

COMPARATIVE CLINICAL TRIAL BETWEEN DHANYAMLA SAHITA AND RAHITA ERANDAMoola (*Ricinus Communis Linn*) BASTI IN “KATIGATA VATA”

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ABSTRACT

The study was conducted by dividing 40 clinically diagnosed patients of *katigatavata* into 2 groups with an objective of comparative clinical study in between them as group a of *dhanyamla (amla rasa dravya) sahita erandmoola kwath basti* and group b as plain *erandmoola niruha basti*. Both the groups were administered *yoga basti karma* (8 days). *Anuvasan basti* being common in both the groups- *til tail* 120 ml, it was observed that both the groups were found effective in *katigatavata*, but the patients in group showed a positive effects with p- value is <0.05 at the end of the treatment in *samyak lakshanas* as well as assessment of subjective attributes like that for Oswestry low back pain disability, personal care, lifting, walking sitting, sleeping, visual analogue scale (VAS), *shool*, tenderness and coin test. Thus null hypothesis is rejected for these attributes. No side effects were observed. Various observations were made and results were obtained were computed statistically to find out the significance of the value obtained and various conclusions were drawn accordingly.

Key words:-*basti ,amla rasa, katigatavata, dhanyamla*

INTRODUCTION

Various combinations are suggested to be used in *basti* treatment by *yukti pramana*. Generally, **basti chikitsa** is the apt for *vataja* disorders (ch/si/1/39). It is also the best treatment suggested for provoked *vata* as “*bastivataharanamshreshtham*” (ch/su/25). While describing mechanism of *basti*, it is specifically mentioned as useful in the disorders of *vata* in the area of umbilicus-lumbar and laterals of chest region. ” *nabhipradeshakatipapraschwakukshigatva*(ch/si/1/40). The three tastes viz. Sweet, sour, and salty are the best to pacify *vata*. Even Charaka had also chosen the medium of tastes to explain various drugs useful in *asthapana* or *niruha basti* through the way of “*shadaasthapana skandha*” in *vimanasthana*. So if one use

these three tastes along with *basti* treatment, which will definitely have the best impact over *vata* in terms of effects. While preparing *basti* along with honey (sweet), *saindhava* (salty), generally sour taste is not used in any form except certain specific *bastis*. So from *amla rasa asthapanaskandha* “*dhanyamla*” was chosen for boosting the efficacy to pacify *vata* through that *basti*. Thus, keeping this concept in mind **efficacy of amla rasa** on *vata vyadhi* through *Asthapan basti*, this clinical study was held.

“*Katigatavata*” is one of the commonest diseases in 3rd and 4th decade of life and is one of the most expensive benign medical complications causing restricted movements thus hampering daily chores of life.

The importance of back pain in world is underscored by the following:

- The 70-80% of world population suffers from backache at some point of their life. The present age speed and competition had increased stresses and strains resulting in to increasing the prevalence of life style related health problems.
- Back symptoms are the most common cause of disability in patients under 45 years of age.
- 50% of working adults, in one survey, admitted to having a back injury each year and
- Approximately 1% of the population is chronically disabled because of back pain.
- According to a survey, low back pain is extraordinarily common, and second only to the common cold

Katishoola is not directly mentioned in *brihatraya* but references permit us to treat is as an individual pathology. Disease similar in *ayurvedic* texts to *katishoola* are *katiruja*, *kativednam*, *katitoda*, *katistambh*, *katigraha*, *katisandhisphuranam*, *katibhanjanam*, *trikshool*. *Katigraha* is mainly due to *pakvashayagata vata*.¹

(A.H. Ni 15)

Amla rasa specifically mentioned in pacifying the provoked *vata* (*vatashamaka*) and in regulating *vata* in a proper direction which is diverted from its normal path as '*vata anulomaka*' (Ah/Su/10/10), (Su/Su/42/13), (Ch/Su, 26/42).

Aim: To study the comparative role of *dhanyamla samhita erandmool basti* with plain *erandmool niruha basti* in *katigata-vata*.

Objectives: To study role of *amla rasa* in various symptoms of *vata prakopa* with special reference to *katigata vata*.

Materials and methods: A detailed study of *katigata vata* and its effect on life quality was done, along with study of drugs se-

lected for the present study. Various books of *ayurveda*, modern science and internet related to the subject were referred.

Drugs: The trial drug *dhanyamla* is taken from *charak vimansthanas* it is mentioned in *asthapangana*. Other than this the basic ingredients for the *basti kalpana* were the same for both the groups, they being *madhu*, *saindhav choorna*, *til tailam*, *shatpushpa choorna*, *erandmoola bharad*, water.

Patients: 40(20 + 20) patients of *katigata vata* which included patients of *katishoola*, *katiruja*, *kativednam*, *katitoda*, *katistambh*, *katigraha*, *katisandhisphuranam* were randomly selected and divided into two groups i.e. Group A & group b of 20 patients each as group a of *dhanyamla* (*amla rasa dravya*) *sahita erandmoola kwath basti* and group B as plain *erandmoola niruha basti*.

Clinical study

Inclusion criteria-

- Patient selection was irrespective of sex, religion, education, occupation and economical status.
- Patient age criteria were from 20-60 yrs.
- *Basti arraha*
- Patient complaining of *katishool*, *katigraha*, *katitoda*, *kativednam*.

Exclusion criteria –

- Patient of *katishool* having congenital structural deformities patient diagnosed as Potts spine.
- Patients needing surgical care.
- *Basti anarraha* patients according to texts
- Patient not willing for clinical trial.
- Patient not willing for written consent.

Plan of treatment

Group-A

Erandmoola kwath + dhanyamla (amla rasa dravya) basti in yoga basti krama with til tail.

Group-B

Erandmool kwath without dhanyamla basti in yoga bastikrama with til tail.

Duration and doses:

Drug	<i>Niruha-erandmool niruha basti with or without dhanyamla. Anuvasan-til tail</i>
Dose	<i>Niruha-720 ml; Anuvasan-120 ml</i>
Kaal	<i>Niruha- abhukta; Anuvasan- adrapaninambhojan (immediately after meals)</i>
Duration	<i>Yoga basti krama; D1, D3, D5, D7, D8-anuvasan basti; D2, D4, D6-niruha basti</i>
Follow up	<i>0, 8th, 24th day</i>

Standard operative procedure (SOP): *Niruha basti dravya poorva karma*

Group- A

Group-B

<i>Erandmoolkwath</i>	400 ml
<i>Til tail</i>	120 ml
<i>Madhu</i>	80 ml
<i>Shatpushpakalka</i>	80 gm
<i>Saindhav</i>	5 gm
<i>Dhanyamla</i>	40 ml

Same as that of group-a except Dhanyamla

Assessment criteria

➤ Assessment of *samyak anuvasan lakshanas* and *samyag niruha lakshanas* were done.

➤ Assessment of *samyak niruha basti lakshanas* was done.

Various tools are used to assess gradations of symptoms regularly:

➤ Oswestry low back pain disability questionnaire for; *Pain* intensity, personal care (washing; dressing; etc.), lifting, walking, sleeping, sitting, standing, travelling.

0% to 20%: Minimal disability: The patient can cope with most living activities. Usually no treatment is indicated apart from advice on lifting sitting and exercise.

21%-40%: Moderate disability: The patient experiences more pain and difficulty with sitting, lifting and standing. Travel and social life are more difficult and they may be disabled from work. Personal care, sexual activity and sleeping are not grossly affected and the patient can usually be managed by conservative means.

41%-60%: Severe disability: Pain remains the main problem in this group but activities of daily living are affected. These patients require a detailed investigation.

61%-80%: Crippled: Back pain impinges on all aspects of the patient's life. Positive intervention is required.

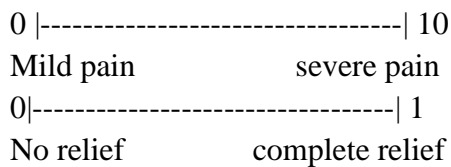
81%-100%: Bed ridden: These patients are either bed-bound or exaggerating their symptoms.

Assessment of shool:

(Oxford pain chart)

Grade	pain
Score 3:	severe
Score 2:	moderate
Score 1:	mild pain
Score 0:	no pain

3) Visual analogue scale:



4) Tenderness: Score 4: very severe (withdrawal to non-noxious stimuli e.g. pin prick, superficial palpation gentle percussion)

Score 3: severe (tenderness with withdrawal)

Score 2: moderate (tenderness with grimace)

Score 1: mild (tenderness to palpation without grimace)

Score 0: nil (no tenderness)

5) Walking time: Walking time of the patient for distance of 10 meters will be recorded on 0,8,24 days.

6) Coin test: Patient is asked to pick up the coin from the ground. According to severity, pain gradations were done.

G₁) can easily pick up the coin.

G₂) can pick with minimal pain.

G₃) can pick with moderate pain

G₄) can't pick.

SLR test:

Above 60⁰	Grade -0
45-60⁰	Grade -1
30-45⁰	Grade -2
0-30⁰	Grade -3

Observations and assessment of results -

Two groups are considered i.e. group A and group B. Group A is under treatment of *erandmoola kwath+dhanyamla (amla rasa dravya) basti* in *yoga basti karma* with *til tail* while group B is under *erandmoola kwath* without *dhanyamla basti* in *yoga basti karma* with *til tail*. Each group consists of 20 patients which are monitored for clinical assessment.

The assessment of the patients was made by two specific ways –

A. Objective criteria

B. Subjective criteria.

Objective criteria:

Walking time (in seconds)

The collected data is continuous, randomly selected from the population and independent, **unpaired T test** is applied for comparison. This test gives the comparison of walking time at the end of the study between two groups. The table shows the statistical analysis for walking time where t-score shows the difference is not significant. It means that the said therapy used to improve walking time of group A is not effective as compared to group B.

Mean score	Walking time (sec)		
	Day 0	Day 8	Day 24
GROUP A	31.450	21.650	21.050
GROUP B	29.000	23.250	22.400

Subjective criteria:

1. Oswestry low back pain disability

The collected data is discrete, measured on ordinal scale; randomly selected, indepen-

dent, **Mann-Whitney U test** is applied for comparison between two groups. This test gives the comparison of signs and symp-

tom or subjective attributes *vatavyadhi* w.s.r. to *katigatavata* at the end of the study.

2. Oxford pain scale -

Group A-grades 1,2,3, shifted to grade 0,1,2 on 8th day further 0,1,2 on 24th day

Group B-grade 1, 2, 3, shifted to grade 0, 1, 2, further to grades 1, 2, 3 on 24th day.

3. Visual analogue scale -

Group A-grades 4,5,6,7,8 shifted to grade 0,1,2,3,4 on 8th day further 0,1,2,3,4,6 on 24th day

Group B-grade 4,5,6,7,8 shifted to grade 0,1,2,3,4,6,7 further to grades 0,1,2,3,4,6,7 on 24th day.

4. SLR left leg -

Group A-grades 0,2,3, shifted to grade 0,1,2 on 8th day further 0,1,2 on 24th day

Group B-grade 0, 2, 3 shifted to grade 0, 1, and 2 further to grades 0, 1, 2 on 24th day.

5. SLR right leg

Group A-grades 0,2,3, shifted to grade 0,1,3 on 8th day further 0,1,3 on 24th day

Group B-grade 0, 1, 2, shifted to grade 0, 1, 2 further to grades 0, 1, 2 on 24th day.

6. Tenderness

Group A-grades 1,2,3,4 shifted to grade 0, 1, 2 on 8th day further 0,1 on 24th day

Group B-grade 1, 2, 3 shifted to grade 0,1,2,3 further to grades 0, 1, and 3 on 24th day.

7. Coin test

Group A-grades 1,3,4,5 shifted to grade 1, 2, 3 on 8th day further 1,2 on 24th day

Group B-grade 1,2,3,4 shifted to grade 1,2,3,4 further to grades 1,2,3,4 on 24th day.

DISCUSSION

Patients got more relief after *anuvasan basti* than *niruha* ones. In cases, where *upastambhit vata* was more involved due to presence of *ama* and *kapha dhanyamla* was proved to be extensively effective due to its penetrating (*teekshna*) and expelling

or laxative (*bhedana*) properties. Penetrating (*teekshna*) property with light (*laghu*) and hot (*ushna*) properties help in scraping off the humours (*lekhana of doshas*) and thus helpful in this specific type of pathogenesis where obstruction (*avrodhatmak samprapti and saamaavastha*) is more evident. Properties like heavy (*guru*) unctuous (*snigdha*) help in strengthening body (*balavardhana*), helping in increasing in weight (*brumhana*) when pathogenesis of excessive catabolism (*kshayatmak samprapti*) is seen. Properties like hot (*ushna*), penetrating (*teekshna*) help in digesting the undigested and accumulated toxins (*pachana of aam or dushta doshas*) inside the gastrointestinal tract as well as other channels (*srotasas*) in the body. Property like unctuous (*sneegdha*) helps in creating softness (*mardavata*) in *pakvashaya* thus helping in regularizing the passage of *vata* in its normal direction (*anulomana* action).

Side effects after the administration of *dhanyamla sahita basti* were not observed as *dhanyamla* is not too much dry (*ruksha*).

Wherever vitiation due to consumption of excessive alcohol, tobacco and therefore creating excessive dryness (*ruksha*) and hot (*ushna*) properties were seen, the action of "*dhanyamla basti*" didn't prove significantly effective. "*dhanyamla sahita erandmoola basti*" was not significantly effective in age related backache which was having dominant provocation of *vata*. "*dhanyamla sahita erandmoola basti*" was not observed to be significantly effective in cases of "vitiation of *pranavata*" or *katigatavata* followed due to fall on back (*aghataja*).

SAMYAK BASTI LAKSHANAS:

Dhanyamla sahita niruha basti: Foremost symptoms seen post *niruha* was lightness in abdomen and body (*laghutwam udaraand sharira laghutwam*) in maximum

number of patients which was observed from 1st day. Extreme comfort in passage of faeces and urine (*prarushtavin-mutra*) was another symptom felt by maximum no of patients from the day 1st except patients due to pacification of provoked *vata* with properties like extreme dryness (*atiruksha*) e. g. Patients having excessive alcohol intake. Ignition of digestive fire (*agni pradipti*) was seen in majority of patients after 5th-7th day. After the administration of "dhanyamla sahita basti" followed by *anuvasana*, showed increase in strength (*bala vrudhi*) along with increased feeling of freshness (*utsaah vrudhi*) in almost all the patients. These symptoms were observed in maximum patients post treatment also.

Relief in symptoms of *shool* in severe patients was attained from 4th-5th day. i.e. After the 2nd *niruha* with *anuvasana basti*.

Increase in the duration of sleep (*nidra vrudhi*) along with sleep with peace (*samyaka nidra*) was attained in maximum number of patients which continued even post treatment. In few patients, time taken for the defecation in the morning as a natural urge, was decreased positively from 15-20 minutes to 5 minutes. Basti was effective in both kinds of conditions i.e. "santarpana as well as apatarpana".

Dhanyamla rahita niruha basti: Ignition of digestive fire (*agni pradipti*) was not profoundly found in "dhanyamla rahita niruha basti" as compared to "dhanyamla sahita basti." Comparatively less improvement was seen in the overall strength (*bala vrudhi*) of the patient. Lightness in abdomen and body (*udara laghava and sharira laghava*) observed in this group were almost equally felt as in the 1st group.

CONCLUSION

After treating the patients group a, assessment of subjective attributes shows p- val-

ue is <0.05 at the end of the treatment for Oswestry low back pain disability, personal care, lifting, walking sitting, sleeping, visual analogue scale, *shool*, tenderness and coin test. Thus null hypothesis is rejected for these attributes. So it can be said that group A treatment regimen have significant result to subside the said attributes in *vatavyadhi* w.s.r. to *katigatvata* at the end of the study as compare to group B.

Also, after treating the patients group A, assessment of subjective attributes shows p- value is >0.05 at the end of the treatment for standing assessment of Oswestry low back pain disability, SLR right leg. Thus null hypothesis is accepted for these attributes. So it can be said that group a treatment regimen doesn't have significant result to subside the said attributes in *vatavyadhi* w.s.r. to *katigatvata* at the end of the study as compare to group B.

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