Research Article

CLINICAL EVALUATION OF *PANCHKOLAPHANT* IN THE MANAGEMENT OF *MANDAGNIJANYA STHAULYA* WITH SPECIAL REFERENCE TO OBESITY

Gupta Twinkle[1]*, Kaur Jagmeet[2], Sharma Shamma[3], Neerajbala[4], Kapoor Ekta[4]

*[1]Associate Professor, P.G. Dept. of Kaya Chikitsa, [4]P.G.Scholar, Jammu institute of Ayurveda and Research, Jammu and Kashmir.

[2]Assistant Professor, Dept. of Swaathavrutta, Jammu institute of Ayurveda and Research, Jammu and Kashmir.

[3]Assistant Professor, Dept. of Agadtantra, Jammu institute of Ayurveda and Research, Jammu and Kashmir.

ABSTRACT

Obesity is one among the major diseases of modern era, increasing in prevalence. The Word Health report of W.H.O. listed Obesity under 10 top selected risks to the health. *Sthaulya* (Obesity) is well known from the *Samhita* period and is considered to be one of the eight undesirable conditions (*Ashta Nindita*). It can be caused due to *Mandagni* as *Agni* is considered to be responsible for metabolism. Thus, *Ama* formed moves within body, further causing *Medovruddhi,* which produces excessive stoutness. According to modern science, one of the causes for obesity is sedentary lifestyle, where there is more intake of junk food and less physical activity. This also signifies in increased BMI, further leading to obesity. In order to treat this problem, 30 patients of *Sthaulya* were registered to evaluate *Sthaulya* management with *Panchakola Phant. Panchakola Phant* containing *Shunthi, Pippali, Pippalimula, Chavya, Chitrak*; being *Katu Rasaatmak* helps in digestion and removal of *Ama* from body and further helps in management of *Meda Dhatu Dushti.* Patients were assessed on the basis of signs and symptoms before starting the treatment and administered *Panchakola Phant.* Duration for treatment was 3 months and patients were regularly followed up after 1 month to evaluate the clinical effects of the trial drug.

Key words: *Sthaulya*, Obesity, *Mandagni, Panchkola Phant.*

INTRODUCTION

Ayurveda is set to be the most ancient of medical sciences. *Ayurveda* stands apart from the rest of medical fraternity with its holistic approach to disease management on basis of five elements (*Panchamahabhutas*) and then we constitute the *Tridoshas* that governs our health. *Sthaulya* (Obesity) is one among the major diseases of Modern era. In Modern era with continuous changing life styles and environment, changed dietary habits, man has become the victim of many disease caused by unwholesome dietary habits and Obesity is one of them. Obesity is the only one disease, which is gaining more and more attention of scientists at global level. Many institutions and Medical schools are making efforts to find a perfect remedy for this burning problem. The Obesity is such a physical state where Hypertension, Osteoarthritis, Diabetes Mellitus, Cardio Vascular accidents impotency and many other grave complications are invited.

Ajirna and *Agnimandya* are considered to be the main causes that are responsible for the occurrence of digestive problems, that further lead to disturbed metabolic rate. *Mandagni* could be at the level of *Jathragni* or *DhatwagniJanya*.

According to *Sushruta Ama Rasa* is produced due to *Kaphavardhakaahara*, *Adhysana, Avyayama, Divaswapana*. The *Madhura Bhava Ama Rasa* moves within the body, *Snigdhansha* of this *Anna Rasa* causes *Medovruddhi* and make the person obese[1].

Sthaulya is considered to be caused due to *Meda Dhatu-Dushti*[2]. *Sthaulya* has been mentioned under '*AshtaninditaPurusha*'[3].

So in order to treat *Sthaulya*, *Agni Deepan* and *Amapachan* is required and it is an attempt to do so with *Panchakola Phant*. *Panchakola* contains *Shunthi, Pippali, Pippalimula, Chavya, Chitrak. Panchakolachurna* with *Usnodaka* is indicated in *Mandagni* and *Ama-kafajvikar* in *Amavata-chikitsa* in *Yog* ratnakar[4]. Although it is not directly indicated in *Sthaulya* but being indicated for *Mandagni* and *Amadoshas*, may help in management of *Medo-dushti.*

AIMS & OBJECTIVES

To study the efficacy of *Panchakola Phant* in *Mandagni-janya Sthaulya* (Obesity).

MATERIALS AND METHODS

Patients will be selected from OPD and IPD of *Kayachikitsa* Dept. of Jammu Institute of Ayurveda and Research Hospital, Jammu.

2. Inclusion Criteria:

- Classical subjects of *MandagniJanya Sthaulya*.
- Age group: 20-50 yrs
- Patients of both sexes will be selected

3. Exclusion Criteria

Following are the criteria to exclude the patients from the study:

- Hypertension
- Coronary Heart Disease
- Heart Attack
- Cancer
- Renal failure
- Gall bladder disease
- Diabetes
- Atherosclerosis
- Menstrual abnormalities in females
- Pregnancy complications
- Weight related musculoskeletal disorders like back ache, osteoarthritis etc.
- Stress etc.

4. Criteria of Assessment

Parameters		Scoring
1) Chala Sphika Udara Stana		
a. Absence of *Chalatwa*	:	0
b. Little visible movement after fast movement	:	1
c. Little visible movement after moderate movement	:	2
d. Movement after mild movement	:	3
e. Movement even after changing posture	:	4
2) Alasya/ UtshahaHani		
a. No.	:	0
b. Doing work satisfactory with initiation late in time	:	1
c. Doing work unsatisfactory with lot of mental pressure & late in time	:	2
d. Not starting any work in his own responsibility, doing little work very slow	:	3
e. Does not have any initiation & not wants to work even after pressure	:	4
3) Daurbalyata (Alpa Vyayam)		
a) Can do routine exercise	:	0
b) Can do moderate exercise without difficulty	:	1
c) Can do only mild exercise	:	2
d) Can do only mild exercise with very difficult	:	3
e) Can do even mild exercise	:	4
4) Nidradhikya		
a) Normal sleep 6-7 hrs/ day	:	0
b) Sleep upto 8hrs / day with *Anga Gurav*	:	1
c) Sleep upto 8hrs / day with *Anga Gurav & Jrimbha*	:	2
d) Sleep upto 10hrs / day with *Tandra*	:	3
e) Sleep upto 10hrs / day with *Tandra & Klama*	:	4
5) Daurgandhata		
a) Absence of bad smell	:	0
b) Occasionally bad smell limited to close areas difficult to suppress with deodorants	:	1
c) Persistent bad smell felt from long distance is not suppressed by	:	2

deodorants

d) Persistent bad smell felt from long distance even Intolerable to the : 3
patient himself

6) Atipipasa

a) Normal thirst : 0
b) Upto 1 lit excess intake of water : 1
c) 1 to 2 lit excess intake of water : 2
d) 2 to 3 lit excess intake of water : 3
e) More than 3 lit intake of water : 4

7) Atikshuda

a) Unwilling for food but could take the meal : 0
b) Willing towards only most liking food & not to others : 1
c) Willing towards only one among *Katu/ Amla / Madhura* food stuffs : 2
d) Willing towards some specific *Ahara / Rasa Vishesa* : 3
e) Equal willing towards all the *Bhojjayapadartha* : 4

8) Alpa Vyanvayu

a) Unimpaired libido & sexual performance : 0
b) Decrease in libido but can perform sexual act : 1
c) Decrease in libido but can perform sexual act with difficulty : 2
d) Loss of libido & cannot perform sexual act : 3

Objective Parameters:

- BMI Measurement
- Body weight evaluation.
- Lipid profile test.

Drug Design

Sample size	40 patients
Medicine	*Panchakola Phant*
Dose	40ml prepared from 5gm of *Panchakola Churna*
Duration	90 days
Follow up	1 month

RESULTS

Effect of *Panchkola Phant* on Weight of 40 patients of *Sthaulya*

Weight	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Weight (kg)	72.5	67.75	4.75	6.55	2.12	0.33	4.16	<0.001	39

In 40 patients, before administration of *Panchkola phant*, the mean score of weight was 72.5kg, which was brought down to 67.75 kg after the treatment with 6.55 % of relief showed statistically highly significant (P<.001) result. The change in weight was statistically significant with "t" value being4.16 for 39 df at 1% level of significance. Here p<0.001 which indicate that the drug has significant role on weight**.**

Effect of *Panchkola Phant* on B.M.I. of 40 patients of *Sthaulya*

B.M.I.	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
B.M.I	30.35	28.66	1.69	5.56	3.005	0.47	3.54	<0.001	39

In 40 patients, before administration of *Panchkola phant*, the mean score of B.M.I was 30.35 before treatment, which was brought down to 28.66 kg/m² after administration of drug with 5.56 % relief reported with the statistically highly significant (P<0.001) result. The change in B.M.I was statistically significant with "t" value being 3.54 for 39 df at 1% level of significance. Here p<0.001 which indicate that the drug has significant role on B.M.I.

Effect of *Panchkola Phant* on symptom

Symptoms	Mean		Mean Diff.	Mean %	N	S.D.	S.E.	t value	p value	Df
	B.T.	A.T.								
Anga Chalatva	2.0	2.05	0.75	26.78	40	0.49	0.07	9.61	<0.001	3 9
Daurbalyata	2.58	1.73	0.85	32.94	40	0.62	0.09	8.64	<0.001	39
Utsaha Hani	2.85	1.71	1.14	40	40	0.64	0.10	10.98	<0.001	39
Daurgandhata	1.45	0.47	0.98	67.58	40	0.52	0.08	11.13	<0.01	39
Alpa Vyavaya	1	0.52	0.48	48	40	0.50	0.08	5.94	<0.001	39
Ati Pipasa	0.5	0.17	0.33	66.00	40	0.47	0.07	4.33	<0.001	39
Ati Kshudha	3.1	2.12	0.98	31.61	40	0.66	0.10	9.34	<0.001	39
Nidradhikya	2.95	2.02	0.93	31.52	40	0.52	0.08	11.13	<0.01	39

Effect of *Panchkola Phant* on Biochemical Parameters of 40 Patients

Biochemical Parameters	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. cholesterol	182.83	175.9	6.93	3.79	20.74	3.28	2.10	=0.04	39
S. Triglyceride	206.86	182.8	24.06	11.63	11.42	1.80	13.31	<0.001	39
HDL	45.35	42.52	2.83	6.24	6.29	0.99	2.68	=0.4	39

In 40 patients, before administration of *Panchkolaphant*, the mean of S.Triglycerides was 206.86 before treatment, which was brought down to182.8 after administration of drug with 11.63 % relief reported with the statistically highly significant (P<0.001) result. The change in S.Triglycerides was statistically significant with "t" value being 13.31 for 39 df at 1% level of significance. Here p<0.001 which indicate that the drug has significant role on S.Triglycerides.

CONCLUSION

In *Ayurvedic* treatise, we do not get direct reference of *Mandhagnijanya Sthaluya* but since the pathology of *Sthaulya* goes in a way that it is caused due to the manifestation of *Ama* and *Ama* is caused because of *Jatharagni Daubalya*[5], hence here we can conclude that *Sthaulya* is the outcome of *Ama* which is caused due to *Mandagni, Mandagni* could be at the level of *Jathragni* or *Dhatwagni.*

Treatment modalities like *Shamana* therapy with *Panchkola Phant* shows good efficacy in relieving both subjective and objective parameters. This can be attributed to fact that most of the drugs of this formulation are mainly *Ushna Viryatamaka* with *Katu Vipaka* and predominantly *Ushna* and *Tikta Gunas* and possessing *Lekhana, Karshana,* and *Bhedana* properties.

Amongst the biochemical values, besides the HDL, all other values showed reasonable decrease in their respective values. This proves the action of the drug on the lipid profile.

- *Sthaulya* is a *Dushya* Dominant *Vyadhi.*
- *Nidanas* of *Sthaulya* mentioned in classics are now changing. Increasing stress, faulty dietary habits and decreased awareness regarding exercise are becoming the prominent causative factors for *Sthaulya.*
- Thus remaining in the *Kostha Vata* causes *Atikshudha,* this increases gravity of the disease and make the *Sthaulya Krrichhrsadhaya.*
- Obesity occurs more in female than male and specially increases after marriage, light nature of work, use of IUCD, contraceptive pills, after delivery and in menopausal period etc.
- The plus point observed in case of *Ayurvedic* management is absence of any hazardous effect, which is really a great benefit to the patients and is of vital importance in view of the global acceptance of *Ayurveda*.

References

1. Sushrutasamhita, Text with Hindi translation, by Kaviraj Kunjalal Bhishagratna, prologued and edited by Dr.Pranajivan, Chowkhamba Sanskrit Series office, Varanasi (India). Fifth Edition 2007, Sutrasthan15/7, P.62

2. Sushruta samhita, Text with Hindi translation, by Kaviraj Kunjalal Bhishagratna, prologued and edited by Dr.Pranajivan, Chowkhamba Sanskrit Series office, Varanasi (India). Fifth Edition 2007, Sharirsthan 9/13, P.132

3. Charaka Samhita of Agnivesha, Revised by Charaka and Dridhbala, with Ayurveda Dipika commentary of Chakrapanidatta with Vidyotini Hindi Commentary by Pt. Kasinath Shastri, Published by Chaukambha Sanskrit Sansthan, Varanasi. Eighth Edition 2004, Sutrasthan.21/3 P.278

4. Yogaratnakara Vidyotini Hindi commentary by Vaidya SriLaksmipati Shastri, Chaukambha Sanskrit Sansthan, Varanasi. Seventh edition 1999. P.567

5. Ashtanga Hridayam of Vagbhata, edited with Vidyotini Hindi commentary by Kaviraja

Atrideva Gupta, Chukhambha Prakashan, Varanasi. Edition 2009.Nidansthan 12/1 P.358

6. Madhava Nidana of Sri Madhavakara, with Madhukosha Sanskrit commentary by Sri Vijayarakshita and Srikantha Datta, Vidyotini Hindi commentary by Sri Sudarshana Shastri, Chowkhambha Sanskrit Sansthan, Varanasi, reprint Edition 2005, vol.2 34 chapter Medoroganidanam.

7. Dravya Guna Vijnanaby Prof P.V. Sharma, Chaukhambha Bharati Academy, Varanasi. Edition 2000.

8

*Address for correspondence
Dr. Gupta Twinkle
Associate Professor
P.G. Dept. of Kaya Chikitsa
Jammu institute of Ayurveda and Research
Jammu and Kashmir.
Email: drtwinklegupta19@yahoo.co.in