SLE physiopathology has provided to analytic and immunological criteria in the subsequent classification criteria.

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SAT0218

SINGLE NUCLEOTIDE POLYMORPHISMS LOCATED IN REGULATORY REGIONS OF GENES INVOLVED IN SYSTEMIC INFLAMMATION (MAMDC1, ITGAM, AND CRP) CORRELATION WITH THE CLINICAL PICTURE OF DISEASE AND ACTIVITY PARAMETERS IN SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: The exact pathogenesis of systemic lupus erythematosus (SLE) is poorly understood. It is an autoimmune disease that leads to a chronic inflammatory process involving numerous tissues and organs (skin, kidneys, joints, central nervous system, cardiovascular, respiratory, digestive and hematopoietic systems). However, despite the advancement of SLE molecular biology and the wide availability of tests and diagnostic tools, the knowledge about factors predicting the clinical disease activity as well as related changes in the laboratory results is insufficient.

Objectives: The goal of the study was to assess the relationship between selected single nucleotide polymorphisms (SNPs) and the clinical picture of disease and some activity parameters in patients with SLE.

Methods: We conducted a study of adult patients with SLE diagnosed and treated in the Rheumatology Department of Medical University of Lublin between 2016-2019. We enrolled 80 patients with SLE (71 women, 9 men), with the median (range) age 36 (19-72) and disease duration 6 (1-37) years. To objectively assess disease activity, standardized SLE activity scale - SLEDAI (Systemic Lupus Erythematosus Disease Activity Index) was used. Using the Real-Time PCR method and specific TaqMan probes SNPs of 3 genes: *MAMDC1* (rs910875; c.-1687G> C), *CRP* (rs3091244; c.-390C> A), and *ITGAM* (rs7193943; c.-323G> A) were analyzed and then their relationship with specific clinical picture of disease, activity and laboratory results were assessed.

Results: Carriers of the CC genotype compared to the remaining polymorphic variants (CG and GG) of the *MAMDC1* gene had an approximately 4-fold higher risk of skin disease compared to other clinical pictures of disease (renal, articular, neuro-psychiatric, hematological) (OR = 4.04; p = 0.0110). Carriers of this genotype also had a higher risk of hematuria (OR = 4.57; p = 0.0082), sterile leukocyturia (OR = 53.91; p = 0.0071), the presence of anti-Sm / RNP antinuclear antibodies (OR = 4.15; p = 0.0074), reduced values of the C3 complement component (OR = 6.11; p = 0.0071) and the need for oral glucocorticosteroids (OR = 7.01; p = 0.0028). In addition, significantly higher values of SLEDAI disease activity scale were observed in carriers of the CC genotype of the *MAMDC1* gene (medians: 6 vs 4; p = 0.0220). Moreover, we observed a trend towards a higher risk of hepatomegaly in GG genotype carriers of the *ITGAM* gene (OR=18.50; p=0.0525). In addition, the AA genotype of the *CRP* gene was associated with a higher risk of proteinuria (OR = 84; p <0.0001), Anti-SSA / Ro autoantibodies (OR = 3.29; p = 0.0484), and aCL IgM (OR = 3.42; p = 0.0332) occurrence. Carriers of AA genotype of the above gene were also at higher risk of earlier occurrence of first disease symptoms as well as disease diagnosis at a younger age (respectively: 24 vs 31 years; p=0.0225, 23 vs 29 years; 0.0442).

Conclusion: The results suggest the relationship between SNPs in genes involved in systemic inflammation (*MAMDC1*, *ITGAM*, *CRP*) and disease activity as well as the occurrence of some specific clinical pictures of disease in patients with SLE. The genetic dispositions described above may serve as attractive markers in SLE, potentially useful in clinical practice.

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SAT0219

PATIENT CHARACTERISTICS, TREATMENT PATTERNS, AND RESOURCE UTILIZATION OF SJOGREN'S SYNDROME PATIENTS IN A LARGE US HEALTH NETWORK

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Background: Sjogren's syndrome (SS) is a chronic progressive autoimmune disorder which occurs as primary (pSS) or secondary SS (sSS). With no approved disease modifying therapy, there is limited information on the treatment patterns and resource utilization among these patients (pts).

Objectives: To describe pts characteristics, treatment patterns and healthcare resource utilization (HCRU) using electronic health records (EHR) of pts with pSS and sSS treated at the Providence St. Josephs Health system (PSJH).

Methods: Pts ≥18 years of age with at least one clinical encounter with ICD-9-CM or ICD-10-CM diagnosis of SS, between Jan 2013 and Mar 2019 were included. Date of first encounter with SS diagnosis (index date) was used to assess pts demographics. Pt baseline comorbidities were evaluated during the 24 months pre-index period. Treatment patterns and HCRU were assessed during the 12 months post-index follow-up. Descriptive statistics were used to

Table 1. Baseline Demographic and Clinical Pts Characteristics

	SS Pts (n=9,108)
Demographics	
Age (years) on index date, mean (SD)	58.3 (15.1)
Female, n (%)	8,338 (91.6)
Caucasian, n (%)	6,936 (76.2)
Western Region, n (%)	8,998 (98.8)
Married, n (%)	5,164 (56.7)
Never Smoked, n (%)	4,847 (53.2)
Primary diagnosis, n (%)	2,137 (23.5)
Comorbidities, n (%)	
Cardiovascular	1,408 (17.2)
Endocrine	3,733 (45.5)
Oncology	800 (9.8)
Blood disorders	1,221 (14.9)
Pulmonary	1,802 (22.0)
Neurological	1,821 (22.2)
Liver/Kidney	1,782 (21.7)
Rheumatologic disorders	2,096 (25.6)
Autoimmune/ Immune related	1,527 (18.6)
Baseline Medications, n (%)	
Symptomatic ¹	1,756 (43.0)
NSAIDs ²	1,578 (38.6)
cDMARDs ³	1,435 (35.1)
Corticosteroid ⁴	1,393 (34.1)
bDMARDs ⁵	266 (6.5)

¹cevimeline, pilocarpine hydrochloride, ophthalmic insert etc; ²aspirin, ibuprofen, naproxen; ³methotrexate, hydroxychloroquine, sulfasalazine, leflunomide, myophenolate mofetil, azathioprine; ⁴prednisone; ⁵sarilumab, belimumab, ustekinumab, infliximab, adalimumab, certolizumab pegol, golimumab, etanercept, abatacept, tocilizumab, rituximab, tofacitinib, baricitinib

Figure 1. HCRU for pSS and sSS Pts