months after vaccination. During the observation period, none of the patients had an exacerbation of the disease, reliably associated with the vaccination. There was no recurrence of thrombosis, both in patients receiving anticoagulant therapy and without it. No new autoimmune phenomena, both clinical and laboratory, were identified. The dynamics of the production of anti-streptococcal antibodies during the year was followed in 16 patients. One year after vaccination, 31% of patients showed a significant (more than 2-fold compared to the initial) increase in the concentration of antibodies to polysaccharides of the cell wall of *S. pneumoniae* ("responders"), 69% of patients were "non-responders" to the vaccine. At the same time, all 5 patients with PAPS were "non-responders," and 45.5% "respondents" with sAPS.

Conclusion: Preliminary results show that patients with APS tolerate PPV-23 vaccination well. In the next post-vaccination period, exacerbations of the disease, thrombosis were not recorded. Attention is drawn to the large number of "non-responders" in PAPS, however, to obtain statistically reliable results, it is necessary to continue the study and recruit more patients.

Disclosure of Interests: None declared

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AB0311 INCREASED LEVELS OF SERUM WISTERIA FLORIBUNDA AGGLUTININ POSITIVE MAC-2 BINDING PROTEIN IN RHEUMATIC DISEASES INCLUDING SLE

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Background: Mac-2 binding protein is a cell-adhesive glycoprotein of the extracellular matrix secreted as a ligand of galectin-3 (Mac-2). Recently, a Wisteria floribunda agglutinin positive-M2BP (M2BP) assay developed using a lectin-antibody sandwich immunoassay has shown promise as a new fibrotic marker in liver fibrosis and interstitial lung disease (ILD) to detect unique fibrosis-related glycoalteration.

Objectives: The aim of this study is to evaluate the utility of serum Mac-2 binding protein glycosylation isomer (M2BPGi) levels in patients with rheumatic diseases (RD).

Methods: We retrospectively measured serum M2BPGi levels in 68 patients with RD and 16 healthy controls (HC). There were no patients of cirrhosis and active hepatitis. Serum levels of M2BPGi were measured using HISCL M2BP glycosylation isomer Assay Kit. We examined the relationship between serum M2BPGi levels and clinical parameters in patients with RD.

Results: In patients with RD, the median age was 62.0 years and 79.4% of them were female.

Serum M2BPGi levels were significantly higher in patients with RD than in HC (median 0.98 cutoff index [COI], 0.32 COI, respectively; $P < 0.00001$). Patients with SLE tended to have higher serum M2BPGi levels than other rheumatic diseases.

In patients with RD, a significant correlation was not found between serum M2BP levels and inflammation markers such as CRP or ferritin. However, serum M2BPGi levels were significantly correlated with B cell activation markers such as immunoglobulin free light chain and IgG ($r = 0.588, 0.504$) and T cell activation marker such as sIL-2R ($r = 0.408$).

Conclusion: Most of the rheumatic diseases in this study were considered to be type I interferonopathy diseases such as rheumatoid arthritis, Sjogren's syndrome, inflammatory myositis, scleroderma and SLE.

Serum M2BPGi was reported to have a significant correlation with SLE disease activity [SS Ahn et al. Lupus. 2018; 27: 771], and also to have a significant correlation with Gakectin-9, a novel biomarker for IFN signature [Lucas L van den Hoogen et al. Ann Rheum Dis. 2018; 77: 1810].

So, it was suggested that serum M2BPGi may be a novel biomarker that indirectly indicates how much IFN is activated in rheumatic diseases.

Disclosure of Interests: None declared

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AB0312 INCREASED PREVALENCE OF OBSTRUCTIVE SLEEP APNEA IN INDIVIDUALS WITH SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Sleep disturbances are common in individuals with rheumatological diseases in general and systemic lupus erythematosus (SLE) in particular¹. Studies suggest that obstructive sleep apnea (OSA) might correlate with SLE disease activity and the presence of additional symptoms such as pain, fatigue, affective symptoms and steroid use². Sleep disturbances symptomatology such as fatigue and increased pain overlap with constitutional inflammatory symptoms of SLE and may mimic or mask disease related relapse^{3,4}. Therein lies the importance of diagnosing and treating such disorders in SLE.

Objectives: To determine whether patients with SLE have increased prevalence of OSA as assessed by the apnea hypopnea index (AHI) and to explore possible contributors to OSA including SLE disease activity and accrued damage, medications, secondary fibromyalgia and depression.

Methods: 42 consecutive patients with SLE (38 women, 4 men) and 20 healthy, sex, body mass index (BMI) and age matched controls (15 women, 5 men) were consecutively recruited and underwent an ambulatory sleep study using the WatchPAT device. All participants completed questionnaires including Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), Functional Assessment of Chronic Illness Therapy (FACIT), Widespread Pain Index (WPI), Symptoms Severity Scale (SSS) and Beck Depression Inventory. SLE disease activity and damage were assessed using the Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and Systemic Lupus International Collaborating Clinics (SLICC) damage index.

Results: The mean AHI was 9.19 ± 6.79 in the SLE group and 3.95 ± 3.47 in the control group ($p=0.004$). Moderate-severe OSA ($AHI \geq 15$) was significantly more common in patients with SLE (23.6% vs. 0%, $p=0.04$). Patients with SLE had lower sleep efficiency (83.38 ± 6.15 vs. 87.22 ± 4.24 , $p=0.03$), increased sleep arousals (7.72 ± 5.66 vs. 5.13 ± 2.29 , $p=0.01$), higher PSQI and FACIT scores SLE (8.14 ± 3.47 vs. 5.10 ± 2.64 , $p=0.001$, 16.89 ± 11.19 vs. 7.29 ± 5.93 , $p=0.0008$ respectively) and had more fibromyalgia as assessed by WPI and SSS

SLE, Systemic Lupus Erythematosus; RDI, Respiratory Disturbance Index; AHI, Apnea Hypopnea Index; ODI, Oxygen Desaturation Index