

Hubungan high sensitive c reactive protein dengan kekakuan arteri pada pasien diabetes melitus tipe 2 = Correlations of high sensitive c reactive protein and arterial stiffness in type 2 diabetic patients

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20389618&lokasi=lokal>

Abstrak

Latar Belakang: Peningkatan kadar high sensitivity C-reactive protein (hsCRP) dan kekakuan arteri berhubungan dengan peningkatan insiden kejadian kardiovaskular dan peningkatan mortalitas akibat penyakit jantung koroner pada pasien diabetes melitus tipe 2.

Tujuan: Tujuan dari penelitian ini adalah untuk mengetahui hubungan antara kadar hsCRP dan kekakuan arteri pada pasien diabetes melitus tipe 2.

Metode : Melalui studi cross-sectional, dilakukan pemeriksaan kadar hsCRP dan derajat kekakuan arteri karotis pada 40 pasien dengan diabetes melitus tipe 2. Kekakuan arteri karotis kommunis diperiksa dengan doppler echotracking system untuk menentukan pulse wave velocity (PWV) atau kekakuan arteri karotis lokal (carotid-PWV).

Hasil : Nilai median hsCRP pada penelitian ini adalah 4,5 (0,2 - 18,9) mg/L dan nilai rata-rata kekakuan arteri karotis adalah $8,8 \pm 1,7$ m/detik. hsCRP berkorelasi kuat dengan karotid-PWV ($r = 0,503$, $P = 0,001$). Korelasi hsCRP dengan karotid-PWV ini tetap terlihat setelah dilakukan koreksi terhadap umur, indeks masa tubuh dan mean arterial pressure ($r = 0,450$, $P = 0,005$).

Kesimpulan : Setelah dilakukan koreksi terhadap umur, indeks masa tubuh dan mean arterial pressure, hsCRP berkorelasi positif cukup kuat dengan kekakuan arteri pada pasien diabetes melitus tipe 2.

.....Background: The elevated level of high-sensitivity C-reactive protein (hsCRP) and arterial stiffness are associated with higher incidences of cardiovascular events and with increased mortality from coronary heart disease in type 2 diabetic patients.

Aim: The aim of this study was to investigate the relationship between hsCRP and arterial stiffness in type 2 diabetic patients.

Methods: A cross-sectional study was conducted to assess the plasma levels of high sensitive C-reactive protein and carotid arterial stiffness among 40 patients with type 2 diabetes mellitus. The common carotid artery was studied by a doppler echotracking system to determine the local carotid pulse wave velocity (carotid-PWV).

Results: The median value of hsCRP in this study was 4.5 (0.2 to 18.9) mg/L and the average value of local carotid stiffness was 8.8 ± 1.7 m/sec. hsCRP showed a strong correlation with carotid-PWV ($r = 0.503$, $P = 0.001$). Levels of hsCRP were independently associated with carotid-PWV after adjusting for age, body mass index, and mean arterial pressure ($r = 0,450$, $P = 0,005$).

Conclusion: After adjusting for age, body mass index, and mean arterial pressure, hsCRP was strongly positively correlated with arterial stiffness in patients with type 2 diabetes mellitus.