

**ABSTRAK**

**HUBUNGAN JUMLAH LESI ARTERI KORONER DENGAN ANKLE BRACHIAL INDEX (ABI) PADA PASIEN PENYAKIT JANTUNG KORONER DI RSUD DR. SOETOMO**

**Latar Belakang:** Hubungan antara Penyakit Arteri Perifer (PAP) dengan Penyakit Jantung Koroner (PJK) telah lama diketahui. Namun, hubungan antara derajat kompleksitas keduanya kurang banyak diteliti. Jumlah lesi arteri koroner pada PJK telah terbukti mampu memprediksi kejadian PAP, namun efek jangka lama pada pasien belum banyak diteliti.

**Tujuan:** Mengetahui kejadian PAD pada pasien PJK dan mencari hubungan antara jumlah lesi arteri koroner terhadap *Ankle-Brachial Index* (ABI).

**Metode:** Sebanyak 49 pasien dari bulan Desember 2019 sampai Maret 2020 dijadikan subjek setelah memenuhi kriteria inklusi. ABI diukur dan diagnosis PAD ditentukan lewat ABI yang rendah. Karakteristik pasien, jumlah lesi arteri koroner didapat dari rekam medik pasien. Analisis statistical dilakukan dengan SPSS 25,0.

**Results:** Prevalensi PAP pada penelitian ini sebesar 10,2%. Rata-rata nilai ABI kanan dan kiri masing-masing adalah  $1.08 \pm 0.11$  dan  $1.08 \pm 0.12$ . Tidak ada hubungan bermakna antara kejadian *left main disease*, lesi *multivessel* pada pasien PAP. Walau demikian, jumlah lesi arteri koroner berpengaruh secara bermakna terhadap nilai ABI. Ada penurunan bermakna 0,043 nilai ABI setiap peningkatan jumlah lesi arteri koroner ( $p=0,035$ ). Dengan analisis multivariat, ditemukan faktor risiko yang bermakna secara independent terhadap kejadian PAP adalah diabetes mellitus (OR 10,4;  $p=0,047$ ). Penulis merekomendasi skrining PAP dengan ABI sebaiknya rutin dilakukan pada pasien PJK.

**Kata kunci:** Penyakit Arteri Perifer, Penyakit Jantung Koroner, *Ankle-Brachial Index*

**ABSTRACT**

**ASSOCIATION OF COUNT OF CORONARY LESION WITH ANKLE-BRACHIAL INDEX (ABI) IN PATIENT WITH CORONARY HEART DISEASE IN DR. SOETOMO GENERAL HOSPITAL**

**Background:** Relation between peripheral artery disease (PAD) and coronary artery disease (CAD) has been well established. However, whether or not the severity of respective diseases reflect each other had been less explored. Number of involved vessel in CAD had shown prominence in predicting PAD, though long term effect of this involvement has yet to be investigated.

**Aim:** This study investigated the prevalence of PAD in patients with CAD and the correlation between Ankle Brachial Index (ABI) and number of involved vessel.

**Material and Methods:** A total of 49 patients from December 2019 to March 2020 were enrolled based on inclusion criteria. ABI was measured and PAD diagnosis was made with abnormal ABI. Patient's characteristic, and vessel involvement were obtained from medical records. Statistical analyses were done using SPSS 25.0.

**Results:** The prevalence of PAD was 10,2%. Mean value of right and left ABI was  $1.08 \pm 0.11$  and  $1.08 \pm 0.12$  respectively. No significant differences of left main disease, multivessel lesion prevalences was found in PAD patients. Despite that, number of involved vessel had correlation to lower ABI results ( $p=0.035$ ). Significant decrease of 0.043 ABI is observed every increase of coronary lesion. Using multivariate analysis, we found that only diabetes mellitus (OR, 10.4;  $p=0.047$ ) was independently associated with PAD. We recommended PAD screening using ABI should be regularly carried out in patient with history of CAD.

**Key Words:** Peripheral Artery Disease; Coronary Artery Disease; Ankle-Brachial Index