SERUM FREE LIGHT CHAINS AS A FLARE BIOMARKER IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Complement levels are already known as biomarkers of flare in systemic lupus erythematosus (SLE); currently the usefulness of free light chains (FLC) in different autoimmune diseases in which the B cell has a relevant pathogenic role, as in the case of SLE, is being investigated.

Objectives: To explore the usefulness of FLC determination as a flare biomarker in patients with SLE and to analyse possible discriminative differences between FLC and complement C3 and C4 levels.

Methods: We performed an unicentric prospective longitudinal study with the following inclusion criteria: age greater than 18 years old and fulfilment of ACR or SLICC criteria for the diagnosis of SLE. Exclusion criteria were non-SLE related haematological disease, severe infection and severe kidney disease (Creatinine >2 mg/dl) to avoid interferences with FLC clearance. SLE flare definition was based on the SFI index. Receiver operator curves (ROC) and calculation of the area under the curve (AUC) were used to compare the discriminative ability between FLC and C3-C4 levels.

Results: 46 patients were enrolled. For the present communication, only baseline data were analysed. 41 (91%) patients were women. Most frequent clinical manifestations were haematological (83%) and cutaneous (72%). Laboratory findings were 98% positive ANA, 67% positive antiDNAdc, 54% decreased C3% and 39% positive ANCA. Flare manifestations were haematological (83%) and cutaneous (72%). Laboratory findings were higher C3 (27 vs 19; p=0.028). In addition, flare patients had higher IgA levels (402 vs 250; p=0.004), lower concentrations of lambda light chains (10 vs 17; p=0.008) with higher concentrations of kappa light chains (35 vs 24; p=0.028).

Conclusions: Lambda free light chains have a good discrimination capacity for SLE flares and could be useful as a SLE flare biomarker. Longitudinal studies with prospective data are required to unravel the actual immunologic impact of cigarette smoke on SLE development in different subsets of SLE patients.

Disclosure of Interest: None declared


NEUTROPENIA IN SYSTEMIC LUPUS: PREVALENCE, SPECIFIC FEATURES AND CLINICAL CONSEQUENCES. RESULTS FROM THE LARGE UPPER RHINE DATABASE

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Background: The prevalence, pathophysiology and underlying causes or consequences of neutropenia in systemic lupus erythematosus (SLE) are still not well defined even if neutropenia seems to be rather common in this disease.

Objectives: To evaluate the prevalence of neutropenia in a large cohort of SLE patients and to identify correlation between neutropenia and other socio-demographical, clinical, serological or therapeutic factors.

Methods: We used the LBBR database, a cross-sectional collection of detailed socio-demographic, clinical, serological and therapeutic data from 1,078 SLE patients (14 French or german Upper Rhine Hospitals). Neutropenia was defined by the presence of less than 1800 circulating neutrophils/l. Patients with and without neutropenia were compared considering 47 variables. The second part of the study focused on a subgroup of SLE LBBR patients for which full data were available about the duration and depth of neutropenia. Chronic neutropenia was defined by neutrophils count less than 1,500/l during at least 6 months and moderate and severe neutropenias were defined by neutrophils count less than 1,000/l.

Results: Among 1078 SLE patients, 223 (20.7%) were registered with neutropenia during their history. Mean age and sex ratio were comparable to the whole SLE cohort and to patients without neutropenia (mean age: 43.9 years old, sex ratio: 194 F/28 M). In multivariate analysis, neutropenia was associated with lymphopenia (OR=3.44 [2.48–4.80], p=0.0002) and thrombopenia (OR=3.59 [2.55–5.06], p=0.0002). There was no association with susceptibility to infections (OR 0.97 [0.52–1.80], p=0.6640), neither with SLEDAI score, SLE treatments or other ACR criteria.

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