Conclusions Serum CIC and IL-6 significantly correlated with clinical SLEDAI, which is higher degree of correlation than anti-dsDNA, C4 and C3 levels. Our study suggested that CIC and IL-6 can be used as alternative biomarkers to determine disease activity.

Abstracts

**324** IMMUNE COMPLEX GLOMERULONEPHRITIS ASSOCIATED WITH LYSINURIC PROTEIN INTOLERANCE: A CASE REPORT AND REVIEW OF THE LITERATURE

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**Background and aims** Patients with lysinuric protein intolerance (LPI) due to inherited defect of cationic amino acid transport in intestine and renal tubules may have aberrant immune responses leading to multiple organ involvement. The renal involvement with immune complex glomerulonephritis in LPI is albeit rare and has not been well established.

**Methods** We report a 4-year-old boy manifested nephritoc syndrome with renal histological findings showing immune complex glomerulonephritis highly suggested of lupus nephritis, but the initial serology survey excluded the diagnosis of SLE initially. The diagnosis of lysinuric protein intolerance was established and SLE developed 1 year later. Renal manifestations in patients with LPI and the coexistence of LPI with SLE are reviewed.

**Results** The initial renal involvement in LPI included renal tubular dysfunction, nephritic and nephrotic syndrome. During follow-up, some patients developed renal function impairment and may progress to end stage renal disease. Glomerulus was the major involved lesion with the most common histological finding was immune complex glomerulonephritis. Five patients, including our patient, with LPI coexisted with SLE have been reported during follow-up. These patients characterised female predominant, young onset age, predominant renal involvement, and poor prognosis. Our patient supported the suggested mechanism of macrophage activation. Treatment with steroid and cyclosporine accordingly led to remission of nephritis.

**Conclusions** LPI was not only a disorder of amino acid wasting but also a complex multisystemic disease with aberrant immune responses. LPI-associated glomerulonephritis shares similar characteristics on renal histology with lupus nephritis. Both macrophage activation and excess arginine accumulation might play roles on the pathogenesis.

**326** ROLE OF BIOACTIVE LIPS IN AUTOINMUNE DISEASES INCLUDING LUPUS

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**Background and aims** To evaluate whether a regimen of corticosteroids and cyclophosphamide, and methods designed to enhance endothelial NO synthesis and augment antioxidant defenses can lead to long-lasting remission of lupus and other autoimmune diseases.

**Methods** Patients with established lupus, dermatomyositis and rheumatoid arthritis are selected for the study. Their plasma phospholipid content of unsaturated fatty acids, nitric oxide, anti-oxidants and cytokines are measured before and after treatment.

**Results** Plasma phospholipid content of arachidonic, eicosapentaenoic and docosahexaenoic acids (AA, EPA and DHA respectively) were found to be low and so also plasma nitric oxide levels and anti-oxidants with a concomitant increase in plasma IL-6 and TNF concentrations. These patients were given pulses of methylprednisolone and cyclophosphamide based on their disease status and response to therapy followed by oral supplementation of GLA/EPA/DHA daily.

**Conclusions** All patients who entered the study went in to full remission that was found to be associated with restoration of plasma phospholipid content of AA/EPA/DHA, anti-oxidants and nitric oxide and cytokines to normal. All these patients were in full remission even after stopping immunosuppressive drugs but are continuing GLA/EPA/DHA orally.
Background and aims The gene C-reactive protein (CRP), located at 1q23-24, is a candidate to be investigated as a susceptibility locus for systemic lupus erythematosus (SLE). The aim of the study was to evaluate the association between the +1444CT CRP polymorphism with the susceptibility for SLE, disease activity, and CRP serum levels.

Methods The study enrolled 176 SLE patients and 223 healthy controls from Brazilian population. SLE disease activity (SLEDAI), clinical and laboratorial characteristics were evaluated. The +1444CT CRP polymorphism was determined using polymerase chain reaction and restriction fragment length polymorphism.

Results The frequency of CC vs. TT genotypes and the C vs. T allele among the patients differed from the controls (p=0.0201 and p=0.0072, respectively). Patients carrying the T allele presented higher CRP (p=0.017) and showed a trend toward higher IL-6 compared with patients carrying the C allele (p=0.057). The increased CRP was independently of the IL-6 in these subgroups of patients. SLE patients carrying the CC genotype showed positive correlation between CRP and C4 levels (p=0.039), while those with T allele presented a trend toward a negative correlation between CRP and C3 and C4 (p=0.056 and p=0.073, respectively); and a trend toward positive correlation with anti-nucleosome and anti-dsDNA (p=0.052 and p=0.091, respectively).

Conclusions Our data showed that +1444CT CRP polymorphism was associated with SLE susceptibility and CRP levels, as well as CRP levels were associated with disease activity, suggesting that this polymorphism may play a role in the pathophysiology of SLE, which may be used as a possible marker of disease activity.

Background and aims The role of CCR5Δ32(rs333) polymorphism in the pathogenesis of systemic lupus erythematosus (SLE) has been evaluated worldwide. The aim of this study was to determine the association between CCR5Δ32 polymorphism with the susceptibility to SLE and the activity of disease in female Southern Brazilian patients.

Methods The study enrolled 169 female SLE patients and 132 unrelated female healthy individuals. Baseline clinical, laboratorial characteristics, and the SLE activity (determined using the SLEDAI) were evaluated according to the CCR5Δ32 genotypes. The CCR5Δ32 polymorphism was determined from genomic DNA using a polymerase chain reaction.

Results The frequencies of genotypes CCR5/CCR5, CCR5/CCR5Δ32 and CCR5Δ32/CCR5Δ32 were 87.6%, 11.8%, and 0.6%, respectively, among the patients, and 96.2%, 3.8%, and 0.9%, respectively among the controls, [p=0.0116, odds ratio:3.432 (95% confidence interval:1.252–9.40)]. Patients carrying the CCR5/CCR5Δ32 and CCR5Δ32/CCR5Δ32 genotypes presented earlier age of onset of disease (p=0.0293) and higher levels of anti-dsDNA (p=0.0255), than those carrying the wild type genotype. When the analysis was adjusted for ethnicity, only the age at onset of disease remained associated with the CCR5Δ32 polymorphism (p<0.05); patients with variant CCR5Δ32 allele (heterozygous and homozygous), presented lower age at onset of disease than those with the wild type genotype.

Conclusions The results suggest that the CCR5Δ32 polymorphism might be associated with SLE genetic predisposition among female Brazilian patients and the age at onset of the disease; however, this genetic variant was not associated with the activity of SLE in this population.