

## Korelasi flow mediated dilation brakial dengan beratnya stenosis penyakit arteri koroner = Correlation of brachial flow mediated dilation with severity of coronary artery disease

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### Abstrak

Latar belakang. Perubahan fungsi endotel mendahului proses perubahan morfologi dan berkontribusi terhadap perkembangan lesi aterosklerosis dan progresinya. Evaluasi dengan menggunakan metode non invasif FMD (flow mediated dilation) brakial memberikan informasi inkonsisten mengenai ekstensi dan beratnya aterosklerosis koroner terkait disfungsi endotel. Penelitian ini akan melihat korelasi nilai FMD brakial dengan derajat beratnya stenosis arteri koroner.

Metode. Penelitian ini merupakan suatu penelitian potong lintang. Evaluasi dilakukan pada 85 pasien yang menjalani angiografi koroner elektif di Pusat Jantung Nasional Harapan Kita dan memenuhi kriteria inklusi sejak Januari hingga Oktober 2012. Korelasi nilai FMD brakial dengan beratnya stenosis penyakit arteri koroner (PAK) menggunakan Skor Gensini dinilai dengan analisis regresi linier.

Hasil. FMD brakial memiliki korelasi negatif dengan Skor Gensini ( $R = -0,227$ ;  $P = 0,037$ ). Hipertensi memiliki korelasi negatif dengan nilai FMD brakial ( $R = -0,235$ ;  $P = 0,032$ ). Jenis kelamin laki-laki memiliki korelasi positif dengan nilai FMD brakial ( $R = 0,220$ ;  $P = 0,040$ ).

Kesimpulan. Nilai FMD brakial memiliki korelasi negatif yang lemah dengan Skor Gensini.

.....Background. Endothelial dysfunction precedes the development of morphological changes and contributes to atherosclerotic lesion development and progression. Evaluation using non invasive method such as brachial FMD (flow mediated dilation) has given inconsistent information for extension and coronary atherosclerotic severity regarding endothelial dysfunction. This research will evaluate the correlation between brachial FMD and severity of coronary artery disease (CAD) stenosis.

Methods. It was a cross sectional study. Evaluations were performed in 85 patients who had followed elective coronary angiography and fulfilled inclusion criteria in National Cardiovascular Center Harapan Kita since January until October of 2012. Correlation between brachial FMD and severity of CAD stenosis (Gensini score) was evaluated using linear regression analysis.

Results. Brachial FMD had negative correlation with Gensini score ( $R = -0,227$ ;  $P = 0,037$ ). Hypertension had negative correlation with brachial FMD ( $R = -0,235$ ;  $P = 0,032$ ). Male gender had positive correlation with brachial FMD ( $R = 0,220$ ;  $P = 0,040$ ).

Conclusion. There was weak negative correlation between brachial FMD and Gensini score.