measured by master instructor was 10.5 (9.0). Mean (SD) difference between skin scores by physicians and master instructor was 7.7 (9.5) units. In the univariable analysis, video education significantly reduced the difference from the gold-standard score ($\beta = -1.96$, 95% CI -3.83 to -0.10) whereas live demonstration did not showed additional enhancement in scoring skill. Effect of education program was significantly different according to the physician's status and patient's disease type (diffuse vs. limited). In addition, male patient, shorter disease duration and higher gold-standard skin score was associated with more accurate skin scoring irrespective of the education. In the multivariable analysis where above clinical factors were adjusted, video education also led to significantly accurate skin scoring (table 1). When the educational effect was stratified by individual site of examination, face and distal extremities showed greater enhancement of scoring accuracy whereas difference from gold-standard score in proximal extremities was rather increased. ICC of physicians' skin scores was acceptable over all scoring times (0.63 to 0.88) but was not significantly changed after the education.

Conclusions: The mRSS education program can significantly enhance the accuracy of mRSS, which is mainly achieved by video education.

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Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3837

AB0775

CHARACTERISTICS OF PATIENTS WITH SCLERODERMA (SSC) TREATED WITH VARIOUS DRUGS IN THE CLINICAL ASSESSMENT AND TGF β AND IL13 CONCENTRATION IN COMPARISON TO THE HEALTHY GROUP

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Background: Scleroderma (SSc) is a rare multisystem chronic disease the treatment of which is still challenging. Until now, there is no effective therapy that can modify the overall disease course. However, the main aim of Ssc treatment is directed toward managing organs involvement and providing symptomatic relief. Effective drug therapy should inhibit three components of the disease: tissue fibrosis, vascular abnormalities and autoimmunity. Moreover, potential drug needs to be considered in the context of specific four subsets of the disease: fibroproliferative, inflammatory, limited, and normal-like. It was shown that various subsets could have different profile of specific cytokines: TGF β – associated with fibroproliferative and inflammatory type of disease and IL13 – mediator of fibrotic and vascular pathology.

Objectives: The aim of the study was to assess the level of TGF β and IL-13 in SSc pts with various treatment regimen comparing to healthy control.

Methods: 55 patients (71% were women) with SSc diagnosed according to EULAR/ACR 2013 criteria were divided into 5 treatment groups: 1st group – 8 pts treated with methotrexate (MTX), 2–13 pts with mycophenolate mofetil (MMF), 3–5 pts with cyclophosphamide (CYC), 4th group- 7 pts with azathioprine (AZA), 5th group- 22 pts without immunosuppressive treatment. All patients have been treated based on a scheme required for organs involvement in accordance with the update of EULAR recommendations from 2016. Mean age of patients was 54.56 $\pm$ 13.97. The blood and serum samples have been collected for basic examination. TGF β and IL13 concentration in serum was quantitated by ELISA. Differences in cytokine concentration were determined using non-parametric Kruskal-Wallis test. The level of statistical significance was set at $p < 0.05$. The modified Rodnan Skin Score (mRSS) examination were taken by one assessor at the beginning of the study and six months later. There were measured DLCO, HRCT, echocardiography and capillaroscopy.

Results: In 82% pts positive antinuclear antibodies have been revealed: in 16% positive results for CENPB were obtained and in 44% for Scl70. Capillaroscopy shown in 23% of pts early pattern, in 38% – active pattern, and in 27% – late pattern. 32% of SSc pts had confirmed pulmonary fibrosis, while 90% – Raynaud's syndrome. The median of mRSS in CENPB (+) pts was 5, ⁴⁻²⁴ in Scl70 (+) pts – 12. ²⁻³⁰ Statistically significant differences were found between IL13 and TGF β levels in patients treated with immunosuppressants and healthy subjects. There was no correlation between IL13 or TGF β with lung fibrosis progression or skin involvement.

Abstract AB0775 – Table 1. Comparison of serum level of IL 13 and TGF β in SSc pts

	MTX (n=8)	MMF (n=13)	CYC (n=5)	AZA (n=7)	patients without immunosuppressive treatment (n=22)	healthy controls n=16	p value
TGFβ							<0,0001
Minimum	179.6	175.4	203.5	96.15	104.4	44	
Median	226.6	272.3	273.2	272.3	202.5	192	
Maximum	414.6	385.3	359.5	356.6	389.9	323	
Mean	267.6	284.8	270.8	271.2	228.5	150.9	
Std. Deviation	90.23	67.15	60.52	90.23	79.71	70.58	
Std. Error	31.9	18.62	27.06	34.1	16.99	17.65	
IL 13							<0,0001
Minimum	0	0	0	0	0	156	
Median	90	172.7	0	172.4	175.8	219	
Maximum	185	191	187	191.3	228.4	389	
Mean	90.14	123.6	73.39	103.3	115	228.3	
Std. Deviation	96.42	85.98	100.5	96.81	96.1	53.53	
Std. Error	34.09	23.85	44.96	36.59	21.13	6.572	
		23.85	44.96	36.59	21.13	6.572	

Conclusions: In conclusion, our findings indicate that IL 13 and TGF β are characteristic cytokines in scleroderma, but these parameters did not correlate with severely progressive course of SSc.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.6049

AB0776

MUSCLE ULTRASONOGRAPHY: A POTENTIAL NEW DIAGNOSTIC TOOL FOR INFLAMMATORY MYOPATHIES

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Background: Quantitative muscle ultrasound (QMUS) imaging has proven to be a useful, non-invasive technique to visualise normal and pathological skeletal muscle tissue. ¹ Electromyography (EMG) findings are not always disease specific in patients suspected of idiopathic inflammatory myopathies (IIM).

Objectives: To assess diagnostic value of QMUS in patients suspected for an IIM and to compare results with EMG.

Methods: In 57 patients, suspected for IIM, panel diagnosis blinded for QMUS was used as reference standard. QMUS results were used to classify patients according an ultrasound neuromuscular disorder (NMD) algorithm (normal/borderline/abnormal). The predictive value of QMUS and EMG was assessed in a two by two table and a multivariate logistic regression model.

Results: Twenty-two patients (39%) were diagnosed with IIM; 8 polymyositis, 4 dermatomyositis, 4 necrotizing myopathy, 3 inclusion body myositis and 3 non-specific myositis. Sixteen patients were classified with other NMD. We found an increased echointensity of the sternocleidomastoid, biceps, forearm flexor and tibialis anterior in the IIM group. Sensitivity, specificity, positive and negative predictive values (PPV/NPV) were 82%, 51%, 51%, 82% for ultrasound NMD algorithm and 63%, 64%, 50%, 75% for EMG. Multivariate analyses showed area under the curve (AUC) (0.81) (0.69–0.92) for ultrasound NMD algorithm, EMG (0.79) (0.67–0.92) and ultrasound NMD algorithm plus EMG (0.82) (0.70–0.93).

Predictor	Model A	Model B	Model C
Age ≥ 50 year	2.97 (0.65–13.59)	2.88 (0.62–13.28)	2.98 (0.62–14.21)
Serum CK ≥ 2 x upper limit	7.52 (1.57–36)	8.76 (1.55–49.55)	7.35 (1.22–44.21)
Muscle ultrasound			
Total echointensity of proximal muscles/measured muscle			
Total number of affected proximal muscles			
Distal muscles affected (yes/no)			
NMD algorithm:			
- No NMD	Reference:		Reference:
- Borderline presence of NMD (yes/no)	1.61 (0.13–18.87)		1.62 (0.13–19.57)
- Presence of NMD (yes/no)	3.01 (0.44–20.55)		3.01 (0.43–21.09)
EMG qualitative report:			
Negative myopathic results		Reference:	Reference:
Borderline myopathic results		1.00 (0.08–11.67)	0.94 (0.07–12.09)
Positive myopathic results		1.28 (0.23–7.13)	1.03 (0.17–6.04)
Cox and Snell R square	0.28	0.26	0.28
Nagelkerke R square	0.38	0.35	0.38
Hosmer Lemeshow Test	0.91	0.94	0.69
AUC (95% CI)	0.81 (0.69–0.92)	0.79 (0.67–0.92)	0.82 (0.70–0.93)