

ABSTRACT

Systemic Lupus Erythematosus (SLE) is a systemic autoimmune disease that attacks various organ systems. In Malang, East Java, the prevalence of SLE is 0.5% of the total population. One of the serious manifestations of SLE is Lupus Nephritis (LN). Renal involvement is found in more than 50% of SLE patients in the first year after diagnosis. One of the clinical manifestations is proteinuria. The pathogenesis of proteinuria is associated with the presence of Anti-Nuclear Antibody (ANA). The purpose of this study was to determine the correlation between ANA level and the grade of proteinuria in SLE patients.

The research was carried out in an analytical observational research design with a cross-sectional study. The research subjects were 32 SLE patients. Examination of serum ANA was carried out using the indirect enzyme-linked immunosorbent assay (ELISA) method using the Alegria ANA Detect kit with the Alegria autoanalyzer. Examination of proteinuria was carried out semi-quantitatively with the dipstick test method.

The results showed that the overall gender of the research subjects was female (100%). The median age of SLE patients was 25 years (21 – 34.5 years). ANA level obtained a median of 4.950. The majority of urine protein results were negative (34.4%). Statistical analysis using the Spearman correlation test showed a correlation between ANA level and the grade of proteinuria ($p= 0.019$ and $r= 0.411$). Kruskal-Wallis test showed a significant difference between ANA level and the grade of proteinuria ($p=0.033$). Post hoc Mann-Whitney analysis showed significant differences in ANA level between the negative proteinuria group and the mild proteinuria group and the moderate-severe proteinuria group. This indicates that high level of ANA tend to give a picture of proteinuria in SLE patients.

The conclusion of this study is that there is a correlation between high ANA levels and the severity of proteinuria in SLE patients.

Keywords: Systemic Lupus Erythematosus, Anti-Nuclear Antibody, Proteinuria.

ABSTRAK

Lupus Eritematosus Sistemik (LES) merupakan penyakit autoimun sistemik yang menyerang berbagai sistem organ. Di Malang Jawa Timur, prevalensi LES menunjukkan angka 0,5% terhadap total populasi. Salah satu manifestasi serius pada LES adalah Lupus Nefritis (LN). Keterlibatan organ ginjal ditemukan pada lebih 50% pasien LES di tahun pertama setelah didiagnosis. Salah satu manifestasi klinisnya berupa proteinuria. Patogenesis terjadinya proteinuria dihubungkan dengan adanya Anti-Nuclear Antibody (ANA). Tujuan penelitian ini adalah untuk mengetahui hubungan kadar ANA dengan derajat proteinuria pada pasien LES.

Penelitian dilaksanakan secara rancang bangun penelitian observasional analitik dengan studi potong lintang. Subyek penelitian adalah 32 pasien LES. Pemeriksaan kadar ANA serum dikerjakan dengan metode *enzyme-linked immunosorbent assay* (ELISA) *indirect* menggunakan kit Alegria ANA Detect dengan *autoanalyzer* Alegria. Pemeriksaan protein urine sewaktu dilakukan secara semi kuantitatif dengan metode tes carik celup.

Hasil penelitian menunjukkan jenis kelamin keseluruhan subyek penelitian adalah wanita (100%). Median usia pasien LES adalah 25 tahun (21 – 34,5 tahun). Kadar ANA didapatkan median 4,950. Hasil protein urin mayoritas negatif (34,4%). Analisis statistik dengan uji korelasi *Spearman* menunjukkan adanya hubungan antara kadar ANA dengan derajat proteinuria ($p= 0,019$ dan $r= 0,411$). Uji *Kruskal-Wallis* menunjukkan perbedaan bermakna antara kadar ANA dengan derajat proteinuria ($p=0,033$). Analisis *post hoc Mann-Whitney* menunjukkan perbedaan bermakna kadar ANA antara kelompok proteinuria negatif dengan kelompok proteinuria ringan dan kelompok proteinuria sedang-berat. Hal ini menunjukkan bahwa tingginya kadar ANA cenderung memberikan gambaran proteinuria pada pasien LES.

Kesimpulan dari penelitian ini adalah terdapat hubungan antara tingginya kadar ANA dengan beratnya proteinuria pada pasien LES.

Kata kunci: Lupus Eritematosus Sistemik, Anti Nuclear Antibody, Proteinuria.