

Table S1. Outcome variables

	Dry needling group			Sham group			1 week difference between groups (95%CI)	Group p value ^a	Time p value ^a	Group: time p value ^a	n2pnp2 (95%CI)
	Pretreatment	Posttreatment	1 week follow-up	Pretreatment	Posttreatment	1 week follow-up					
Contraction ratio	0.26±0.12	0.27±0.13	0.28±0.11	0.22±0.08	0.29±0.10	0.33±0.08	0.049 (-0.041, 0.132)	0.768	0.002	0.043	0.034 (0.002, 0.201)
Contraction speed	1.46±0.77	1.17±0.67	1.77±1.15	1.15±0.54	1.16±0.41	1.56±0.95	-0.209 (-1.08, 0.678)	0.551	0.006	0.261	0.04 (0.001, 0.173)
Contraction thickness	3.75±0.61	3.63±0.53	3.71±0.60	3.92±0.66	3.98±0.70	4.03±0.72	0.318 (-0.224, 0.83)	0.334	0.409	0.108	0.038 (0.001, 0.146)
Muscle area	10.00±2.17	10.17±2.74	10.43±3.08	10.78±2.28	10.94±2.73	11.24±2.86	0.811 (-1.633, 3.404)	0.496	0.373	0.998	0.038 (0.001, 0.135)
Muscle perimeter	11.65±1.25	11.73±1.57	11.80±1.72	11.87±1.94	12.15±1.54	12.39±1.64	0.597 (-0.808, 1.973)	0.556	0.274	0.65	0.037 (0.001, 0.143)
PPT	8.40±3.40	8.23±3.37	9.15±3.63	7.43±3.20	8.55±3.32	8.13±3.47	-1.018 (-3.866, 1.954)	0.707	0.013	0.038	0.039 (0.002, 0.156)
Relaxation speed	0.82±0.35	0.84±0.38	0.82±0.34	1.00±0.26	1.09±0.34	1.19±0.37	0.374 (0.058, 0.657)	0.053	0.414	0.37	0.036 (0.001, 0.179)
Rest thickness	3.00±0.50	2.88±0.42	2.90±0.37	3.22±0.65	3.10±0.60	3.04±0.60	0.144 (-0.263, 0.575)	0.417	0.006	0.634	0.038 (0.001, 0.134)
Roland Morris	5.20±3.16		2.70±1.70	4.90±2.08		1.90±1.10	0.733			0.608	0.588 (-0.343, 1.49)
VAS	5.90±1.20	4.50±1.51	3.80±1.75	6.30±1.16	4.70±1.77	4.50±1.35	0.7 (-0.7, 1.9)	0.363	<0.001	0.851	0.04 (0.001, 0.157)

Data expressed with mean±standard deviation.
 Roland Morris effect size reported with Cohen's D.
 Significant if p<0.05

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Table S2. Between groups pairwise comparison p unadjusted and adjusted values

Group	Unadjusted	Bonferroni	Holm	Benjamini Hochberg	& Benjamini Yekutieli	&
Roland Morris pretreatment	0.805					
PPT pretreatment	0.521	1	0.836	0.275	0.504	
Rest thickness pretreatment	0.418	1	0.836	0.275	0.504	
Contraction thickness pretreatment	0.55	1	0.836	0.275	0.504	
Contraction ratio pretreatment	0.489	1	0.836	0.275	0.504	
Relaxation speed pretreatment	0.221	0.664	0.664	0.275	0.504	
Muscle perimeter pretreatment	0.774	1	0.836	0.302	0.553	
Muscle area pretreatment	0.442	1	0.836	0.275	0.504	
VAS pretreatment	0.426	1	1	0.722	1	
Contraction speed pretreatment	0.481	1	1	0.722	1	
PPT posttreatment	0.832	1	0.447	0.357	0.654	
Rest thickness posttreatment	0.354	1	0.447	0.331	0.607	
Contraction thickness posttreatment	0.223	0.67	0.447	0.331	0.607	
Contraction ratio posttreatment	0.686	1	0.447	0.343	0.629	
Relaxation speed posttreatment	0.128	0.383	0.383	0.331	0.607	

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Group	Unadjusted	Bonferroni	Holm	Benjamini Hochberg	& Benjamini Yekutieli	&
Muscle perimeter posttreatment	0.551	1	0.447	0.331	0.607	
Muscle area posttreatment	0.538	1	0.447	0.331	0.607	
VAS posttreatment	0.787	1	1	1	1	
Contraction speed posttreatment	0.971	1	1	1	1	
Roland Morris 1 week	0.231	0.692	0.462	0.206	0.378	
PPT 1 week	0.53	1	0.462	0.206	0.378	
Rest thickness 1 week	0.53	1	0.462	0.206	0.378	
Contraction thickness 1 week	0.301	0.904	0.462	0.206	0.378	
Contraction ratio 1 week	0.282	0.845	0.462	0.206	0.378	
Relaxation speed 1 week	0.03	0.089	0.089	0.089	0.163	
Muscle perimeter 1 week	0.437	1	0.462	0.206	0.378	
Muscle area 1 week	0.55	1	0.462	0.206	0.378	
VAS 1 week	0.178	0.534	0.534	0.534	0.98	
Contraction speed 1 week	0.85	1	1	1	1	

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Table S3. Within groups pairwise comparison p unadjusted and adjusted values

Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Sham	VAS pretreatment - VAS posttreatment	0.007	0.021	0.014	0.011
Sham	VAS pretreatment - VAS 1 week	0.003	0.008	0.008	0.008
Sham	VAS posttreatment - VAS 1 week	0.723	1	0.723	0.723
Dry needling	VAS pretreatment - VAS posttreatment	0.017	0.051	0.034	0.026
Dry needling	VAS pretreatment - VAS 1 week	0.001	0.002	0.002	0.002
Dry needling	VAS posttreatment - VAS 1 week	0.219	0.657	0.219	0.219
Sham	PPT pretreatment - PPT posttreatment	0.016	0.048	0.048	0.048
Sham	PPT pretreatment - PPT 1 week	0.122	0.366	0.244	0.183
Sham	PPT posttreatment - PPT 1 week	0.35	1	0.35	0.35
Dry needling	PPT pretreatment - PPT posttreatment	0.702	1	0.702	0.702
Dry needling	PPT pretreatment - PPT 1 week	0.098	0.294	0.196	0.147

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Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Dry needling	PPT posttreatment - PPT 1 week	0.044	0.133	0.133	0.133
Sham	Contraction speed pretreatment - Contraction speed posttreatment	0.974	1	0.974	0.974
Sham	Contraction speed pretreatment - Contraction speed 1 week	0.093	0.279	0.279	0.148
Sham	Contraction speed posttreatment - Contraction speed 1 week	0.099	0.297	0.279	0.148
Dry needling	Contraction speed pretreatment - Contraction speed posttreatment	0.224	0.671	0.4	0.224
Dry needling	Contraction speed pretreatment - Contraction speed 1 week	0.2	0.6	0.4	0.224
Dry needling	Contraction speed posttreatment - Contraction speed 1 week	0.015	0.046	0.046	0.046
Sham	Rest thickness pretreatment - Rest thickness posttreatment	0.07	0.211	0.141	0.106
Sham	Rest thickness pretreatment - Rest thickness 1 week	0.008	0.025	0.025	0.025
Sham	Rest thickness posttreatment - Rest thickness 1 week	0.36	1	0.36	0.36

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Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Dry needling	Rest thickness pretreatment - Rest thickness posttreatment	0.058	0.174	0.174	0.157
Dry needling	Rest thickness pretreatment - Rest thickness 1 week	0.104	0.313	0.209	0.157
Dry needling	Rest thickness posttreatment - Rest thickness 1 week	0.771	1	0.771	0.771
Sham	Contraction thickness pretreatment - Contraction thickness posttreatment	0.349	1	0.697	0.486
Sham	Contraction thickness pretreatment - Contraction thickness 1 week	0.107	0.321	0.321	0.321
Sham	Contraction thickness posttreatment - Contraction thickness 1 week	0.486	1	0.697	0.486
Dry needling	Contraction thickness pretreatment - Contraction thickness posttreatment	0.061	0.184	0.184	0.184
Dry needling	Contraction thickness pretreatment - Contraction thickness 1 week	0.476	1	0.476	0.476
Dry needling	Contraction thickness posttreatment - Contraction thickness 1 week	0.234	0.701	0.467	0.35

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Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Sham	Contraction ratio pretreatment - Contraction ratio posttreatment	0.007	0.02	0.013	0.01
Sham	Contraction ratio pretreatment - Contraction ratio 1 week	<0.001	<0.001	<0.001	<0.001
Sham	Contraction ratio posttreatment - Contraction ratio 1 week	0.095	0.286	0.095	0.095
Dry needling	Contraction ratio pretreatment - Contraction ratio posttreatment	0.623	1	1	0.655
Dry needling	Contraction ratio pretreatment - Contraction ratio 1 week	0.35	1	1	0.655
Dry needling	Contraction ratio posttreatment - Contraction ratio 1 week	0.655	1	1	0.655
Sham	Relaxation speed pretreatment - Relaxation speed posttreatment	0.347	1	0.647	0.347
Sham	Relaxation speed pretreatment - Relaxation speed 1 week	0.058	0.175	0.175	0.175
Sham	Relaxation speed posttreatment - Relaxation speed 1 week	0.323	0.97	0.647	0.347

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Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Dry needling	Relaxation speed pretreatment - Relaxation speed posttreatment	0.912	1	1	0.954
Dry needling	Relaxation speed pretreatment - Relaxation speed 1 week	0.954	1	1	0.954
Dry needling	Relaxation speed posttreatment - Relaxation speed 1 week	0.867	1	1	0.954
Sham	Muscle perimeter pretreatment - Muscle perimeter posttreatment	0.337	1	0.674	0.405
Sham	Muscle perimeter pretreatment - Muscle perimeter 1 week	0.078	0.233	0.233	0.233
Sham	Muscle perimeter posttreatment - Muscle perimeter 1 week	0.405	1	0.674	0.405
Dry needling	Muscle perimeter pretreatment - Muscle perimeter posttreatment	0.798	1	1	0.811
Dry needling	Muscle perimeter pretreatment - Muscle perimeter 1 week	0.621	1	1	0.811
Dry needling	Muscle perimeter posttreatment - Muscle perimeter 1 week	0.811	1	1	0.811

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Group	Comparison	Unadjusted	Bonferroni	Holm	Benjamini & Hochberg
Sham	Muscle area pretreatment - Muscle area posttreatment	0.726	1	1	0.726
Sham	Muscle area pretreatment - Muscle area 1 week	0.311	0.933	0.933	0.726
Sham	Muscle area posttreatment - Muscle area 1 week	0.505	1	1	0.726
Dry needling	Muscle area pretreatment - Muscle area posttreatment	0.705	1	1	0.705
Dry needling	Muscle area pretreatment - Muscle area 1 week	0.341	1	1	0.705
Dry needling	Muscle area posttreatment - Muscle area 1 week	0.564	1	1	0.705
Sham	Roland pretreatment - Morris 1 week	Morris Roland	0.001		
Dry needling	Roland pretreatment - Morris 1 week	Morris Roland	0.007		

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Table S4. Top five loading texture features for each component

	Dry needling									Sham								
	Pretreatment			Posttreatment			1 week			Pretreatment			Posttreatment			1 week		
	PC1	PC2	PC3	PC1	PC2	PC3	PC1	PC2	PC3	PC1	PC2	PC3	PC1	PC2	PC3	PC1	PC2	PC3
	Sum entropy at 0°	Difference variance at 0° at 45°	Run length non-uniformity at 135°	Variance	Kurtosis	Short run emphasis at 90°	Sum entropy at 0° at 135°	Sum entropy at 0° at 135°	Dissimilarity at 135°	Sum entropy at 0° at 90°	Long run emphasis at 135°	Difference variance at 0° at 45°	Sum entropy at 0° at 45°	Short run emphasis at 135°	Difference variance at 0° at 45°	Sum entropy at 0° at 135°	Maximum probability at 135°	Grey level non-uniformity at 90°
	Standard deviation	Difference variance at 0° at 90°	Run percentage at 135°	Standard deviation	Energy at 45°	Dissimilarity at 90°	Sum entropy at 0° at 90°	Sum entropy at 0° at 90°	Dissimilarity at 90°	Sum entropy at 0° at 45°	Run percentage at 135°	Contrast at 0° at 45°	Sum entropy at 0° at 90°	Run percentage at 135°	Contrast at 0° at 45°	Sum entropy at 0° at 90°	Maximum probability at 0°	Grey level non-uniformity at 135°
	Entropy at 0°	Contrast at 0° at 45°	Short run emphasis at 135°	Entropy at 0° at 90°	Energy at 0°	Dissimilarity at 135°	Sum entropy at 0°	Sum entropy at 0°	Dissimilarity at 45°	Sum entropy at 0° at 135°	Long run emphasis at 90°	Difference variance at 0° at 90°	Entropy at 0° at 135°	Run length non-uniformity at 135°	Difference entropy at 0° at 45°	Sum entropy at 0° at 45°	Maximum probability at 90°	Grey level non-uniformity at 45°
	Variance	Contrast at 0° at 90°	Long run emphasis at 135°	Entropy at 0° at 135°	Energy at 90°	Run length non-uniformity at 90°	Entropy at 0°	Entropy at 0°	Short run emphasis at 135°	Entropy at 0° at 135°	Short run emphasis at 135°	Grey level non-uniformity at 45°	Sum entropy at 0° at 135°	Run percentage at 90°	Inverse difference at 0° at 45°	Sum entropy at 0°	Long run low grey level emphasis at 135°	Kurtosis
	Information Measures of Correlation B at 0° at 45°	Difference variance at 0° at 135°	Run length non-uniformity at 90°	Entropy at 0° at 45°	Energy at 135°	Short run emphasis at 135°	Sum entropy at 0° at 45°	Sum entropy at 0° at 45°	Short run emphasis at 90°	Sum entropy at 0°	Run length non-uniformity at 135°	Blob standard deviation	Entropy at 0° at 90°	Long run emphasis at 90°	Difference entropy at 0°	Entropy at 0° at 135°	Long run low grey level emphasis at 90°	Skewness
Overall variance explained (%)	7.22	7.55	11.19	6.91	8.28	9.08	5.88	0.74	10.25	6.48	8.91	9.66	6.61	8.71	9.63	6.73	7.98	12.14

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Table S5. Test de permutaciones exacto

Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Homogeneity at 0°	0.123	0.15	0.19	0.248	0.19	0.285
Contrast at 0°	0.579	0.417	0.529	0.585	1	0.999
Inverse difference at 0°	0.579	0.417	0.529	0.585	1	0.999
Entropy at 0°	0.123	0.095	0.143	0.179	0.19	0.184
Correlation at 0°	0.029	0.03	0.19	0.087	0.089	0.04
Sum average at 0°	0.105	0.209	0.218	0.128	0.481	0.356
Sum entropy at 0°	0.123	0.09	0.105	0.171	0.218	0.169
Difference entropy at 0°	0.579	0.43	0.529	0.678	1	0.956
Difference variance at 0°	0.579	0.424	0.529	0.636	1	0.976
Sum variance at 0°	0.105	0.271	0.218	0.121	0.481	0.443
Information Measures of Correlation A at 0°	0.052	0.044	0.063	0.064	0.035	0.02
Information Measures of Correlation B at 0°	0.123	0.061	0.075	0.123	0.089	0.078
Cluster Shade at 0°	0.105	0.03	0.912	0.294	0.28	0.643

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Cluster prominence at 0°	0.052	0.021	0.19	0.089	0.218	0.393
Homogeneity at 0° at 45°	0.123	0.186	0.247	0.321	0.247	0.374
Contrast at 0° at 45°	0.579	0.484	0.853	0.697	0.796	0.867
Inverse difference at 0° at 45°	0.579	0.482	0.912	0.722	0.912	0.869
Entropy at 0° at 45°	0.143	0.108	0.143	0.21	0.218	0.248
Correlation at 0° at 45°	0.063	0.049	0.165	0.054	0.063	0.016
Sum average at 0° at 45°	0.105	0.21	0.218	0.129	0.481	0.359
Sum entropy at 0° at 45°	0.143	0.098	0.105	0.181	0.218	0.175
Difference entropy at 0° at 45°	0.529	0.534	0.912	0.889	0.796	0.871
Difference variance at 0° at 45°	0.529	0.507	1	0.757	0.912	0.862
Sum variance at 0° at 45°	0.105	0.273	0.218	0.122	0.481	0.445
Information Measures of Correlation A at 0° at 45°	0.043	0.034	0.089	0.069	0.019	0.014
Information Measures of Correlation B at 0° at 45°	0.123	0.058	0.063	0.124	0.105	0.076

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Cluster Shade at 0° at 45°	0.075	0.028	0.853	0.268	0.28	0.574
Cluster prominence at 0° at 45°	0.043	0.021	0.19	0.076	0.218	0.354
Homogeneity at 0° at 90°	0.123	0.177	0.247	0.304	0.247	0.352
Contrast at 0° at 90°	0.631	0.469	0.912	0.607	0.853	0.904
Inverse difference at 0° at 90°	0.684	0.472	0.853	0.649	0.853	0.894
Entropy at 0° at 90°	0.123	0.105	0.143	0.202	0.218	0.238
Correlation at 0° at 90°	0.052	0.054	0.143	0.054	0.075	0.019
Sum average at 0° at 90°	0.105	0.21	0.218	0.128	0.481	0.355
Sum entropy at 0° at 90°	0.105	0.096	0.089	0.18	0.218	0.174
Difference entropy at 0° at 90°	0.631	0.526	0.912	0.809	0.853	0.917
Difference variance at 0° at 90°	0.579	0.487	1	0.653	0.853	0.91
Sum variance at 0° at 90°	0.105	0.274	0.218	0.121	0.481	0.442
Information Measures of Correlation A at 0° at 90°	0.043	0.036	0.052	0.054	0.011	0.016

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Information Measures of Correlation B at 0° at 90°	0.123	0.055	0.075	0.114	0.105	0.073
Cluster Shade at 0° at 90°	0.063	0.027	0.912	0.263	0.28	0.617
Cluster prominence at 0° at 90°	0.043	0.019	0.19	0.076	0.247	0.369
Homogeneity at 0° at 135°	0.143	0.179	0.218	0.299	0.247	0.354
Contrast at 0° at 135°	0.684	0.456	0.853	0.518	0.78	0.904
Inverse difference at 0° at 135°	0.631	0.469	0.739	0.583	0.796	0.898
Entropy at 0° at 135°	0.123	0.108	0.123	0.192	0.247	0.234
Correlation at 0° at 135°	0.052	0.05	0.143	0.065	0.052	0.02
Sum average at 0° at 135°	0.105	0.211	0.218	0.128	0.481	0.356
Sum entropy at 0° at 135°	0.105	0.097	0.105	0.175	0.19	0.17
Difference entropy at 0° at 135°	0.631	0.52	0.912	0.729	0.853	0.908
Difference variance at 0° at 135°	0.684	0.47	0.971	0.553	0.971	0.903

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Sum variance at 0° at 135°	0.105	0.275	0.218	0.121	0.481	0.442
Information Measures of Correlation A at 0° at 135°	0.035	0.032	0.052	0.054	0.011	0.014
Information Measures of Correlation B at 0° at 135°	0.105	0.053	0.063	0.112	0.105	0.07
Cluster Shade at 0° at 135°	0.063	0.027	0.912	0.265	0.28	0.604
Cluster prominence at 0° at 135°	0.043	0.019	0.19	0.077	0.247	0.352
LBP entropy	0.659	0.702	1	1	0.905	1
Blob mean	0.353	0.251	0.382	0.268	0.684	0.605
Blob standard deviation	0.393	0.216	0.481	0.354	0.349	0.243
Blob count	0.305	0.314	0.138	0.168	0.362	0.289
Autocorrelation at 0°	0.393	0.273	0.035	0.042	0.954	0.413
Dissimilarity at 0°	0.247	0.162	0.853	0.73	0.184	0.132
Energy at 0°	0.684	0.87	0.393	0.521	0.896	0.973

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Maximum probability at 0°	0.853	0.959	0.353	0.513	0.954	0.736
Autocorrelation at 45°	0.353	0.273	0.063	0.042	1	0.403
Dissimilarity at 45°	0.105	0.072	0.436	0.482	0.028	0.047
Energy at 45°	0.631	0.854	0.436	0.466	0.838	0.808
Maximum probability at 45°	0.631	0.973	0.353	0.393	0.343	0.458
Autocorrelation at 90°	0.393	0.276	0.063	0.043	0.954	0.407
Dissimilarity at 90°	0.089	0.08	0.529	0.572	0.022	0.048
Energy at 90°	0.529	0.814	0.353	0.404	0.838	0.828
Maximum probability at 90°	0.684	0.97	0.28	0.313	0.271	0.469
Autocorrelation at 135°	0.393	0.274	0.063	0.043	0.954	0.404
Dissimilarity at 135°	0.089	0.077	0.579	0.704	0.041	0.061
Energy at 135°	0.579	0.835	0.315	0.39	0.896	0.856
Maximum probability at 135°	0.796	0.969	0.247	0.353	0.382	0.452

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Grey level non-uniformity at 0°	0.143	0.084	0.123	0.086	0.011	0.017
High grey level run emphasis at 0°	0.247	0.195	0.029	0.046	0.837	0.373
Long run emphasis at 0°	0.353	0.167	0.912	0.593	0.21	0.253
Long run low grey level emphasis at 0°	0.796	0.81	0.007	0.007	0.616	0.471
Run length non-uniformity at 0°	0.247	0.163	0.912	0.792	0.21	0.156
Run percentage at 0°	0.28	0.162	0.912	0.698	0.21	0.182
Short run emphasis at 0°	0.19	0.131	0.853	0.699	0.21	0.205
Grey level non-uniformity at 45°	0.315	0.237	0.28	0.188	0.051	0.057
High grey level run emphasis at 45°	0.247	0.214	0.043	0.05	0.895	0.39
Long run emphasis at 45°	0.165	0.187	0.853	0.748	0.06	0.111
Long run low grey level emphasis at 45°	0.684	0.688	0.015	0.009	0.67	0.473
Run length non-uniformity at 45°	0.28	0.19	0.481	0.635	0.034	0.08

Application of image texture analysis techniques on the effects of dry needling versus placebo in low-back pain patients. A conceptual pilot-study.

Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Run percentage at 45°	0.247	0.184	0.739	0.692	0.06	0.088
Short run emphasis at 45°	0.28	0.219	0.481	0.531	0.034	0.101
Grey level non-uniformity at 90°	0.28	0.239	0.393	0.224	0.042	0.049
High grey level run emphasis at 90°	0.247	0.212	0.043	0.053	0.895	0.393
Long run emphasis at 90°	0.165	0.163	0.971	0.881	0.05	0.127
Long run low grey level emphasis at 90°	0.739	0.669	0.011	0.009	0.67	0.479
Run length non-uniformity at 90°	0.315	0.161	0.971	0.914	0.05	0.099
Run percentage at 90°	0.19	0.153	0.971	0.912	0.05	0.111
Short run emphasis at 90°	0.353	0.186	0.912	0.829	0.05	0.121
Grey level non-uniformity at 135°	0.28	0.227	0.393	0.214	0.073	0.061
High grey level run emphasis at 135°	0.247	0.217	0.043	0.051	0.895	0.395
Long run emphasis at 135°	0.105	0.076	0.971	0.828	0.072	0.136

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Between groups differences.

	Pretreatment		Posttreatment		1 week	
	U Mann-Whitney	Exact permutation	U Mann-Whitney	Permutation	U Mann-Whitney	Exact permutation
Long run low grey level emphasis at 135°	0.684	0.668	0.011	0.009	0.67	0.474
Run length non-uniformity at 135°	0.143	0.091	0.796	0.822	0.072	0.119
Run percentage at 135°	0.19	0.084	0.853	0.832	0.085	0.13
Short run emphasis at 135°	0.143	0.106	0.796	0.727	0.06	0.14
Kurtosis	0.481	0.384	0.19	0.126	0.382	0.541
Skewness	0.631	0.585	0.19	0.201	0.615	0.577
Mean	0.089	0.205	0.143	0.087	0.306	0.152
Variance	0.043	0.037	0.035	0.075	0.028	0.032
Standard deviation	0.043	0.037	0.035	0.075	0.028	0.022