Supplementary

Table S1 Comparison of muscle thickness, echo intensity, and SWV between patients with PM or DM and healthy controls

	PM and DM	Healthy controls	P value*
Thickness (mm)			
Deltoid	19.75 (17.55, 21.30)	23.00 (20.50, 25.30)	<0.001
Biceps brachii	20.45 (16.68, 23.40)	22.80 (19.70, 23.60)	<0.001
Rectus femoris	18.40 (16.60, 19.70)	20.20 (18.80, 21.00)	<0.001
Vastus lateralis	20.00 (16.90, 23.00)	22.80 (20.20, 25.00)	<0.001
Echo intensity			
Deltoid	57.8 (49.1, 71.9)	42.0 (38.7, 47.3)	<0.001
Biceps brachii	98.8 (81.9, 112.7)	69.8 (64.9, 79.2)	<0.001
Rectus femoris	94.2 (83.4, 105.2)	68.8 (64.4, 76.4)	<0.001
Vastus lateralis	88.9 (76.3, 99.9)	59.3 (53.4, 66.2)	<0.001
SWV (m/s)			
Deltoid	2.47 (2.23, 2.67)	2.57 (2.40, 2.68)	<0.01
Biceps brachii	3.60 (3.23, 4.37)	3.67 (3.42, 3.93)	0.840
Rectus femoris	1.73 (1.50, 1.93)	1.87 (1.80, 1.93)	<0.001
Vastus lateralis	1.57 (1.43, 1.73)	1.77 (1.67, 1.87)	<0.001

Date are shown as median (upper quartile, lower quartile). *, The difference between the 2 groups was statistically significant according to the Mann-Whitney test. SWV, shear wave velocity; PM, polymyositis; DM, dermatomyositis.

Table S2 Inter- and intraoperator reproducibility of the SWV measurement in the longitudinal orientation of muscle

	SWV (m/s)			ICC (95% CI)	
	Operator A1	Operator A2	Operator B	Interobserver reliability	Intraobserver reliability
Deltoid[†]	2.42 (2.20, 2.59)	2.40 (2.16, 2.53)	2.35 (2.18, 2.53)	0.964* (0.911-0.985)	0.959* (0.901-0.984)
Rectus femoris[†]	1.82 (1.60, 1.96)	1.80 (1.55, 1.96)	1.80 (1.51, 2.00)	0.988* (0.971-0.995)	0.974* (0.908-0.991)

*, $P<0.001$; †, median (upper quartile, lower quartile); SWV, shear wave velocity; ICC, intraclass correlation coefficient; CI, confidence interval.

Table S3 Comparison of muscle thickness, echo intensity, and SWV between the healthy controls, the acute stage group, and the chronic stage group

	Healthy controls	Acute stage group	Chronic stage group	P value*
Thickness (mm)				
Deltoid	23.00 (20.50, 25.30)	22.85 (20.53, 24.70)	18.10 ‡§ (16.60, 19.83)	<0.01
Biceps brachii	22.80 (19.70, 23.60)	23.60† (22.80, 24.90)	17.60‡§ (15.00, 20.53)	<0.01
Rectus femoris	20.20 (18.80, 21.00)	20.05 (18.70, 22.75)	17.05‡§ (15.80, 18.60)	<0.01
Vastus lateralis	22.80 (20.20, 25.00)	22.55 (20.08, 23.95)	18.45‡§ (16.20, 21.63)	<0.01
Echo intensity				
Deltoid	42.0 (38.7, 47.3)	55.3† (42.9, 59.6)	64.3‡§ (50.0, 78.9)	<0.01
Biceps brachii	69.8 (64.9, 79.2)	90.6† (78.7, 103.6)	102.9‡§ (86.7, 119.1)	<0.01
Rectus femoris	68.8 (64.4, 76.4)	86.4† (79.9, 101.3)	96.2‡§ (84.7, 108.0)	<0.01
Vastus lateralis	59.3 (53.4, 66.2)	85.4† (64.9, 94.7)	90.1‡§ (80.4, 105.7)	<0.01
SWV (m/s)				
Deltoid	2.57 (2.40, 2.68)	2.35† (2.20, 2.54)	2.52§ (2.27, 2.75)	<0.01
Biceps brachii	3.67 (3.42, 3.93)	3.49 (3.20, 4.00)	3.74 (3.26, 4.56)	<0.01
Rectus femoris	1.87 (1.80, 1.93)	1.69† (1.53, 1.83)	1.80 (1.50, 2.00)	<0.01
Vastus lateralis	1.77 (1.67, 1.87)	1.69† (1.52, 1.83)	1.53‡§ (1.39, 1.70)	<0.01

Date are shown as median (upper quartile, lower quartile). *, The difference between the 3 groups was statistically significant based on the Kruskal-Wallis test. The Bonferroni method was used to adjust the test levels for post hoc pairwise comparisons (A P' value less than 0.05/3 indicated a statistically significant difference). †, ‡, § Post hoc pairwise comparisons, the difference was statistically significant, and all P'<0.01. †, Comparison between the healthy controls and the acute stage group; ‡, Comparison between the healthy controls and the chronic stage group; §, Comparison between the acute stage group and the chronic stage group. SWV, shear wave velocity.