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CUPPING THERAPY – AN EFFECTIVE PAIN MANAGEMENT TECHNIQUE IN *KATIGRAHA*

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ABSTRACT

Pain is a subjective criterion that differs from person to person, but it is given great importance when it hampers the quality of their lives and the wellbeing of the individuals and their families. Pain due to lumbago is very common, which is medically and economically devastating for the patient. *Katigraha* is one such condition in *Ayurveda* where the patient have pain and stiffness over the low back region, which affects their day-to-day activities. Such patients, even though look for a permanent solution for the condition, also seeks medical advice for sudden relief from the pain. Cupping therapy which follows the same principal as that of *Ghata Prayoga* mentioned in our *Samhita's* is one such procedure that imparts sudden relief of musculoskeletal pain. Following this principle, a pilot study was conducted on 18 patients at Alva's Ayurveda Medical college and Hospital to evaluate the efficacy of cupping therapy in *Katigraha.* It was assessed with VAS and Oswestry's low back pain disability scale, which yielded a significant reduction in pain and improvement was observed in the range of movements and scale scorings. The results were analysed with Wilcoxon signed rank test and were found statistically significant. Thus, concluding that cupping therapy is an effective means for the management of pain in *Katigraha* both clinically and statistically. It is economic and quick in action. So, an active utilization of this technique can assist us in the better patient management along with other medications.

Key words: *Katigraha*, cupping therapy, Pain, low back ache, lumbago fibrositis.

INTRODUCTION: *Katigraha* has been mentioned as a separate entity in *Gada Nigraha, Vata Rogadhikara. Vedana, Stambha* and *Cheshtanasha* in *Katipradesha* are the *Lakshanas* that may be caused by *Samavata* or *Kevala Vata*.[1] The symptoms of *Samavata* are *Vedana, Toda* and *Stambha*.[2]*Katigraha* has been mentioned as a common condition affecting the *Kati Pradesha* or lumbosacral region, which may be due to increased range of movements attributed to this region. The word "*Katigraha*" is originated from the union of two words '*Kati'* and '*Graham'*. "*Kati*" is derived from the root "*Kat*" meaning "*Sareera Avayava Vishesham*". In "*Amara Kosha*" the word meaning of "*Kati*" is "*Katau Vastravaranau*", the part of the body which is covered with clothes[3]. "*Graha*" means holding. It is originated from *dhatu* "*Graha Upadane*" – one which gives support.[4] Hence "*Katigraha*" indicate a diseased condition of the back associated with pain and stiffness.[5]*SamanyaSthana* of *Vata* includes *Kati* and on looking the *Apana VataSthana, Acharya Vagbhata* has mentioned *Sroni* and in commentary it is

told to be *Kati*. So, the *Grahana*or stiffness of the *Kati* will hamper the *Gati* of *Vayu* resulting in *Kha Vaigunya* and all these in total result in pain and increased stiffness to the low back region.

Lumbago fibrositis causing backache, often reveals one or more tender nodules lying superficially in the erector spine of its attachments. The pain strikes suddenly while the patient bends his/her back. The aetiology may be rheumatic fibrositis or local muscular spasm due to nerve root irritation. The pain comes on suddenly when the patient bends his back, which is often described as excruciating pain with severe tenderness on examination. Recurrence is common as the condition becomes chronic. Lumbago can be medically and economically devastating and is the number one cause for disability in patients younger than forty-five years of age.[6]

Correlating both *Ayurveda* and modern science, pain is the common feature of both the conditions. So, alleviating the pain helps in improving the quality of life for the patient, which can be achieved through many means, either through internal medications or external medications or both. Cupping therapy is one such external modality to reduce the pain.

Cupping therapy is an ancient medical therapy, and the common denominator in all cupping variations is the application of suction to the skin.[7] Several techniques from traditional cupping, where skin incisions are made to allow blood and other body fluids to escape, to dry cupping and cupping massage, where no such incisions are made are available.[8] According to common theories the effects of cupping may include increased microcirculation, tissue detoxification and a subsequent relief of painful muscle tension.[9,10]

AIMS AND OBJECTIVES:

- To assess the pain scores before and after using VAS scale[11] and Oswestry's low back pain disability scale[12].
- To prove the efficacy of cupping therapy in *Katigraha*.
- To analyse the probable mode of action.

INCLUSION CRITERIA:

In this study, we have included eighteen patients diagnosed with *Katigraha* irrespective of the sex, under the age group between 18-60 years, from the IPD and OPD of Alva's Ayurveda Medical college from February 2021 to April 2021.

EXCLUSION CRITERIA: Patient with other systemic disorders and other serious illnesses interfering the course of treatment, pregnant and lactating women, multiple *Vrana Rogi*, findings of spinal canal stenosis, neoplastic conditions of spine or any chronic pathology in X-ray report, known cases of CAD, CVA, malignancy and patient on cortico-steroid hormone were excluded from the study.

PROCEDURE: Complete history taking and thorough clinical examinations were done, and informed consent was obtained from all the patients. Patients were asked to lie down in prone position and the points of tenderness were noted. The cups of appropriate size were placed over the points of tenderness and vacuum was applied for a duration of 15-20 minutes. The cups were removed either when patient reported of any discomfort or when the discolouration was profoundly noted. The area was gently massaged after the removal of the cups. The scorings were assessed before and after the procedure.

ASSESMENT CRITERIA:

Assessments were based on the following parameters:

- Subjective Parameter

1. Pain (VAS and Oswestry's Low Back Pain Disability Questionnaire)
2. Stiffness
3. Flexion
4. Extension
5. Lateral flexion

- Objective Parameter

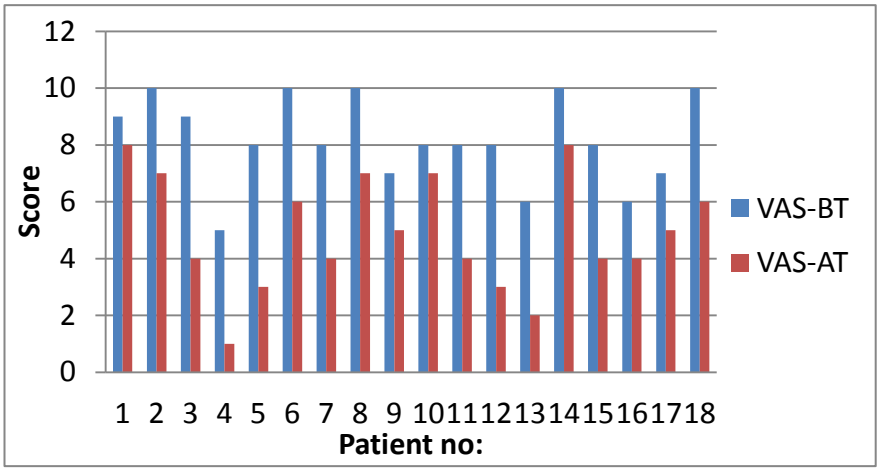
1. Straight leg raising test.
2. Tenderness

RESULT:

Eighteen patients of both sexes were included in this study under the age group of 18-60 years. In the study population, low back ache was present in 100% (18 out of 18) patients. All the patients had significant improvement from stiffness, tenderness, range of movements and SLR. The average VAS score before treatment was 8 and after the treatment was 4. The average score in Oswestry's low back ache disability scoring before treatment was 30 and after treatment was 15. The study showed statistical significance using Wilcoxon signed rank test with a p value of 0.000.

GRAPH NO: 1

VAS Scoring before and after treatment



Graphno.2 : Oswestry's low back pain disability scale before and after treatment

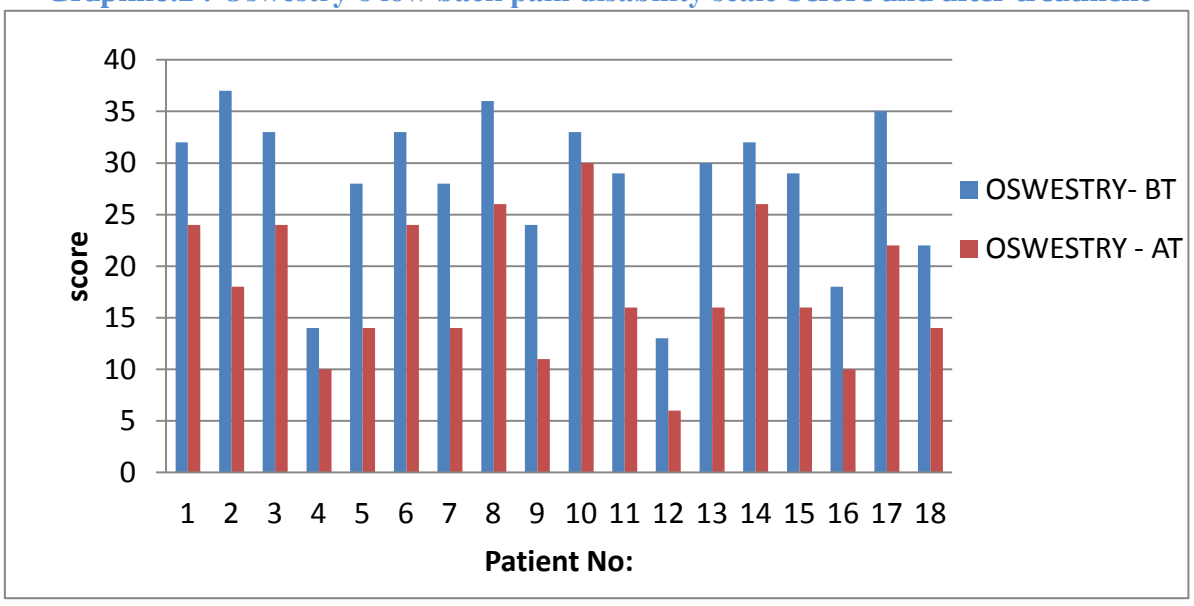


TABLE NO: 1 Wilcoxon signed rank test result

RANKS				
		N	Mean Rank	Sum of Ranks
vasat-vasbt	Negative ranks	18[a]	9.50	171.00
	Positive ranks	0[b]	.00	.00
	Ties	0[c]		
	total	18		
oswestryat-oswestrybt	Negative ranks	18[d]	9.50	171.00
	Positive ranks	0[e]	.00	.00
	Ties	0[f]		
	Total	18		
a.vasat<vasbt **b**.vasat>vasbt **c**.vasat=vasbt **d**.oswestryat<oswestrybt **e**. oswestryat>oswestrybt **f**. oswestryat = oswestrybt				

TABLE NO: 2 Wilcoxon signed rank test result

Test statistics[a]		
	vasat-vasbt	oswestryat-oswestrybt
Z	-3.756[b]	-3.732[b]
Asymp. Sig. (2-tailed)	.000	.000
a. Wilcoxon Signed Ranks Test b. Based on positive ranks		

DISCUSSION: Hip joint is one of the most mobile joints of the human body. Any pain even if minor will affect the quality of life of an individual. So, a quicker and cost-effective relief in terms of pain as well as stiffness must be our aim on treating a patient with lumbago.

During cupping therapy, the negative pressure or the suction force applied over the site will uplift the skin due to viscoelastic nature of skin causes sucking of skin inside cups leading to increased size of skin uplifting inside which pressure decreases (Boyle's law) causing more fluid (with CPS) filtration and more accumulation of interstitial fluids (with CPS). Filtration increases at arterial ends of capillaries, while absorption decreases at venous ends due to movement of fluids to skin uplifting causing clearance of blood and cleansing of interstitial spaces. These leads to release of β-endorphin (endogenous analgesic opioid) and adrenocortical hormones into the circulation. Endothelin-1 is a pain mediator synthesized by normal skin keratinocytes upon skin injury and acts on endothelin-A receptors. Endothelin-1 can produce analgesia via acting also on endothelin-B receptors leading to the release of β-endorphin from keratinocytes and the activation of G-protein-coupled potassium channels linked to opioid receptors on pain receptors. Moreover, skin nerve endings are bathed in collected fluids inside skin uplifting, which may reduce their stimulation (analgesic effect) and imparts analgesic effect through release of endogenous opioids by this process[13].

CONCLUSION:

Thus, it can be clearly seen that cupping therapy holds promising hope as a non-invasive intervention in the management of *Katigraha* w.s.r. to lumbago fibrositis. This method is not only economically convenient, but also relives the pain in a short duration of time.

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