THU0289 B-CELL ACTIVATING FACTOR GENE EXPRESSION IN URINARY SAMPLE AND RENAL BIOPSY FOR MONITORING DISEASE ACTIVITY IN LUPUS NEPHRITIS

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Objectives: To evaluate BLyS as biomarker in disease activity in urinary sample and renal biopsy from patients with LN.
Methods: Retrospective study. Between June 2009 and October 2013, 32 patients with SLE and LN fullfilling SLE classification criteria of ACR 1997 were included. The renal biopsies were evaluated according to the ISN/RPS classification system. The gene expression levels of BLyS were quantified using Quantitative Real Time PCR (QPCR). The relative quantification method was used for analysis, where Ct was normalized to an endogenous control β2Microglobulina (β2M) (ΔCt BLyS). The data expressed as ΔCt are inversely proportional to gene expression level. The value of BLyS is expressed as median (M) and interquartile range (IQR) for filing a non-normal distribution.
Results: 26 (81.3%) patients were female with a mean age at diagnosis of 26.9±13 years and 31.9±29 years at the time of renal biopsy. The SLEDAI at the time of biopsy was 10.5 (IQR 0–15.7) and SLICC ≥1 in 13 (32.5%), hypocomplementemia 13/31 (41.9%) and positive DNA in 11/29 (37.9%) patients. Biopsies from patients with proteinuria ≥0.5 and renal failure (RF) (n=23, 71.9%), proteinuria isolated (n=14, 43.8%), LN remission. The value of the BLyS gene expression in renal biopsy was 8.09 (IQR 7.37–9.16) and BLyS in urinary sample was 6.45 (IQR 5.62–7.76).
Conclusions: BLyS detection in urinary samples could be a potential biomarker for predicting lupus nephritis activity. Our data confirm that the BLyS as urinary biomarker is present in patients with active renal disease especially in patients with proliferative glomerulonephritis.
Disclosure of Interest: None declared
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THU0290 CLINICAL BACKGROUND FACTORS RELATED TO SILENT OSTEONECROSIS OF THE FEMORAL HEAD UPON INITIATION OF STEROID THERAPY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Osteonecrosis of the femoral head (ONF) occurs frequently (3–40%) in patients who receive corticosteroid therapy for SLE. MRI can accurately visualize pathological abnormalities of the femoral head, being much more sensitive than plain radiography. To analyze the risk factors associated with steroid-induced ONF, the best approach would be to examine early changes in the femoral head using MRI and any early clinical events attributable to steroid therapy. For treatment of SLE, a number of strategies may be selected according to the clinical conditions of patients, and treatments may differ slightly among hospitals. Therefore, for better clarification of the background factors associated with ONF, the optimum approach would be to analyze the treatment strategy, selection of steroid, initial dose of steroid and drugs used together with steroid in a cohort of patients treated at a single hospital.
Objectives: To clarify the factors related to silent ONF in patients with SLE treated at a single institution.
Methods: One hundred six patients (12 males and 94 females) with SLE were selected on the basis of having been newly diagnosed and requiring high-dose prednisolone, including pulse therapy with methylprednisolone, as the initial treatment. All the patients initially underwent plain radiography and MRI at the start of corticosteroid treatment to detect any early changes in the femoral head, and subsequent examinations were performed three months later. Laboratory parameters were evaluated at the start of steroid treatment and one month thereafter. All statistical analyses were performed with SPSS v. 13 (SPSS Inc., Chicago, IL, USA). Differences demonstrated by 2-tailed tests were considered statistically significant at *P* (two-sided) <0.05, and marginally significant at *P*=0.05–0.10.
Results: By three months after the start of corticosteroid treatment, asymptomatic ONF was diagnosed by MRI in 30 patients (28.3%), being bilateral in 17 and unilateral in 13. Serological activity (C3, C4, CH50 and anti-ds DNA antibody), renal function (eGFR, serum creatinine and urinary protein), anti-phospholipid antibodies, and SLEDAI were not correlated with asymptomatic ONF. BMI, BSA, and the initial dose of prednisolone per unit body weight, BMI and BSA were also not correlated with asymptpmatic ONF. No preventive effect of ONF was observed by pretreatment with statins. However, patients with angiitis and a elevated total cholesterol level at 4 weeks after the start of steroid treatment tended to show a higher incidence of ONF. Patients with a higher triglyceride level both before and 4 weeks after the start of steroid treatment showed a significantly higher frequency of asymptomatic ONF (P<0.001).
Conclusions: Asymptomatic ONF is common in patients with SLE. A high triglyceride level is a significant risk factor for ONF, and large epidemiologic surveys would help to shed light on early events such as silent ONF in patients receiving steroid therapy.
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THU0291 GENDER INFLUENCE ON CLINICAL, BIOLOGICAL AND IMMUNOLOGICAL ASPECTS OF SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systemic lupus erythematosus (SLE) is more frequent in women but seems to be more severe in men.
Objectives: The aim was to study gender influence on clinical, biological and immunological features of SLE
Methods: It's a retrospective study conducted in an internal medicine department. Patients with systemic lupus erythematosus (ACR revised criteria) were included. Data were recorded and compared using SPSS. Variables with a p≤0.05 were considered to be statistically significant.
Results: A total of 246 SLE patients were included; 224 female and 19 male (sex ratio F/M was 11.78). Mean ages at disease onset and at SLE diagnosis were comparable for men and women respectively 35.63±14.31 vs 32.7±13.36 years and 35.8±14.3 vs 34.5±13.6 years.
SLE diagnosis was made earlier in men with an average delay (from first sign of the disease to diagnosis) of 6.1 months vs 21.4 months (p=0.02). Clinically, photosensitivity was significantly more frequent in women (81.4% vs 58.8%; p=0.03). Women complained from alopecia more frequently than men but the difference was not statistically significant (35.1% vs 14.3%; p=0.09). Arthritis were two times more frequent in women (50.7% vs 25%; p=0.04). Lupus nephritis us well us lupus pancreatitis were significantly more frequent in men, respectively 66.7% vs 41.6% (p=0.039) and 11.1% vs 1.4% (p=0.047). There were no differences according to gender in neurological involvement and seritis. No significant differences were observed between men and women concerning hematological disorders. Anti-DNA, anti-Sm, anti-RNP, anti-SSA, anti-SSB, anti-cardiolipin and anti-B2GP1 antibodies frequencies were similar in both genders.
Conclusions: SLE diagnosis was made earlier in men than women, this could be explained by more severe disease in men [1]. However this hypothesis has been highly controversial [2]. Cutaneous and joints manifestations seem to be more frequent in women whereas serious manifestations like lupus nephritis and neurological involvements were more frequent in men [3–4]. In our study, only lupus nephritis and pancreatitis were more frequent in men.
References:
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Abstract THU0289 – Table 1. BLyS gene expression in urinary sample and renal biopsy according to clinical and histological findings

Variables	ΔCt BLyS Urinary	p	ΔCt BLyS Biopsy	p
SLEDAI =0/ SLEDAI ≥6	**7.52 (6.59–11.19)/5.94 (5.52–7.08)**	**0.04**	8.03 (6.90–10.20)/8.15 (7.35–9.10)	0.82
Bx LN in remission/LN active	**7.52 (6.59–11.19)/5.94 (5.52–7.08)**	**0.04**	8.03 (6.90–10.20)/8.15 (7.35–9.10)	0.82
MDRD ≥60/ MDRD <60	**6.76 (6.018.12)/5.60 (5.16–7.19)**	**0.04**	8.03 (6.95–8.95)/8.41 (7.45–13.40)	0.42
Proteinuria <0.5/Proteinuria ≥0.5	**7.52 (6.59–11.19)/5.94 (5.52–7.08)**	**0.04**	8.03 (6.90–10.20)/8.15 (7.35–9.10)	0.82
Without tubular atrophy in Bx /Tubular atrophy in Bx	**7.83 (6.43–11.67)/6.14 (5.51–7.24)**	**0.03**	8.16 (6.44–8.52)/8.09 (7.42–10.55)	0.53

Abstract THU0289 – Table 2. BLyS gene expression in urinary sample and renal biopsy according to the classification of LN

	Class I/Normal Bx	Class II Bx	Class IV Bx	Class V/VI Bx	P
ΔCt BLyS Renal Biopsy	7.56 (6.50–7.56)	8.41 (7.36–10.37)	7.95 (7.37–10.04)	8.28 (7.37–11.80)	0.88
ΔCt BLyS Urinary***	**7.28 (9.95–7.28)**	**8.41 (7.36–10.37)**	**5.65 (5.45–6.40)**	**6.34 (5.74–7.32)**	**0.003**

***p<0.05 Class I/normal with class IV, Class II with IV, class II with V/VI.