

A PHYSIOCLINICAL STUDY OF CERTAIN AAHARA DRAVYAS ON ATIKRISH PURUSHA

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ABSTRACT

Introduction: Atikrish is also an important condition which is mainly overlooked and one only talk about the Atisthaulya condition. It is rarely listed among diseases. In the present era of advancement of electronic appliances people are becoming more lazier towards food and following faulty food habits by taking fast food, cold drinks, alcohol and fatty diets. This type of diet has improper nutrition and so the proper development lacks. According to Acharya Charaka, Atikrishta occurs due to indulgence in vataja aahara-vihara. Hence by applying samanya vishesha siddhantha, a person must use dravyas which are predominantly kaphavardhak. **Objectives:** According to

samanya vishesha siddhantha, the present study “A PhysioClinical Study of Certain Aahar Dravyas On Atikrish Purusha” certain aahara dravyas in the form of Mashadi Modaka (Masha, Nawashali, Mradwika/Munnaka, Kharjura, Narikela Gur/jaggery, Dugdha.) as diet supplement with pathya-apathya has been carried out to evaluate the effect of these dravyas in Atikrish awastha. These aahara dravya show their effect through their Rasa, Guna, Virya, Vipaka, Prabhava and Panchbhautikatva. **Method:** In the clinical study, the effect of Mashadi Modaka on Atikrishta has been assessed. For this purpose, the study was conducted after careful clinical history, examination and laboratory investigations as per proforma, volunteers were selected and screened for their suitability of getting enrolled in this trial as per specific inclusion and exclusion criteria. Aahara dravyas were given to subjects in the form of

Mashadi Modaka (50 gm. twice a day) for 90 days carried out on total 55 healthy subjects. Volunteers were of age group 20-45 years. **Results:** Given Aahara dravyas found to beneficial and promising results were noticed in subjective and objective parameters of subjects. Synergistic action of all ingredients of madhur, sheet, snigdha and guru ahara are vata pitta hara and kapha vardhak. These aahara dravyas also show Balya, Brimhana, Jivaniya and santarpana effect. **Conclusion:** The results found were highly significant and further studies can be performed taking a large sample size so that more accurate results can be seen and Atikrishata can be treated with Ayurvedic Aahra dravyas (Mashadi Modaka) only and not medicines.

KEYWORDS: *Atikrishata, Balya, Brimhana, Jivaniya, Santarpana, samanya-vishesha.*

INTRODUCTION

Every science proceeds on its own principle. Ayurveda is also a science of Ayu meaning life. It is well known that centuries ago in ancient India, medical treatment and concept of health was very advanced. Vedas are the oldest manuscript in the world and veda means knowledge or science. Thus, Ayurveda describes the methods to remain healthy and to treat diseases. In the present era of civilization, a person is not aware towards his ideal health because he is busy to achieve physical pleasure as early as possible. Due to change in life style, faulty diet pattern and decrease interest in the exercise the incidence of Atikrishta increases day by day in our society. India in ranking 1 under weight people as comparative number 5 in overweight people. Little wonder the United Nation special reporter on the right to food, Jean Zeigler, raised the alarm to the U.N. Human Right Council in a September 2006 report titled "The Extent of Chronic Hunger and Malnutrition in India". Ziegler says his report was motivated by the fact that India has the largest number of under nourished people in the world and one of the highest level of child. It is the most widespread health and nutritional problem in developing countries.

Out of astha nindit purusha, Atikrish is also an important condition which is mainly overlooked and one only talk about the Atisthaulya condition. It is rarely listed among diseases. In the present era of advancement of electronic appliances people are becoming more lazier towards food and following faulty food habits by taking fast food, cold drinks, alcohol and fatty diets. This type of diet has improper nutrition and so the proper development lacks. Atikrish is a condition which involves insufficient supply of nutrients to dhatus in any stage of life. Acharya Charaka has described the role of Agni in dashvidha

pariksha in Charaka vimana sthanam chapter 8 and has also described its importance in Grahini addhaya of Charaka chikitsa chapter 15. Due to disturbances in Agni, the digestion and assimilation of food will be improper which will lead to lack of nutrition and can also lead to Atikrishta. According to Acharya Charaka, in cases where lakshana of disease manifest independently, then it considered as a separate disease and when the lakshanas appears as a part of disease then they are not considered as an independent disease. In the present study Karshya is not a complication of any disease nor a cause of any diseased condition. It may be said that a lean and thin looking person having no other complaint may be taken as Karshya. If Karshya persist for a longer period than it may lead to Atikarshya. Karshya represents a Mild to severe form of Malnutrition.

MATERIAL AND METHOD

The ethical clearance for the study was obtained from the institutional ethical committee (No.IEC/AYM/075/2018). For clinical study the healthy subjects were selected. The health of the subjects was assessed by knowing their past, present, family and personal history and by the thorough examination. An informed consent form was signed by all the subjects. The subjects were advised to take Masadi Modaka for a period of three months. The study was carried out on total 55 healthy subjects. The subjects were between the age group 20-45 years. The subjects below 20 years and above 45 years were excluded.

Subjects were taken for a clinical trial for a period of three months and advised to take Masadi Modaka. The volunteers were selected from the OPD/IPD of State Ayurvedic College and Hospital, Lucknow. The volunteers were selected on the basis of B.M.I., anthropometric measurements and the clinical features of Atikrishta given in various Samhitas.

PARAMETERS MEASURED

1. Weight (Kg)
2. Height (meters)
3. BMI measurement (weight in kg / height in meters²)
4. Anthropometrics measurement (cm)

INVESTIGATIONS

- Blood Examination

Hb%, TLC, DLC, ESR, LFT (Liver function test) Blood sugar (Fasting and Post Parential) (if required) Thyroid Profile (T₃, T₄, TSH,) (if required), Montoux test (if required).

- Urine Examination: Routine, Microscopic

Criteria for Examination

1. Subjective Criteria: -SYMPTOMS OF ATIKRISH

- Shushasphigudargreeva (Emaciated buttock, abdomen, neck)
- Dhamni Jalsantata (Prominent vascular network)
- Ksham Swar (Weak voice)
- Vatagadatur (suffering from vataja vikaras)
- Usnasheetashaishnuta (Intolerance to heat and cold)
- Atisauhityasahishunata (Intolerance to excessive food intake)

2. BMI (Body Mass Index)

BMI	WHO Classification	Description
<18.5 kg / m ²	Underweight	Thin
18.5-24.9 kg /m ²	-----	Healthy, Normal
25.0-29.9 kg /m ²	Grade 1 overweight	Overweight
30.0-39.9 kg/m ²	Grade 2 overweight	Obesity
≥ 40.0kg/m ²	Grade 3 overweight	Morbid Obesity

B.M.I. = Weight (Kilogram)/metre² Method of preparation of trial aahara dravya

Modaka Matra: 25 gm (Two *modakas* are given two times with 250 ml milk for three months.)

Masha - 4 gm

Nawashali - 4 gm

Prakshepa dravya (Mradwika Narikela Kharjura) & 2.5 gm + 2.5 gm + 2.5 gm = 7.5 gm

Gur = 10 gm

Total quantity & 25.5 gm i.e. 25gm

All the above mentioned aahara dravyas are taken in equal parts & powdered first. Then they were mixed well and the binding agent was gura/ jaggery and ghrīt. And prakshepa dravyas added in the churna. The each modaka was prepared weighing was 25 gms.

RESULTS

Table no 1: Distribution according to Age.

Age	No.	%
< 25 yr	15	30.0
26 -35 yr	24	48.0
36 -45 yr	11	22.0
Total	50	100.0

Table No.1 shows that maximum number of patients were of the age 26 – 35 years followed by the age group ≤ 25 years in with 30.0% patients belonging in it.

Table no. 2: Distribution according to Sleep.

Sleep	No.	%
Disturbed	23	46.0
Poor	14	28.0
Sound	13	26.0
Total	50	100.0

Table no.2 shows that Disturbed sleep was found in 46% of cases poor sleep in 28% and sound sleep in 26% cases.

Table no. 3: Distribution according to Aahar Shakti.

Aahar shakti	No.	%
Good	13	26.0
Medium	24	48.0
Poor	13	26.0
Total	50	100.0

Table no. 3 shows that 26% cases has good aahar shakti whereas 48% caese were having medium aahar shakti.

Table no. 4: Effect of Treatment on Quantitative Parameter “Weight”.

Parameter	Time	Mean	SD	%change	t-value	p-value
Weight	BT	50.38	6.36	6.95	-12.18	<0.001
	AT	53.88	6.27			

Table no.4 shows that after the treatment 6.95% change was found in mean weight. This change was found to be highly significant ($p < 0.001$).

Table no. 5: Effect of Treatment on Quantitative Parameter ‘B.M.I.’

Parameter	Time	Mean	SD	%change	t-value	p-value
B.M.I.	BT	17.24	0.84	7.33	-12.39	<0.001
Kg/m ²	AT	18.51	0.89			

Table no.5 shows that After the treatment 7.33% change was found in mean BMI. This change was found to be highly significant ($p < 0.001$).

Table no. 6: Effect of Treatment on Quantitative Parameter 'MUAC'.

Parameter	Time	Mean	SD	%change	t-value	p-value
MUAC	BT	28.58	2.48	11.48	-31.79	<0.001
	AT	31.86	2.62			

After the treatment 11.48% change was found in mean MUAC. This change was found to be highly significant ($p < 0.001$).

Table no. 7: Effect of Treatment on Quantitative Parameter 'Chest Circumference'.

Parameter	Time	Mean	SD	%change	t-value	p-value
Chest circum.	BT	85.96	5.55	4.89	-25.21	<0.001
	AT	90.16	4.88			

After the treatment 4.89% change was found in mean Chest circumference. This change was found to be highly significant ($p < 0.001$).

Table no. 8: Effect of Treatment on Quantitative Parameter 'Waist Circumference'.

Parameter	Time	Mean	SD	%change	t-value	p-value
Waistcircum.	BT	82.46	2.30	6.52	-41.20	<0.001
	AT	87.84	2.40			

After the treatment 6.52% change was found in mean Chest circumference. This change was found to be highly significant ($p < 0.001$).

Table no. 9: Overall effect of Treatment on Quantitative Parameters.

Parameter	Time	Mean	SD	%change	t-value	p-value
Weight	BT	50.38	6.36	6.95	-12.18	<0.001
	AT	53.88	6.27			
BMI	BT	17.24	0.84	7.33	-12.39	<0.001
	AT	18.51	0.89			
MUAC	BT	28.58	2.48	11.48	-31.79	<0.001
	AT	31.86	2.62			
Chest circum.	BT	85.96	5.55	4.89	-25.21	<0.001
	AT	90.16	4.88			
Waist circum.	BT	82.46	2.30	6.52	-41.20	<0.001
	AT	87.84	2.40			

Table no. 10: Before and After Treatment comparison of Hb values Among the Subjects.

Parameter	Time	Mean	SD	t-value	p-value
Hb%	BT	11.99	1.38	4.838	<0.001
	AT	12.46	1.08		

DISCUSSION

- Karshya is an Aharadoshaj vyadhi, Alpaashana and vishamasana are main responsible factors of Karshya. In Ayurvedic text books Acharya have described that katu, tikta and kasaya rasas are responsible to produce karshya. The etiological factors of karshya are indulgence in vata prakopaka aahara vihara, fasting, grief etc. The person who continuously takes Vata increasing diet leads to deficient formation of rasa dhatu. This deficient rasa provides poor nourishment to the person. All these above condition causes excessive emaciation.
- **Acharya Charaka-** The over lean does not tolerate physical exercise, over saturation, hunger, thirst, disease and drugs and also too much cold and heat. The over lean is the person who has dried up buttock, abdomen and neck, prominent vascular network; only remnant of skin and bones and thick nodes.
- Karshya is an Aptarpanajanya and Vata Pradhan vyadhi, mainly occurring due to Dhatukshaya. So as general line of treatment, Laghu santarpana Ahar including madhur, amla, lavana rasa. As specific line of treatment all the Acharyas observed importance of Brimhana therapy.
- Madhur rasa increases all dhatus, ojas, semen, hair and complexion, promotes strength and union, normalize blood and rasa, is wholesome for children, old people and patient wasted due to chest wound, mostly liked by bees and ants, pacifies thirst fainting and burning sensation. Pleases six indriyas and increases kapha.
- Maximum number of subjects i.e. 54% individuals were having mixed diet and remaining 46% was having pure vegetarian diet. As the patients were randomly selected no inference can be drawn out.
- Maximum numbers of subjects i.e. 46% individual were having disturbed sleep. Disturbed sleep is mainly due to Vata Dosha dominance and 28% individuals were having poor sleep it also mainly due to vata dominance and remaining 26% individuals were having sound sleep. Due to disturbed sleep and poor sleep the individual felt lethargy and were not able to take their food in time due to indigestion.
- Mashadi modaka which contain Masha, Nawashali, Draksha, Narikela, Kharjura and

Gura are given for trial because all these are Madhura Rasa, Guru Snigdha in Guna, Madhur Vipaka and Sheeta Virya, which balances Vata-pitta and increases Kapha. All these properties are responsible for Balyavardhak, rejuvenating, digestive and santarpan.

- Before giving the ahar dravyas the mean of average weight score was 50.38 ± 6.36 which was increased to 53.88 ± 6.27 after giving the mashadi modaka. According to Wilcoxon signed Rank test, the increased in mean weight score was highly significant ($p < 0.001$).
- Before giving the ahar dravyas the mean of average BMI score was $17.24 \pm .84$, which was increased to $18.51 \pm .89$ after giving the treatment. According to Wilcoxon signed Rank test, the increased in mean BMI score was highly significant ($p < 0.001$).
- Increase in weight due to Madhur Rasa, Guru Snigdha Guna and other Kaphavardhak property of Ahar Dravyas. These Ahar Dravyas also have Balya, Brimhana, Jeevaniya and Vatashamak property. Also, it may be due to acceleration of the body growth as a result of Brimhana, snigdha, Deepana and anabolic effect of mashadi modaka. Also, modaka was given with shunthi sadhit milk i.e. with Deepan – pachan dravya, attributed to Agnideepana and dhatuposhana effect. When weights of subjects were increased it also causes increases in BMI of subjects.
- Before giving the ahar dravyas the mean of Mid Upper Arm Circumference score was 28.58 ± 2.48 , which was increased to 31.86 ± 2.62 after giving the treatment. The mean of chest circumference score was 85.96 ± 5.55 , which was increased to 90.16 ± 4.88 after giving the mashadi modaka. According to Wilcoxon signed rank test, the increased mean chest circumference score was highly significant ($p < 0.001$).
- All volunteers were treated with Madhur, Sheeta, Snigdha and guru Aahara dravyas in the form of modaka (Mashadi modaka). In Ayurveda the action of Aahara Dravyas is determined on pharmacodynamic actions as rasa, guna, veerya and vipaka along with certain specific properties called Prabhava (karma). These Ahara dravyas in combination act as antagonist to the main morbid factor that is dosha and dushtya to cause samprapti vighatana to all of the symptoms of disease.
- There are 7 contents in the mashadi modaka which are following Masha, Nawashali, Munnaka, Kharjura, Narikela, and Dugdha. All the components of Mashadi modaka are Guru, Snigdha guna, Madhura rasa and Madhura Vipaka which are vata shamaka. Other properties are Balya (Munnaka, Kharjura, Narikela), Brimhana (Nawashali, Masha, Kharjura, Munnaka, Narikela), Jeevaniya (dugdha), Rasayana (dugdha).
- Due to all these properties, used in kshaya, Shosha, Daurbalya, Dhatuvaradhan. The Srotoshodhaka property of yoga helps in clearance of channels and improves the

circulation of Dhatus and indirectly helps in nourishment of dhatus means responsible for Uttrottar Dhatu Poshana. Vatanulomaka property of this yoga that is sunthi sadhit milk helps in balance and maintenance of Agni and ultimately causes Samyak Aaharapak. Vrishya property helps in triglycerides synthesis which is Dehavridhikara Bhava. On the other hand, Guru Sheeta Snigdha and Mridu Gunas are directly responsible for Brimhana effect in the body. Rasayana property improves general health and immunity. Jivniya property maintains equilibrium Dosha, Dhatu and Malas.

- Before and after trial comparison of Hb values, increased after treatment but the values of TLC, DLC and ESR was found insignificant.

CONCLUSION

Given Aahara dravyas found to be benefecial and promising results were noticed in subjective and objective parameters of subjects. Synergistic action of all ingredients of madhur, sheet, snigdha and guru ahara are vata pitta hara and kapha vardhak. These aahara dravyas also show Balya, Brimhana, Jivaniya and santarpana effect.

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