

PARAMETER LIPID DAN INFLAMASI SEBAGAI FAKTOR RISIKO KEPARAHAN *ACUTE CORONARY SYNDROME*

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ABSTRAK

Latar belakang: *Acute Coronary Syndrome (ACS)* merupakan sekumpulan gejala akibat penurunan suplai darah arteri koroner sehingga menyebabkan *injury* pada miokardium. Penggunaan skor Gensini dapat mengevaluasi tingkat keparahan lesi arteri koroner sedangkan parameter lipid dan inflamasi berperan dalam perkembangan aterosklerosis.

Tujuan: Membuktikan parameter lipid dan inflamasi sebagai faktor risiko keparahan ACS.

Metode: Penelitian belah lintang dilakukan terhadap 75 pasien *ACS* yang datang ke IGD. Kadar PON-1 dan hs-CRP diperiksa menggunakan metode *enzyme-linked immunosorbent assay (ELISA)*. Kadar HDLc diperiksa menggunakan metode *homogenous enzymatic colorimetric*. Analisis statistik menggunakan SPSS.

Hasil: Rerata kadar HDLc dan hs-CRP adalah $38,9 \pm 7,94$ mg/dL dan $10,76 \pm 5,65$ mg/L. Nilai median rasio hs-CRP/HDLc dan PON-1 adalah 2,58 (0,04 – 16,2) dan 1,6 (0,1 – 29,77) ng/mL. HDLc bukan merupakan faktor risiko keparahan ACS dengan nilai $p = 0,533$. Rasio prevalensi (RP) hs-CRP, rasio hs-CRP/HDLc dan PON-1 adalah 2,87 (95%CI:1,11 – 7,44; $p < 0,05$), 1,4 (95% CI;1,05 – 1,88, $p < 0,05$), dan 0,64 (95% CI:0,47 – 0,88; $p < 0,05$).

Simpulan: Kadar HDLc rendah bukan merupakan faktor risiko keparahan ACS, kadar hs-CRP dan nilai rasio hs-CRP/HDLc tinggi merupakan faktor risiko terjadinya keparahan ACS, sedangkan kadar PON-1 tinggi merupakan faktor protektif terjadinya keparahan ACS.

Kata kunci: ACS, HDLc, hs-CRP, rasio hs-CRP/HDLc, PON-1

LIPID AND INFLAMMATORY PARAMETERS AS RISK FACTORS FOR THE SEVERITY OF ACUTE CORONARY SYNDROME

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ABSTRACT

Background: Acute Coronary Syndrome (ACS) is a syndrome caused by a decrease in coronary artery blood supply, resulting in myocardial injury. The Gensini score can be used to evaluate the severity of coronary artery lesions, while lipid and inflammatory parameters play a role in the development of atherosclerosis.

Aim: To prove lipid and inflammatory parameters as risk factors for the severity of ACS.

Methods: A cross-sectional study was conducted on 75 ACS patients at the emergency department. PON-1 and hs-CRP levels were examined using the enzyme-linked immunosorbent assay (ELISA) method. HDLc levels were examined using the homogeneous enzymatic colorimetric method. Statistical analysis was used by SPSS.

Results: The mean levels of HDLc and hs-CRP were 38.9 ± 7.94 mg/dL and 10.76 ± 5.65 mg/L. The median values for the hs-CRP/HDLc ratio and PON-1 were 2.58 (0.04–16.2) and 1.6 (0.1–29.77) ng/mL, respectively. HDLc was not a risk factor for ACS severity, with a p-value of 0.533. The prevalence ratio (PR) for hs-CRP, the hs-CRP/HDLc ratio, and PON-1 was 2.87 (95% CI: 1.11–7.44; $p < 0.05$), 1.4 (95% CI: 1.05–1.88, $p < 0.05$), and 0.64 (95% CI: 0.47–0.88; $p < 0.05$).

Conclusion: Low HDLc levels is not a risk factor for ACS severity, while high hs-CRP levels and high hs-CRP/HDLc ratios are risk factor for ACS severity. High PON-1 levels, on the other hand, are a protective factor against ACS severity.

Keyword: ACS, HDLc, hs-CRP, hs-CRP/HDLc ratio, PON-1