



EFFICACY OF RAKTAMOKSHAN BY CUPPING THERAPY IN KATI SANDHIAGATA VATA

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ABSTRACT

The sedentary lifestyle, change in food habits, addictions, and improper sitting postures, jerky movements in travel, sports activities and bad sleeping posture etc. are the important factors responsible for spinal disorders. In the fast-moving life everyone is expecting fast curative therapies for diseases or disorders, but these therapies cause some short of side effects then starting a vicious circle in which one part of body is cured and other is affected. Katigata Vata is a clinical condition develops when the vitiated Vata localized in Kati Pradesha. The objective of the present study is to assess the efficacy of Raktamokshan by cupping therapy in kati sandhigata vata (lumbo sacral spine). The present study is open labelled single arm study. Initially the patients were screened with the help of inclusion and exclusion criteria. The voluntarily written Informed consent of the patients that fulfil the selection criteria were taken. The Raktamokshan was done in four sittings in 7 days interval at lumber region with the help of Modified Shring Yantra (cupping therapy). The total duration of study is one Month.

INTRODUCTION

Today we are living in the world of technology and advancement. The sedentary lifestyle, change in food habits, addictions, and improper sitting postures,

jerky movements in travel, sports activities and bad sleeping posture etc. are the important factors responsible for spinal disorders. In the fast-moving life eve-

ryone is expecting fast curative therapies for diseases or disorders, but these therapies cause some short of side effects then starting a vicious circle in which one part of body is cured and other is affected. The spine is the most vulnerable musculoskeletal structure. The lumbar spine bears the whole-body weight of individual and so that disorder is commonly seen in lumbar vertebrae region. ⁽¹⁾ Low back pain is second most frequent symptoms which limits physical, psychological, and financial implication on individual. According to scientists, 80% of population during their lifetime will experience at least one episode of low backpain. Impairment of back and spine causes limitation of activity which hampers day to day life. It is alarming condition for treatment. Katigata Vata is a clinical condition develops when the vitiated Vata localized in Kati Pradesha. During the process of pathogenesis Kaphavrita Vyana, Vayu obstruct marg of Rasa, Rakta Dhatu and gradually structural changes seen in Kati Pradesha. The symptoms like Katishula, Katisuptata, Katistambha, Akunchana Prasarana pravritti Savedana are developed later. In modern medicine, various treatment options are available like conservative medications, per radicular infiltration, epidural steroid injection, and surgical methods. But all these modalities have their own complications and limitations. In Ayurveda mainly two methods of treatment i.e., Shaman chikitsa and Shodhan chikitsa are used different tools of Shodhan chikitsa are Snehana, Upanaha, Raktamokshana, Agni karma, Pancakarma etc. are described. ⁽²⁾ Various formulations used for Shaman chikitsa are Guggulu, Taila, Kwath, Vati, Ghrita etc are mentioned. Out of these Raktamokshana have its own therapeutic value for the treatment of musculoskeletal disorders. The objective of the present study is to assess the efficacy of Raktamokshan by cupping therapy in kati sandhiagata vata (lumbo sacral spine).

MATERIAL AND METHOD

Present study is open labelled single arm study. It was conducted on the patients attending O.P.D. and IPD of Shalya department of research institute. In this study, Patient were selected irrespective of their religion, race, occupation. Initially the patients were

screened with the help of inclusion and exclusion criteria. The voluntarily written Informed consent of the patients that fulfil the selection criteria were taken. The Raktamokshan was done in four sittings in 7 days interval at lumbar region with the help of Modified Shring Yantra (cupping therapy). The total duration of study is one Month.

Sample Size Calculation- Sample size is according to minpepi software to estimate a Rate: - Confidence level = 95% Acceptable diff. = 15 Per 100, Assumed rates = 28 Hence sample size= 37

Inclusion Criteria: -

1. The age group is between 20 to 40 years.
2. Pain at lumbo sacral spine with or without radiating to both lower limbs.
3. Presence of local tenderness at lumbo sacral spine
4. Painful or restricted movement of lumbar sacral spine
5. SLR test positive.
6. Patient will be selected on basis of sign and symptoms shool(pain) shoph and aakunchan prasaran vedana (pain on flexion & extension)

Exclusion Criteria: -

1. known case of Cauda equine syndrome, Carcinoma of lumbosacral plexus, Uncontrolled HTN / DM, Complicated systemic disease e. Pott's spine
2. Pregnant and lactating mother.
3. Reactive for HIV / HBsAg
4. Haemoglobin less than 9 gm%
5. Fractured vertebrae
6. Congenital anomaly
7. Subluxation

Laboratory Investigations:

1. Haemoglobin gm%
2. Bleeding Time and clotting time
3. Random Blood glucose level

Material

- Sterile pad and gauze piece
- Surgical blade no.15
- Cups and suction pump
- Triphala kwath

Purvakarma: -

• Counselling

• Informed written consent

Examination: the patient was undergoing through local and systemic examination

• Localization of tenderness - the most tender area on lumbar spine is demarcated

Pradhan Karma:

Initially the Modified Shringa Yantra (MSY - Hijama instrument ie. cups) were cleaned with hypochlorite solution and dried with sterile gauge piece.

Position-Prone position, and mark place where procedure has to be performed.

Lower back cleaned with Triphala Kwath

Draping done.

Cups were applied to demarcated sites on Lumbo-sacral region.

Local suction was created by using suction pump.

Through suction skin is drawn into cup by creating vacuum in cu

After visible changes i.e., around after 8 to 10 min, cups were removed and small superficial incision of depth and length 1mm almost 10 -15 in number was

taken on cupped area. Then again cups were placed and created vacuum and blood was sucked out from that area and disposed of with precaution. Pashchaat Karma: Pathya- Apathya: Patients were advised to take foods which are not very cold, which are easily digestible, which promote blood formation and either slightly sour or devoid of sour. After bloodletting, patients were advised to avoid strenuous exercise, copulation, cold breeze, day sleep, use of alkalis, pungent substances in food, grief, much conversation and indigestion till he attains good strength. Follow Up: After completion of the treatment, patients were advised to visit after every 07 days for follow up for one month. Assessment Criteria: To assess the effect of therapy objectively, all the parameters were given a score according to the severity.

The Visual Analogue Scale was used to help out assessing the severity of pain. Patients was asked to locate a finger at any of the numerical over the scale and the severity of pain assessed according to that for which the numerical is labelled.

	0	1	2	3	4	5	6	7	8	9	10
		Mild		Discomforting		Distressing		Horrible		Excruciating	

Table 1 Table Showing type Of Pain Description Grade of Pain Description

Type of Pain	Description	Pain Grade	Description
		0	No pain
Mild	Annoying nagging but does not interfere with daily activities. Easy to tolerate	1	Very light, barely noticeable pain
		2	Minor and Discomforting pain, occasionally stronger
		3	Distracting and Noticeable pain, but patient used to it.
Moderate	Hamper daily activities, interfere significantly with activities of daily lifestyles	4	Continuous and deep pain but can be ignored for some period of time
		5	Strong deep pain. Very noticeable pain all the time and it affects daily routine, cannot be ignored for more than few minutes, but can manage to take part in some activities
		6	deep piercing pain, very strong, causing trouble holding a job and difficult to concentrate
Severe	Unable to perform activities of daily living	7	Severe pain dominates senses, interfere with sleep
		8	Intense pain, cannot be do any physical activities
		9	Excruciating pain, moaning and crying uncontrollably
		10	Unspeakable pain, unimaginable, bedridden

2. Straight Leg Raising Test (SLR): The test is also called as Lasegue’s sign, lasegues test or Lazarevic’s

sign. It is one of the common neurological tests of lower limb, to rule out neural tissue involvement.it also help to differentiate pathology of hip from that

of buttock. It can be performed in either an active or passive way, each leg is tested individually with normal leg being tested first. During the procedure patient should be lie down in supine position. Without using pillow, hip medially rotated and adducted and the knee extended. The clinician lifts patients' leg near posterior side of ankle while keeping knee fully extended. And then lift the patient's leg by flexing hip till patient complains of pain. This is passive way to test SLR. After symptoms appear, examiner carefully and slowly lower the leg. This test is specific for determination of compression of L4, L5 & sacral roots by PIVD & lumbar spondylosis.

Interpretations: If symptoms are primarily back pain, it is mostly due to disc herniation and it applies pressure on central part leads to back pain only • If pain appears on leg it is due to pathology causing pressure on neurological tissue is more lateral • Pain produced at angle between 30 – 70 degree suggestive of lumbar disc herniation • Pain produce at less than 30 degree indicate spondylolisthesis, gluteal abscess, disc protrusion, any tumour over buttocks • When pain seems at above 70 degree it indicate tightness of hamstring, gluteal maximus, or any pathology of hip and sacroiliac joint

Table 2 Table Showing Gradation of SLR Test

S.No.	SLR TEST ANGLE	GRADE
1	90° – 76°	0
2	75° – 61°	1
3	60° – 46°	2
4	45° – 31°	3

Schober's Test: - Schober's test is a physical test to measure ability of patient to flex the lower back. It is used for differential diagnosis from Ankylosing spondylosis. It reflects lumbar range of motion during flexion. Procedure: Patient is standing with his back towards examiner. then examiner makes a mark approximately at the level of L5 (fifth lumbar vertebra). The examiner then places one finger ~10 cm above this mark, and another, second, finger, ~5 cm below this mark. The patient is asked to touch his/her toes without flexing the knee joints. By doing so, the distance between the two fingers of the examiner the difference between measurement in erect and flexion position indicates outcome of lumbar position. Degree score Increase in distance of lumbar flexion ≥ 5 cm 0 Increase in distance of lumbar flexion. ⁽³⁾

OBSERVATIONS AND RESULTS

After Screening a total of 37 patients were included in the study, among them two patients were dropped out due to irregular follow ups. Finally, a study was carried out in 35 patients. In this study Maximum patients (27) were found in the age group 31 to 40 yrs. It suggests incidence of Kati Sandhigata Vata

increases with age. In the available literature of Current medical science. It is mentioned that Lumbo-sacral diseases start in 4th decade of life. Male patients (23) were found maximum. Commonly males are the head of family and have to earn for survival of their families. Hard work, long-term Sitting/Standing job, Journey, Stress over low back due to work etc. are most commonly observed facts in the work of males. Hence incidence of male patients might have been found more in Kati Sandhigata Vata patients. Maximum patients were having Vata-Pitta (18 patients) and PittaKapha (10 patients) prakriti. Katisandhigata Vata is Vata Vyadhi and Vata dominance in Prakriti may be the most probable reason behind that. The percentage of relief in VA scale after Rak-tamokshan by cupping therapy was 72.33% which is statistically highly significant. Symptom score grades of readings of Schober's Test were decreased after treatment. (Table 5.7, Figure 5.7). It means 'Rak-tamokshan by Cupping Therapy in four sessions' has improved readings of Schober's Test in Katisandhigata Vata. After treatment 87.50 % relief was observed in readings of Schober's Test.

Table 3 Table showing distribution of patients on the basis of pain gradation before and after therapy.

S.NO	Pain Grade	No of Patients	
		BT	AT
1	Grade 8-10	2	0
2	Grade 4 – 7	33	0
3	Grade 1-3	0	15
4	Grade 0	0	20
Total		35	35

Symptom score grades of readings of SLR Test were decreased after treatment. (Table 3). It means ‘Rak-tamokshan by Cupping Therapy in four sessions’ has improved readings of SLR Test in Katisandhigata

Vata. After treatment 80.77 % relief was observed in readings of SLR Test. In the case of parameters Pain, Schober’s Test and SLR Test, Wilcoxon test has shown significant difference between BT and AT symptom scores.

Table 4 Table showing distribution of patients on the basis of SLR gradation before and after therapy.

S.NO	SLR Grade	No of Patients	
		BT	AT
1	Grade 3	4	0
2	Grade 2	13	1
3	Grade 1	14	8
4	Grade 0	4	26
Total		35	35

Table 5 Effect of Therapy according % Relief

Improvement Grade	Criteria	No. of patients	No. of symptoms
Cured	76% - 100%	28	02
Marked	50% - 75%	07	01
Moderate	25% - 49%	00	00
Unchanged	00% - 24%	00	00

28 patients have shown Cured improvement and 7 patients have shown Marked improvement. 2 symptoms have shown Cured improvement, and 1 symptom has shown Marked improvement. Average % Relief was 80.19%. (Table 6) Hence according to % relief in symptoms, it can be said that Raktamokshan by Cupping Therapy is effective in patients of Katisandhigata Vata.

Table 6 Table Showing Average Relief % in Symptoms

S.No.	Symptoms	% Relief
1.	Pain	72.33
2.	Schober’s Test	87.5
3.	SLR Test	80.77
4.	Avg % Relief	80.19

After applying Wilcoxon signed rank test (Table 7), it was observed that Raktamokshan by Cupping Therapy in patient of Katisandhigata Vata is effective in four sessions at interval of seven days to reduce Pain. • Rak-tamokshan by Cupping Therapy in patient of Katisandhigata Vata is effective in four sessions at interval of seven days to improve readings of Schober’s Test and SLR Test.

Table 7 Table showing Statistical analysis by Wilcoxon Signed Rank Test

S.No.	Symptoms	W	P	Significance
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1	Pain	630	<0.0001	Significant
2	Schober's Test	105	0.0001	Significant
3	SLR Test	465	<0.0001	Significant

Mode of Action (Raktamokshana by modify shring yantra)-

Application of modified Shringa Yantra helps to remove Vata vitiated Rakta which helps to re-establish Prakrut Rasa-Rakta Samvahana. Inflammation occurs as a response to tissue injury in defence which further leads to accumulation of interstitial fluid in the local space of trauma. It increases pressure on the local tissue surroundings and capillary walls. The application of fibre cups creates negative pressure on applied surface and results in local vasodilation & improves blood circulation. After pricking on demarcated area of cups and in the area of vasodilation, immediately oozing of blood starts which helps to escape out toxins, inflammatory tissue fluid and injured leucocytes etc. By flushing out the inflammatory chemical mediators, interstitial filtered fluids from blood capillaries, haemolyzed blood cells and ultimately provides relief from pain to the patient. It promotes detoxification purification of nutrition pathway by removing Doshas, lodged in intervertebral joint spaces Thus, it acts as local level Shodhana therapy which purifies Pravartaka Mula of Rasa and Raktavaha strotas (blood vessels). Enhancing venous drainage at skin related to disease indirectly enhances arterial circulation at that diseased organ and improvement of body's response to pathology. It

clears blood plasma and interstitial fluids from causative pathological substances.

During the process excretory skin function are enhanced, congestion is removed, tissue adhesion is broken, and haemostasis restored. Physicians usually explain patients' pathology by focusing on adjacent vertebrae, intervertebral disc or spinal segment. Any irritation to nerve roots, spine, joint problem, disc degeneration bone and muscle leads to pain. Any pathology in the disk ring may result in release of chemical mediator which may directly cause severe pain, without any nerve root compression.

CONCLUSION

In this study, it is concluded that Raktamokshan by cupping therapy in Kati Sandhigata Vata (lumbo sacral spine) is effective in four sessions at interval of seven days.

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