

Plasma Soluble Urokinase Plasminogen Activator Receptor Levels in Systemic Lupus Erythematosus Patients

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This study aimed to determine whether plasma soluble urokinase plasminogen activator receptor (suPAR) could serve as an activity biomarker in systemic lupus erythematosus (SLE) patients. suPAR levels were assessed in SLE patients, compared to healthy controls and correlated with disease activity. Sixty SLE patients were enrolled with assessment of disease activity using SLE Disease Activity Index (SLEDAI), C3, soluble urokinase plasminogen activator receptor level. Patients were divided according to disease activity into three groups: Patients in remission, mild to moderate activity, and high disease activity. Twenty apparently healthy individuals, age and sex matched, were included as a control group and subjected to routine laboratory tests and soluble urokinase plasminogen activator receptor level. The age range of the patients was 19 - 45 years with a mean of 29.07±6.84. suPAR, ESR and C3, but not CRP showed significant differences ($P<0.001$), among SLE patients' subgroups. Plasma suPAR demonstrated higher levels among highly active than mild to moderately active or patients in remission, having higher discriminating ability regarding disease activity in comparison to ESR and C3 levels. It was higher in cases of nephritis. The optimum cut-off level of suPAR was >3.5 ng/ml, diagnostic validity tests for suPAR have shown to be 100% for sensitivity, specificity, positive predictive value and 74.1% for negative predictive value. These findings indicate that suPAR may be one of the valuable indicators of disease activity in SLE.