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IS THERE A RELATIONSHIP BETWEEN VITAMIN D AND COMPLEMENT IN PATIENTS WITH JUVENILE SYSTEMIC LUPUS ERYTHEMATOSUS?

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Purpose Complement consumption is a feature of active Systemic Lupus Erythematosus (SLE), and serum complement components measurement is used in clinical practice in the surveillance of these patients. Also, vitamin D deficiency is a common finding in SLE. This study aimed to evaluate the correlation between serum levels of 25-hydroxyvitamin D (25OH-D) and C3c/C4 in patients with juvenile SLE.

Methods A population of juvenile SLE patients was retrospectively evaluated. Data on demographic and clinical characteristics was collected. Serum 25-OH-colecalciferol (normal >30 ng/ml), C3c (normal >75 mg/dl) and C4 (normal >10 mg/dl) values were also gathered. Statistical analysis was performed using Pearson and Spearman correlation coefficient. Significance level was set as <0.05.

Results Twenty-one patients were included, with a mean current age of 26,6 years ($\pm 7,44$). Two patients were male (9,5%). Eleven patients (52,4%) had renal involvement: 9

with lupus nephritis class IV, 1 with class III and 1 with class II. More than half of them (63,6%) were in maintenance treatment with mycophenolate mofetil. Considering laboratory measurements, the mean serum 25OH-D was 22,1 ng/ml ($\pm 9,36$), mean C4 17,5 mg/dl ($\pm 7,29$) and median C3c 105 mg/dl (from 18 to 144 mg/dl). Only 14,3% (n=3) had serum 25OH-D above 30 ng/ml; 19,0% (n=4) had low C3c levels and 9,5% (n=2) low C4 levels. When correlating 25OH-D with C3c values, no statistical significant difference was found ($r=0,005$; $p=0,9843$). The same occurred with 25OH-D and C4 ($r=0,127$; $p=0,5843$).

Conclusion Vitamin D has an important role on the immune system modulation, but still not fully understood. In SLE, other authors have described a positive correlation between serum levels of 25OH-D and complement components levels. Despite the small sample size, this hypothesis was not confirmed in the presented population.

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NOT ALL PATIENTS WITH LUPUS ARE SIMILAR

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Abstract PS3:63 Table 1

	LES CV "free"	LES CVD sub	LES CV
Cholesterol (mg/dl)	183,66 $\pm$ 32,80	202,58 $\pm$ 29,52	170,18 $\pm$ 40,95
HDL cholesterol (mg/dl)	66,20 $\pm$ 17,73	57,23 $\pm$ 15,03	55,47 $\pm$ 19,12
LDL cholesterol (mg/dl)	101,46 $\pm$ 28,87	124,90 $\pm$ 24,99	94,06 $\pm$ 32,47
Triglycerides (mg/dl)	80,45 $\pm$ 43,37	105,06 $\pm$ 51,15	104,59 $\pm$ 44,0
	LES "free" % (n)	LES CV sub % (n)	LES CV % (n)
Age at diagnosis	33,12 $\pm$ 11,43	38,23 $\pm$ 16,52	31,17 $\pm$ 9,98
Evolution time	22,88 $\pm$ 11,08	16,42 $\pm$ 12,53	12,32 $\pm$ 9,94
SLEDAI	2,12 $\pm$ 2,80	2,65 $\pm$ 2,64	2,42 $\pm$ 2,74
Corticoids	36,620 (26)	29,032 (9)	58,824 (10)
Antimalarial drugs	88,732 (63)	83,871 (26)	100% (17)
Immunosuppressive	36,62 (26)	32,258 (10)	23,529 (4)

Lupus systemic erythematosus is characterised by an increasing risk of premature cardiovascular disease (CVD). CVD is one of the most common causes of death in SLE. Subclinical atherosclerosis in comparison to general population is also more prevalent.

Methods A cross-sectional study was carried out from March to November 2015. Patients (119; 94.1% women) were recruited from consultation at the Systemic Autoimmune Diseases Unit for a routine medical check.

The population was divided into three groups: patients with lupus free cardiovascular disease (free CVD), lupus with subclinical cardiovascular disease (sub CVD) (with endothelial dysfunction in ultrasonography but no clinic events) and people with clinical cardiovascular disease.

Patients with subclinical disease have higher cholesterol levels when compared to patients with established cardiovascular disease (p value=0.008) and to patients with SLE without vascular disease (p value=0.043). This is due to the lack of knowledge of subclinical damage by the clinician and, in addition to the absence of visible vascular damage, strict control of cholesterol levels is not performed in this group. Likewise, LDL cholesterol levels are elevated in the same context as triglycerides (differences between SLE free and SLE with subclinical SLE).

There were no differences in the activity index, what is likely to be in relation to the low activity they had at the time of inclusion in the study. We do have indeed detected differences in the time of evolution of those who present vascular damage (longer evolution time, 22.88 years) compared to patients without vascular involvement (12.32 years) suggesting that at the same time as more years of disease are accumulated vascular damage accumulates. Likewise patients with vascular damage and subclinical vascular damage were older (55.12 and 54.29, respectively), compared to those with no involvement (42.94 years).

No differences were detected between the use of antimalarials or the deleterious effect of corticosteroids and immunosuppressants (traditionally associated with increasing vascular risk) in the presence of clinical, subclinical or absence of vascular damage.

It is important to know the lupic population with a higher tendencies to have vascular damage for the purpose of greater control.

PS3:64 CLINICAL FEATURES OF ANTI-RNP POSITIVE PATIENTS IN KOREA

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Introduction Anti-RNP antibody is associated with overlap syndrome, which is classified either systemic lupus erythematosus (SLE) or systemic sclerosis (SSc) later. The aim of current study is to investigate whether certain clinical features of anti-RNP positive patients can predict further disease predisposition.

Method We reviewed medical records of patients visited at Soonchunhyang University Cheonan Hospital since April of 1990. Initial clinical symptoms and its' onset, other clinical symptoms developed during observational periods, autoantibody profiles were investigated.

Results A total of thirty-two patients with anti-RNP positive patients were identified during 2008 to 2017 (female $n=28$, male $n=4$). The most common initial clinical symptoms were musculoskeletal symptoms including arthritis, arthralgia, myositis, myalgia, and puffy hands ($n=10$, 31.1%), followed by mucocutaneous symptoms including photosensitivity, malar rash ($n=9$, 28.1%), cytopenia including hemolytic anaemia, leucopenia, and thrombocytopenia ($n=8$, 25%), Raynaud's phenomenon (RP, $n=7$, 21.9%), renal involvement ($n=3$, 9.4%), serositis ($n=3$, 9.4%), and enteritis ($n=2$, 6.3%). Average 9 years of follow-up duration, 87.5% of patients were diagnosed SLE ($n=28$) while 18.8% of patients were diagnosed SSc ($n=6$). None of patients diagnosed SSc showed initial clinical symptoms such as enteritis, serositis, cytopenia, or renal involvement. Patients who had RP at the beginning showed significantly high risk for developing SSc (Risk ratio 7.1 95% confidential interval 1.6–31.3). Patients with positive anti-dsDNA ($n=17$, 53.1% of all patients, $p=0.004$) and anti-Sm ($n=17$, 56.3%, $p=0.03$) anti-Ro/SSA ($n=16$, 50%, $p=0.07$) antibody were significantly frequently diagnosed as SLE during follow-up periods. higher in SLE than those with SSc, while patients with SSc. Of six patients with SSc, three patients (50%) showed anti-Scl t antibody, one patient (16.7%) showed anti-centromere antibody, and, of note, two patients (33.3%) showed no SSc specific antibody.

Conclusion In patients with anti-RNP positive, patients with Raynaud's phenomenon have increased risk of developing systemic sclerosis even without SSc specific autoantibodies, while patients with serositis, cytopenia, enteritis, or renal involvement have higher probability to have SLE.

PS3:65 VITAMIN D DEFICIENCY IN PATIENTS WITH SYSTEMIC LUPUS ERYTHEMATOSUS AND RELATIONSHIP WITH DISEASE ACTIVITY

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Purpose Systemic lupus erythematosus (SLE) is a multisystem autoimmune disorder which mainly affects women in the reproductive age. Vitamin D appears to have an immunomodulatory action, low levels of vitamin D having been described in patients with autoimmune rheumatic diseases. The aim was to report vitamin D levels and their relationship with disease activity in a cohort of SLE patients.

Methods A cohort of 20 patients, 18 female and 2 male is described. The patients were diagnosed with SLE and had arthralgias, cutaneous manifestations, fatigue and decreased complement levels. Blood levels of 25(OH)D3 were measured in all patients. 25(OH)D3 levels were measured by radioimmunoassay. The measurement of 25(OH)D3 by radioimmunoassay consisted of a two-step procedure. The first step involved a rapid extraction of 25(OH)D and other hydroxylated metabolites from serum or plasma with acetonitrile. Following extraction, the treated samples were then assayed by competitive RIA using an antibody with specificity to 25OHD. The sample, antibody and tracer were incubated for 90 min at 20–25 °C. Phase separation was accomplished after 20 min incubation at 20–25 °C with a second antibody precipitating