SP054

SERUM PROLACTIN AS A MARKER FOR DIAGNOSIS AND DISEASE ACTIVITY OF LUPUS NEPHRITIS

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INTRODUCTION AND AIMS: Lupus nephritis (LN) is one of the most serious manifestations of systemic lupus erythematosus (SLE) which can involve all four renal compartments: glomeruli, tubules, interstitium and blood vessels. Recently, serum prolactin is being addressed as a diagnostic and prognostic marker of lupus nephritis due to lack of sensitivity and specificity of existing noninvasive markers. The main objective of this study was to assess the usefulness of serum prolactin as a marker for diagnosis and disease activity in LN.

METHODS: This cross-sectional study was conducted in the Department of Nephrology and Department of Rheumatology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka from September 2016 to August 2017. SLE patients were diagnosed using ACR 1997 criteria. SLE patients, suspected to have lupus nephritis on the basis of urine RME, 24 hour UTP, anti-dsDNA, C3, C4, underwent renal biopsy and were enrolled in group A. Group B consisted of patients with active SLE without renal involvement. Serum prolactin level was measured in both groups along with C3 and C4 and anti-ds DNA. Renal histology obtained was classified according to ISN/RPS 2004 criteria. SLE disease activity and LN activity was measured as per SLEDAI and Renal-SLEDAI score.

RESULTS: Most (80%) patients had severe disease activity in group A with mean renal activity score 11 ± 3.47. Serum prolactin levels were significantly higher in patients of group A than group B (41.51 ± 16.79 vs 14.92 ± 6.71 ng/ml). Serum prolactin level positively correlated with renal activity score and negatively with C3 and C4 in LN patients. Class III and IV LN patients had higher prolactin levels than Class II and V.

CONCLUSIONS: Prolactin might be a valuable serological biomarker to diagnose and to monitor disease activity of lupus nephritis.