antibodies 0.50 (0.34–0.75), but these were not significant after multiple testing correction (p<3.7*10–4).

Conclusion This study confirms the association of known SLE susceptibility HLA-A, -DPB1, DQB1 and -DRB1 alleles with SLE in Danes of European ancestry.

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P77 IDENTIFICATION OF A CLUSTER OF SLE RISK LOCI ASSOCIATED WITH LEVELS OF MULTIPLE BLOOD BIOMARKERS IN THE GENERAL POPULATION – IMPLICATION FOR SLE SUB-PHENOTYPES

[1]Nina Oparina, [1]Sarah Reid, [1]Ahmed Sayadi, [1]Maija-Leena Eloranta, [2]Martina Frodlund, [3]Karoline Lerang, [4]Andreas Jönsen, [5]Solbritt Rantapää-Dahlqvist, [4]Anders A Bengtsson, [6]Anna Rudin, [3]Øyvind Molberg, [2]Christopher Sjöwall, [1]Lars Rönnblom, [1]Dag Leonard. *[1]Dept. of Medical Sciences, Rheumatology, Uppsala University, Uppsala, Sweden; [2]Dept. of Biomedical and Clinical Sciences, Division of Inflammation and Infection/Rheumatology, Linköping University, Linköping, Sweden; [3]Dept. of Rheumatology, Oslo University Hospital, Oslo, Norway; [4]Dept. of Clinical Sciences, Rheumatology, Lund University, Lund, Sweden; [5]Dept. of Public Health and Clinical Medicine/Rheumatology, Umeå University, Umeå, Sweden; [6]Dept. of Rheumatology and Inflammation Research, Institute of Medicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden*

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Objective Genetic contribution is crucial for SLE pathogenesis, but linking risk variants to specific mechanisms in SLE is challenging. We utilize UK Biobank data and a large well defined SLE cohort to investigate associations between SLE risk loci, blood biomarkers and clinical phenotype. Our objective: to study potential combinatorial effects of multiple biomarker associated SLE SNVs in clinical SLE data.

Methods We extracted SLE associated SNVs from published European ancestry GWAS data (with p<5×10–8) and selected 112 SNVs. Associations (p<5×10–8) between these SNVs and blood biomarkers in the UK Biobank were investigated and a 17 SNV cluster associated with 38 biomarkers was identified. Patients with SLE (ACR-97 or SLICC-12, European decent, n=1498) were genotyped using Illumina's Global Screening Array and clinical data was collected. A weighted polygenic risk score (PRS) including the 17 SNVs identified in the cluster analysis was calculated for each patient and clinical manifestations (ACR-97 criteria, antibodies) of patients with a high (50%) and low (50%) PRS were compared by logistic regression with age and sex covariates.

Results We identified a cluster of 17 SLE risk SNVs associated with multiple blood biomarkers in the general population. The biomarkers associated with the highest number of these SNVs include eosinophil percentage (SNV=16), aspartate aminotransferase (SNV=12), apolipoprotein A (SNV=12) and cystatin C (SNV=11). Patients with high PRS had higher total ACR -97 SLE criteria score (OR 1.35 (1.06–1.69), p=0.014) and higher prevalence of anti-SSA (OR 2.71 (2.16–3.40), p<0.001) and anti-SSB antibodies OR 4.58 (3.39–6.61) p<0.001) compared with other patients. Further, high PRS was associated with lower prevalence of thrombocytopenia (OR 0.63 (0.48–0.84), p=0.001) and anti-Sm antibodies (OR 0.59 (0.39–0.89), p=0.011).

Conclusions We identified a cluster of SLE risk variants associated with multiple blood biomarkers in the UK Biobank. A PRS including these loci associate with an unspecific SLE phenotype including increased number of classification criteria and presence of SSA/SSB antibodies. Further studies are needed to clarify the role of these potential pleiotropic SLE risk loci in lupus pathogenesis.

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P78 THROMBOTIC THROMBOCYTOPENIC PURPURA (TTP) IN AN SLE PATIENT SUCCESSFULLY TREATED WITH PLASMA EXCHANGE, CAPLACIZUMAB AND RITUXIMAB

Ivan Padjen, Marija Bakula, Branimir Anic. *Division of Clinical Immunology and Rheumatology, Dept. of Internal Medicine, Referral Centre for SLE and Related Disorders, University Hospital Centre Zagreb and University of Zagreb, School of Medicine, Zagreb, Croatia*

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Objective Our aim was to present our first experience with the use of caplacizumab, an anti-von Willebrand factor monoclonal antibody, in an SLE patient who developed TTP. Data on the use of caplacizumab in SLE-associated TTP are scarce.

Methods We present a single SLE patient with TTP, successfully treated with plasma exchange, caplacizumab, and rituximab.

Results A 64-year-old patient was admitted to our department in 2023 due to severe thrombocytopenia ($15x10^9$/L), multiple hematomas of the extremities, and a history of transient dysarthria lasting 30 minutes the evening prior to admission. Her previous history was remarkable for inactive SLE and splenectomy due to B-non-Hodgkin's splenic lymphoma of the marginal zone in 2016. Her blood count was compatible with hemolytic anemia (hemoglobin 95 g/L, LDH 984 U/L, bilirubin 17 umol/L, haptoglobin undetectably low). Her anti-dsDNA levels were not increased, antiphospholipid antibodies and complement levels were normal, despite an elevated erythrocyte sedimentation rate (120 mm/h). Her brain CT and CT angiography were unremarkable. Given the negative Coombs test, an urgent peripheral blood smear was ordered, revealing the presence of 12 shistocytes per high power field, compatible with microangiopathic hemolytic anemia. Given that the patient was stable, she was started on pulse-dose iv methylprednisolone the same evening, and a blood ADAMTS13 test was ordered early in the next morning (0,05 kIU/L, reference range: 0.60–1.21). The patient was diagnosed with TTP and was treated with plasma exchange for three consecutive days, as well as caplacizumab 10 mg sc daily for the duration of plasma exchange and 30 days subsequently. She was also treated with rituximab iv 375mg/m2 body surface area (four consecutive weekly doses). Neither the chest-abdomen CT scan nor the bone marrow biopsy revealed signs of lymphoma relapse. Thrombocytopenia was resolved within a week following treatment initiation, and no relapse of TTP or SLE was observed within four months of follow-up.

Conclusions Even a history of transient neurological symptoms should warrant a diagnosis of TTP in the context of SLE with Coombs-negative hemolytic anemia. The role of caplacizumab in the therapeutic algorithm of TTP in SLE patients still needs to be established.