EFFECT OF MUSCLE ENERGY TECHNIQUES AND JOINT MOBILIZATION ON CHRONIC NECK PAIN: A RANDOMIZED CONTROLLED TRIAL

Seval TAMER, Müzeyyen OZ, Ozlem ULGER

Hacettepe University, Faculty of Health Sciences, Physiotherapy Department, ANKARA, TURKEY

Aim:The aim of this study was to compared the effect of muscle energy techniques and joint mobilizations in the management of chronic neck pain.

Method: 44 individuals who have non-spesific neck pain for 3 months were randomly divided into two groups. Individuals pain intensity assessed with visual analog scale (VAS), functional level with Neck Disability Index (NDI) and quality of life with Nottingham Health Profile (NHP). Cervical joint posterior-anterior Grade III mobilisations were performed on the stiffest or most painful segment for group 1, Muscle energy techniques were applied to SCM, scalene and trapez muscles according to Lewit for group 2, also spinal stabilization and stretching exercises were used for both group. Treatment performed 2 times a week for 6 weeks. Evaluations were recorded before and after treatment.

Results:

Table1: Socio-demographic values

	Mobilization Group	Muscle Energy Group	p[a]
Gender	16 female 5 male	17 female 6 male	0,605
Age (year)	44,39±11,39	48,33±13,61	0,503
BMI(kg/cm2)	25,01±3,44	25,61±3,87	0,751

Table2: Groups Values

	Mobilization Group			Muscle Energy Group			
	BT	AT	p [a]	BT	AT	p [a]	p [a-b]
VAS	7,01±1,50	2,61±1,51	≥ 0.001	6,23 ±1,63	3,00±1,24	≥ 0.001	**0.004**
NDI	37,21± 13,04	26,43± 11,03	≥ 0.001	32,76±11,14	27,23±9,53	≥ 0.001	**0.014**
NSP (Pain)	47,02±29,78	19,43±17,74	≥ 0.001	51,97±19,95	24,95±15,16	≥ 0.001	0.769
NSP (Energy level)	20,33±19,84	13,24±12,88	**0.013**	23,81±19,98	16,49±13,67	**0.005**	0.582
NSP (Social isolation)	15,47±21,35	9,27±14,16	0.066	4,70±13,57	4,82±13,72	0.317	0.055
NSP (Sleep)	38,12±30,18	20,38±19,45	**0.002**	33,73±24,98	15,11±11,13	**0.001**	0.588
NSP(Physical Activity)	20,34±15,23	15,16±13,34	0.069	25,88±13,04	23,86±10,63	0.109	0.487
NSP(Emotional State)	38,60±31,87	26,81±26,03	**0.013**	51,23±28,62	44,11±23,55	**0.039**	0.594

Before Treatment(BT) and After Treatment(AT) values analyzed by Wilcoxon (p^a), Intercorparison groups difference by Mann-Whitney-U (p^{a-b})

Conclusion: In our study joint mobilization and muscle energy techniques both have positive effects on pain, function and quality of life on chronic non-spesific neck pain. But mobilization is more effective on pain and function. These results showed that mobilization could be choose for these patients early treatment period.