

(46.7%), which is the somatic equivalent of depression and anxiety. TAS data indicate the presence of apparent alexithymia in 10 patients (33.3%), the "risk group" for alexithymia is 26.7%.

In addition, saturation after a 6 min walk was correlated with alexithymia ( $r = -0.526$ ,  $p < 0.05$ ).

**Conclusions:** The psychological status of patients with rheumatic diseases with lung involvement in the form of nonspecific interstitial pneumonia is characterised by depression, anxiety, alexithymia.

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#### AB0751 THE EPSTEIN-BARR VIRUS INFECTION IN SYSTEMIC SCLEROSIS

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**Background:** Epstein-Barr virus (EBV) infection has been considered trigger of various autoimmune diseases, including systemic sclerosis (SSc), mainly due to studies investigating cross-reactive responses amongst EBV and disease-specific antigens. Meticulous assessment of antibody reactivities to the most immunodominant EBV antigens in SSc has not been performed.

**Objectives:** To assess ab reactivity against EBV viral capsid antigens (VCA), early antigens (EA) and EBNA-1 in SSc, and investigate their clinical relevance.

**Methods:** Sera from 59 SSc patients, including 31 diffuse SSc (dcSSc) and 28 limited SSc (lcSSc), 43 matched multiple sclerosis (MS) as controls and 32 matched healthy controls (HC) were tested for IgG anti-EBV VCA, EA and EBNA-1 abs by immunoblotting, using EBV whole SDS extract as antigen substrate.

**Results:** Percentages of EA and EBNA-1 reactivities were significantly higher in SSc patients compared to HC (EA: 33.9% vs 3.1%,  $p = 0.001$ ; EBNA-1: 89.8% vs 68.8%,  $p = 0.012$ ), but were comparable between SSc and MS. These differences remained when SSc was divided in dcSSc and lcSSc (EA: 32.3% in dcSSc and 35.7% in lcSSc,  $p_{dcSSc vs HC} = 0.002$ ,  $p_{lcSSc vs HC} = 0.001$ ; EBNA: 92.9% in lcSSc,  $p_{lcSSc vs HC} = 0.020$ ). VCA positivity was comparable between SSc or its two subgroups and MS or HCs. Also, triple positivity for all three antigen categories was observed more frequently in SSc, dcSSc and lcSSc compared to HCs (32.2% in SSc, 29% in dcSSc and 35.7% in lcSSc vs 3.1% in HC,  $p = 0.001$ ,  $p = 0.004$  and  $p = 0.001$ , respectively). Anti- EA was present more frequently in SSc patients with calcinosis compared to those without (75% vs 27.5%,  $p = 0.014$ ) and tended to be more frequent in patients with pulmonary fibrosis compared to those without (47.8% vs 25%,  $p = 0.071$ ).

**Conclusions:** Antibodies against EBV appear to be more frequent in SSc than in healthy controls, and equally prevalent with MS, a disease known to be associated with anti-EBV antibody responses and a known risk factor for MS. Whether an EBV-specific response is also an initiating trigger of SSc remains to be investigated.

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#### AB0752 CLINICAL FEATURES OF SYSTEMIC SCLEROSIS ASSOCIATED TO ANTI RNA POLYMERASE III ANTIBODIES IN VALLD'HEBRON HOSPITAL

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**Objectives:** Systemic sclerosis (SSc) is an autoimmune disease whose clinical features are related closely with the specific autoantibody that is expressed. The main objective was to analyse the clinical characteristics of patients with positive anti-RNA polymerase III antibody (anti-RNAP III) and compare them with patients who were negative.

**Methods:** We analysed 221 patients with SSc who visited Vall d'Hebron Hospital from 1980 to 2016. 26 patients who were positive were compared with 195 who were negative. Different epidemiological, clinical, capillaroscopic and immunological variables were analysed.

Data from the Vall d'Hebron Hospital cohort were collected from patients diagnosed with ES since 1980. 24 patients with positive anti-RNAP III antibodies were

selected using the technique of immunoblot on paper or enzyme immunoassay and were compared with 151 who were negatives. Different epidemiological, clinical, capillaroscopic and immunological variables were analysed. Statistical analysis was performed using SPSS 20.0. Statistical significance was considered  $p < 0.05$ .

**Results:** 24 patients (13.7%) showed anti-RNAP III reactivity. Female sex (151, 86.3%) was the most frequent. There were no differences in the age at onset of the disease ( $40.3 \pm 15.9$ ) or in the age at diagnosis ( $46.6 \pm 15.7$ ). Diffuse cutaneous (Dc) subtype was more frequent in the anti-RNAP III group (70% vs 16.6%  $p < 0.001$ ). Patients with positive anti-RNAP III met the ACR/EULAR 2013 diagnostic criteria more frequently (24, 100% vs. 118, 78.1%  $p < 0.01$ ). Regarding the first manifestation, Raynaud's phenomenon was less frequent in the anti-RNAP III group (13, 54.2% vs. 121, 80.1%  $p < 0.01$ ). Regarding to vascular features, there were no differences in digital ulcers (15, 62.5% vs. 66, 43.7%,  $p = 0.08$ ), in the presence of Raynaud's phenomenon (24, 100% vs. 145, 96.7%) or telangiectasias (18, 75% vs. 102, 67.5%). There were no differences with respect to the overall digestive involvement (21, 87.5% vs. 124, 82.1%) No differences were found in cardiac involvement in both groups (9, 37.5% vs. 51, 47%). Scleroderma renal crisis (SRC) was significantly more frequent in patients with anti-RNAP III (3, 12.5% vs. 3, 1.9%  $p = 0.03$ ). There were no differences in prevalence of cancer (4, 16.7% vs. 12, 7.9%  $p = 0.24$ ). There were no differences in mortality (2, 8.3% vs. 16, 10.6%). The slow-type capillary pattern of Maricq was the most frequent in both groups (20, 83.3% vs. 132, 87.4%). Regarding the expression of other auto-antibodies, anti-Ro52 positivity was less frequent in patients with anti-RNAP III (2, 8.2% vs. 14, 9.3%  $p = 0.03$ ).

**Conclusions:** Patients with ES who presented positivity for anti-RNA polymerase III antibodies had more frequent onset manifestations different from the Raynaud's phenomenon, more DcSSc subtype and higher frequency of SRC. Regarding positivity against other antibodies, they expressed less reactivity to anti-Ro 52 than patients without anti-RNA pol III antibodies.

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#### AB0753 COMPARATIVE STUDY OF SYSTEMIC SCLEROSIS WITH OTHER AUTOIMMUNE DISEASES FOR HEALTH-RELATED QUALITY OF LIFE

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**Background:** Systemic sclerosis (SSc) is a rare autoimmune disease characterised by fibrosis of the skin and multiple internal organ involvement. Previous studies reported a poorer health-related quality of life (HRQoL) in patients with SSc compared to the general population. However, very little is known about HRQoL of SSc as compared with other systemic autoimmune diseases, including rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), and Sjogren's syndrome (SJS)

**Objectives:** To compare the HRQoL of patients with SSc and other systemic autoimmune disease and general population.

**Methods:** HRQoL was captured by the Korean short form-36 health survey version 2 (SF-36), short form-6D (SF-6D) and 3 level version of EuroQol five-dimensional (EQ-5D) descriptive system (EQ-5D-3L). Between March and July 2017, consecutive patients with SSc, and randomly chosen patients with RA, SLE and SJS were recruited from the outpatient rheumatology clinics of Seoul National University Hospital, and were asked to answer SF-36 and EQ-5D. Disease activity of RA was evaluated by Disease Activity Score 28-ESR (DAS 28-ESR), SLE by Systemic Lupus Erythematosus Disease Activity Index-2k (SLEDAI-2k), and SJS by EULAR Sjogren's syndrome disease activity index (ESSDAI). For patients with SSc, Korean version of Health Assessment Questionnaire Disability Index (HAQ-DI) and Systemic sclerosis HAQ-DI (SSc HAQ-DI) were also evaluated. Demographic, clinical, laboratory information were obtained through a medical chart review. Data on representative Korean healthy controls were obtained from a study of psychometric properties of the Korean SF-36 v2 for assessing the general population, which was performed on six hundred healthy Koreans.

**Results:** A total of 480 patients with SSc (n=120), RA (n=120), SLE (n=120) and SJS (n=120) and 600 healthy controls were included. The demographic features of patients were similar to the known features of each rheumatic disease group. Patients with rheumatic diseases had significantly lower SF-36 scores ( $p < 0.001$  in all domains), SF-6D scores ( $p < 0.001$ ), EQ-5D-3L index scores and EQ-VAS ( $p < 0.001$ ) than the healthy controls; adjustments for age and sex did not change those results. Patients with SSc showed significantly lower scores in the mental component summary scores compared with patients with RA (age and sex-adjusted scores,  $43.0 \pm 0.9$  vs  $48.9 \pm 0.9$ ;  $p < 0.001$ ). Specifically, domain of mental health was lower in SSc patients than RA patients (age and sex-adjusted scores,  $61.3 \pm 1.8$  vs  $71.7 \pm 1.8$ ,  $p < 0.001$ ). Among the physical domains scores, SSc