

ABSTRAK

Latar Belakang: Sklerosis sistemik (SSc) merupakan penyakit autoimun kronik yang ditandai vaskulopati dan fibrosis progresif disertai peningkatan risiko penyakit kardiovaskular. Ketebalan tunika intima-media arteri karotis komunis merupakan indikator aterosklerosis subklinis dan dapat mencerminkan derajat inflamasi pada SSc. *C-reactive protein* (CRP) kuantitatif dan *modified Rodnan Skin Score* (mRSS) diketahui berhubungan dengan aktivitas penyakit SSc, namun hubungannya dengan ketebalan tunika intima-media arteri karotis komunis belum dapat dijelaskan.

Tujuan: Penelitian ini bertujuan menganalisis hubungan antara kadar CRP kuantitatif dan nilai mRSS dengan ketebalan tunika intima-media arteri karotis komunis pada pasien SSc.

Metode: Penelitian belah lintang dilakukan pada 26 pasien SSc di RSUP Dr. Kariadi Semarang. Ketebalan tunika intima-media arteri karotis komunis diukur menggunakan ultrasonografi pada sisi kanan dan kiri. Subjek dikelompokkan menurut kejadian penebalan tunika berdasarkan persentil ≥ 75 sesuai usia dan jenis kelamin. Kadar CRP kuantitatif dianalisis dengan uji Mann-Whitney, sedangkan perbedaan mRSS dianalisis dengan uji T tidak berpasangan.

Hasil: Tidak terdapat perbedaan signifikan pada kadar CRP kuantitatif antara kelompok tanpa penebalan dan dengan penebalan tunika (0,40 [0,07–1,10] vs. 0,40 [0,20–0,83] mg/L; $P=0,787$).

Nilai mRSS juga tidak mengalami perbedaan signifikan antara kedua kelompok ($18,29 \pm 9,38$ vs. $18,78 \pm 12,48$; $P=0,912$).

Kesimpulan: Tidak terdapat hubungan bermakna antara kadar CRP kuantitatif dan nilai mRSS dengan ketebalan tunika intima-media arteri karotis komunis pada pasien SSc. Temuan tersebut dapat disebabkan oleh pendekatan belah lintang dan riwayat konsumsi immunosupresan sehingga tidak mencerminkan derajat inflamasi tertinggi pada pasien SSc.

Kata Kunci: Sklerosis sistemik, Fibrosis kulit, Tunika intima-media arteri karotis komunis, *C-reactive protein*, *modified Rodnan skin score*

ABSTRACT

Background: Systemic sclerosis (SSc) is a chronic autoimmune disease characterized by vasculopathy and progressive fibrosis with an increased risk of cardiovascular disease. The common carotid artery intima-media thickness is an indicator of subclinical atherosclerosis and may reflect inflammatory activity in SSc. Quantitative C-reactive protein (CRP) and the modified Rodnan Skin Score (mRSS) are associated with SSc disease activity, although their relationship with common carotid intima-media thickness remains unclear.

Objective: To evaluate the relationship between quantitative CRP levels and mRSS values with common carotid intima-media thickness in patients with SSc.

Methods: A cross-sectional study was conducted on 26 SSc patients at Dr. Kariadi General Hospital, Semarang. Common carotid intima-media thickness was measured using ultrasonography on both sides. Subjects were categorized based on the presence of intima-media thickening according to the ≥ 75 th percentile for age and sex. Quantitative CRP levels were analyzed using the Mann-Whitney test, while differences in mRSS were analyzed using an independent t-test.

Results: There was no significant difference in quantitative CRP levels between subjects without and with intima-media thickening (0.40 [0.07–1.10] vs. 0.40 [0.20–0.83] mg/L; $P=0.787$). mRSS values also did not differ significantly between the two groups (18.29 ± 9.38 vs. 18.78 ± 12.48 ; $P=0.912$).

Conclusion: There was no significant relationship between quantitative CRP levels or mRSS values and common carotid intima-media thickness in patients with SSc. These findings may be influenced by the cross-sectional design and the use of immunosuppressants which may not reflect the peak inflammatory state in SSc patients.

Keywords: Systemic sclerosis, Skin fibrosis, Common carotid intima-media thickness, C-reactive protein, Modified Rodnan Skin Score