

## Hubungan antara fenomena white coat pada pasien hipertensi dalam pengobatan dengan ketebalan tunika intima media arteri karotis = Association of white coat phenomenon in treated hypertensive patients with carotid intima media thickness

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### Abstrak

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Latar Belakang. Hipertensi merupakan salah satu masalah kesehatan dunia dan merupakan salah satu faktor risiko penyakit kardiovaskular yang berhubungan dengan proses aterosklerosis dan aterotrombosis. Pengukuran tekanan darah di klinik atau rumah sakit saat ini masih dianggap sebagai metode referensi dalam mendiagnosis dan evaluasi pasien hipertensi, tetapi disebabkan adanya fenomena white-coat terlihat semakin jelas informasi yang diberikan seringkali tidak adekuat tentang status tekanan darah pasien yang sebenarnya. Hipertensi sendiri dikaitkan dengan kerusakan target organ dan salah satu diantaranya ke organ pembuluh darah. Pemeriksaan ketebalan tunika intima media arteri karotis dimaksudkan untuk melihat kerusakan yang terjadi akibat efek fenomena white-coat pada pembuluh darah yang mencerminkan terjadinya proses aterosklerosis dini.

Tujuan dari penelitian ini adalah menilai hubungan antara kejadian fenomena white-coat pada pasien hipertensi dalam pengobatan dengan ketebalan tunika intima media arteri karotis.

Metode. Studi potong lintang dengan pengambilan pasien hipertensi dalam pengobatan secara konsekutif, mulai bulan Januari - Mei 2014 di poli rawat jalan RS Jantung dan Pembuluh Darah Harapan Kita, Jakarta. Pasien menjalani pemeriksaan OBP saat kontrol dan HBP dilakukan selama 4 hari berturut-turut dengan memakai alat tensimeter osilometri yang tervalidasi. Pemeriksaan ketebalan tunika intima media arteri karotis dilakukan pada semua pasien yang masuk dalam kriteria inklusi untuk mendapatkan nilai rerata ketebalan kompleks tunika intima.

Hasil. Didapatkan 219 subyek penelitian yang masuk kriteria inklusi. Uji statistik Mann Whitney digunakan untuk mengetahui hubungan pasien hipertensi yang mengalami fenomena white-coat dengan ketebalan tunika intima media arteri karotis. Hasil yang didapat, tidak terdapat perbedaan rerata yang bermakna secara statistik ketebalan tunika intima media arteri karotis antara pasien hipertensi yang mengalami fenomena white-coat dan yang tidak (A. Karotis kanan  $0,7 \pm 0,5$  vs  $0,8 \pm 0,4$  mm, nilai  $p = 0,153$  ; A. Karotis kiri  $0,8 \pm 0,4$  vs  $0,7 \pm 0,4$  mm, nilai  $p = 0,900$  ; A. Karotis kanan dan kiri  $0,7 \pm 0,4$  vs  $0,8 \pm 0,3$  mm, nilai  $p = 0,260$ ). Dari hasil uji bivariat terhadap seluruh faktor perancu didapatkan variabel obat antihipertensi golongan enzim penyekat angiotensin dan usia terbukti sebagai perancu dalam penilaian hubungan antara fenomena white-coat dengan rerata ketebalan tunika intima media arteri karotis.

Kesimpulan. Penelitian ini menunjukkan bahwa tidak terdapat perbedaan rerata yang bermakna secara statistik ketebalan tunika intima media arteri karotis antara pasien hipertensi yang mengalami fenomena

white-coat dan yang tidak.

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<v>ABSTRACT</b><br>

**Background.** Hypertension is one of the most important public health problems worldwide and a major risk factor for all forms of atherosclerotic and atherothrombotic CVD. Office blood pressure monitoring nowadays still considered as a method of reference for diagnosing and evaluating hypertensive patients, but due to white coat phenomenon, the information for the real blood pressure status is unclear. Hypertension itself was related to target organ damage and one of them is vascular damage related to atherosclerosis. Evaluation of carotid intima media thickness can represent early atherosclerotic process that happened in organ vascular caused by white-coat phenomenon.

Our objective was to analyze the relationship between white-coat phenomenon in hypertensive patients with carotid intima media thickness.

**Method.** This is a cross sectional, consecutive study. Data was collected from January ? May 2014 in National Cardiac Centre Harapan Kita Hospital Outpatient clinic. Office Blood pressure was measured when patients controlled to the clinic and HBP was measured for 4 consecutive days with the same validated electronic device. B-mode ultrasound of carotid arteries was performed to measured mean of carotid intima media thickness.

**Results.** Two hundred and nineteen hypertensive patients on therapy were enrolled in this study. Mann Whitney statistic test was used to determine the relationship of independent variables in hypertensive patients with white-coat phenomenon with carotid intima media thickness and found that there is no significant difference between hypertensive patients with white-coat phenomenon and no white-coat phenomenon with mean carotid intima media thickness (Right Carotid artery  $0.7 \pm 0.5$  vs  $0.8 \pm 0.4$  mm, p value = 0.153 ; Left Carotid Artery  $0.8 \pm 0.4$  vs  $0.7 \pm 0.4$  mm, p value 0.900 ; Right and left Carotid Artery  $0.7 \pm 0.4$  vs  $0.8 \pm 0.3$  mm, p value 0.260). From bivariate analysis results, obtained on all confounding variables, ACE-inhibitor and age proved as confounding in the assessment of the relationship between hypertensive patients with white-coat phenomenon and mean carotid intima media thickness.

**Conclusions.** This study showed that there is no significant difference of mean carotid intima media thickness in hypertensive patients with white-coat and no white-coat phenomenon.;

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