

elevated in patients with systolic eccentricity index >1. NT-proBNP is elevated in patients with decreased VELAP. This study demonstrates the association between certain cardiac biomarkers, fibrosis and vasculopathy peptides and early finding suggesting cardiac remodeling that occurs in some ES patients, which may help to predict the development of PH in those patients.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4123

AB0677 INDIVIDUAL IMMUNOLOGICAL PREDICTORS OF THE RISK OF LUNG DAMAGE IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: A significant role in the formation and development of systemic sclerosis (SSc) belongs to immunogenetic factors and immunopathological mechanisms, so nowadays become important to find immunological predictors of early diagnosis of the disease. An urgent task is timely diagnosing the pulmonary complications as the main causes of high mortality and appointment of adequate therapy and objective assessment of its effectiveness.

Objectives: The main purpose was to develop a personal way of forecasting the risk of damage of the lungs, including its subtype – pneumofibrosis (PF) and pulmonary hypertension (PH) in patients with SSc.

Methods: To address this goal, the following studies performed: clinical, general laboratory, instrumental, immunological, molecular genetics, statistical methods. Adequacy and reliability of the results of mathematical model of the risk of damage the lungs were using criteria Wald and Xi-square. The results show that our model is correct with a probability of error less than 1% ($p=0.001$).

Results: We found that among the analyzed complex interrelated factors in the development of lung damage in patients with SSc significantly influenced: the duration of the disease, miRNA29b, expression levels in the blood concentration of IL17 in serum and blood, neutrophil phagocytic index that we include in the predictive model.

We know that the most significant complications associated with damage to their lungs are pneumofibrosis and pulmonary hypertension, which threatened the rapid development of respiratory failure and a high mortality of these patients. In this regard analyzed immunological and molecular genetic parameters of patients with SSc depending on the development of PF and LH.

We found that among the complex of interrelated factors of the development of PF in patients with SSc significantly influenced the following factors: patient age, miRNA 29b, MCP-1, IFN- γ , TGF- β in serum, oxidative indicator "explosion" of neutrophils, which we have included in the predictive model.

At the same time, the development of PH in patients with SSc significantly affected other clinical and immunological factors: patient age, levels of endothelin-1, IL17 in serum, the number of CD4 + CD25 + Fox P3 + -lymphocytes, CD3 +/CDHLA-DR + -lymphocytes, CD4 + IL17 + -lymphocytes in peripheral blood, which we have included the following predictive model.

Conclusions: The application withdrawn prognostic clinical and immunological and molecular genetic criteria of lungs damage (pulmonary hypertension and pneumofibrosis) will enable medical practitioners to verify early visceral lesions in patients with SSc in time and justified the appointment of basic therapy.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.6580

AB0678 ACCELERATED ACTIVATION OF 25-HYDROXYVITAMIN D TO 1,25-DIHYDROXYVITAMIN D IN SYSTEMIC SCLEROSIS PATIENTS- A RETROSPECTIVE STUDY

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Background: There have been multiple reports of low vitamin D in Systemic

Sclerosis (1, 2). The majority of these reports only measured 25-hydroxyvitamin D (calcifediol) and not 1,25-dihydroxyvitamin D (calcitriol). In our clinical observation, we noted that there may be a population of patients with low calcifediol but normal or high calcitriol.

Objectives: We aim to evaluate the frequency of normal or high calcitriol level in systemic sclerosis patient with low calcifediol levels.

Methods: We performed a retrospective analysis using data collected from a large private practice. We collected data from systemic sclerosis patients who had calcifediol and calcitriol levels ordered between January 2014 and January 2017, patients with sarcoidosis overlap were excluded.

Results: We identified 90 scleroderma patients with documented calcifediol and calcitriol levels and no history of sarcoidosis. Mean calcifediol level was 32.7 ng/mL (SD 20.2) and mean calcitriol level was 60.9 pg/mL (SD 27.6). Total of 42 patients were identified as having calcifediol level of less than 30 (normal >30), only 1 of these patients had calcitriol levels below 10 pg/mL (normal >10) and 6 patients had calcitriol levels above 75 pg/mL. Twenty-three out of 41 patients who had low calcifediol but high calcitriol level also had a CT chest with no diagnostic findings suggestive of sarcoidosis.

Conclusions: Our study suggests that while low calcifediol levels are common in systemic sclerosis patients, not all patients are truly vitamin D deficient and a calcitriol level should be checked before supplementation is initiated. There is some documented evidence of sarcoid and scleroderma overlap at greater than expected frequency which is under recognized and elevated calcitriol level in a systemic sclerosis patient should prompt further evaluation for sarcoidosis (3). We have identified a population of scleroderma patients with low calcifediol, elevated calcitriol level, but no evidence of sarcoidosis. Based on this observation we are planning a prospective study to investigate this further.

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Acknowledgements: Steven Obrzut, Heather Sickler and Tricia Bartel assisted with data collection.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5613

AB0679 THE CLINICAL VALUE OF NAILFOLD CAPILLAROSCOPY IN THE EARLY DIAGNOSIS OF SYSTEMIC SCLEROSIS

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Background: Vascular changes was early pathological changes of SSc, gradually appearing with irreversible fibrosis of the skin and internal organs. Early diagnosis and assessment of the development and efficacy timely, could improve survival in patients with SSc.

Objectives: To assess the value of nailfold capillaroscopy in the early diagnosis of systemic sclerosis (SSc).

Methods: 60 patients with SSc and 55 patients with other connective tissue diseases. Data were extracted on clinical and laboratory parameters. 2013 ACR/EULAR classification criteria and 1980 ACR criteria for SSc were evaluated.

Results: The sensitivity of the 2013 criteria was 91.7% compared to 56.7% for the 1980 criteria ($P<0.001$). The specificity of two criteria was no significant difference. This sensitivity of the 2013 criteria was higher compared to the 1980 criteria among those with lcSSc (95.5% versus 50%). The pattern was consistent among those with disease duration <3 years (90.5% versus 57.1%, $P<0.05$), and disease duration ≥ 3 years (92.3% versus 56.4%, $P<0.05$). The sensitivity and specificity of nailfold capillaroscopy to determine SSc were 86.7% and 43.6%. Patients not fulfilling the two classification criteria were met the very early diagnosis of systemic sclerosis, and often suffering from RP, and had an SSc pattern on nailfold capillaroscopy.

Conclusions: The sensitivity of 2013 ACR/ EULAR classification criteria was higher compared with 1980 ACR classification criteria. The specificity of two classification criteria was no significant difference. This sensitivity of two criteria was higher among those with lcSSc and short disease duration. Scleroderma pattern were significantly associated with the development of systemic sclerosis.

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