakan adaah  $PxLxTx0,52$ . Data dianalisa menggunakan uji korelasi pearson. Didapatkan total 21 pasien dengan stroke trombotik akut. Penebalan CIMT didapatkan pada 90,48% pasien ( $1,209\pm 0,297$  mm). Volume infark juga diukur pada seluruh pasien ( $1045,780\pm 865,018$  mm<sup>3</sup>). Tidak didapatkan korelasi yang signifikan antara CIMT dan volume infark pada pasien dengan stroke trombotik akut (tes korelasi pearson,  $p=0,544$ ,  $correlation=0,140$ ). Disimpulkan bahwa tidak ada korelasi antara volume infark dengan CIMT pada pasien dengan stroke trombotik akut.

**Kata kunci** : stroke trombotik akut, CIMT, volume infark, aterosklerosis.

**ABSTRACT**

Dewanto, Bisma. 2016. ***CORRELATION OF CAROTID INTIMA MEDIA THICKNESS(CIMT) WITH INFARCT VOLUME IN ACUTE THROMBOTIC STROKE PATIENT.*** Final Assignment, Medical Faculty of Brawijaya University. Advisor: (1) dr. Dini Rachma Erawati, Sp.Rad. (2) Dr. dr. Masruroh Rahayu, M.Kes

Stroke is a leading cause of premature death beside of coronary heart disease and infection. Atherosclerosis is one of the most frequent cause of stroke. Atherosclerosis is a form of inflammation that happened at vascular wall. Atherosclerosis are formed when there are accumulation of LDL that promote monocyte aggregation and development of foam cell. Atherosclerosis formation in carotid artery, cerebral and coronary happen at almost the same time. This cross sectional study is intended to find a correlation between carotid intima-media thickness (CIMT) and infarct volume in people with acute thrombotic stroke. CIMT was measured using ultrasonography GE Logiq S6 with linier probe (5-13 mhz) by 3 radiologist in radiology instalation of dr. Saiful Anwar General Hospital Malang. Infarct volume was measured from CT scan examination result during patient submission in emergency care unit using 16 slice CT scan. The measurement were conducted by measuring the largest diameter (P), the largest diameter perpendicular with the first diameter (L), the vertical diameter measured by summing the thickness of slice where the lesion were spotted (T). The formula is  $P \times L \times T \times 0,52$ . The data were analyzied using pearson correlation. A total of 21 patients with acute thrombotic stroke were conducted. CIMT thickening was indicated in 90,48% patients ( $12,095 \pm 2,979$  mm). Infarct volume was measured in all patient ( $1045,780 \pm 865,018$  mm<sup>3</sup>). There were no significant correlation between CIMT and infarct volume in person with acute thrombotic stroke (Pearson correlation test,  $p=0,544$ , Correlation 0,140). We conclude that there are no correlation between infarct volume and CIMT in person with acute thrombotic stroke.

**Keywords :** Acute thrombotic stroke, CIMT, infarct volume, atherosclerosis.