



ORIGINAL ARTICLE

STUDY TO ASSESS THE EFFECT OF GANDHARVAHASTHADI KASHAYAM IN APANA VAIGUNYA (APANA VATA VITIATION) IN THE PATIENTS OF KATIGRAHA (LOW BACK ACHE)

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Abstract

Introduction: The fraction of *Sareera vata*, which has a special tendency to move downwards, controls the functions of the lower part of the body and is termed *Apana vata*. *Apana vata* controls the emission of *sukra*, *arthava*, *sakruth*, *mootra*, *garbha*. Its seats are *sroni*, *basthi*, *medra*, *uru*. The term “*Kati*” refers to the lumbo sacral and the gluteal region or hip. “*Graham*” means stiffness, as a result of stiffness there is restriction of movement and pain. According to Ayurveda when *vata* gets aggravated in *pakvasaya*, it causes *soola*, *anaha*, *antrakoojana*, *malarodha*, *vardhma*, *arsa*, *katigraha*, *prishtagraha* and other diseases concerned with lower parts of the body and are *krichrasadya*

Methodology: The subjects were screened and taken into the study based on the inclusion criteria using consecutive sampling. The 14 participants were assessed with *Apana vaigunya* using a validated questionnaire before the study and were given *Gandharvahasthadi kashayam* 96ml twice before food with 3gm *saindava*, 6gm *guda* for 2 weeks and *Apana vaigunya* was assessed after 2 weeks of intervention and follow up of 2 weeks.

Results: The results were analyzed statistically and it is noted that there is statistical significance in reduction of *Apana vaigunya* symptoms after the completion of the study.

Discussion: There is a reduction in *apana vata vaigunya* symptoms in the patients of *katigraha* after taking *Gandharvahasthadi kashayam*.

Introduction

Although *tridoshas* are equally essential in the body, *vata* is considered the chief among the three *doshas* as it governs the functions of all other components in the body. The fraction of *Sareera vata*, which has a special tendency to move downwards, and controls the functions of the lower part of the body is termed *Apana vata*.

As per ‘*Sabda kalpa druma*’, the meaning of the word *Apana* is “*apanayathi maladi nissarayati*”. *Pakvasaya* is considered the most important site of *vata*, where *vata* and its five subdivisions are generated¹.

Apanavata is capable of vitiating various structures of the body leading to functional disturbances. When *apanavata* is in a normal state, it performs *samyak mala mootra vikshepanadhi karma*² and its derangement is the main cause for many *vikaras*. *Apana vaigunya* means the alteration in the normal properties of *apana vata* which may lead to the alteration in the normal function, i.e. *vikshepana* and *dharana*. The expulsion of *sukra* (seminal fluid), *arthava* (Ovulation or menstrual flow), *sakruth* (faeces), *mootra* (urine) and *garbha* (fetus) are the functions of *prakrutha apanavata* and their *vaigunyavastha* produces related *vikaras* in the body.

Katigraha consists of two words, "Kati" and "graha".

In 'Amara Kosha' the word meaning of "Kati" is "Katau Vastra Varanau", the part of the body which is covered with clothes. "Graha" means "gruhnaati" as per 'sabda kalpa druma'. *Kati* may be considered as the particular anatomical region, from which a person can able to bend i.e., the lumbar region. So pain and stiffness in the lumbar region can be recognized as a disease entity called *katigraha*.

The disease *katigraha* is not mentioned among the *nanatmaja vyadhis* of *vata* and according to *Charaka*, though the total number of *nanatmajavikaras* of *vata* is 80 in number³, depending upon the location and symptoms new diseases can be named apart from mentioned ones. *Kati* is one of the *vata sthanas*, pain and stiffness are caused by *vata*, and hence *katigraha* can be considered as *vata vyadhi*. It is described as a disease in *Bhavaprakasha*

and *Gadanigraha*. As per the *samprapthi* mentioned in *Gadanigraha*, when *suddha* or *amayukta vata* settles in *Kati pradesa* and it causes *ruja* in that region is termed as *katigraha*⁴.

Low back pain is pain, muscle tension, or stiffness localized below the costal margin and above the inferior gluteal folds, with or without sciatica, and is defined as chronic when persists for 12 weeks more⁵. Prevalence of low back aches in south India: Male 28.4 % and Female 52.9%⁶. According to Ayurveda when *vata* gets aggravated in *pakvasaya*, it causes *soola* (colic), *anaha* (flatulence), *antrakoojana* (gurgling in the intestine), *malarodha* (obstruction to the movement of faeces), *vardhma* (enlargement of scrotum), *arsa* (piles), *katigraha* (catching pain in back), *prishtagraha* (catching pain in upper back) and other diseases concerned with lower parts of the body and are *krichra sadya*⁷. Thus the study was conducted keeping in view the *Apana vaigunya* as the chief pathology in *Katigraha*.

Rationale for selecting *Gandharvahasthadi kashayam*

- In *Keralaleeya chikitsa* it is known as "pathi kashayam"
- It is easily available
- *Gandharvahasthadi kashayam* is indicated in low backache
- It has got *vatanulomana* property
- It relieves constipation

Kashayam for the administration was prepared with drugs of *Gandharvahasthadi kashayam yogam* and is

Table no: 1 Ingredients of *Gandharvahasthadi kashayam*

Name of the drug	Parts used	Effects
<i>Eranda</i> (<i>Ricinus communis</i>)	Roots	Carminative, purgative, diuretic It cures constipation, inflammations, <i>ama dosha</i> , <i>gulma</i> and vitiating conditions of <i>vata</i> ⁹
<i>chiribilva</i> (<i>Holoptelea integrifolia</i>)	Root	Useful in Inflammation, gastritis, dyspepsia, colic, intestinal worms, flatulence vomiting, rheumatism ¹⁰
<i>Chitraka</i> (<i>Plumbago zeylanica</i>)	Root	Gastric and nerve stimulant Inhibits synthesis of prostaglandin locally, antipyretic, analgesic, normalizes intestinal flora, digestive stimulant, appetizer Inhibitory effect in H-pylori associated peptic ulceration and gastric cancer ¹¹
<i>Vishwa</i> (<i>Zingiber officinale</i>)	Rhizome	Increases intestinal motility Analgesic, sedative, antipyretic and antibacterial properties Aromatic, carminative, GI stimulant, antispasmodic, digestive and stomachic properties Promoted regular digestion
<i>Haritaki</i> (<i>Terminalia chebula</i>)	Fruit	<i>Tridoshasamana</i> , <i>deepana</i> , diuretic, <i>anulomana</i> ¹³
<i>Punarnava</i> (<i>Boerhaavia diffusa</i>)	Root	Anti-inflammatory, anti-nociceptive, anti-oxidant, laxative ¹⁴
<i>Yavasha</i> (<i>Tragia involucrate</i>)	Root	<i>Deepana</i> , <i>pachana</i> Indicated in <i>Chardi</i> and <i>arsa</i> ¹⁵
<i>Bhumithala</i> (<i>Curculigo orchioides</i>)		Anti-inflammatory, antipyretic, demulcent Reduces stress and good appetizer ¹⁶
<i>Saindava</i>	-	<i>Tridoshasamana</i> , <i>deepana</i> , <i>ruchya</i> , <i>hridya</i> , <i>avidahi</i> Cures <i>vibandha</i> and <i>sotha</i>
<i>Guda</i> (Jaggery)	-	<i>Tridoshahara</i> , <i>ruchya</i> , <i>agnipushitikara</i> , <i>pathya</i>

mentioned in *Sahasrayogam*. It is a combination of 8 drugs⁸. They are

- *Gandharvahastha* (castor seed- *Ricinus communis*)
- *Chirubilva* (*Holoptelea integrifolia*)
- *Huthasha* (chitraka- *Plumbago zeylanica*)
- *Vishwa* (ginger- *Zingiber officinalis*)
- *Pathya* (*Terminalia chebula*)
- *Punarnava* (*Boerhaavia diffusa*)
- *Yavasa* (*Tragia involucrata*), and
- *Bhumithaala* (*Curculigo orchioides*).

Methodology

Hypothesis: Gandharvahasthadi kashayam is effective in the treatment of Apana vaigunya in the patients of katigraha

Type of study: Interventional study (IEC- E2/4680/2017/ACK dated 02-05-2018)

CTRI NO: Nil

Study setting: GAVC Kannur

Study population: Katigraha patients

Sample size: 14

Sampling technique: Consecutive sampling

Study duration: 28 days (14 days intervention and follow up after 14 days)

INCLUSION CRITERIA

- Both male and female
- Age between 20 to 60 years
- With any one of the tests positive- SLR Test, Lasegue's Test, Sacral spring test
- Mechanical and degenerative type of backache (1 month to 10 year duration)
- Intervertebral disc Prolapse (1 month to 10 year duration)

EXCLUSION CRITERIA

- Those who are under psychological treatment
- Diagnosed cases of malignancy
- Tuberculosis of spine
- Renal diseases
- Pelvic inflammatory disease and other gynecological diseases

Table no: 2 Apana vaigunya scoring

Extent of <i>apana vaigunya</i>	Score in females of reproductive age	Score in females of non-reproductive age	Score in male
Mild	0-6	0-5	0-5
Moderate	7-12	6-10	6-10
Severe	13-18	11-15	11-15

- Vertebral fractures
- Cauda equina syndrome
- Patients who are taking analgesics

Materials & Methods

1. Research Proforma
2. *Apana vaigunya* questionnaire
3. *Gandharvahasthadi kashayam*

Research proforma contains questions regarding demographic data, preliminary data, and personal data like diet habits, exercise, sleep habits, bladder habits, addictions, vital data and *dasavidha pareeksha*. After collecting the preliminary data of each participant, a detailed clinical history was taken regarding the mode of onset, nature of progression, course, duration, nature of pain, disability due to pain etc. They were subjected to thorough clinical examination based on the special Proforma prepared for this purpose and findings were recorded. Subjective parameters like pain and tenderness were assessed using a Visual analogue scale and objective parameters like swelling, tenderness and range of movement of the Lumbosacral spine were assessed by suitable clinical examination methods with appropriate clinical tools.

The *apana vaigunya* was assessed using a questionnaire developed particularly for this study. It was prepared based on a validated questionnaire for *vataprathilomatha*¹⁷, which consists of 14 questions and was modified. The modified questionnaire consists of a total of 18 questions (not validated). With this questionnaire, *Apana vaigunya* in female subjects of the reproductive age group can be assessed by obtaining responses for all 18 questions. The *apana vaigunya* in male subjects as well as female subjects of the non-reproductive age group can be assessed from the response to 15 questions of this questionnaire, avoiding the last 3 questions. A score of 1 would be given for each positive response and a score of 0 for negative response. So the maximum attainable score for females in the reproductive age group is 18 and for males and females those not in the reproductive age group are 15. From the score, the extent of *apana vaigunya* can be presumed as mild, moderate or severe. The score can be interpreted as follows:

Details of Intervention

Details of drug used

Government-approved GMP-certified coarsely powdered drugs of *Gandharvahasthadi kashayam* were used in this study. One *pala* of powdered drug is boiled with 8 times of water and reduced to one-fourth. This liquid is known as *niryuha* or *kashayam* and is administered in the dose of two *palas*. So 48 Gms of powdered *Gandharvahasthadi Kashayam* was boiled with 8 times of water and reduced to one-fourth. As per *sahasrayogam*, *Saindhava* or rock salt and *gudam* or jaggery is to be taken as *anupana* along with *Gandharvahasthadi kashayam*⁸⁵. According to *Sargadhara samhitha*, *sana* (3gm) is the quantity of *saindhava* and *karsha* (12gm) is the quantity of *gudam*. The dose of *Gandharvahasthadi kashayam* was 96 ml twice daily before food with 3gm *saindhava* and 12gm *guda* for two weeks.

Observation & Analysis

The subjects who presented at Kriya Sharir OPD of GAVC, Kannur were screened and those who fulfilled with inclusion criteria were selected and registered for the study. Written informed consent was taken before the study.

Table no: 3 Demographic data:

Sex	Fre q	Diet	Fre q	Domicile	Fre q	Marit. st	Fre q
Male	5	Non-veg	13	Urban	2	Married	13
Female	9	Veg	1	rural	12	Unmarried	1

Out of the 14 subjects, 2 participants followed a sedentary lifestyle. Participants involved in physical strain were 11 in number. Those with mental strain were only one. Out of 14 participants, 9 were with *krura koshta*, 4 with *madyama koshta* and 1 with *mridu koshta*.

Table no: 4 Duration of Low backache

Duration of LBA	Frequency
Less than 4 weeks	2
6-12 months	3
1-3 year	1
More than 3 year	8

Table no:5 Extent of *Apana vaigunya*

Severity	Score in females of reproductive age Frequency			Score in females of non-reproductive age Frequency			Score in male Frequency		
	Before	After	Follow-up	Before	After	Follow-up	Before	After	Follow-up
Mild	2	3	3	0	2	2	2	4	4
Moderate	2	1	1	4	3	3	3	1	1
Severe	0	0	0	1	0	0	0	0	0

Results and Conclusion

Table no: 6 *Apana vaigunya* before and after study

<i>Apana vaigunya</i> score	Median	Interquartile range	P value
Before	7.50	3	0.002
After	4.50	4	

Wilcoxon signed rank test

It shows that there is a significant reduction in *apana vaigunya* symptoms after the treatment with *Gandharvahasthadi kashayam*.

Discussion

ROLE OF AMA AND APANA VATA

Ama can be defined as a substance which is involved in the process of *paka* without attaining its final *swarupa*. According to *Vagbhata*, *ama* is the first formed *rasa*, which is not properly formed due to hypo functioning of *ushma* or *agni*, being retained in *amasaya* and undergoing *dushti*¹⁸. Out of the three pathological conditions of *agni*, except *teekshnagni* the remaining two; *mandagni* and *vishamagni* are prime causes of *ama*, but ultimate is *mandagni*. Due to the existence of *guru*, *pischila*, *tantu*, *abhishyandi*, *avipkva* and *asamyukta gunas* final outcome is *srotho avarodha* where stasis results into various morbidities in the body. *Ama* refers to the initial product of metabolic transformation which eventually leads to disease. According to *Vagbhata*, the *Doshayukta amalakshans* include; *srothorodha* (obstruction of channel), *balabramsa* (loss of strength), *gaurava* (heaviness of body), *anilamoodatha* (blockage in the function of *vayu*), *alasya* (laziness), *apakti* (indigestion), *nishteeva* (spitting continuously), *malasanga* (constipation), *aruchi* (loss of appetite), and *klama* (weakness)¹⁹.

According to *Gadanigraha*, *suddha* or *amayuktavayu* in *kati pradesa* causes *katigraha*. The pain in *katigraha* is due to inflammatory changes occurring in the *kati pradesha*. Inflammation is defined as the local response of living mammalian tissue to injury due to any agents such as infective, immunological, physical, chemical and inert agents²⁰. Inflammation involves two basic processes; early

inflammatory response followed by healing. There is pain and swelling in *kati pradesa* and the *pradesa* may be joint, muscle, tendon or fascia where *sleshmadhara kala* is located. In such places, *ama* accumulation and give rise to pain and swelling locally. The accumulation of *ama* may cause *srothorodha* (obstruction of channels) which in turns causes obstruction in the route of *vata* leading to *vatakopa* that result in pain and the *amayukta vata* is unable to perform its normal functions. So the line of treatment in *katigraha* starts with *agnideepana* and *amapachana*.

The main seat of *Apana vata* is *pakvasaya*. *Pakvasaya* is the place of the gastrointestinal system, where the *kittabhaga* (end product of digestion) is lodged at the end of digestion, to be transformed into *pureesha* by *pureeshadharakala* of *koshta*. *Gandharvahasthadi kashayam* is *agni deepana* in action and thereby does *amapachana*. It imparts *ruche* (taste), relieves *mala sanchaya* and normalizes the aggravated *apana vata*. Being in *pakvasaya*, *Apana vata* is also in connection with other subtypes of *vata*. Therefore, any qualitative or functional change in its area as well as in other subdivisions may lead to the vitiation of *pakvasaya* as well as *Apana vaigunya*.

Vata possesses the unique quality *chala*, which is responsible for the movement of other *doshas* and *dhatus* to their destiny through the *srothas*. When *vata* gets aggravated due to *vatakopa nidanas*, the *chalaguna* gets vitiated and results in the *prathilomagathi* of *vata*. *Gandharvahasthadi kashayam* which is *vata samana* in nature acts on aggravated *vata* which is present in the gastrointestinal system and corrects the *prathilomagathi* of *vata*. The treatment of *apana vata* means to treat all other types of *vata* as a whole.

Research has proved that all the ingredients of *Gandharvahasthadi kashayam* have a significant effect on gastro gastrointestinal system. *Gandharvahasthadi kashayam* first ignites digestive power and does *amapachana*.

DISCUSSION ON APANA VAIGUNYA

The p-value of *Apana vaigunya* before the trial was not statistically significant and the p-value of *apana vaigunya* after the trial and during follow-up was 0.002, which is statistically significant. It shows that there is a significant reduction in symptoms of *apana vaigunya* when treated with *Gandharvahasthadi kashayam* for two weeks.

Effect of intervention in Apana vaigunya

The main seat of *Apana vata* is *pakvasaya*. From this place, *Apana vata* keeps control over the *karmas* happening in other *sthanas* of *Apana*. Being in *pakvasaya*, *Apana vata* is also in connection with other subtypes of *vata*. *Gandharvahasthadi kashayam* is a combination of 8 drugs

and *guda* and *saindava* has to be taken as *anupana*. It alleviates *vata*, ignites *agni*, imparts taste, and expels *malas*. It also removes the *malasanchayam* (accumulated toxins) and corrects the *prathiloma gathi* of *vata*. *Vata prathilomatha* accounts for different diseases. Once the *prathiloma gathi* gets corrected, the *vata* starts moving in its normal direction. Also, *Gandharvahasthadi kashayam* is *vata samana* in action. All these properties of *Gandharvahasthadi kashayam*, it relieve pain in *katipradesa* and *Apana vaigunya*, which is caused due to aggravated *vata*.

Limitations

The sample size was 14. It may get better results with an increased sample size

The duration of the intervention including trial and follow up was only one month. It may get better results with increased duration.

Conclusion

In patients of *Katigraha*, *Apana vaigunya* was invariably noted. Keeping in view, the *anulomaka* formulations like *Gandharvahasthadi kashayam* may be conveniently useful in treating *Apana vaigunya* in any of *vatavyadhis*.

References

1. Acharya Susruta. *SusruthaSamhitha* (vol 2). Translated by P. V. Sharma. Varanasi: ChaukambhaVisvabharathi; 2013 reprint. *Nidana* 1/19, *Vatavyadhinidanam*; p. 6.
2. AcharyaAgnivesa. *CharakaSamhitha* (vol 5). 2 Ed. Translated by Ram Karan Sharma, Bhagwan Dash. Varanasi: Chaukambha Sanskrit series; 2001. *Chikitsa* 28/19; p. 21.
3. Constipation, diarrhoea. <http://www.niddk.nih.gov/health-information/digestive-diseases> (accessed 12/6/2020).
4. AcharyaShodala. *Gadanigrahavidhodhinivyakhya*(vol 1). Translated by IndradevTripathi, Varanasi: chaukambha Sanskrit sansthan; reprint 2005. *KayachikitsakhandaVatavyadhidhikitsa* 16/160; p. 508
5. S H Ralston, I B McInnes. Rheumatology and bone diseases. Brian R Walker, Nicki R Colledge, Stuart H Ralston, Ian D Palman. Davidson's Principles and practise of Medicine, 22 ed. United States: Churchill Livingstone Elsevier; 2014. pp. 1072
6. Mathew AC, Safar RS, Anithadevi TS, Banu MS, Ravi Shankar SL, Rai BD, Chacko TV. The prevalence and correlates of low back pain in adults: A cross-sectional study from Southern India. *Int J Med Public Health* 2013;3:342-6
7. Krishnan vaidyan K V, Gopalapillai S. *Sahasrayogam*. 24 Ed. Aleppy: VidyarambhamPulishers; 2002. p. 78
8. Acharya Vagbhata. *AshtangaHridaya* (Vol 1). 10 ed. Translated by K.R. Srikanta Murthy, Varanasi: ChowkhambaKrishnadas Academy; 2014. Sutra, *Doshopakramaneeya*8/25; p. 187.
9. P K Warriar, V P K Nambiar. *Indian Medicinal Plants* (Vol 5). Chennai: Orient Longman Private Limited; 2002 reprint. p. 1.

10. P K Warriar, V P K Nambiar. Indian Medicinal Plants (Vol 3). Chennai: Orient Longman Private Limited; 2002 reprint. p. 162.
11. Hemant Vinze M. S. Pharmacology of Chitraka (*Plumbago zeylanica*). https://drvinze-drvinze.blogspot.com/2018/08/pharmacology-of-chitraka-plumbago_21.html .(accessed 5/04/20).
12. Nikkiah Bodagh, M., Maleki, I., & Hekmatdoost, A. (2018). Ginger in gastrointestinal disorders: A systematic review of clinical trials. *Food science & nutrition*, 7(1), 96–108. <https://doi.org/10.1002/fsn3.807>
13. P K Warriar, V P K Nambiar. Indian Medicinal Plants (Vol 5). Chennai: Orient Longman Private Limited; 2002 reprint. p. 431.
14. P K Warriar, V P K Nambiar. Indian Medicinal Plants (Vol 1). Chennai: Orient Longman Private Limited; 2002 reprint. p. 281.
15. P K Warriar, V P K Nambiar. Indian Medicinal Plants (Vol 1). Chennai: Orient Longman Private Limited; 2002 reprint. p. 281.
16. P K Warriar, V P K Nambiar. Indian Medicinal Plants (Vol 5). Chennai: Orient Longman Private Limited; 2002 reprint. p. 304
17. Soumya P Viswan. *Development of an assessment tool for Vataprathilomatha in Koshta with special reference to Arsas*. Kannur; 2013. p. 136.
18. *Acharya Vagbhata. AshtangaHridaya* (Vol 1). 10 ed. Translated by K.R. Srikanta Murthy, Varanasi: Chowkhamba Krishnadas Academy; 2014. Sutra, *Doshopakramaneeya*8/25; p. 187.
19. *Acharya Vagbhata. AshtangaHridaya* (Vol 1). 10 ed. Translated by K.R. Srikanta Murthy, Varanasi: Chowkhamba Krishnadas Academy; 2014. Sutra, *Doshopakramaneeya* 13/23-24; p 187.
20. Harsh Mohan. *Textbook of Pathology*. 6 Ed. New Delhi. Jaypee Brothers Medical Publishers (p) Ltd; 2010. p. 130.

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