Table 1. Clinical and ultrasound parameters in UCTD-risk-SSc and healthy control groups.

	UCTD-risk-SSc (n=40)	Healthy controls (n=40)	p value
Age, mean (SD)	51.4 (14.9)	49.8 (13.9)	Ns
Female, n (%)	36 (90.0)	36 (90.0)	
Raynaud phenomenon, %	100.0%	-	
ANAs	100.0	-	
Anti-centromere, %	60.0	-	
Anti-Scl70+, %	11.5	-	
Scleroderma/non-scleroderma pattern in capillaroscopy, %	5.0/95.0	-	
Ultrasound parameters			
Dermal thickness (mm)			
Dorsal hand right	0.77 (0.32)	0.62 (0.12)	0.02
Dorsal hand left	0.79 (0.39)	0.62 (9.13)	0.02
Proximal phalanx right	0.64 (0.14)	0.61 (0.11)	Ns
Proximal phalanx left	0.66 (0.16)	0.60 (0.09)	Ns
SWV values (m/s)			
Dorsal hand right	1.94 (0.40)	1.61 (0.24)	0.0001
Dorsal hand left	1.82 (0.36)	1.65 (0.25)	0.025
Proximal phalanx right	2.09 (0.60)	1.68 (0.24)	0.001
Proximal phalanx left	2.13 (0.82)	1.66 (0.27)	0.004

Legend: ANA: Antinuclear antibodies; Ns: Non-significant; UCTD: Undifferentiated Connective Tissue Disease; SD: Standard Deviation

Disclosure of Interests: None declared

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POS0879

CLINICAL FEATURES, PROGNOSTIC FACTORS, AND OUTCOME OF ANTI-MDA5 POSITIVE DERMATOMYOSITIS WITH RAPIDLY PROGRESSIVE INTERSTITIAL LUNG DISEASE: A MULTICENTER STUDY OF 238 PATIENTS

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Background: Anti-melanoma differentiation-associated gene 5 positive dermatomyositis (anti-MDA5⁺ DM) is typically amyopathic and associated with a life-threatening, therapy-resistant, rapidly progressive interstitial lung disease (RP-ILD).

Objectives: The present study aims to characterize the prognostic factors and long-term outcome of MDA5⁺ DM-associated RP-ILD.

Methods: A multicenter retrospective study was performed across ten tertiary hospitals in China between January 1, 2018 to December 31, 2019.

Results: A total of 238 patients (170 women) with MDA5⁺ DM enrolled into this retrospective clinical study. The mean age was 53.0 ± 12.2 years. The median follow-up duration was 6.3 ± 12.2 months. Of those 238 anti-MDA5+ patients, ILD is commonly observed in 213 patients, and RP-ILD occurred in 35.29% (84/213) of these patients (RP-ILD defined as progressive dyspnea occurs within 1 month after the onset of respiratory symptoms, and chest radiography or pulmonary function test show progressive interstitial abnormalities). The mortality rate of RP-ILD patients within the 6 months was 58.3% (49/84) in our cohort. Death peaked the first three months after diagnosis, occupying 84.8% (39/46) of died RP-ILD patients. Cox univariate proportional hazard analysis showed that age, gender, disease duration, abnormal laboratory features (LDH, CK, ESR and CRP), anti-Ro52 autoantibody and anti-MDA5 grade were related to the risk of occurrence of RP-ILD in patients with MDA5⁺ DM. The Cox proportional hazards model identified the disease duration [odds ratio (OR) 0.81 (95% CI 0.68, 0.96), P=0.016] as a protective factor, and anti-Ro52 autoantibody [OR 5.82 (95% CI 1.72, 19.73), P=0.005] as independent risk factors for the occurrence of RP-ILD in MDA5⁺ DM patients. The 6-month all-cause mortality rate of RP-ILD patients was 58.3% (49/84).

Conclusion: Combined with anti-Ro52 in Myositis-specific antibodies was associated with the occurrence and long-term mortality in MDA5⁺ DM-associated RP-ILD patients. The results suggest poor overall survival among patients with MDA5⁺ DM-associated RP-ILD. Survival during the first 6 months is crucial for long-term survival. Early recognition and prompt treatment of this high-risk group of MDA5⁺ DM-associated RP-ILD patients are therefore important.

Disclosure of Interests: None declared

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POS0880

TWO-MINUTE WALK TEST AS A SIMPLE AND OBJECTIVE OUTCOME MEASURE IN IDIOPATHIC INFLAMMATORY MYOSITIS

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Background: Manual muscle testing (MMT) and Functional index 2(FI-2) are the usual methods in assessing disease activity in IIM¹. Limitations of MMT8 include low sensitivity to change, floor/ceiling effect, and under-representation of certain important muscle groups¹ while FI-2 takes a longer time to administer. Several Timed function tests (TFTs) like the 2-minute walk test (2MWT) or 30s raise from a chair test and 30s 1kg arm rise test may be better alternatives and less time taking². Data looking at the performance of these tests are limited to small controlled studies.

Objectives: To assess the performance of timed function tests against MMT8 and FI-2 in assessing muscle strength and endurance at baseline, 3 and 6 months of therapy.

Methods: An observational cohort study, included 41 patients with polymyositis and dermatomyositis attending OPD and IPD service of tertiary centre. MMT8, FI-2 and Timed function tests were done at baseline, at 3 months and at 6 months. (Figure 1)

Figure 1. Consort diagram showing the workflow in study population

Results: Forty one patients included in the study had completed three month follow-up assessment, while 17 patients achieved a six-month evaluation. Out of 41 patients, 11 (27%) were polymyositis, and 30 (73%) were dermatomyositis. The mean MMT8 of the total study population at baseline was 57±15, at three months (n=41) was 66 ±10 and at six months (n=17) was 71 ± 10, while in active subgroup was 50 ± 18, 64 ± 9 (n=41), 67 ± 9.6 (n=17) at baseline, three months and six months respectively. The change in TFTs showed a moderate to strong correlation with the change in FI-2 among the study population at three months and six months (Table 2). Among the TFTs 2MWT showed moderate correlation with both MMT8 and FI-2 in active disease.

Table 1. Spearman Rho Correlation between change in timed function tests with change in MMT8, change in FI-2 at 3 months and 6 months

	At 3 months (n=41)		At 6 months (n=17)	
	Active disease (n=18)	Inactive disease (n=23)	Active disease (n=7)	Inactive disease (n=10)
Correlation of Δ MMT8 with	Δ30s rise form chair	0.143	0.346	0.200
	Δ30s1kg arm lift	0.018	0.284	0.362
	Δ2MWD	0.755*	0.313	0.482*
Correlation of ΔFI-2 with	Δ30s rise form chair	0.784*	0.495*	0.486*
	Δ30s1kg arm lift	0.671*	0.107	0.704*
	Δ2MWD	0.834*	0.623*	0.808*

*p<0.05

Conclusion: Using timed function tests can be an excellent alternative to FI-2 in assessing muscle endurance. 2-minute walk distance is a better alternative to conventional muscle testing as it measures both power and endurance, and this can overcome the ceiling effect of MMT-8.

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