lumbar BMD from 0.951 to 0.905 g/cm2 (p=0.036). The T-score in 11 patients (39.3) reached osteoporotic range at the second DEXA. Together with the patients with osteopenia, 78.6% of the IMM patients had reduced BMD at the follow-up scan. Actually, 5 patients (17.9%) already had one episode of fragility fracture. The use of high dose corticosteroid in between the 2 scans was found to be associated with a greater degree of mean BMD loss in the hip (-0.171 vs -0.007 g/cm2, p=0.007).

Conclusion: Reduced BMD is prevalent in patients with IIM. Follow-up study revealed significant worsening of bone health. High dose corticosteroid use might be especially detrimental. Liberal assessment of BMD and use of anti-osteoporotic drugs in IIM patients are advisable. Prompt use of steroid-sparing agents to minimize steroid exposure may also be helpful.

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AB0617 OPTICAL COHERENCE TOMOGRAPHY IN THE ASSESSMENT OF SKIN FIBROSIS IN SYSTEMIC SCLEROSIS: A CROSS-SECTIONAL STUDY

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Background: Previous studies have shown that Optical Coherence Tomography (OCT) is a reliable biomarker of skin fibrosis and significantly correlates with the severity of the skin involvement in Systemic Sclerosis (SSc) [1,2].

Objectives: Aim of this cross-sectional study was to evaluate the performance of skin OCT to discriminate between SSc and healthy controls (HC) and to compare results with the current gold standard, the modified Rodnan skin score (mRss), in a different SSc study cohort.

Methods: Dorsal forearm skin of consecutive diffuse cutaneous SSc (dcSSc) patients and matched-HC was scanned by an investigator blinded to the clinical data using Vivosight scanner (Michelson Diagnostics, Kent, UK). Minimum Optical Density (MinOD), Maximum OD (MaxOD) and OD at 300 micron-depth (OD300) were measured. Clinical involvement was assessed by a blinded operator using the mRss and results were compared with imaging data. Statistical analysis was performed using GraphPad Prism software V.7.0.

Results: A total of 88 OCT images were obtained from 22 dcSSc patients [20 Female, mean age 49 (±11) years, 12 with < 5 years disease duration) and 22 HC (20 Female, mean age 50.7 (±6.7) years]. All OCT measures (MinOD, MaxOD and OD300) were significantly lower in SSc patients than in HC (p=0.011, p<0.0001, p<0.0001 respectively). MaxOD and OD300 were significantly different between the four groups (0-3) of patients based on the mRss at the site of analysis (p=0.035, p=0.001 respectively). Skin OCT showed a good performance in discriminating SSc skin vs HC (overall AUC 0.72, 0.8 and 0.89 for MinOD, MaxOD and OD300 respectively).

Conclusion: These results confirm in a cohort different from those of the previous studies that skin OCT is able to reflect the severity of skin involvement in SSc. Longitudinal studies are needed to validate its potential as surrogate outcome measure of skin fibrosis in SSc patients.

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AB0618 COMPREHENSIVE ANALYSIS OF AUTOANTIBODY PROFILE IN A TURKISH SYSTEMIC SCLEROSIS COHORT

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Background: Serum autoantibodies closely reflect patterns of organ involvement and disease progression in systemic sclerosis (SSc). The entire autoantibody profile is less well defined in many cohorts and the data regarding their clinical associations and frequencies is limited.

Objectives: To determine the autoantibody profile of patients with SSc, as well as their clinical associations, in well-characterized inception- cohort with disease duration less than 3 years.

Methods: Serum samples of 100 patients out of 105 enrolled in the study were analyzed for ANA patterns with indirect immunofluorescence (IIF) assay using HEp-20-10/primate liver mosaic IIFT kit. Sera of 96 patients were subjected to commercial line immunoassay to quantify autoantibodies against 13 different autoantigens.

Results: 92 (92%) out of 100 patients were positive for ANA by IIF (Table 1). The speckled staining was the most pattern followed by nucleolar in 10 patients, centromere in 4, reticular in 1, nuclear in 2 and homogenous in 1. All patients (n= 96) patients were positive for at least 1 autoantibody by immunoblotting (Table 2). Twenty-two (49%) of patients with antiTopo I, 12 (44%) of the patients with antiCENP and 4 (22%) of the patients with antiRNAPIII were single positive. There was no difference in terms of the clinical findings when the patients with single and coexpression of these antibodies were compared. The distributions of the most frequent autoantibodies are shown in Figure 1. Interstitial lung disease was more frequent in the patients positive for anti-Topo I (78.8%) and anti-RNAPIII (27.3%). One of the two patients with breast cancer was anti-RNAPIII positive and none of the patients have diagnosed scleroderma renal crisis. Anti-Topo I was more common in patients with dcSSc (75%) and anti-CENP in lcSSc (46.4%).

Table 1. Demographic, clinical and laboratory characteristics of the SSc patients.

Sex	
Female N, %	91 (86.7%)
Male N, %	14 (13.3)
Female-to-male ratio	
Age, mean±SD years	48.6±12.7
Disease duration, mean±SD years	2±1.4
Disease classification N, %	
Diffuse	39 (36.5%)
Limited	65 (62.5%)
Sine scleroderma	1 (1%)
Interstitial lung disease	37 (34.3%)
Pulmonary arterial hypertension	3 (2.8%)
Scleroderma renal crisis	0
Digital ulcer	14 (13.3%)
Raynaud phenomenon	105(100%)
Telengiectasia	31 (28.8%)
Calcinosis	1 (1%)
Malignancy	3 (2.9%)
Antinuclear antibody profile N*, %	
Positive	92 (92%)
Staining pattern	
Speckled	65 (65%)
Nucleolar	13 (13%)
Centromere	29 (29%)
Homogeneous	3 (3%)
Reticular	3 (3%)

Table 2. Numbers and combinations of autoantibodies identified in the 96 SSc patients.

	Topo-I	CENP	RNAP III	Fibrillarin	NOR90	Th/To	Pm/Scl	Ku	PDGFR	Ro52
Topo-I	22	1	7	0	1	5	9	5	0	7
CENP		12	2	0	2	2	2	2	0	11
RNAPIII			4	0	1	2	1	3	0	7
Fibrillarin				0	0	0	0	0	0	0
NOR90					0	1	1	0	0	2
Th/To						0	4	2	0	2
Pm/Scl							4	3	0	6
Ku								1	0	2
PDGFR									0	0
Ro52										2
Single positive	22	12	4	0	0	0	4	1	0	2
Total	45	27	18	0	5	8	17	9	0	24

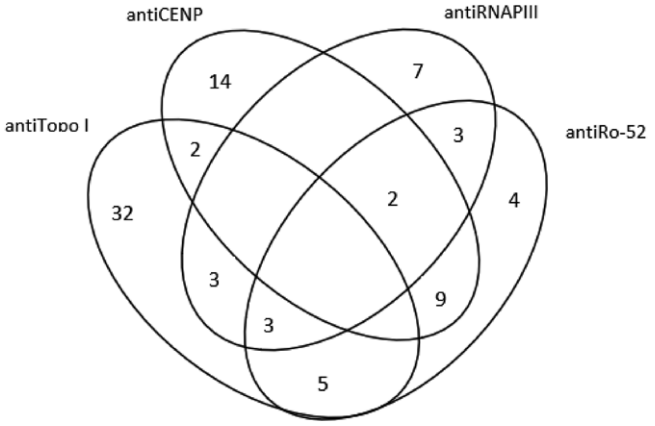

Figure 1. Diagram of disease-related antibodies against the four main autoantibodies [anti-centromere (antiCENP) anti-Topoisomerase I (antiTopo I), anti-RNA polymerase III (antiRNAP III) and anti-Ro52).

Conclusion: We presented the clinical and serologic features of the Turkish SSc patients from a new inception cohort. Clinical features of the SSc patients with single or multiple antibody positivity were not different.

References: None

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AB0619

PROGNOSTIC FACTORS OF PATIENTS WITH ANTI-MDA5 ANTIBODY-POSITIVE DERMATOMYOSITIS COMPLICATED WITH INTERSTITIAL PNEUMONIA -A JAPANESE SINGLE CENTER STUDY-

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Background: Anti-melanoma differentiation-associated gene 5 antibody (anti-MDA5 Ab)-positive dermatomyositis (DM) is frequently associated with rapidly progressive interstitial pneumonia (RPIP), whose prognosis is assumed to be poor[1]. Although outcome of DM-RPIP has been reported to be improved by early immunosuppressive therapy, we still experience the cases with severe outcome. Only several reports mentioned the prognostic factors and they have not been fully elucidated.

Objectives: To identify the predictors of prognosis in patients with anti-MDA5 Ab-positive DM associated with interstitial pneumonia (DM-IP).

Methods: Anti-MDA5 Ab-positive DM-IP patients admitted to Fujita Health University Hospital between January 2010 and October 2019 were consecutively included and stratified into 2 groups, the survived and the deceased groups. DM was diagnosed according to the criteria proposed by Bohan and Peter[2]. Clinically amyopathic DM was diagnosed according to the criteria proposed by Sontheimer [3]. Diagnosis of IP was based on findings of high resolution CT scan (HRCT). The definition of RPIP was rapid exacerbation of hypoxemia or HRCT findings in a period of days to one month after the onset. Clinical features and prognosis of the patients were collected retrospectively and compared between groups. Candidates of predictors are extracted by the univariable analysis using Fisher's exact test for dichotic parameters and Wilcoxon signed-rank test for continuous parameters and multivariable analysis using logistic regression analysis. Receiver operating characteristic (ROC) curve analysis was examined to obtain the cut-off level. Survival was examined using Kaplan-Meier method and Log-rank test.

Results: Twenty-one patients were involved. Eight were deceased and 13 were survived. The deceased group had a higher ratio of male (75% versus 25%, p= 0.018). All deceased cases were with RPIP and 67 % in the survived cases. Levels of serum ferritin (4490 versus 646 ng/mL, p = 0.0026), CRP (2.1 versus 0.9 mg/dL, p = 0.0490), CK (1150 versus 290 U/L, p = 0.017), AST (194 versus 108 U/L, p = 0.025) and LDH (674 versus 368 U/L, p = 0.011) were higher in the deceased group. Interestingly, skin ulcers were tended to be more frequent (12.5% versus 87.5%, p= 0.0587), and anti-SS-A antibody was also more frequently detected (14.3% versus 85.7%, p=0.0072) in the survived group. Using ROC analysis cut-off values were 963 ng/mL for serum ferritin level (sensitivity 100%, specificity 83%), 0.7 mg/dL for CRP (sensitivity 75%, specificity 69%), 308 U/L for CK (sensitivity 88%, specificity 77%), 62 U/L for ALT (sensitivity 100%, specificity 62%), and 454 U/L for LDH (sensitivity 88%, specificity 77%). Patients were divided into two groups based on these cut-offs or based on dichotic parameters and survival was examined between 2 groups. Except CRP and anti-SS-A antibody, survival was significantly worse in parameter-positive or higher groups. Interestingly, anti-SS-A antibody-positive group had better outcome compared with those without.

Conclusion: In our analysis, novel candidates such as serum CK, AST, and LDH levels were newly extracted and parameters previously reported was also included and those were also associated with the clinical outcome. In addition, anti-SS-A antibody was identified as a novel protective factor associated with a good outcome.

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AB0620

EFFECTIVENESS OF RITUXIMAB IN PATIENTS WITH EARLY DIFFUSE CUTANEOUS SYSTEMIC SCLEROSIS. A MULTICENTER ANALYSIS.

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Background: Rituximab (RTX) is effective in improving skin affection in patients with diffuse cutaneous systemic sclerosis (DcSSc). However, there are few data on early use of this drug.

Objectives: To evaluate RTX effectiveness for skin disease in patients with DcSSc of less than 3 years of evolution.

Methods: Multicenter, observational and retrospective study. Patients with DcSSc starting RTX within 3 years since first non-Raynaud symptom were recruited. Demographic variables, time of disease duration at the beginning of RTX, immune pattern and time on RTX treatment were collected. Effectiveness was defined as modified Rodnan skin score (mRSS) improvement. Evaluations were done by the same experienced rheumatologist. Patients subjective perception of skin hardening and/or tightness was evaluated. mRSS changes from baseline to 6 and 12 months after RTX beginning and, later on, to the last available observation were analysed using Wilcoxon test. Statistical analysis was performed with SPSS 20.0.

Results: 11 patients (8 women) were recruited from 2 university hospitals. Median age was 48 years (IQR 22). Median time since diagnosis to RTX beginning was 12 months (IQR 8). 5, 3 and 2 patients presented ATA +, RNPIII + and Ro-52 +, respectively. Median duration of RTX treatment was 12 months (IQR 68). Median baseline mRSS was 15.5 (IQR 18). Median mRSS after 6 and 12 months of RTX treatment and at last available mRSS evaluation was 15 (IQR 13), 14.5 (IQR 13) and 11 (IQR 16), respectively. mRSS showed statistically significant improvement at 6 (29%, IQR 37) and 12 months of RTX treatment (35%, IQR 34) and, thereafter, at last available observation (39%, IQR 51), compared to basal mRSS. Most patients reported subjective improvement at 6 (9 of 10