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

Sampat Priyanka Deepak¹, Chandaliya Sachin S²

¹P.G Scholar; ²Asst.Professor and Head of Dep’t. Of Panchkarma, C.A.R.C. Nigdi, Pune, Maharashtra, India

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 pramanana*. 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. ” *nabhipradeshakatiparpshwakukshigatva*(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 *asthapan* 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 asthapana* “*dhanyamla* “was chosen for boosting the efficacy to pacify *vata* through that *basti*. Thus, keeping this concept in mind *efficacy of amla rasa* on *vatavyadhi* 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 lifestyle 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, 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 ‘vataanulomaka’ (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 vataprakopa 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 selected 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 katishoool, katiruja, kativednam, katitoda, 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 (aml 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.
- Basiti arraha
- Patient complaining of katishoool, kati-graha, katitoda, kativednam.

Exclusion criteria –
- Patient of katishoool having congenital structural deformities patient diagnosed as Potts spine.
- Patients needing surgical care.
- Basiti anarraha patients according to texts
- Patient not willing for clinical trial.
- Patient not willing for written consent.

Plan of treatment
### Group-A

**Erandmool 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:

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

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

- **Group- A**
  - 400 ml
  - 120 ml
  - 80 ml
  - 80 gm
  - 5 gm
  - 40 ml

### Assessment criteria

- **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)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score 3:</td>
<td>severe</td>
</tr>
<tr>
<td>Score 2:</td>
<td>moderate</td>
</tr>
<tr>
<td>Score 1:</td>
<td>mild pain</td>
</tr>
<tr>
<td>Score 0:</td>
<td>no pain</td>
</tr>
</tbody>
</table>

3) Visual analogue scale:

- 0 [-----------------------------] 10
- Mild pain               severe pain
- 0 [-----------------------------] 1

No relief       complete relief

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:

<table>
<thead>
<tr>
<th>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.</th>
<th>Objective criteria: Walking time (in seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score</td>
<td>Walking time (sec)</td>
</tr>
<tr>
<td>GROUP A</td>
<td></td>
</tr>
<tr>
<td>GROUP B</td>
<td></td>
</tr>
</tbody>
</table>

Subjective criteria:
1. Oswestry low back pain disability
The collected data is discrete, measured on ordinal scale; randomly selected, independent, 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, 2 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 anuvasa 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 (avrodha) and saamaavastha is more evident.

Properties like heavy (guru) unctuous (sneegdha) help in strengthening body (balavardhana), helping in increasing in weight (brumhana) when pathogenesis of excessive catabolism (kshayatmak sampapti and saamaavastha) 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 dhanymla 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 erandmoolaa basti” was not significantly effective in age related backache which was having dominanant provocation of vata. “dhanyamla sahita erandmoolaa 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 udarraand sharira laghutwam) in maximum
number of patients which was observed from 1\(^{st}\) day. Extreme comfort in passage of faeces and urine (prasrushtavin-mutra) was another symptom felt by maximum no of patients from the day 1\(^{st}\) except patients due to pacification of provoked vata with properties like extreme dryness (atiraksha) e. g. Patients having excessive alcohol intake. Ignition of digestive fire (agni pradipti) was seen in majority of patients after 5 th-7th day. After the administration of “dhanyamla sahita basti”followed by anuvasana, showed increase in strength (bala-vruddhi) along with increased feeling of freshness (utsaah vruddhi) 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 4\(^{th}\)5\(^{th}\) day.i.e. After the 2\(^{nd}\) niruha with anuvasana basti.

Increase in the duration of sleep (nidra vruddhi) 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 defeation 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.vruddhi) of the patient. Lightness in abdomen and body (udara laghavaand sharira laghava) observed in this group were almost equally felt as in the 1\(^{st}\) group.

**CONCLUSION**

After treating the patients group a, assessment of subjective attributes shows p-value 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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CORRESPONDING AUTHOR
Dr. Sampat Priyanka Deepak
P.G Scholar Dept. Of Panchkarma,
C.A.R.C. Nigdi, Pune, Maharshtra, India
Email: drpriyankasampat@gmail.com

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