

## A CLINICAL EVALUATION OF TRIPHALADI TAILA ORAL ADMINISTRATION IN THE MANAGEMENT OF STHAULYA (OBESITY)

Dr. Bhagiya Shital G<sup>1</sup>, Dr. Rao Rajdip R<sup>2</sup>, Dr. Mavani Shreeja C<sup>3</sup>

1. PhD Scholar, Dept. of Panchkarma, IPGT and RA, GAU, Jamnagar.
2. PG Scholar, Dept. of Panchkarma, IPGT and RA, GAU, Jamnagar.
3. PG Scholar, Dept of Panchkarma, IPGT and RA, GAU, Jamnagar.

### ABSTRACT

Obesity is not merely a cosmetic problem but a severe threat to health which causes Hypertension, Diabetes Mellitus and Osteoarthritis etc. According to *Ayurveda*, it can be correlated to *Sthaulya*. *Taila pana* have been indicated in the patients of *Sthaulya* by various *Ayurvedacharyas*. In present study *Taila* was selected from *Bhavprakasha Medorogadhikara (Triphaladi Taila)*. All ingredients of *Triphaladi Taila* are having *Ushna, Tikshna* property which helps in removing *meda*. As per Modern science, increase fat consuming increases the bile production. Cholesterol esters of polyunsaturated fatty acids are more rapidly metabolized by liver and other tissues. It suggests that *Sneha* which contains poly-unsaturated fatty acids (*Tila taila*) becomes helpful in reducing *Rasa-Raktagata Meda* (Cholesterol) and when *Rasa-Raktagata Meda* is lowered body starts consuming *meda* which is accumulated in whole body. **Aim:** To Evaluate efficacy of *Triphaladi Taila* in the management of *Sthaulya*. **Materials and Method:** Total 15 patients were registered and treated with *Triphaladi Taila*. Assessment was done based on the subjective and objective parameters after 15 days of treatment. The data obtained in clinical study was analyzed by using Student's "t" test. **Results:** Significant results found in Subjective and Objective parameters i.e. BMI, body circumferences etc. **Conclusion:** *Shamana Sneha (Triphaladi Taila)* is effective therapy in the management of *Sthaulya* (Obesity).

**Keywords:** Obesity, *Shamana Sneha, Sthaulya, Triphaladi Taila*

### INTRODUCTION

Obesity is the modern era disease, which has covered almost all the parts on the globe. It is a disease itself & this disease works as a cause for several other diseases i.e. Diabetes, Heart disease, Stress, HTN, High cholesterol, some types of Cancers which are major health risk. Obesity is the reason for about 80% of Type 2 diabetes, about 70% of cardiovascular disease and 42% of breast & colon cancers<sup>1</sup>. So over all obesity is like a double edged two dec-

ades. The number of overweight children & adolescents has doubled. Lack of physical activities with increased intake of food, industrialization, stress and dietary habits etc. are the causes of obesity<sup>2</sup>. Dietary control, behavioral modification, drug therapy and surgical were the modes in which it is managed in conventional system<sup>3</sup>. In spite of its treatment, the success of treatment is mysterious<sup>4</sup>. At least 2.6 million people each year die as a result of being over-

weight or obese<sup>5</sup>. As per W.H.O., overweight and obesity are the fifth leading risk for global deaths<sup>6</sup>. Obesity can be studied under the heading of *Sthaulya* and it is well described in *Ayurvedic* texts. Disease has been classified under the heading of eight most denounced personalities. *Acharya Sushruta* has clearly mentioned that the disease *Sthaulya* occurs due to defect in *Rasa Dhatu*. But while explaining the pathogenesis clear involvement of *Meda Dhatu* has been mentioned. It is one of diseases where involvement of *Dushyas* is more predominant than the *Doshas*.

**AIMS AND OBJECTIVES:** To evaluate the efficacy of *Shamana Sneha (Triphaladi Taila)* in the management of *Sthaulya* (Obesity).

**MATERIALS AND METHODS:**

**Criteria for selection of the patients:**

- ★ Patients were selected from O.P.D. and I.P.D. of Govt. *Ayurveda* Hospital.

**Inclusion criteria:**

- ★ Patients between the age of 16 – 60 years with sign & symptoms of *Sthaulya* (obesity) were selected.
- ★ Patients having BMI (Body Mass Index) more than 25 and  $\leq 35$  were taken for the study.

**Exclusion criteria:**

- ★ Patients suffering from pulmonary disease, Cardiac diseases, Endocrine disorders, complicated cases were not taken for study.
- ★ Age below 16 years and more than 60 years.
- ★ Patients having B.M.I. more than 35.

**Diagnostic criteria:**

- ★ Classical signs & symptoms of the disease as mentioned in the *Ayurvedic* texts as well as modern medicine books.

**ASSESSMENT CRITERIA:** The effect of therapy was assessed by counting the scores before and after 15 days treatment with both subjective and objective parameters.

**Subjective parameters**

*Bharavridhhi* (Weight Gain), *Chaladarstansaphik* (Flabbiness in Hip-Abdomen-Breast), *Gatragauravata* (Heaviness in whole body), *Ayathopachaya*, *Gatradargandhya* (Foul smell of body), *Atikshudha* (Excessive Hunger), *Atipipasa* (Excessive Thirst), *Kshudrashwasa* (Dyspnoea on Exertion), *Svedadhikya* (Excessive Sweating), *Atinidra* (Excessive Sleep), *Gatrasada*, *Snigdhatrata*, *Alpavyayama* (Inability to bear the strain of Exercise), *Alpavyavaya* (Difficulties In Sexual Intercourse) were given Score according to WHO criteria.

**Objective parameters**

Objective criteria were mainly assessed on the basis of Body weight; BMI, body circumferences, and skin fold thickness before starting the treatment and after completion of treatment were assessed in terms of percentage relief and statistical evaluations.

**Assessment of total effect of therapy**

1. < 25% Relief- Unchanged.
2. 25-50% Relief- Mild improvement.
3. 50-75% Relief- Moderate improvement.
4. >75% Relief- Marked improvement.
5. 100 % Relief- Complete remission.

**DRUG AND POSOLOGY:**

**Shamana Sneha:**

- **Drug:** *Triphaladi Taila* [Table 1]
- **Dose:** 20 ml/day.
- **Anupana:** *Mudag Yusha*.
- **Administration time:** *Annakala Prakankshita* (10:00-1:00 noon)
- **Duration:** 15 days

**Selection of the drug and preparation:**

In the pathology of *Sthaulya*, *Kapha* is main *Dosha* and *Meda* is main *Dushya*, while *Agnimandya* takes place at *Medodhatvagni* level. So, that type of drug/therapy should be selected which have *Kapha* and *Medanashaka* property and have efficacy to correct the function of *Medodhatvagnimandya*. For *Medovridhi*, there are number of formulations & treatment modalities available in *Ayurveda*. *Aacharya Charaka* has indicated *taila* in the management of *sthaulya* in *Snehadhya*<sup>7</sup> *Aacharya Bhavmishra* has clearly mentioned *Triphaladi tailapana* in *Sthaulya*<sup>8</sup> Above sentence mentions that *Triphaladi taila* should be given by any route to the patient of *Sthaulya*. So in another group *Triphaladi Taila pana* was selected. However time for the *Shamana Sneha* was selected as per *Aacharya Charaka* “*Annakala Prakankshati*”<sup>9</sup>

#### RESULTS:

Relief observed in *Bharavridhi* and *Chaludarstanasphik*, no relief was observed, improvement in *Alpavyavaya* which was insignificant. In *Gatragauravata* 74.82% was observed relief observed in *Ayathopachaya* was 52.63%, relief in *Gatradaurgandhya* was 61.54%, in *Atikshudha* relief of 64.17% was observed, in *Atipipasa* 85.47 % relief was observed, improvement in *Kshudraswasa* was 85.71%, in *Swedad-*

#### DISCUSSION:

##### Mode of action of *Shamana Sneha (Triphaladi Taila)*:

First *Taila* reaches up to the cellular level by their *Sukshma Gana*.

*Taila* mixes with the *Dosha* by their *Drava Guna*.

By Virtue of their *Snigdha, Sara, Drava, Guna* they liquefies *Dosha*.

*Ushna Taila* increases *Agni* at all levels and digests the *Ama*.

*Ushna Taila* thus removes the obstruction in *srotas* by digesting the *Ama*.

*hikya* 77.53% relief was observed, relief in *Atinidra* was 45.35%, improvement in *Gatrasada* was 66.66%, Improvement in *Snigdhatrata* was 75.18 %, Improvement in *Alpavyayama* was 72.72 % which was highly significant. [Table 2]

In this study decrease in various body circumference i.e. Neck region, Mid arm, fore arm, Chest, Abdomen, Hip and Mid-thigh and Mid-calf was 2.65 %, 3.28 %, 0.86 %, 1.66 %, 2.57 %, 1.78%, 2.13% and 0.84% respectively circumference. All the results were statistically highly significant (P <0.001), except Mid-calf (P <0.01) and forearm (p>0.05), average 1.97 % reduction was observed in the measurement of different body circumference. In this group 0.64 %, 0.78 %, 0.37 %, 0.43 % and 0.80% reduction was found in biceps, triceps, scapular, abdomen and supra iliac skin fold respectively. All the result was highly significant (p<0.001) except Triceps and Scapular and supra-iliac. Average 0.60% reduction was observed [Table 3]. There was a significant (p<0.05) decrease of 0.99%, 0.94% & 0.75% reported in Weight and BMI [Table 4].

**Overall effect of study:** In this study 73.33% patients had moderate improvement and 26.67% patients had mild improvement while no patients remain unimproved after the treatment. [Table 5]

*Snehana Dravya* decreases the *Vata Dosha* by its *Snigdha Guna*, *kapha* and *Medo dosha* by *kapha-medianashaka Guna* and corrects *dhatvagni* by the *Dravyas* by which, *Sneha* has been *Siddha*.



Thus By controlling the *Vata*, reducing the *kapha-meda* and correcting *Dhatvagni mandhya*-acts on diseases.

*Taila* is having property of *Vata Shamana*. Increased *Vata* plays major role in the aetiopathology of *Sthaulya*. As we know increased *Vata* disturbs the *Agni*, by *Taila pana Vata* comes in its own state and corrects *Agni (Medodhatvagni)* - Main cause of *Sthaulya*. *Taila* acts as good solvent for many metabolic waste products & it enters the cells easily because cell wall is made up of phospholipids. Compared to other non-oily substances, *Taila* etc. fat materials stays in the body for a stipulated period without causing any harm & also possesses better permeability property. According to *Sushruta*, the disease occurs due to dislodgement of vitiated *Doshas* in the channels during their circulation in the body<sup>10</sup>. *Sneha* administered internally reaches to *Srotasa* and acts as a solvent to remove the obstruction by dissolving *Doshas* in it, resulting in the removal of *Srotorodha*, which is one of the important steps in the *Samprapti Vighatana*.

*Shamana Taila* showed better results in reduction of all the parameters. This result may be because of *Shukshma guna* of *Taila*. *Taila* taken orally directly goes to all over body and works and expels *meda* out of body. *Triphaladi taila* was used as *Abhyantara Sneha* during study. *Triphaladi taila* is having base of *Tila taila* and *Tila taila* contains polyunsaturated fatty acid (linoleic acid)<sup>11</sup>. Polyunsaturated fatty acid reduces cholesterol level, Thus *Triphaladi taila* helps in reducing cholesterol level<sup>12</sup>. In-

**Table 1 Contents of Triphaladi Taila**

Sr. N.	Plant Name	Botanical Name	Part
--------	------------	----------------	------

crease sympathetic activity of *ushna dravya* stimulates the process of lipolysis, which accelerates the fat catabolism. It suggests that Increased *Agni* after *Ushna*, and *Ushna Drvyasadhita sneha* reduces *Medo-dhatvagnimandya* and checks the process of *Medovridhi*. It also increases the *Agni* at all levels and digests the *Ama*. Thus, it removes the obstruction in *Strotas*. Hence, the *Sanga* in *Medovaha strots* is removed and *Uttardhatu nirmana* takes place properly. In the *Samprapti* of *Sthaulya*, *Medo-dhatvagnimandya*, *Ama Rasa*, *Kapha-Vata pradhana Tridosha* play an important role, so from above discussion it is well understood that how *Shamana* becomes helpful in *Samprapti Vighatana* of *Sthaulya*. As *Shamana taila* directly removes the *meda* it reduces *Medovaha stroto Dushti*. Relief in *Medovaha Stroto Dushti* leads to relief in *Swedavaha Stroto Dushti* as *Sweda* is the *Mala* of *Meda Dhatu*, Hence this study also showed good result in *Medovaha* and *Swedavaha Srotodushti*.

#### CONCLUSION:

*Sthaulya* is a *Dushya Dominant Vyadhi*. There is an involvement of all the three *Doshas* in *Sthaulya* but the vitiation of *Kapha-Vata* and *Meda* of prime importance. *Shamana Taila* by its own property and because of properties of contents of *Taila* corrects the path of *Vata* and expels out *Kapha* and *Meda* and checks *Medodhavagni Mandhya*. Hence it is effective therapy in *Sthaulya*.

1	Haritaki	Terminalia chebula	1 part
2	Bibhitaki	Terminalia belerica	1 part
3	Aamlaki	Embelica officinalis	1 part
4	Ativisha	Aconitum heterophyllum	1 part
5	Murva	Marsdenia tenacissima	1 part
6	Trivrut	Operculina terpenanthum	1 part
7	Chitrak	Plumbago zeylanica	1 part
8	Vasa	Adhatoda vasica	1 part
9	Nimba	Azadirachta indica	1 part
10	Aargvadha	Cassia fistula	1 part
11	Vacha	Acorus calamus	1 part
12	Haridra	Curcuma longa	1 part
13	Daruharidra	Berberis aristata	1 part
14	Saptaparna	Alstonia scholaris	1 part
15	Guduchi	Tinospora cordifolia	1 part
16	Indravaruni	Citrullus colocynthis	1 part
17	Pippali	Piper longum	1 part
18	Kushtha	Sausurea lappa	1 part
19	Sarshap	Brassica alba	1 part
20	Sunth	Zingiber officinalis	1 part

Table 2: Effect of Therapy in Subjective Parameters. (Paired 't' test)

Variable	Mean		Mean Diff.	% Relief	SD±	SE±	T	P	S
	BT	AT							
Bharavridhi	1.53	1.47	0.066	3.93	0.258	0.066	1.00	0.334	NS
Chalaudarstansphik	1.00	1.00	0.00	0	0.00	0.00	0.00	1	NS
Gatragauravata	1.43	.36	1.07	74.82	.267	0.071	15.0	<0.001	HS
Ayathopachaya	1.90	.90	1.00	52.63	0.00	0.00	+inf	<0.001	HS
Gatradaurgandhya	1.30	.50	.80	61.54	.422	.133	6.00	<0.001	HS
Atikshudha	1.87	1.20	.667	64.17	.488	.126	5.292	<0.001	HS
Atipipasa	1.17	.17	1.0	85.47	0.00	0.00	+inf	<0.001	HS
Kshudrashwasa	1.61	.23	1.38	85.71	.506	.140	9.859	<0.001	HS
Svedadhikya	1.38	.31	1.077	77.53	.277	.077	14.0	<0.001	HS
Atinidra	1.83	1.0	.833	45.35	.390	.112	7.416	<0.001	HS
Gatrasada	1.50	.50	1.0	66.66	0.00	0.00	+inf	<0.001	HS
Snigdhatratra	1.20	0.00	1.20	100	.447	.20	6	0.004	S
Snigdhatratra	1.33	.33	1.0	75.18	0.00	0.00	+inf	<0.001	HS
Alpavyayama	1.10	.300	.800	72.72	.422	.133	6.0	<0.001	HS
Alpavyavaya	1.67	1.00	.67	40.11	.577	.333	2.00	.184	NS

HS-Highly Significant, NS-Non Significant, S-Significant, +inf- infinite

Table 3: Effect of Therapy in Anthropometric Parameters (Paired' Test)

Variable	Mean	Mean	% Relief	SD±	SE±	t Val-	P	S
----------	------	------	----------	-----	-----	--------	---	---

	BT	AT	Diff.				ue		
Neck region	35.13	34.2	.93	2.65%	.88	.22	4.090	0.001	S
Mid Arm	32.6	31.53	1.067	3.28%	.458	.118	9.025	<0.001	HS
Fore arm	23.27	23.07	.20	0.86%	.414	.107	1.87	0.082	NS
Chest	102.4	100.7	1.73	1.66%	.458	.118	14.66	<0.001	HS
Abdomen	101	98.4	2.600	2.57%	.632	.163	15.92	<0.001	HS
Hip	112.5	110.5	2.067	1.78%	.59	.15	13.484	<0.001	HS
Mid-thigh	56.33	55.13	1.20	2.13%	.414	.107	11.225	<0.001	HS
Mid-calf	35.40	35.7	.33	0.84%	.488	.126	2.646	<0.019	S
Biceps	3.12	3.10	0.018	.64%	0.007	0.002	9	<0.001	HS
Triceps	3.063	3.039	0.023	.78%	0.024	0.006	3.704	0.002	S
Scapular	4.014	4.029	-0.015	0.37%	0.129	0.033	-0.462	0.651	NS
Abdomen	3.912	3.895	0.017	0.43%	0.004	0.001	14.66	<0.001	HS
Suprailiac	3.74	3.71	0.022	0.80%	0.021	0.005	4.015	0.001	S

Table 4: Effect of Therapy on Objective parameters- Body Weight and BMI

Parameters	Mean		Mean Difference	% change	S.D.±	S.E.±	't'	p	S
	B.T.	A.T.							
Weight (kg)	80.66	79.86	0.8	0.99 ↓	0.79	0.25	3.21	<0.05	S
BMI (kg/m <sup>2</sup> )	33.553	33.236	0.317	0.94 ↓	0.32	0.10	3.14	<0.05	S

↑-Increase, ↓-Decrease

Table 5: Overall Effect of the Therapy

Effect of therapy	N0. Of patients	%
Complete remission (100%)	0	-
Marked improvement (75-99%)	0	-
Moderate improvement (50-74%)	11	73.33%
Mild improvement (25-49%)	4	26.67%
Unimproved (0-24%)	0	-

## REFERENCES:

1. Harisson's -Principles of Internal Medicine, Braunwald, Kasper et.al.17<sup>th</sup> Edition, New York: McGraw Hill; 2008.
2. Kumar & clark, Clinical Medicine, Obesity 16<sup>th</sup> edition Spain; Elsevier Saunders, 253p.
3. Kumar & clark, Clinical Medicine, Obesity 16<sup>th</sup> edition Spain; Elsevier Saunders, 255-256p.
4. Kumar & clark, Clinical Medicine, Obesity 16<sup>th</sup> edition Spain; Elsevier Saunders, 257p.
5. <http://www.who.int/en/> (Retrieved on 01 July 2012)
6. <http://www.who.int/mediacentre/factsheets/fs311/en/> (Retrieved on 02 June 2016)
7. *Charaka Samhita Sutra Sthana* 13/44-46 - *Ayurveda Dipika* Commentary of Chakrapanidatta, edited by Vaidya Jadavaji Trikamji Acarya, Chaukhamba Sanskrit Sansthana Varanasi, Edition reprint 2011.
8. *Bhavaprakasha Madhya khanda* 39/57-60, Hindi Commentary by Shree Brahma Sankara Mishra,

- Chaukhambha Sanskrit Bhavan, Part-2, Eleventh Edition 2010.
9. Ibidem\* *Charaka Samhita Sutra Sthana* 13/61.
  10. *Sushruta Samhita Sutra Sthana* 24/10- Nibandhasangraha Commentary of Shri Dalhanacarya, Edited by Jadavaji Trikamji Acarya; Chaukhamba Orientalia Varanasi, Seventh Edition 2012.
  11. "Nutrition facts for sesame oil per 100 g, analysis of fats and fatty acids". Conde Nast for the USDA National Nutrient database, version SR-21.2014. Retrieved 11 July 2015
  12. <http://www.ncbi.nlm.nih.gov/pubmed/7625348> (Retrieved on 02 June 2016)

---

**CORRESPONDING AUTHOR:**

**Dr. Rajdip Rao**

PG Scholar, Dept of Panchkarma,  
IPGT and RA, GAU, Jamnagar.

**Email:** [rajdip.rao@gmail.com](mailto:rajdip.rao@gmail.com)

---

**Source of Support:** Nil

**Conflict of Interest:** None Declared