



A COMPARATIVE CLINICAL STUDY TO EVALUATE THE EFFECT OF SHAMANAUSHADHI AND SHAMANAUSHADHI WITH AGNIKARMA ON KATI GRAHA W.S.R TO LOW BACK ACHE

Dr. Sukrant Sharma*	M.S (Ayu) Assistant Professor, Jammu Institute Of Ayurveda And Research Nardini, Jammu, India *Corresponding Author
Dr. Ashanka Bhardwaj	M.D.S Tutor, Department Of Oral Pathology, Indira Gandhi Govt. Dental College, Jammu
Dr. Vikram Balu	B.A.M.S The Rajiv Gandhi University Of Health Sciences, Karnataka, Bangalore.
Dr. Sarabjeet Kour	PG Scholar, Jammu Institute Of Ayurveda And Research Nardini, Jammu, India

ABSTRACT

Agnikarma is one of the Anushastras mentioned by Susruta¹ who has stated that it is much superior to kshara karma because of non-recurrence and its success in treating diseases incurable with other medications². Katigraha (Low backache) is a musculo-skeletal disorder which is commonly seen in general practice with features of pain, stiffness, tenderness and restricted movements of lumbar spine. Current treatment procedures include NSAIDS, muscle relaxants, opioids, steroids, sedatives, epidural glucocorticoids and surgeries which are associated with varying degrees of side effects, relief and complications. Ayurveda explains many treatment modalities for Katigraha such as snehana, swedana, virechana, basti and many more. As shamanaushadis, Rasna saptaka kwatha and Trayodasanga guggulu are indicated in Katigraha. This present study is made to know the effect of Agnikarma in a comparative clinical study with the help of the above two medications. Folklore's practice of panchaloha shalaka was adopted since it provides a simple, economical, minimal pain causing treatment for this common ailment. In the present comparative clinical study, treatment was given to 18 patients who were equally divided as control group and trial group. While Rasna saptaka kwatha and Trayodasanga guggulu was given to the control group, one sitting of Agnikarma accompanied by Rasna saptaka kwatha and Trayodasanga Guggulu was given to the trial group. The entire data was analysed statistically with pre and posttest design. **RESULTS:-** Control group showed significant results in Objective signs such as Pain. Trial group showed significant results in both Subjective and Objective signs such as Stiffness, Extension, Flexion and Right Spinal Rotation. Agnikarma when combined with oral medications resulted in early reduction of the symptoms significantly.

KEYWORDS : Agnikarma, Anushastra, Katigraha, Panchaloha Shalaka, Shamanaushadis

INTRODUCTION

Low backache is one of man's perennial problems. It is as widespread as common cold, as painful as piles and as crippling as a stroke. Low backache which is known as an ancient curse is now known as a modern international epidemic. It has become an endemic disease of late.

Around 80% of the population is affected by this symptom at some point of time in their lives. In 2% of population backache is the presenting complaint in clinic. In 78% men and 89% women the specific cause for low backache was not known. Studies show the cost of treating back pain in United States is 100 billion\$ annually, including direct health care expenses plus cost due to loss of productivity. Backache symptoms are the most common cause of disability in those < 45yrs in United States³.

Katigraha as it indicates consists of two words 'Kati' and 'Graha'. The word Kati is considered as a bodily part where the dress is tightened⁴. Graha means seizing, holding type of pain⁵. Hence any catching /holding pain in these regions can be considered as Katigraha.

Existing treatment includes rest, physiotherapy, NSAIDS, muscle relaxants, opioids, steroids, sedatives. Epidural glucocorticoids may occasionally produce shortterm relief, but proof is lacking for pain relief beyond one month. All these including surgeries over the spine, has varying degrees of relief and economic burden.

Agnikarma which holds an important position among the various treatment modalities mentioned in Susrutha Samhita can also be considered as one of the most neglected pro-

cedure. Over centuries the use of Agnikarma in clinical practice has declined dramatically due to which its techniques have fast disappeared. Today, the practice of Agnikarma is done only by a handful of doctors and folklore practitioners in places like CRIP- Cheruturuthy, Harishree Ayurveda- Thrissur, Vinayaka Ayurveda home- Thrissur in South India.

Katigraha (Low back pain) is one of the most common problem encountered by the practitioner in day to day practice. Acharya Susrutha mentioned Agnikarma can be performed when vitiated vata is located in twak, mamsa, sira, snayu and sandhi causing intense pain⁶, this collective information made way to a thought of performing Agnikarma in Katigraha. Rasna saptaka kwatha and Trayodasanga guggulu which are indicated in Katigraha are well known to be effective by current clinicians. Hence they are effectively used in this comparative clinical study to know the importance of Agnikarma in Katigraha.

OBJECTIVES OF THE STUDY

- To evaluate the effect of Rasna Saptaka Kwatha and Trayodasanga guggulu in Katigraha (low back pain).
- To evaluate the combined effect of Agnikarma, Rasna Saptaka Kwatha and Trayodasanga Guggulu in Katigraha (low back pain).
- To compare the above two objectives and evaluate the importance of Agnikarma in Katigraha.

MATERIALS AND METHODS

SOURCE OF DATA:

A minimum of 20 fresh and/or diagnosed patients suffering from Katigraha (low back pain) fulfilling the inclusion and exclusion criteria was taken for study from OPD and IPD of

SDM college of Ayurveda and Hospital, Udupi, Karnataka.

METHOD OF COLLECTION OF DATA:

A detailed proforma was prepared incorporating all the clinical manifestations and assessment criteria including laboratory and radiological investigations related to Katigraha/ low back pain. Complete clinical data was collected from all the selected patients as per the proforma. Results obtained were statistically analyzed by using appropriate tests

DESIGN OF THE STUDY:

It is an open randomized controlled comparative clinical study with pre-test and post-test design. Twenty patients were randomly divided into two groups.

1. TRIAL GROUP

- One sitting of Agnikarma using agnitapta shalaka was performed on day 1
- Along with it oral medications of Rasna Saptaka Kvatha (2pala) and Trayodasanga Guggulu (1/2 aksha) were given for 21 days.

2. CONTROL GROUP

- Only oral medications of Rasna Saptaka Kvatha (2pala) and Trayodasanga Guggulu (1/2 aksha) were given for 21 days.

INCLUSION CRITERIA:

1. Aged between 16 years to 70 years (irrespective of sex).
2. Patients presenting with signs and symptoms of Katigraha
3. L.S.M (lumbar spinal mobility) tests.
 - If flexion of the spine is less than 80°
 - If lateral flexion of the spine is less than 35°
 - If extension of the spine is less than 20°
 - If spinal rotation from the waist on either side is less than 45° per side

EXCLUSION CRITERIA:

- Age below 16 years and above 70 years.
- Radiating pain to the lower limbs.
- Patients contra-indicated for Agnikarma as per texts.
- Congenital/ acquired skeletal deformities documented through radiography.
- Traumatic/ systemic illness which may interfere with the study.
- Pregnancy.

ASSESSMENT CRITERIA:

The condition of patient is assessed before and after the treatment. A standard grading method was adopted to assess these criteria.

1. Objective signs: - Pain (VAS)
 - Tenderness
 - Lumbar spine mobility test
2. Subjective signs:- Stiffness
3. Method of grading:
 1. Stiffness
 - Grade 0 -No stiffness
 - Grade 1 -Mild stiffness
 - Grade 2 -Moderate stiffness
 - Grade 3 -Severe stiffness
 2. Tenderness
 - Grade 0 -No tenderness
 - Grade 1 -Patient says it is paining
 - Grade 2 -Patient winces
 - Grade 3 -Patient winces and withdraws the part
 - Grade 4 -Patient does not allow touching the part
 3. Lumbar spinal mobility test -
 - Range of movements is noted in degrees

METHODOLOGY

Fresh Rasna saptaka kvatha¹⁰⁰ was prepared by the patient everyday according to Susrutha's kwatha preparation method (for 1 part of dry drug 4 parts of water is added and is reduced to 1/4th part)¹⁰¹. 2 pala (96ml) of the Kvatha was administered before food in 3 divided doses along with shunti choorna as anupana. Along with it arda aksha (6g) of Trayodasanga Guggulu¹⁰² was administered before food in three divided doses.

For Agnikarma procedure a well illuminated room devoid of breeze was selected. Patient was then thoroughly briefed about the procedure. Pichilla anna was advised as a pre requisite to Agnikarma¹⁰³. After detailed examination, patient was made to lie prone on a flat table. Tender parts of the kati were palpated using the thumb and marked. Later the tip of agnitapta shalaka was heated over a spirit lamp (around 6-7 minutes of heating was found to be sufficient for causing tvak dagdha). Once heated, the tip of shalaka was placed over the most tender part till twak dagdha lakshanas, i.e. crackling sound, constriction of the skin and burnt smell are seen¹⁰⁴. Number of bindus varied depending upon the extent of tenderness expressed by the patient. Gritha kumari was applied immediately over the burnt area¹⁰⁵. Patient was made to rest for 10min over the table and advised to keep the dagdha pradasha clean and dry for the next 4-5 days to avoid any complications.

RESULTS AND INTERPRETATION

Number of subjects registered and completed the study- 9 (control group) and 9 (trial group)

- 1a) Effect of treatment on Extension in control group: Interpretation: Since Paired t value (8.85) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 1b) Effect of treatment on Extension in trial group: Interpretation: Since Paired t value (2.23) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 1c) Comparison of treatments on Extension between control and trial groups: Interpretation: Since Paired t value (2.47) is > t table value (2.120) at d.f = 16; the test is statistically significant and hence the Null Hypothesis is rejected and alternative hypothesis is accepted i.e. there is strong reason to believe that the Trial Group has better results on extension.
- 2a) Effect of treatment on Flexion in control group: Interpretation: Since Paired t value (5.33) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 2b) Effect of treatment on Flexion in trial group: Interpretation: Since Paired t value (8.101) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 2c) Comparison of treatments on flexion between control and trial groups: Interpretation: Since Paired t value (3.58) is > t table value (2.120) at d.f = 16; the test is statistically significant and hence the Null Hypothesis is rejected and alternative hypothesis is accepted i.e. there is strong reason to believe that the Trial Group has better results on flexion.

- 3a) Effect of treatment on Left lateral flexion in control group: Interpretation: Since Paired t value (4.10) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 3b) Effect of treatment on Left lateral flexion in trial group: Interpretation: Since Paired t value (3.57) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 3c) Comparison of treatments on left lateral flexion between control and trial groups: Interpretation: Since Paired t value (0.87) is < t table value (2.120) at d.f = 16; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. there is strong reason to believe that the Control Group has better results on left lateral flexion.
- 4a) Effect of treatment on Right lateral flexion in control group: Interpretation: Since Paired t value (4.86) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 4b) Effect of treatment on Right lateral flexion in trial group: Interpretation: Since Paired t value (4.28) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 4c) Comparison of treatments on Right lateral flexion between control and trial groups: Interpretation: Since Paired t value (1.36) is > t table value (2.120) at d.f = 16; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. there is strong reason to believe that the Control Group has better results on Right lateral flexion.
- 5a) Effect of treatment on Left spinal rotation in control group: Interpretation: Since Paired t value (4.49) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 5b) Effect of treatment on Left spinal rotation in trial group: Interpretation: Since Paired t value (5.37) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 5c) Comparison of treatments on Left spinal rotation between control and trial groups: Interpretation: Since Paired t value (1.97) is < t table value (2.120) at d.f = 16; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. there is strong reason to believe that the Control Group has better results on Left spinal rotation.
- 6a) Effect of treatment on Right spinal rotation in control group: Interpretation: Since Paired t value (6) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 6b) Effect of treatment on Right spinal rotation in trial group: Interpretation: Since Paired t value (6) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 6c) Comparison of treatments on Right spinal rotation between control and trial groups: Interpretation: Since Paired t value (2.82) is > t table value (2.120) at d.f = 16; the test is statistically significant and hence the Null Hypothesis is rejected and alternative hypothesis is accepted i.e. there is strong reason to believe that the Trial Group has better results on right spinal rotation.
- 7a) Effect of treatment on Stiffness in control group: Interpretation: Since Paired t value (4.24) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 7b) Effect of treatment on Stiffness in trial group: Interpretation: Since Paired t value (6) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 7c) Comparison of treatments on Stiffness between control and trial groups: Interpretation: Since Paired t value (3.08) is > t table value (2.120) at d.f = 16; the test is statistically significant and hence the Null Hypothesis is rejected and alternative hypothesis is accepted i.e. there is strong reason to believe that the Trial Group has better results on Stiffness.
- 8a) Effect of treatment on Pain in control group: Interpretation: Since Paired t value (6.9) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 8b) Effect of treatment on Pain in trial group: Interpretation: Since Paired t value (6.4) is > t table value (5.04) at d.f = 8; the test is statistically significant and hence the Null Hypothesis is rejected and Alternative Hypothesis is accepted i.e. the mean difference noted between before and after values are not due to chance.
- 8c) Comparison of treatments on Pain between control and trial groups: Interpretation: Since Paired t value (1.14) is > t table value (2.120) at d.f = 16; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. there is strong reason to believe that the Control Group has better results on Pain.
- 9a) Effect of treatment on Tenderness in control group: Interpretation: Since Paired t value (2.53) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 9b) Effect of treatment on Tenderness in trial group: Interpretation: Since Paired t value (2.8) is < t table value (5.04) at d.f = 8; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. the mean difference noted between before and after values, may probably be due to chance.
- 9c) Comparison of treatments on Tenderness between control and trial groups: Interpretation: Since Paired t value (1.35) is > t table value (2.120) at d.f = 16; the test is not statistically significant and hence the Null Hypothesis is accepted i.e. there is strong reason to believe that the Control Group has better results on Tenderness.

CONCLUSION

After a detailed conceptual compilation, observation, analysis and discussion, the following conclusions were made.

- Control group which had only Shamanaushadis showed significant results in Objective signs such as Pain, whereas trial group which had both Shamanaushadis and Agnikarma showed significant results in both Subj

ective and Objective signs such as Stiffness, Extension, Flexion and Right spinal rotation.

- Agnikarma when combined with Shamanaushadis resulted in early reduction of the symptoms significantly.
- No untoward complications occurred during the procedure and hence it can be inferred that Panchaloha shalaka can best be used for causing Twak dagdha

REFERENCES

1. Sushruta, Sushruta Samhita with Nibanda sangraha commentary of Sri Dalhana Acharya and Nyayachandrika panjika of Sri Gayadaasa Acharya , edited by Vaidya Jadavji Trikamji Acharya, Chaukambha Sanskrit sansthan, Varanasi, reprint 2010, Pp 822, Pg 41.
2. Sushruta, Sushruta Samhita with Nibanda sangraha commentary of Sri Dalhana Acharya and Nyayachandrika panjika of Sri Gayadaasa Acharya , edited by Vaidya Jadavji Trikamji Acharya, Chaukambha Sanskrit sansthan, Varanasi, reprint 2010, Pp 822, Pg 51.
3. John Ebnezar, Textbook of Orthopaedics, 3rd edition, Jaypee publications, Pp 636 Pg 417
4. Raja Radha Kantha Deva- Shabda kalpa drama: Dwitiya khanda, published by naga publishers, reprint 1988, Pp 626, Pg 375.
5. Sir Monier Monier Williams- A Sanskrit- English dictionary, cognate into European language: Motilal banarsidass publishers, Delhi, reprint 2005, Pp1333 Pg 372 .
6. Sushruta, Sushruta Samhita with Nibanda sangraha commentary of Sri Dalhana Acharya and Nyayachandrika panjika of Sri Gayadaasa Acharya , edited by Vaidya Jadavji Trikamji Acharya, Chaukambha Sanskrit sansthan, Varanasi, reprint 2010, Pp 822, Pg 52.