

EFFECT OF TRAYUSHANADI GUGGULU IN THE MANAGEMENT OF STHAULYA

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ABSTRACT

In today's era due to modernization, our generation become more and more physically inactive. modernization, science and technology development lead to a more sedentary lifestyle. By exposing themselves to all these factors human beings invited several diseases *Sthaulya* disturbs the physical, mental, as well as social health of an individual. The excess accumulation of *Medo dhatu* is known as *Sthaulya*. In modern medicine, we can correlate *Sthaulya* with obesity which is explained as excess body fat that poses a health risk. **Aims and Objectives of the study:** To study the Aetiopathogenesis of *Sthaulya* and to evaluate the efficacy of *Trayushanadi Guggulu Vati* in *Sthaulya*. **Material & Methods:** To fulfil the above Aims and Objectives: A total of 30 patients were selected between the age group of 20-50 years of age with symptoms of *Sthaulya*. Inclusion and exclusion criteria were kept in mind while selecting the patients. The dosage of the trial drug was 500 mg (2 vati) twice a day for 60 days with Lukewarm water with follow up of 15 days. **Results:** After analysing the data statistically in 30 patients, *Utsahahani*, *Daurbal-yata*, weight, BMI, chest, abdomen, hip, thigh, arm has highly significant results were observed. In *Aangachalatva*, *Ati-Pipasa*, *Ati Kshudha*, *Nidradhikya*, a significant result was observed in this study. In *Alpa vyavaya*, *swedad-hikya*, arm span and biological parameters there was no apparent change observed. The number of patients unchanged was 2 (6.7%), mild improvement was observed in 6 patients (20%) and moderate improvement was observed in 14 patients (46.7%), where marked improvement was observed in 10 patients (33.3%). **Conclusion:** *Trayushanadi Guggulu* proved quite effective in managing the patients of *Sthaulya*, because it is *Mandagnijanya Vyadi* and *Tryaushanadi Guggulu* being *Laghu Guna*, so enhances the *Jatharagni* as well as *Dhatwagni*. *Katu rasa* of that drug play *Aamdoshanasaka* role, *Vata -Kaphashamaka* property pacified *Vata -Kapha Dosha*.

Keywords: *Medi-dhatu, Utsahahani, Daurbalyata, BMI, Chest, Abdomen etc.*

INTRODUCTION

The disease obesity is known to Indian Physicians since a very old time. All the Ayurvedic classics describe the disease *Sthaulya* in detail. This disease has been listed under the eight most desecrated personalities even the emaciation has been preferred in comparison to obesity. *Sthaulya* is another term, which is used for the disease *Medoroga* [1]. *Madhavakara* has described *Medoroga* under the individual entity in the 34th chapter of *Madhava nidana*. [2] *Charaka* has mentioned the *Beejadosh* *Swabhavata* as one of the important etiological factors besides others for the disease. In a person having a hereditary predisposition, the disease becomes quickly incurable due to the short circuit in the metabolic pathway. The patient starts to convert most of the food nutrients into fat irrespective of body requirement. The term '*Sthula*' itself indicates the deposition of *Prithvi* and *Jala Mahabhuta* dominant factors in the body. *Nidana* of *Sthaulya* is divided in 4 categories: *Aharatmaka, Viharatmaka, Manasa* and *Any*. Besides these *Nidan*s, nowadays *Nidan*s of *Sthaulya* are changing e.g., *Manasonivritti* and *Harsanityatva* were said to be the *Nidan*s of *Sthaulya*, but these are now changing to increasing stress which causes episodes of binge eating leading to *Sthaulya*. *Acharya Charaka* had mentioned the *Bija dosha* as an important aetiological factor. *Samprapti* of *Sthaulya* can be divided into two categories:

- (1) This is according to *Charaka Samhita* in which there is just increased *Jatharagni* which causes maximum ingestion and leads to maximum absorption of *Prithvi* and *Jala Mahabhuta* dominant factors in the body leading to increased *Medodhatu* in the body. [3]
- (2) This is according to *Dalhana* in which there is a state of *Medodhatvagni Mandya* which leads to excessive formation of improper *Medodhatu* leading to *Sthaulya*. [4]

In modern science, obesity is considered a metabolic disorder. The World Health Report 2002 of W.H.O. listed obesity under the 10 top selected risks to health. Obesity is a dreadful disease with hazardous complications like hypercholesterolemia, ischemic cardiac disorders, hypertension, DM etc. It is observed that these complications are more common in obesity. It is frequently blamed on ingestion of heavy and over food, endocrine factors, body built or heredity etc. But so far obesity is a disease of unknown aetiology. BMI (Body Mass Index) more than 27 indicate an increased risk of health. Treatment of obesity is difficult without the cooperation of the patient. Patients need motivation for this. Still, an appropriate remedy is awaited, which conquer obesity without any adverse effect on the body.

Conceptual Contrive –

Ayurveda Acharyas has described so many etiological factors of *Sthaulya Roga* in their *Samhitas* which are related to all aspects of life and affect the body from outside and inside also. The hereditary (*Bijadosha*) component besides dietetic regimen and psychological factors in the causation of *Sthaulya* have been described by *Charaka Samhita*. [5] These are most of the exogenous types. Except for these factors, the components which may vitiate *Meda* and *Shleshma* could be considered as a causative factor of *Sthaulya*. Endogenous types of causes had mentioned by *Acharya Shushrut* and *Maharshi Vagbhatt*. Only *Charaka* has defined *Bija dosha* as one of the causes besides other, other texts have humbly followed the *Brihatrayis's* description regarding etiological factors of *Sthaulya*. In context with *Sthaulya*, exogenous causes are *Meda* potentiating diet and regimens whereas *Dosha, Dhatu, Mala, Srotas* etc. come under the endogenous factors.

Table 1: Samprapti Ghataka

<i>Dosha</i>	<i>Kapha pradhana Tridosha</i>
<i>Dushya</i>	<i>Rasa, Meda</i>
<i>Srotas</i>	<i>Annavaha, Rasavaha, Mamsavaha, Medovaha</i>
<i>Srotodusti</i>	<i>Sanga</i>
<i>Agni</i>	<i>Mandagni</i>
<i>Adhithana</i>	<i>Amasaya</i>

Material and Method- Patients were selected from OPD and IPD of *Jammu Institute of Ayurveda and Research Hospital, Jammu*. All the patients were clinically diagnosed cases of *Sthaulya Roga* and were properly registered. Details of examinations and investigations were carefully recorded in the proforma.

Inclusion Criteria:

- According to classical texts the sign and symptoms of *Sthaulya* were included.
- Patients of both the sexes between the age group of 20-50 yrs. were included.
- Standards height- weight chart was also considered.

d. B.M.I criteria was also followed for the selection of patients.

Exclusion Criteria:

- Patients having systemic disorders.
 - Mechanical: - Hip and Lumbar spine developing Osteoarthritic changes.
 - Cardiovascular: - Angina pectoris, Hypertension.
 - Metabolic: - Diabetes Mellitus, Gout etc.
- Sthaulya* with secondary causes like endocrinal i.e., Hypothyroidism, Cushing syndrome, Hypothalamic tumour or injury.
- Patients with long term steroid treatment.
- Pregnant and lactating women.

Table 2: Criteria of Assessment

Symptoms	Grade 0	Grade 1	Grade 2	Grade 3
<i>Chalatva</i>	<i>Achalatva</i>	<i>Chalatva</i> after fast walking	<i>Chalatva</i> after moderate walking	<i>Chalatva</i> after normal walking
<i>Atiksudha</i>	Hunger induced > 4 hrs.	The hunger within 4 hrs.	The hunger within 3 hrs.	The hunger within <2 hrs.
<i>Ati Trisa and Nidra</i>	2 lit. water/day.	2-3 lit. water/day.	3-4 lit. water/day.	More than 4 lit. water/day.
<i>Daurbalayata</i>	No weakness	Weakness after heavy work	Weakness after moderate work	Weakness after little work
<i>Anga Sada</i>	No fatigue	Fatigue after heavy work	Fatigue after moderate work	Fatigue after little work
<i>Daugandhata</i>	No smell	Slight smell	Bad smell	Excess bad smell
<i>Swedadhikya</i>	No sweating	Sweating after fast walking	Sweating after little work	Sweating even in resting condition
<i>Kriccha vyavayata</i>	<i>Able to do any work</i>	<i>unable to do heavy work</i>	<i>unable to do moderate work</i>	<i>unable to do mild work</i>

Objective parameters:

- Bodyweight.
- Body Mass Index (BMI): International criteria of B.M.I. have been calculated by the following formula. **BMI =Weight (kg) /Height (in sq.m.)**
- Body circumference
- Skinfold thickness by Vernier Calipers.

v. The girth measurements of certain regions using measuring tape before and after the treatment of following areas where generally the adiposity is found more was taken – (**Chest-Abdomen – Hip – Mid-thigh –Mid arm**)

- Chest – In normal expansion at the level of the nipple.

- Abdomen – At the level of the umbilicus
- Hip – At the level of the highest point of distension of buttock.
- Mid-thigh – Mid of the thigh between pelvic and knee joints
- Mid arm – Mid of the arm between the shoulder joint and elbow joint.

In the case of all circumference measurements, the mean values were taken before and after treatment. The body wt. was also taken before and after treatment.

Table 3: Laboratory examination

Hemogram	Hb gm, ESR.
Urine	Routine, Microscopic
Sugar	Fasting blood sugar, post-prandial sugar
Lipid Profile	Total Serum cholesterol- Serum triglycerides High-density lipoprotein (HDL) Low-density lipoprotein (LDL) Very low-density lipoprotein (VLDL)

30 patients have completed the course of treatment they were *Trayushanadi Guggulu Vati*, duration of the treatment was 2 months with warm water, and subjective and objective improvement in patients were explained in a clinical study. All the results were analysed by statistical methods and were methodically present in this section. The observation and results obtained during the study are as follow:

Maximum patients i.e., 46.67% belonged to the 31–40-year age group and 80% were females. The majority of the patients i.e., 100% were having *Bharavridhi*, 70% were taking *Madhura Rasa* in their diet, Maximum i.e., 67% of patients were having mixed diet. Addiction to Tea intake was found mostly i.e., 66.67% of patients. 63.33% of patients were having sound sleep patterns and the maximum number of

patients i.e., 54.3% were having *Mandagni*. *Dashvidha pariksha* biostatics revealed that a maximum number of patients were having *Kapha Pradhana Vata Anubandhit Prakiriti* i.e., 66.67 %, *Tridosha Vikriti* i.e., 45.7%, *Madhyam Sara* 83.33%, *Madhyam Samhanana* i.e., 80%, *Madhur Rasa Satmya* 70%, *Pravra Satva* 46.67%, *Madyam Aaharshakti* 60% and *madhyam vyayamshakti* 42.9%. *Pradhana Laksana* observed inpatient i.e., *Bharavridhi* 100%, *Daurgandhya* and *Kshudra Swasa* were complained by 53.3% of patients, 70 % of patients were having complained of *Angagaurava*. *Angachalatva* and *Atikshuda* were complained by 60% of patients, *Atitrishna* was complained by 50% of patients, 16.67% of patients were having complained of *Vyavayakashta*.

Table 4: Showing Improvement in Subjective Criteria:

Symptoms	Mean	d	% Relief	S. D.	S.E.	t-value	p-value	S	
<i>Daurgandhata</i>	0.42	0.29	0.13	30.77	0.34	0.06	2.11	>0.005	N
<i>Alpa vyavaya</i>	0.4	0.2	0.2	33.33	0.41	0.16	1.28	>0.005	NS
<i>Ati pipasa</i>	1.19	0.41	0.39	32.43	0.71	0.13	3.21	<0.01	S
<i>Ati Kshudha</i>	1.8	0.6	0.42	38.46	.58	0.13	3.27	<0.01	S
<i>Nidradhikya</i>	2.5	1.9	0.6	24	0.51	0.16	3.67	<0.001	S
<i>Swedadhikya</i>	0.74	0.45	0.29	39.13	0.64	0.11	2.51	<0.005	NS
<i>Utsahahani</i>	1.03	0.52	0.51	50	0.51	0.09	5.66	<0.001	HS
<i>Angachalatava</i>	2.0	1.3	0.7	35	0.67	0.21	3.25	<0.01	S
<i>Daurbalyata</i>	1.10	0.71	0.39	35.29	0.56	0.10	3.86	<0.001	HS

Table 5: Showing Improvement in Objective Criteria:

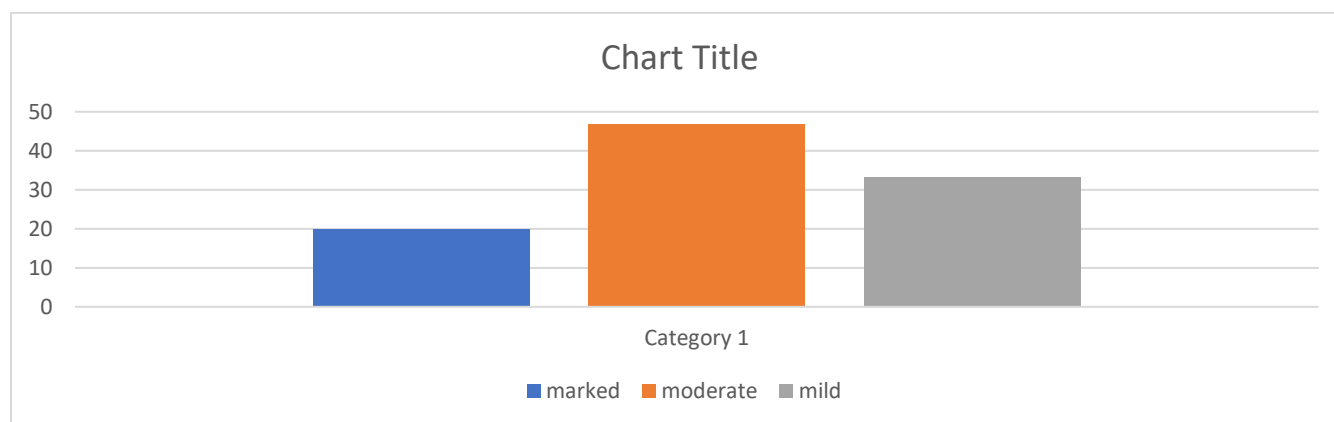
	Mean		d	% Relief	S. D.	S.E.	t-value	p-value	S
Weight	78.36	76.82	1.54	1.97	1.46	0.26	5.88	<0.001	HS
B.M.I	32.29	31.65	0.65	1.20	0.59	0.10	6.13	<0.001	HS
Chest	101.77	101.18	1.59	1.59	1.93	0.35	4.58	<0.001	HS
Abdomen	98.04	94.88	3.16	3.16	4.27	0.77	4.11	<0.001	HS
Hip	114.07	112.36	1.71	1.71	1.87	0.34	5.09	<0.001	HS
Thigh	53.87	49.83	4.04	7.49	0.98	0.31	12.91	<0.001	HS
Arm	32.33	30.56	1.76	5.45	1.40	0.44	3.95	<0.001	HS
Forearm	26.40	26.12	0.27	1.03	0.85	0.15	3.25	<0.05	NS

Table 6: Showing Improvement in Biochemical Parameters:

Symptoms	Mean		d	%	S. D.	S.E.	t-value	p-value	S
S. cholesterol	195.27	193.20	2.07	1.06	27.70	5.06	0.41	>0.05	NS
S. Triglyceride	137.22	137.63	0.41	0.30	48.55	8.86	0.05	>0.05	NS
HDL	44.17	45.04	0.88	1.98	13.46	2.75	0.32	>0.05	NS

Table 7: Showing the overall effect of therapy on 30 patients of *Sthaulya*:

Improvement	No. of patients	%
Marked Improvement.	06	20.00
Moderate Improvement.	14	46.66
Mild Improvement.	10	33.33



DISCUSSION

The incidence of the disease is more in females than males because females naturally have more adipose tissue do, they are predisposed to obesity. Moreover, there were 3 important phases in females' life where they undergo enormous hormonal changes, they are menarche, pregnancy and menopause. These changes also contribute to weight gain. Prevalence is more between the 31–40-year age groups because of today's sedentary lifestyle. More occur in an urban area

because urbanization directly affects our lifestyle and obesity is a lifestyle disorder. As per diet, wise distribution majority of patients were consuming mixed diet, the non-vegetarian diet has a high-calorie value which contributes to the increase in weight. In this study 70% were taking *Madhura Rasa* in their diet, *Madhura Rasa* is *Kapha* aggravating and *Kapha* is the main *dosha* in the pathogenesis of *Sthaulya*. *Acharya Charaka* has accepted "*Ahara*" as the most common pathogenic factor for *Medovridhi* in *Sthaulya*.

Whereas *Sushruta* has accepted *Amadosha*. In the pathology of *Sthaulya*, *Kapha* is the main *Dosha* and *Meda* is the main *Dushya*, while *Agnimandya* takes place at *Medodhatvagni* level. In the present study, we found that *Sthaulya* is *Doshabala* and *Mandagnijanya vyadhi*, so its management is done by *Deepana*, *Paachana* and *Doshashaman*. So, we have selected drugs that have *Kapha* and *Medanashaka* properties and have efficacy to correct the function of *Medodhatvagnimandya*. In this study, Compound drugs are used for the clinical trial, which was *Tryaushanadi Guggulu*. Region of improvement in *Sthaulya* symptoms, because it is *Mandagnijanya Vyadi* and *Tryaushanadi Guggulu* being *Laghu Guna*, so enhances the *Jatharagni* as well as *Dhatwagni*. *Katu rasa* of that drug play *Aamdoshanasaka* role, *Vata - Kaphashamaka* property pacified *Vata - Kapha Dosha*.

CONCLUSION

Based on the above-mentioned literary review, clinical study, observation, results, and discussion, the conclusion of the present work is in *Utsahahani*, *Daurbalyata*, weight, BMI, chest, abdomen, hip, thigh, arm has highly significant results were observed. In *Aangachalatva*, *Ati-Pipasa*, *Ati Kshudha*, *Nidradhikya*, a significant result was observed in this study. In *Alpa Vyavaya*, *Swedadhikya*, arm span and biological parameters there was no apparent change observed. Several patients' complete improvement was 0, the Number of patients unchanged was 2 (6.7%), mild improvement was observed in 6 patients (20%) and moderate improvement was observed in 14 patients (46.7%), where marked improvement was observed in 10 patients (33.3%). It was concluded that *Trayushanadi Guggulu* is useful in the management of *Sthaulya* and there was no side effect seen on any patient of the trial drug.

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