PO.5.116 LUPUS NEPHRITIS RESPONSE IN TERMS OF KIDNEY FUNCTION, URINE SEDIMENT AND SEROLOGICAL ACTIVITY AFTER BELIMUMAB TREATMENT

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Background Systemic lupus erythematosus (SLE) is a heterogeneous autoimmune disease characterized by an immune dysregulation and autoantibodies production. Kidney affection appears in around 40% of patients and eventually condition the prognosis, morbidity and mortality. Lupus nephritis (LN) is classified into 6 types, being the worst prognosis types III and IV.

Belimumab is a monoclonal antibody targeting BLyS approved for SLE, but currently it had no lupus nephritis (NL) indication. In 2020, promising results from a controlled Belimumab trial in LN were published.

Objective To analyze effectiveness of subcutaneous or intravenous Belimumab in LN patients under follow-up by the rheumatology department of a tertiary hospital.

Methods Observational, retrospective, and cross-sectional study including SLE patients according to SLICC/ACR 2012 criteria treated with Belimumab subcutaneous or intravenous. Patients had kidney affection based on pathological findings (kidney biopsy) or urine sediment alterations. A clinical history review was made and serological data, kidney function and urine sediment were collected.

Results From a total of 29 patients treated with belimumab, 9 presented kidney affection. In this group, 8 patients had lupus nephritis demonstrated by kidney biopsy and one patient had an active urine sediment. For them, median age was 37.56 (7.03) years, with 15.13 (8.71) years since SLE diagnosis was made and 4.61 (2.64) years since onset of belimumab. Regarding to type of nephritis, most prevalent type was III (33.3%), followed by type IV (22.22%). Two patients presented combination of both types III and IV and only one patient had type V.

The results obtained were included in the table.

Abstract PO.5.116 Table 1

		Basal					Follow-up				
Patient	NL Type	Proteinuria (g/24h)	Creatinine (mg/dL)	Glomerular filtration (ml/min)	Anti-DNA	C3, C4	Proteinuria (g/24h)	Creatinine (mg/dL)	Glomerular filtration (ml/min)	Anti-DNA	C3, C4
1	III	1	0.81	90	50	80. 8	0.4	0.73	89	24	80. 20
2	V	0.75	0.40	130	24	normal	0	0.49	130	43	normal
3	III	0.75	0.73	101	164	normal	0	0.80	82.9	78	normal
4	IV	0.6	1.26	55	21	normal	0.70	1.29	71	2.2	normal
5	IV	0.95	1.29	71	15	101. 10	0.17	0.88	84	85	89. 23
6	-	0.24	0.87	96	22	76. 11	0.17	0.82	85	14	63. 10
7	III-V	1	0.67	113	108	57. 8	0.10	0.75	101	57	50. 15
8	III-V	0.86	0.70	129	7.6	51. 18	1.27	0.86	118	11	59. 17
9	III	1.18	0.68	119	378	67. 11	0.17	0.69	117	83	96. 23

Conclusions In clinical practice, belimumab can improve LN in terms of serological activity, kidney function and urine sediment. It could be a promising option associated to standard therapy for SLE patients with kidney affection. As a future aim, we propose to homogenize therapeutic efficacy definition in order to compare studies and to obtain common conclusions.

PO.5.117 SERUM ATHEROGENICITY IN WOMEN WITH UNTREATEDLUPUSNEPHRITIS

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Background Systemic lupus erythematosus(SLE) is associated with an unexplained increase cardiovascular risk.The nature of the factors that contribute to progression of atherosclerosis-were identified using the method for determining the atherogenicity of blood serum in cell culturein cell culture (in vitro). The term 'atherogenicity' is meant as the ability of the serum and/or its components to induce intracellular accumulation of cholesterol in cultured cells.

Objective To determine atherogenicity of blood serum in womenwith untreatedlupus nephritis(LN),and to compare it withuntreatedSLE women without LN, andin healthy women.

Methods Fifteenwomen(median age 29 [22;39] years) with active untreated LN (mediandisease duration 15 [3;45]months; were enrolled in group 1 the study. Twenty two SLE women without LN(median age 31[21;41] years, median disease duration 10[5;38] months;were included in group2.SLADAI 2Kwas higher in patients of group 1 (21 [12;39]) compared to patients of group 2 (12[6;18], p<0,05). The control group consisted of 30women, median age 31 [25;39] years. Atherogenicity of blood serum was determined in the culture of murine macrophages.Peritoneal macrophages were isolated from the ascitic fluid of the line mice according to the generally accepted methodJ. Goldstein et al (1979y). Serum atherogenicity was determined by the accumulation of intracellular cholesterol induced by 10% of the blood serum of the patients, and expressed as a percentage of the content of cholesterol in the control cells.

Results The ability to stimulate the accumulation of cholesterol esters in murine macrophageswas the highest in women of group 1 compared to group 2 (305±141% vs 180±52%, p<0,05) and control group (305±141% vs 127±42%, p<0,001). The blood serum of group 1 and group 2 caused a 6–7-and 3–4-fold accumulation of intracellular cholesterol, respectively, which significantly differed from healthy women; andwas not associated with age, duration of the disease, lipid spectrum.

Conclusion The highest atherogenicity was found in blood serum of LN women. Serums of women with untreated SLE without LN too maystimulate the accumulation of cholesterol in mouse macrophages unlikeofhealthy women.

PO.5.118 FUNCTIONAL MULTIPARAMETRIC MRI TO ASSESS RENAL INVOLVEMENT IN SLE

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Introduction and Purpose Renal involvement impairs the outcome of systemic lupus erythematosus (SLE). Renal biopsy is