Methods: 17 patients with SSc who met 2013 ACR/EULAR SSc criteria were included in the study. Clinical and laboratory parameters, Rodnan skin scores, Valentini disease activity index, were evaluated in detail. Concurrent peripheral blood T-regs (CD4 +CD25+, CD4 +FOXP3+T reg, CD4 +CD25+FOXP3+T reg) and Th17 (IL-17 producing T cells) were studied. Age and sex matched 11 subjects were included as healthy control (HC) in this study.
Results: Fifteen of seventeen patients were female, median age was 52.8±9.36 years, median disease duration was 5.41±4.51 years. While skin involvement and Raynaud's phenomenon were determined in all of the patients, esophageal involvement was determined in 13 of the patients (76.5%), digital ulcer in 2 patients (11.7%), and lung involvement in 14 (94.1%) patients. Median ESR level was 31.29±12.7 mm/hour, median CRP level was 0.573±0.474 mg/dl, median Valentini disease activity index was 3.23±1.53. The medications of the patients during the follow up period were as; nifedipine n=15 (88.2%), hydroxychloroquine n=14 (82.4%), corticosteroids n=14 (82.4%), azathioprine n=10 (58.6%), mycophenolate mofetil n=1 (5.9%), cyclophosphamide n=7 (41.2%). In comparison of SSc and HC, all the T-reg cell levels were significantly higher in SSc group than HC ($p \leq 0.0001$, $p \leq 0.0001$ and $p \leq 0.0001$, respectively). Although the levels of CD4 +IL-17 cells in SSc group were high compared to HC, it was not significant ($p=0.100$). A positive correlation between CD4 +IL-17+cell levels and CRP ($r=0.613$, $p=0.009$), a negative correlation between CD4 +CD25+T reg cell levels and dosage of corticosteroid ($r=-0.513$, $p=0.035$), a negative correlation between CD4 +CD25+T reg cell levels and platelet levels ($r=-0.560$, $p=0.019$) and a negative correlation between CD4 +CD25+FOXP3+T reg cell levels and platelet levels ($r=-0.500$, $p=0.041$) were determined.
Conclusions: In a cross-sectional study, it is rather difficult to explaine the meaning of increased T-reg cell in SSc patients. These results may be due to modification of the cells by immunosuppressive treatment. It might be more meaningful to evaluate T-reg cell before and after the treatment.

REFERENCES:

[1] Liu X, Gao N, Li M, Xu D, Hou Y, Wang Q, Zhang G, Sun Q, Zhang H, Zeng X. Elevated levels of CD4(+) CD25(+) FoxP3(+) T cells in systemic sclerosis patients contribute to the secretion of IL-17 and immunosuppression dysfunction. PLoS One. 2013;8: e64531.
[2] Slobodin G, Ahmad MS, Rosner I, Peri R, Rozenbaum M, Kessel A, Toubi E, Odeh M. Regulatory T cells (CD4(+) CD25(bright)FoxP3(+)) expansion in systemic sclerosis correlates with disease activity and severity. Cell Immunol. 2010; 261:77–80.
[3] Fenglio G, Battaglia F, Parodi A, Stringara S, Negrini S, Panico N, Rizzi M, Kalli F, Conteduca G, Ghio M, De Palma R, Indiveri F, Filaci G. Alteration of Th17 and Treg cell subpopulations co-exist in patients affected with systemic sclerosis. Clin Immunol. 2011139:249–57.

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AB0742 HAND X-RAY LESIONS ARE FREQUENT IN ANTISYNTHETASE SYNDROME PATIENTS WITH ARTHRALGIA AND INCREASE WITH THE RADIOGRAPHIC FOLLOW-UP, WHATEVER THE EXTRA-ARTICULAR FEATURES AND THE SEROTYPE OF ANTISYNTHETASE SYNDROME

C. Guillochon-Petitcuenot[1], G. Bierry[2], F. Maurier[3], N. Afif[4], L. Messer[5], J.-E. Gottenberg[1], J. Sibilia[1], A. Meyer[6]. *[1]Rheumatology; [2]Radiology, Hôpitaux universitaires de Strasbourg, Strasbourg; [3]Internal medicine, Hôpitaux privés de Metz, Metz; [4]Rheumatology, Centre hospitalier de Mulhouse, Mulhouse; [5]Rheumatology, Hôpitaux civils de Colmar, Colmar; [6]Physiology and functional explorations, Hôpitaux universitaires de Strasbourg, Strasbourg, France*

Background: Arthritis is frequent in antisynthetase syndrome (ASS) but the prevalence, the characteristics and the risk factors of radiographic lesions have been poorly assessed.
Objectives: To report prevalence, characteristics and risk factors of radiographic abnormalities in ASS patients with arthralgia.
Methods: A mono-centric cohort of 101 patients with ASS and arthralgia was screened for hand X-ray availability. Patients with osteoarthritic lesions were excluded from the analysis. ASS patients with radiographic lesions were compared to ASS patients with normal X-ray.
Results: Thirty one patients were included. Thirteen patients (41.9%) had radiographic lesions on hand X-ray, including periarticular calcifications (53.8%), joint pinching (46.1%), erosions (23%), and subluxations (15.3%). Age (54.15±4.5 vs 49.17±3.3 years old, p=0.17) and sex ratio were similar in both groups.
Duration of ASS was two-fold longer at first hand X-ray with radiographic lesion compared to the ASS patient without radiographic lesion at last radiographic follow-up (10,08±2,4 years vs. 4,83±1,6, p=0,06). However, the cumulative number of immunomodulatory drugs at first hand X-ray with radiographic lesion or last hand X-ray if normal tended to be lower in patients with radiographic lesions (0,818 vs 1,28, p=0,55).
History of extra-articular involvements (including myositis, interstitial lung disease, skin lesions and Raynaud phenomenon) were not different in both groups, although mechanic's hand tended to be less frequent in patients with radiographic lesions (23.1% vs 61.1%, p=0.07).
Patients with radiographic lesions had more frequently anti-EJ (31% vs. 0%, p<0.05). Other anti-tRNA synthetase antibodies were not significantly associated with abnormal hand x-ray which were found in 50% of anti-PL-7 positive patients (2/4), 33,3% of anti-PL-12 positive patients (1/3), 30% of anti-Jo1 positive patients (6/20), and 0/1 anti-OJ positive patient (one patient was positive for anti-Jo1 and anti-PL7). ACPA (27.3% vs 7.1%, p=0.29) and rheumatoid factor (50% vs 14.2%, p=0.09) were more frequently positive in case of radiological abnormality.
Conclusions: Hand X-ray lesions are frequent in ASS patients with arthralgia, whatever the extra-articular features and the ASS serotype and was associated is a longer duration of ASS.
Disclosure of Interest: None declared
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AB0743 THE CLINICAL MANIFESTATIONS IN ANTI-RO52 ANTIBODY- POSITIVE PATIENTS WITH SYSTEMIC SCLEROSIS; A RETROSPECTIVE CASE CONTROL STUDY

C. Kawata, S. Miyauchi, M. Kimura, Y. Rikitake, K. Iwao, M. Rikitake, A. Aizawa, T. Kawaguchi, Y. Kariya, M. Matsuda, K. Umekita, K. Takajo, I. Takajo, A. Okayama. *Department of Internal Medicine, Rheumatology, Infectious Diseases and Laboratory Medicine, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan*

Background: Autoantibodies (abs) directed against Ro52/TRIM21 are common in systemic sclerosis (SSc) but their clinical significance remains uncertain. Some reports suggested that anti-Ro52/TRIM21 abs-positive SSc patients present interstitial lung disorders (SSc-ILD). However, it is not clear whether positive for anti-Ro52/TRIM21 related to other clinical manifestations in patients with SSc.
Objectives: The aim of this study is to clarify the prevalence of anti-Ro52/TRIM21 abs in patients with SSc. Then, we investigated the clinical manifestations between anti-Ro52/TRIM2 abs-positive and negative patients with SSc.
Methods: This study is a retrospective case control study. The medical records of 42 patients who were diagnosed as having SSc admitted to our hospital were reviewed. We evaluated the clinical manifestations at the first-onset of SSc such as Rodnan skin score, digital ulcer, abnormal subcutaneous calcification, esophageal reflux, pulmonary hypertension, myositis and arthralgia. Co-existing rheumatic diseases were also reviewed such as Sjogren syndrome (SjS), rheumatoid arthritis (RA), and polymyositis. All subjects underwent SSc –associated abs testing using EUROLINE immunoblot assay. The autoantibodies include anti-Scl-70, anti-centromere A and B (CENP-A, CENP-B), anti-RNA polymerase III (RP-11, RP-155), anti-fibrillarin (U3RNP), anti- 90-kd nucleolar protein (NOR-90), anti-Th/To, anti-PM/Scl-100, anti-PM/Scl-75, anti-Ku, anti-platelet-derived growth factor receptor (PDGFR), and tripartite motif–containing protein 21(Ro-52). The association between clinical features and autoantibody profile was evaluated. Diagnosis of ILD was evaluated by chest high-resolution CT (HRCT).
Results: Thirty-five patients with SSc are female (87%). Twenty-one and nineteen patients with SSc are positive and negative for anti-Ro52/TRIM21 abs, respectively (47 v.s 52%). There is no difference in population of diffuse type of SSc between anti-Ro52/TRIM21 abs-positive and negative SSc patients. In addition, the prevalence of ILD is not different between two groups (57 v.s 52%, p=0.76). The prevalence of SjS is tended to be higher in anti-Ro52/TRIM21 abs-positive SSc patients than in negative SSc patients (68 v.s 33%, p=0.05). Unexpectedly, 57% of anti-Ro52/TRIM21 abs-negative SSc patients present poly-arthralgia at the onset of SSc. In addition, there were not any complications such as osteoarthritis and RA in anti-Ro52/TRIM21 abs-negative SSc patients. The prevalence of arthralgia was higher in anti-Ro52/TRIM21 abs-negative SSc patients than in positive SSc patients (p=0.02).
Conclusions: The prevalence of anti-Ro52/TRIM21 abs in SSc patients of this study seems to be high compared to other reports. In addition, there seems to be no difference in the prevalence of ILD regardless of existence of anti-Ro52/TRIM21 abs in SSc patients. Anti-Ro52/TRIM21 abs-negative SSc patients were tended to present poly-arthralgia. This musculoskeletal disorder of anti-Ro52/TRIM21 abs-negative SSc patients may be not associated with other rheumatic diseases such as SjS and RA in this study. It is necessary the large number study to clarify whether anti-Ro52/TRIM21 abs involve in the pathogenesis of musculoskeletal disorders in patients with SSc.
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