Clinical Sciences

CS-01 DIFFERENTIAL EXPRESSION OF THE FSTL-1 PROTEIN AMONG PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

[1,2]Adriana Carlomagno*, [3]Fiorella Cavalleri, [1,4]Paola Contreras, [3]José Badano, [2]Álvaro Danza, [5]José Mario Sabio, [1]Carlos Escande. *[1]Laboratory of Metabolic Diseases and Aging – Institut Pasteur de Montevideo. Montevideo – Uruguay; [2]Clinical Medical '2' Faculty of Medicine – Hospital Pasteur – Montevideo – Uruguay; [3]Laboratory of Human Molecular Genetics – Institut Pasteur de Montevideo. Montevideo – Uruguay; [4]Department of Physiology, Faculty of Medicine – Montevideo – Uruguay; [5]Unit of Autoimmune diseases, Virgen de las Nieves Hospital – Granada – Spain*

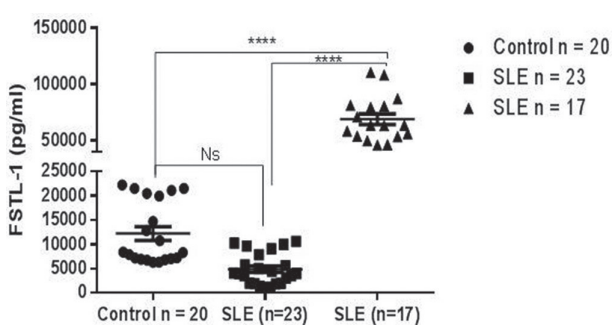
10.1136/lupus-2018-lsm.36

Background There is an increasing prevalence of insulin resistance and metabolic syndrome in Systemic Lupus Erythematosus (SLE). Follistatin-like 1 (FSTL-1) is a secreted glycoprotein recently identified as a proinflammatory cytokine and emerging as a potential mediator of inflammation. Its plasma levels are elevated in rheumatoid arthritis and correlate with disease activity. In fact, FSTL-1 has been proposed as a marker of autoimmune diseases. However, it is not clear whether this protein plays a role in SLE. We aimed to evaluate the plasma FSTL-1 value of patients with SLE and the interactions between their plasma concentration, metabolic syndrome variables, markers of activity and disease damage.

Methods Plasma concentration of FSTL-1 of 40 female SLE patients and 20 healthy controls was measured by enzyme-linked immunosorbent assay (ELISA). Metabolic variables, activity and disease damage were measured and analyzed. The activity of SLE was determined by Systemic Lupus Erythematosus Disease Activity Index (SLEDAI-2K). Damage accumulated was calculated by the Index of Damage SLICC/ACR (SDI Damage index). A one-way ANOVA test was performed to assess the difference between the mean FSTL-1 values in different groups. Interactions between variables of the database and their effect on FSTL-1 was evaluated using a regression tree technique.

Results Healthy controls and SLE females attended on an outpatient basis had a mean of 38±16 and 40±13 years old respectively. SLE patients had low levels of activity and damage measured both by the scores and by the individual parameters of inflammatory activity. The mean value of FSTL-1 was 12213±1424 pg/ml for healthy individuals. Of the SLE patients 57% had a mean value of 4855±662.8 pg/ml and 43% had a mean of 68000±4789 pg/ml. There was a significant difference between the subgroup of SLE with high value of FSTL-1 compared to the control (p-value<0.001) and the subgroup with low value of FSTL-1 (p-value<0.001) (figure 1). From the regression analysis, we found a correlation between increasing plasma concentrations of FSTL-1 and presence of variables of metabolic syndrome (insulin, cholesterol and leptin) in patients with SLE. No correlation was found between FSLT-1 value and the activity or damage of the disease.

Conclusions FSTL-1 is significantly elevated in patients with SLE compared to controls. Moreover, elevated levels were observed in SLE patients with elevated leptin, cholesterol or insulin. More studies are needed to determine if there is a pathogenic role, and if this population have a worse long-term cardiovascular prognosis.



Abstract CS-01 Figure 1

CS-02 THE LUPUS COHORT IN THE NEW CARRA REGISTRY: THE FIRST YEAR OF ENROLLMENT

[1]Aimee O Hersh*, [2]Mary Beth Son, [3]Stacy Ardoin, [4]Deborah Levy. *[1]University of Utah, Salt Lake City, UT, USA; [2]Boston Children's Hospital, Boston, MA, USA; [3]Nationwide Children's Hospital, Columbus, OH, USA; [4]Hospital for Sick Children and University of Toronto, Toronto, Canada*

10.1136/lupus-2018-lsm.37

Background The Childhood Arthritis and Rheumatology Research Alliance (CARRA) aims to collect meaningful clinical data on all children affected by rheumatic disease in North America as a basis for performing high quality clinical and translational research. The new CARRA Registry (building on a prior CARRA registry with a minimal dataset) has enrolled pediatric patients with systemic lupus erythematosus (SLE) and related conditions since March 2017. We sought to describe the popula-

Abstract CS-02 Table 1 Components of SLEDAI Present within 30 days of Baseline Visit (n=184)

SLEDAI Component	N (%)
Seizure	1 (0.5%)
Psychosis	2 (1%)
Organic Brain Syndrome	1 (0.5%)
Visual Disturbance	1 (0.5%)
Cranial Nerve Disorder	1 (0.5%)
Lupus Headache	8 (4%)
Cerebrovascular Accident	0
Vasculitis	6 (3%)
Arthritis	24 (13%)
Myositis	8 (4%)
Urinary Casts	25 (14%)
Hematuria	13 (7%)
Proteinuria	13 (7%)
Pyuria	10 (5%)
Rash	32 (17%)
Alopecia	13 (7%)
Mucosal Ulcers	19 (10%)
Pleurisy	0
Pericarditis	0
Low Complement	72 (39%)
Increased DNA Binding	50 (27%)
Fever	14 (8%)
Thrombocytopenia	8 (4%)
Leukopenia	22 (12%)