Cupping therapy versus interferential cupping therapy on mechanical low back pain

Ahmed Assem Abd El Rahim[1]

Lecturer of Physical Therapy, Department of Basic Science, Faculty of Physical Therapy, Merit University, Sohag, Egypt.

Abstract : background Mechanical low back pain is an important public health problem affecting social and physical performance. **Purpose:** The purpose of this study was to investigate the effect of cupping therapy with interferential therapy on mechanical low back pain. **Subjects:** Sixty mechanical low back pain patients aged from 20-35years of both sexes, randomly divided into three groups, selected from Sohag University Neurosurgery Hospital. **Methods:** group A (Study Group): twenty patients received Cupping therapy in addition to traditional physical therapy. Group B (Control Group): twenty patients received Cupping therapy and Interferential therapy (IFT) in addition to traditional physical therapy.Group C (Control Group): twenty patients received Traditional Physical Therapy. The treatment was applied for four weeks, three sessions per week. Pain was measured by McGill Pain Questionnaire (MPQ), disability was measured byThe Roland Morris Disability Questionnaire and ROM was measured by goniometer before and after the treatment. **Results**: There was a statistically significant decrease in pain, disability in group (B) than other groups with p-value equal (P=0.0001*, 0.0001* and P=0.0001*) respectively. There was a statistically significant increase in flexion and extension ROMs in group (B) than other groups with p-value equal (P=0.0001*, 0.0001* and P=0.0001*) respectively. **Conclusion:** Cupping therapy and Interferential therapy (IFT) in addition to traditional physical therapy can be used as an effective treatment in patients with mechanical low back pain.

Results

Pain scale	**Group A (Mean ±SD)**	**Group B (Mean ±SD)**	**Group C (Mean ±SD)**
Pre	63.15 ±4.97	63.7 ±4.49	64.45±4.09
Post	16.5 ±2.39	8.58±1.93	25.05±2.43
% of change	73.87%	86.69%	61.13%
Multiple pairwise comparisons between pre and post treatment values for pain scale at different groups			
Pre Vs. post	**Group A**	**Group B**	**Group C**
p-value	0.0001*	0.0001*	0.0001*

Multiple pairwise comparison tests (Post hoc tests) for the pain scale among different groups at different measuring periods			
	Group A Vs. group B	**Group A Vs. group C**	**Group B Vs. group C**
Pre	1.00	1.00	1.00
Post	0.0001*	0.0001*	0.0001*

***Significant at alpha level <0.05**

A-Disability scale:

1- Within groups:

2- Among groups:

Table (4):Descriptive statistics and 3×2 mixed design MANOVA for disability scale at different measuring periods among different groups.

Disability scale	**Group A (Mean ±SD)**	**Group B (Mean ±SD)**	**Group C (Mean ±SD)**
Pre	20.55 ±2.01	19.05 ±3.39	20.55±2.41
Post	9.45 ±1.5	3.88±1.53	12.5±2.01
% of change	54% ↓	79.63% ↓	39.17% ↓
Multiple pairwise comparisons between pre and post treatment values for disability scale at different groups			
Pre Vs. post	**Group A**	**Group B**	**Group C**
p-value	0.0001*	0.0001*	0.0001*
Multiple pairwise comparison tests (Post hoc tests) for the disability scale among different groups at different measuring periods			
	Group A Vs. group B	**Group A Vs. group C**	**Group B Vs. group C**
Pre	0.273	1.00	0.273
Post	0.0001*	0.0001*	0.0001*

B-ROM of flexion:

Among groups:

Table (5). Descriptive statistics and 3×2 mixed design MANOVA for ROM of flexion at different measuring periods among different groups.

ROM of flexion **(degrees)**	**Group A (Mean ±SD)**	**Group B (Mean ±SD)**	**Group C (Mean ±SD)**
Pre	29.2 ±9.66	35.23 ±7.3	29.85±7.22
Post	75.45 ±3.39	85.29±3.36	65.8±4.67
% of change	100.5% ↑	100.5% ↑	100.2% ↑
Multiple pairwise comparisons between pre and post treatment values for ROM of flexion at different groups			
Pre Vs. post	**Group A**	**Group B**	**Group C**
p-value	0.0001*	0.0001*	0.0001*
Multiple pairwise comparison tests (Post hoc tests) for the ROM of flexion among different groups at different measuring periods			
	Group A Vs. group B	**Group A Vs. group C**	**Group B Vs. group C**
Pre	080.0	081.0	1.00
Post	0.0001*	0.0001*	0.0001*

***Significant at alpha level <0.05**

C-ROM of extension:

1- Within groups:

2- Among groups:

Table(6):Descriptive statistics and 3×2 mixed design MANOVA for ROM of extension at different measuring periods among different groups.

ROM of extension **(degrees)**	**Group A (Mean ±SD)**	**Group B (Mean ±SD)**	**Group C (Mean ±SD)**
Pre	11.05 ±3.73	10.17±3.87	11.7±3.77
Post	22.4 ±1.81	27.35±1.86	18.85±1.95
% of change	100.02% ↑	100.6% ↑	61.11% ↑
Multiple pairwise comparisons between pre and post treatment values for ROM of extension at different groups			
Pre Vs. post	**Group A**	**Group B**	**Group C**
p-value	0.0001*	0.0001*	0.0001*
Multiple pairwise comparison tests (Post hoc tests) for the ROM of extension among different groups at different measuring periods			
	Group A Vs. group B	**Group A Vs. group C**	**Group B Vs. group C**
Pre	1.00	1.00	086..
Post	0.0001*	0.0001*	0.0001*

***Significant at alpha level <0.05.**

*****