

To Compare the Effect of Cupping Therapy with Conventional Therapy versus Cross Fiber Massage with Conventional Therapy on Trapezitis in Bankers: A Comparative Study

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Abstract: *Approximately 70% individuals experience neck pain at any point of their life. Many professions mainly banking, bank workers could cause health problems such as fatigue, eye strain, and musculoskeletal disorder like trapezitis. Trapezius pain is the stress pain and is the most likely musculoskeletal disorder and is caused by placing over stress and strain on to trapezius muscle. Cupping therapy with conventional therapy provides an effective means of reducing muscular pain and improving ROM. In total 30 participants were taken for the research purpose and the results showed that the therapy was effective. There is no such research comparing the effect of cupping therapy with conventional therapy versus cross fiber massage with conventional therapy. Conclusion: Cupping therapy with conventional therapy provided an effective means of reducing pain and improving ROM.*

Keywords: Cupping therapy, Cross fiber massage, Conventional therapy, Trapezitis, Bankers

1. Introduction

Cervical pain is generally observed in the individuals as a result of the involvement of the upper trapezius muscle during lateral bending. Muscle spasm happens and leads to the formation of muscle nodes known as trigger points. These nodes designated as the muscle gets overloaded due to spasm which keeps the muscle continuously in contracted position. Trapezius pain is the stress pain and is the most likely musculoskeletal disorder and is caused by placing over stress and strain onto the trapezius muscle¹. Approximately 70% of individuals experience neck pain at any point in their lives³. The prevalence is higher at medium age and females are more affected than males². The prevalence of neck pain varies greatly in different studies, with a mean point prevalence of 13% (range 5.9% to 38.7%) and a mean lifetime prevalence of 50% (range 14.2% to 71.0%)¹.

Cupping therapy is an ancient technique of recovery. Cupping therapy is performed by applying cups to choose pores skin points and creating a sub-atmospheric pressure, either by heat or by suction⁷. Reported effect of Cupping therapy include promotion of the skin's blood flow⁹, converting of the skin's Biomechanical properties⁸, increasing pain entrance, improving local anaerobic metabolism⁹, reducing inflammation and conversion of the cellular immune system.

Massage Therapy may be described as a way for manipulating smooth tissues as the usage of pressure and traction and is implemented to the neck, and/or back spine area, chest musculature and jaw place even as the subjects lays in supine and prone positions.

In Bankers, prevalence of neck pain is already higher which in turn affects the neck range of motion and there

are very few studies which focus on the effectiveness of cupping therapy and cross fiber massage along with conventional therapy.

2. Materials and Methods

At B. N. Patel College of Physiotherapy, Anand, a Comparative study of Banks of HDFC with purposive sampling method with 30 subjects.

Criteria's for Selection

Inclusion Criteria: 1. Age: 19-50 years. 2. Gender both male and female. 3. Patients having neck pain. 4. Pain of minimum 3-7/10 on VAS. 5. Condition present for not more than 3 months. 6. Patients who participate voluntarily. **Exclusion Criteria:** 1. Traumatic injury 2. Torticollis 3. Cervical Radiculopathy 4. Degenerative condition of cervical spine 5. Skin allergic condition 6. Any surgery around the neck and shoulder.

Methodology: Total 30 subjects from HDFC Bank who fulfilled the inclusion and exclusion criteria were taken for the study purpose. Written informed consent was signed by each subject before proceeding for the study procedure.

Outcome Measures: 1) Visual Analog Scale: (VAS) 2) Neck Disability Index (NDI)

Treatment Protocol

Group A: Cross Fiber Massage + Conventional Therapy
A. Cross Fiber Massage. Use a reinforced thumb or index contact to apply the friction massage transversely across the fiber, rate of about 2-3 cycles per second is used. Continue the massage in a firm and rhythmic fashion for 5 minutes. Apply the same method of treatment for 4 weeks

Volume 11 Issue 7, July 2022

www.ijsr.net

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(2days/week). B. Conventional therapy Passive Stretching of Trapezius muscle for 3 times with 30 sec hold was given. Active neck movements in the form of neck flexion, neck extension, neck lateral flexion and neck rotation were given for 5 times with 10 sec hold which was performed by the subjects themselves.

Group B: Cupping Therapy + Conventional Therapy A. Cupping Therapy Dry Cupping Therapy was given in which other 15 subjects was taken. With the use of appropriate size of cups, it is applied over the Trapezius muscle according to the subject’s pain area for 5 minutes. After 5 minute subject was asked to do lateral flexion for 10 times, intervention was followed for total of 4 weeks (2days/week).B. Conventional therapy. The subjects then went for conventional therapy after took Cupping therapy treatment. Passive Stretching of Trapezius muscle for 3 times with 30 sec hold was given. Active neck movements in the form of neck flexion, neck extension, neck lateral flexion and neck rotation were given for 5 times with 10

sec hold which was performed by the subjects themselves.

3.Result

In present study 30 subjects with the age group of 19 to 50 years were taken and divided into 2 groups. Group A (Cross Fiber Massage with conventional therapy) Group B (Cupping therapy with conventional therapy). SPSS-25.

In present study the level of significance was kept at 5%. Normality test was performed using SPSS version 25. To analysis the effects on outcome measure of visual analogue scale and neck disability index on pain before and after treatment in Group A and Group B, paired t test was used. To analysis the effect on outcome measure of visual analogue scale and neck disability index on pain between the two groups A and B, Independent t test was used.

Independent Samples Test

	Levene’s Test For Equality of Variances		T – test for Equality of Means						
	F	Sig.	T	Df	Sig.(2 tailed)	Mean Difference	Std Error Difference	95% Confidence interval of the Difference	
								Lower	Upper
Equal Variance s Assumed	1.193	.284	1.881	28	.070	4.400	2.340	-.392	9.192
Equal Variance s not			1.881	25.579	0.71	4.400	2.340	-3.96	9.196

Independent Samples Test

	Levene's Test For Equality of Variances		T - test for Equality of Means						
	F	Sig.	T	Df	Sig.(2 tailed)	Mean Difference	Std. Error Difference	95% Confidence interval of the Difference	
								Lower	Upper
Equal Variances Assumed	2.760	.108	2.228	28	.034	.800	.0359	.065	1.535
Equal Variances not Assumed			2.228	25.954	0.35	.800	.0359	.062	1.538

4. Discussion

According to result study indicate that cupping with conventional therapy is more effective than cross fiber massage with conventional therapy. In our study, the effects on pain intensity were seen in the short term only but the effect of a deep tissue massage on perceived recovery lasted one year. A meta-analysis showed only immediate beneficial effects of massage on pain intensity in comparison to inactive controls. Cupping therapy takes the pressure off the tissue and relieves the neck area from these toxic congestions, which also increases circulation and lymphatic flow. Since circulation has been shown to be dysfunctional in chronic neck pain patients, cupping might restore normal circulation. Increased circulation in turn improves oxygen supply and cell metabolism reducing the amount of inflammatory or toxic substances. This might also explain the significant effects of cupping on pressure pain thresholds at pain-related areas. Muscle spasm, congestion, and restricted blood flow can cause ischemic pain. Accumulated inflammatory substances in skin and tissue might further induce hypersensitivity to noxious stimuli, which is reflected by lowered pressure pain thresholds. Same method of including the subjects from visual analog scale was done which reflects to our study and they concluded that cupping therapy was more effective. Lauche et al. targeted 50 participants with

nonspecific neck pain and implemented 10 to 15 min of cupping therapy on the lower trapezius muscle. Their results showed that, at rest and during movement, the pain level on the VAS (0–10) decreased by 1.79 and 1.97, after cupping, respectively. Kim et al. found that 6 sessions of cupping therapy (wet and dry) on neck pain acupuncture points in 40 patients were more effective than the use of a heating pad. The German study of Lauche et al. found that home-based CT was more effective than progressive muscle relaxation in patients with chronic neck pain. The pain reduction effect remained evident at the one week after intervention interval. Cross fiber massage with conventional therapy training and the results of this study was noticed that massage with conventional therapy was beneficial in both the parameters such as Visual Analog Scale and Neck Disability Index and we found that there was decreased in pain with 4 weeks training program. The result of our study showed improvement in Visual Analog Scales score which describes on table no.4.5 with significant $p < 0.000$ shows that there was improvement in pre and post data. Visual Analog Scale by pre score mean was 5.40 and post score mean was 3.13. Neck Disability Index was another outcome measure of our study and improvement in Neck Disability Index describes on table no.4.4 with significant $p < 0.000$ in pre and post data. Neck Disability Index by pre score mean was 30.80 and post score mean was 20.53. Cupping therapy with conventional

therapy; Result of this study was noticed that there was improvement in both the outcomes, visual analog scale and neck disability index for 4 weeks training program and the therapy was beneficial on relief the pain. The result of our study showed improvement in Visual analog Scale scores which described in table no.4.7 and with significant $p < 0.000$ shows that there was improvement in pre and post data. Visual Analog Scale by pre score mean was 5.27 and post score mean was 2.33. Neck Disability Index was another outcome measure of our study and improvement in Neck Disability Index described on table no.4.6 with significant $p < 0.000$ in pre and post data. Neck Disability Index by pre score mean was 34.00 and post score mean was 16.13.

The present study finding suggests that both the techniques, cupping therapy with conventional therapy and cross fiber massage with conventional therapy have similar effect to improve function and to reduce pain but the group which received cupping therapy with conventional therapy have significant effect on reducing pain according to the result.

5. Conclusion

The result of the study shows that cross fiber massage with conventional therapy and cupping therapy with conventional therapy both are equally effective for NDI but cupping therapy with conventional therapy have significant effect on improve pain for VAS.

6. Limitations

The study consisted of a small number of subjects. Study duration was small of 4 weeks and no further follow up was taken. Long term effects were not analyzed.

References

- [1] Khushali Choksi (2021). Effect of Deep Transverse Friction Massage and Ischemic Compression in Trapezitis: A Randomized Controlled Trial. *Indian Journal of Physiotherapy & Occupational Therapy*.
- [2] Chaudhary, Ekta & Shah, Nehal & Vyas, Neeta & Khuman, Ratan & Chavda, Dhara & Nambi, Gopal. (2013). Comparative Study of Myofascial Release and Cold Pack in Upper Trapezius Spasm. *International Journal of Health Science and Research*.
- [3] Kashif, Muhammad & Darain, Haider & Rauf, Gulraiz & Parveen, Tahira & Kiran, Noreen & Faculty, (2015). Prevalence of Cervical Pain & its contributing factors in Bank Officers. 2348-3229. *Technique on Trapezits: An Experimental Study. Journal of Medical Science And clinical Research*. 05. 20591-20596. 10.18535/jmscr/v5i4.139
- [4] Qureshi NA, Ali GI, Abushanab TS, El-Olemy AT, Alqaed MS, El-Subai IS, et al. History of cupping [Hijama]: a narrative review of literature. *J Integr Med* 2017 May 31; 15 (3):172e81.
- [5] Wei LI, Piao SA, Meng XW, Wei LH. Effects of cupping on blood flow under skin of back in healthy human. *World J Acupunct Moxibustion* 2013 Sep 30;

23 (3):50e2.

- [6] Saha FJ, Schumann S, Cramer H, Hohmann C, Choi KE, Rolke R, et al. The effects of cupping massage in patients with chronic neck pain-a randomised controlled trial. *Complement Med Res* 2017; 24 (1):26e32.
- [7] Emerich M, Braeunig M, Clement HW, Lu'dtke R, Huber R. Mode of action of cupping local metabolism and pain thresholds in neck pain patients and healthy subjects. *Complement Ther Med* 2014 Feb 1; 22 (1):148e58.
- [8] Teut M, Kaiser S, Ortiz M, Roll S, Binting S, Willich SN, et al. Pulsatile dry cupping in patients with osteoarthritis of the knee a randomized controlled exploratory trial. *BMC Complement Altern Med* 2012 Oct 12; 12:184
- [9] Al-Bedah AM, Aboushanab TS, Alqaed MS, Qureshi NA, Suhaibani I, Ibrahim G, et al. Classification of cupping therapy: a tool for modernization and standardization. *J Complement Altern Med Res* 2016; 1 (1):1e10