

# Korelasi Kadar C3, C4, dan Anti-DsDNA terhadap Hitung Trombosit pada Pasien Lupus Eritematosus Sistemik dengan Trombositopenia = Correlation of C3, C4, and Anti-DsDNA Levels to Platelet Counts in Systemic Lupus Erythematosus Patients with Thrombocytopenia

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## Abstrak

Trombositopenia merupakan manifestasi hematologis pada pasien lupus eritematosus sistemik (LES) yang berhubungan dengan prognosis buruk. Kadar C3, C4, dan anti-dsDNA berhubungan dengan aktivitas penyakit pada pasien LES. Peningkatan aktivitas penyakit berhubungan dengan penurunan kadar trombosit pada pasien LES melalui aktivasi komplemen dan interaksi autoantibodi dengan trombosit. Tujuan dari penelitian ini adalah mengetahui korelasi kadar serum C3, C4, dan anti-dsDNA terhadap hitung trombosit pada pasien LES dengan trombositopenia. Penelitian ini merupakan penelitian analitik observasional dengan menggunakan desain studi potong lintang. Penelitian ini merekrut subjek LES dengan hitung trombosit <math><150.000/\mu\text{L}</math>. Kadar C3, C4, dan anti-dsDNA serta hitung trombosit diukur pada awal kunjungan pasien. Didapatkan 41 subjek LES dengan trombositopenia. Hitung trombosit memiliki korelasi yang bermakna terhadap kadar C3 ( $p=0.004$ ;  $r=0.445$ ) dan anti-dsDNA ( $p=0.001$ ;  $r=-0.481$ ). Namun, tidak ditemukan korelasi yang signifikan antara hitung trombosit dengan kadar C4 ( $p=0.052$ ;  $r=0.306$ ). Terdapat korelasi yang bermakna antara hitung trombosit dengan aktivitas penyakit dan kadar C3 serta anti-dsDNA pada subjek LES dengan trombositopenia. Namun, tidak terdapat korelasi yang bermakna antara hitung trombosit dengan kadar C4.

.....Thrombocytopenia is a hematological manifestation in systemic lupus erythematosus (SLE) patients that is associated with a poor prognosis. C3, C4, and anti-dsDNA levels have been associated with disease activity in SLE patients. Increased disease activity is associated with decreased platelet levels in SLE patients through complement activation and autoantibody interactions with platelets. The aim of this study was to determine the correlation of serum levels of C3, C4, and anti-dsDNA with platelet counts in SLE patients with thrombocytopenia. This research is an observational analytical study using a cross-sectional study design. This study recruited subjects of SLE patients with platelet counts  $<150,000/\mu\text{L}</math>. C3, C4, and anti-dsDNA levels and platelet counts were measured at the initial patient visit. This study recruit 41 samples of SLE patients with thrombocytopenia. Platelet count had a significant correlation with C3 levels ( $p=0.004$ ;  $r=0.445$ ) and anti-dsDNA ( $p=0.001$ ;  $r=-0.481$ ). However, no significant correlation was found between platelet count and C4 levels ( $p=0.052$ ;  $r=0.306$ ). There is a significant correlation between platelet count and disease activity and C3 and anti-dsDNA levels in SLE patients with thrombocytopenia. However, there was no significant correlation between platelet count and C4 levels.$