

Mean Platelet volume significantly decrease at remission period of SLE patients with renal involvement.

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Aim: Systemic lupus erythematosus (SLE) is a disease of immune system with unknown etiology. It is a unique disease which has a wide range of clinical and laboratory findings according to involved organ/system and activity of the disease. It is an auto-inflammatory disease with periods of activation and remissions. Treatment of the SLE is also a complicated issue and depends on disease activity and involved organs/systems. Decision to start or to halt the therapy strictly related with disease activity. There are a lots of indexes which are adopted for assessment of clinical activity of the SLE but due to wide variety of disease manifestations the indexes also have wide parameters to check so not practical for bedside evaluation. Mean platelet volume (MPV) is a simple parameter of blood count and widely and easily available which had been evaluated as a sign inflammation in many kinds of disease recently. In this study we aimed to investigate MPV values of our SLE patients with renal involvement during the period of activity and remissions.

Materials and Methods: In this study we retrospectively analyzed the laboratory parameters and clinical features of SLE patients with renal involvement in active and remission periods of the disease. We exclude the patients with hematological involvement, active infection, diabetes mellitus, uncontrolled hypertension, hematologic or oncologic malignancies, patients with body mass index over 30 were all excluded. We also excluded the patients had elevated C-reactive protein or leucocyte count over 10,000/ml in order to exclude possible undetected infection or inflammation for remission period of the patients. We investigated 30 SLE patients with renal involvement in their active and remission period of the disease.

Results: We retrospectively analyzed the SLE patients treated with nephrotic range proteinuria between 2005 and 2013. 27(90 %) of the patients were female and 3 (10 %) of them were male. Female/male ratio was detected as 9. Mean age of the female and male patients was 32.00 ±9.047, 31.67±10.54 in orderly p=0.09. Mean proteinuria and serum albumin level of the patients at active disease period were 2.52±0.75 gr/day, 4.97±2.61 gr/dl in orderly. Mean proteinuria and serum albumin level of the patients at remission period after cessation of intensive immunosuppression were 0.98±1.85 gr/day, 4.08±0,65 gr/dl in orderly. It was detected that mean MPV at active disease period of the patients was statistically significantly detected higher than at remission period (8.30±1.09 and 7.88±0.86 in orderly, p=0.007).

Conclusion: It was reported that MPV had increased in many types of inflammatory states either acute or chronic in various diseases like sepsis, hepatitis, rheumatoid arthritis, malignancies and coronary artery disease. In this study we investigated MPV as a marker of disease activity in SLE patients with renal involvement during the periods of activation and remission of the disease. We detected that MPV statistically significantly increase during the active period of SLE patients with renal involvement. As we know this is the first study in literature that investigate MPV as marker of disease activity in SLE patients with renal involvement.

Key word: Systemic lupus erythematosus, renal involvement, MPV, disease activity

