



International Journal of Indian Medicine

www.ijim.co.in



IJIM

May 2020



International Journal of Indian Medicine

Access the article
online



“Comparative Clinical Study of Guduchyadi Yoga and Triphala Churna in the Management of Sthaulya with special reference to Obesity.”

Sheshrao Bhaurao Meshram.¹ Bhairavi Nimbarte²

1.M.S. Ayurvedic Medical College Hospital & Research Institute Gondia.

2. Asso.Professor & HOD, Dept. Kayachikitsa

M.S. Ayurvedic Medical College Hospital & Research Institute Gondia.

Abstract:

Background: Medoroga or sthauya is a major lifestyle disorder whose prevalence has increased drastically over a past few decades. According to Acharya Charaka Sthauya has been classified under "Ashta Nindit Purusha. Sthauya (obesity) is a non-communicable disease, which provides the platform for so many hazards like Hypertension, Cardiovascular disease, diabetes and Osteoarthritis, infertility, Impotency as well as psychological disorders like stress, anxiety, depression. **Objective:** To study the effect of Guduchyadi Yoga in Sthauya w.s.r. Obesity, to study the effect of Triphala churna in Sthauya w.s.r. Obesity and to compare the effectiveness of Guduchyadi Yoga and Triphala churna. **Methodology:** In this study total 60 patients of Sthoulya taken for the study. Experimental group treated with Guduchyadi Yoga 3 gm thrice a day along with koshna jala and Control group treated with Triphala churna along with Koshna jala. **Results & Conclusion:** Guduchyadi Yoga and Triphala churna are found both equally effective in subjective parameters like Karya –anutsaha Daurbalya, Swedadhikya, Kshudrashvasa, Dargandhya, Kshudhadhikya, Nidradhikya of Obesity. Mean reduction of weight in experimental group was 2.50 kg and in Control group in control group it was 1.79 kg however it is not significant statistically.

Key Words: *Guduchyadi Yoga Sthoulya, Nidradhikya, Triphala churna*

Corresponding Author:

Dr. Sheshrao Bhaurao Meshram

M.S. Ayurveda Mahavidyalaya, Gondia, Maharashtra

Email – dr.sbmeshram9890@gmail.com



How to cite this article: Meshram SB. Bhairavi Nimbarte. Comparative Clinical Study of Guduchyadi Yoga and Triphala Churna in the Management of Sthauya with special reference to Obesity. Int. J Ind. Med. 2020;1(2):47-56.

Introduction:

Ayurveda as a holistic science recommends various regimens which help human being to achieve healthy living, while modern scientific medicine concentrates to a large extent on curative aspect of the disease. Medoroga or sthaulya is a major lifestyle disorder whose prevalence has increased drastically over a past few decades. According to Acharya Charaka Sthaulya has been classified under "Ashta Nindit Purusha" (eight despicable personalities).^[1] Acharya Sushruta has narrated the aetiopathogenesis of Sthaulya Roga because of an endogenous entity being caused due to "Dhatvagni Mandya".^[2]

Sthaulya (obesity) is a non-communicable disease, which provides the platform for so many hazards like Hypertension, Cardiovascular disease, diabetes and Osteoarthritis, infertility, Impotency as well as psychological disorders like stress, anxiety, depression. A person having pendulous appearance of sphika, udara and stana due to excess deposition of meda along with mansa dhatu and having unequal an abnormal distribution of Meda with reduced zeal towards life is called "Atisthula".^[3] Sthaulya is the disease of Medodhatvagni Vikriti. If Agni will be good and potent, through passing from the level of Rasagni, Raktagni and Mamsagni the Medodhatuvridhi will occur and if Agni will be poor, it will create Dhatvagnimandya. So, Rasagata, Raktagata, Mamsagata and Medogata Snehamasa will be increased due to their own Dhatvagnimandya respectively.^[4] In Sthaulya, completed nourishment of only Meda dhatu cause malnourishment of all

other dhatus including Asthi Dhatu.^[5] Medodushti Symptoms like Atinidra, Angagaurava, Alasya,, Tandra, Vistrashariragandha, Shaithilya are found as Purvarupa of Medoroga. ^[6] The cardinal or Pratyatma Lakshana of Sthaulya have been described by Acharya Charaka as Chala Sphika, Chala Udara, Chala Stana, Ayatha Upachaya, Anutsaha etc.^[7] In this study total 60 patients of Sthoulya taken for the study. Experimental group treated with Guduchyadi Yoga 3 gm thrice a day along with koshna jala and Control group treated with Triphala churna along with Koshna jala.

Objectives:

1. To study the effect of Guduchyadi Yoga in Sthaulya w.s.r. Obesity.
2. To study the effect of Triphala churna in Sthaulya w.s.r. Obesity.
3. To compare the effectiveness of Guduchyadi Yoga and Triphala churna.

Material and methods:

Study design: Randomized Clinical Trial.

Selection of patient: OPD and IPD of Kayachikitsa, M.S.Ayurveda College and Hospital, Gondia.

Inclusion criteria: Patients fulfilling diagnostic criteria and signs and symptoms of Sthaulya between 20 to 60 years age. Patient who was ready to participate and give consent.

Exclusion criteria: Patients having BMI less than 25 kg/m² and having complications such as diabetes, cardiovascular disease, other systemic complications like malignancies or having hepato/renal problems. Patients having poorly

controlled blood pressure >160/100 mm of Hg. Patients on prolonged medication (>6weeks) with corticosteroids.

Withdrawal criteria: If patients develop any adverse effect and not responding to treatment.

Sample size: Total 60 patients were recruited and allotted equally 30 in each group.

Subjective parameters:

A) Karya -anutsaha (Lack of enthusiasm)-

- Presence of enthusiasm. 0
- Does routine work without enthusiasm.1
- Can do routine work only when forced to do so.2
- Cannot do routine work despite of force or pressure.3

B) Daurbalya (Weakness)

- Absent 0
- Performing own work (like defecation& bath) but feeling of weakness to perform other work.1
- Performing routine work with a slight feeling of weakness. 2
- Only sitting at a place or inability to even stand without support.3

C) Swedadhikya (Excessive sweating):-

- Normal Sweda 0
- Sweating up to garments especially at axillary & groin region.1
- Excessive sweating at axilla, groin & sweating at all over body.2
- Sweating & wetting of clothes, wetting & oozing of garments.3

D) Kshudrashvasa (Tachypnoea):-

- Normal respiratory rate 12-16 per minutes- 0

- Increased R.R on one hour of continuous routine physical work 1
- Increased R.R on more than one and half hour of sedentary work. 2
- Increased R.R on very less physical work or sedentary work.3

E) Daurgandhya (Body odour)

- No body odor (Absent) 0
- Mildoffensive, self-attainable body odour.1
- Moderate offensive & attainable by near person.2
- Severe offensive & attainable by distance. 3

F) Kshudhadhikya (Excessive appetite)

- Normal appetite. 0
- Hunger after timely meal.1
- Hunger after timely meal, followed by restlessness, weakness & irritability if desire not fulfilled.2
- Continuous hunger without satisfaction irrespective of meal. 3

G) Nidradhikya (Excessive Sleep) -

1. Normal sleep (7-8 hours per day) 0
2. Normal sleep without cheerfulness in senses. 1
3. Increased duration of sleep with lack of energy. 2
4. Desire to sleep continuously with lack of energy. 3

Objective parameters:

1. Height(cm)
2. Weight (in kg).
3. Body mass index (BMI)
4. Waist circumference (cms)
5. Abdomen Circumference
6. Hip circumference(cms)
7. Waist: HIP Ratio (WHR)

Treatment details: Table no. 1

Group	Experimental Group	Control Group
Drug	Guduchyadi Yoga	Triphala Churna
Dose	3 gm TDS = 9 gm/day	3 gm B.D. = 6 gm/day
Kala	Thrice a day Abhaktakal	Twice a day Abhaktakal
Duration	90 days	90 days
Anupan	Honey	Koshna jal
No. of Patients	30	30
Follow up	After 30 Days During Treatment	After 30 Days During Treatment

Observations & results:**Table No. 2 Gender Wise Distribution of Patient of Sthaulya**

Group	Experimental	Control	Total	Percentage
Male	12	16	28	46.7
Female	18	14	32	53.3
Total	30	30	60	100

In this study, totally 28 [46.7%] patients were male & 32[53.3%] were female while more female was recruited in experimental group it may be due random selection of patients.

Age: As per inclusion criteria of patients were selected having age between 20 years to 60 yrs. And distributed it in four-sub age groups. Out of 60 patients' number of patients found in age group 20-30 were 11 [18.3%], in 31 to 40 yrs. were 06 [10%], in 41 to 50 yrs. age group 21[35%], and in age group 51-60 yrs. Were 22 [36.7%], in numbers and percentage respectively.

Subjective criteria of Sthaulya in Experimental and Control Group: Effect of Intervention seen on every follow up i.e. Day 30, 60 and 90 days for the symptoms Karya-Anutsah, Daurbalya, Swedadhikya, Kshudrashwas, Daurgandhya,

Kshudhadhikya and Nidradhikya in both group , it was observed that there highly significant difference observed on each follow p.. Comparison done within each follow up by Dunn's multiple comparisons test. In all these symptoms intervention was seen highly significant on Day 90 follow ups compare to Day 30 and day 60.

The effect was seen significantly in symptoms like Karya-Anutsah not different as compare to Day 0 and Day 30 as p value obtained was >0.05. There was no significant difference found at Day 0 and Day 60 also. However, p value obtained was <0.001 which is considerably highly significant on Day 0 and Day 90. So, it can be concluded that there was significant difference in symptom Karya-Anutsah on day 90 as compare to day 0.

Table No.3 Comparison for Subjective Criteria between the groups by Mann-Whitney 'U' Test

No	Symptoms	Mean \pm SD		Mann-Whitney		P Value
		Gr-A	Gr-B	U'	U	
1	Karya anutsaha	0.66 \pm 0.47	0.63 \pm 0.61	475	425	0.71
2	Daurbalya	0.56 \pm 0.50	0.76 \pm 0.43	540	360	0.17
3	Swedadhikya	0.7 \pm 0.44	0.6 \pm 0.47	480	420	0.654
4	Kshudrashvasa	0.9 \pm 0.30	0.7 \pm 0.46	540	360	0.172
5	Daurgandhya	0.7 \pm 0.46	0.7 \pm 0.46	450	450	0.99
6	Kshudhadhikya	0.7 \pm 0.46	0.6 \pm 0.49	495	405	0.50
7	Nidradhikya	0.66 \pm 0.66	0.90 \pm 0.88	507.5	392.5	0.39

Table No.4 Showing Effect of Therapy on subjective parameters of 30 Patients of Sthaulya of Experimental Group (Test Applied was Repeated measure ANOVA)

Weight	D0	D30	D60	D90	F	P Value
Mean	82.43	81.70	80.86	79.92	57.76	<0.0001
\pm SD	4.76	4.66	4.79	4.81		
SeD	0.86	0.85	0.87	0.87		

Table 5. Effect of Intervention seen for Weight on every follow up i.e. Day 30,60 and 90 days. Multiple comparisons test Tukey Kramer done further in Experimental Group.

Sr.no	Comparison	Mean difference	q	p value	Result
1	D 0 vs D 30	0.72	5.08	<0.01	*
2	D 0 vs D 60	1.56	10.99	<0.001	***
3	D 0 vs D 90	2.50	17.62	<0.001	***

NS-Not significant, * considerably significant, *** highly significant

in Experimental Group. In parameter Weight, the effect of intervention was seen significantly different as compare to Day 0 and Day 30 as p value obtained was <0.05. There was highly significant difference found at Day 0 and Day 60,

and Day 0 and Day 90 as p value obtained was <0.001. So, it can be concluded that there was significant difference in parameter Weight on Day 30,60 and 90 as compare to day 0.

Table No.6 Showing Effect of Therapy on subjective parameters of 30 Patients of Sthaulya of Control Group (Test Applied was Repeated measure ANOVA)

Weight	D0	D30	D60	D90	F	P Value
Mean	82.5	81.74	81.20	80.70	0.84	0.47
± SD	4.58	4.54	4.61	4.55		
SeD	0.83	0.82	0.84	0.83		

In control group, Effect of Intervention seen for Weight on every follow up i.e. Day 30,60 and 90 days. In parameter Weight, the effect of intervention was seen found not significantly different as compare to Day 0 and Day 30, Day 60 and Day 90 as p value obtained was >0.05. There

was no significant difference found at Day 0 and Day 30, and Day 0 and Day,60 and Day 90 as p value obtained was >0.05. So, it can be concluded that there was no significant difference in parameter Weight on Day 30,60 and 90 as compare to Day 0.

Table no. 7 Effect of Intervention seen for Weight on every follow up i.e. Day 30,60 and 90 days. Multiple comparisons test Tukey Kramer done further in control group.

Sr.no	Comparison	Mean difference	q	p value	Result
1	D 0 vs D 30	0.76	0.91	>0.05	NS
2	D 0 vs D 60	1.29	1.55	>0.05	NS
3	D 0 vs D 90	1.79	2.15	>0.05	Ns

Table No. 8 Showing Effect of Comparison Between Group w.r.t Objective parameters of 60 Patients of Sthaulya (Test Applied was Unpaired T -Test)

No	Parameters	Mean ± SD	±S Ed	t Value	p Value	
1	Weight	EG	2.50±1.50	0.27	1.92	0.06
		CG	1.79±1.36	0.24		
2	BMI	EG	0.93±0.55	0.10	2.09	0.04
		CG	0.64±0.50	0.09		
3	Abdomen	EG	5.02±3.07	0.56	2.49	0.01
		CG	3.36±2.60	0.47		
4	Waist	EG	3.13±2.20	0.40	1.40	0.16
		CG	2.40±1.81	0.33		

5	Hip	EG	2.3±2.00	0.36	0.56	0.57	
		CG	2.6±2.11	0.38			
6	Waist Ratio	Hip	EG	0.009±0.02	0.005	1.44	0.15
		CG	-0.006±0.02	-0.004			

For comparison of Objective parameters of 60 Patients of Sthaulya 'Unpaired test' was applied for both experimental and Control group. Regarding the Weight the Mean \pm SD of Exp. Group was 2.50 \pm 1.50 and in Control Group, it was 1.79 \pm 1.36 where reduction of weight is more in experimental group than in Control group and t value obtained is 1.92 with 58 degree of freedom p value obtained is 0.06 which is not significant statistically. So it can be concluded that there is no difference in both group statistically. Experimental group intervention is equally effective to the Control group intervention.

Like in BMI (Body Mass Index) the p value obtained is <0.04 which can be considered as significant statistically. So, it can be concluded that there is difference in both group statistically and Experimental group intervention is better than Control group intervention. In Abdomen circumference the p value obtained is <0.01 which can be considered as significant statistically. So, it can be concluded that there is difference in both groups statistically and Experimental group intervention is better than Control group intervention. However, in Waist circumference, Hip and Waist Hip Ratio the value obtained is >0.05 which is not significant statistically. So, it can be

concluded that there is no difference in both the group statistically. Experimental group intervention is equally effective to the Control group intervention.

Discussion: In the disease Sthaulya, Tikshnagni occurs. Here, Jatharagni is found in excessive condition whereas Medodhatvagni is found in Manda condition. It is due to Avarana of Vayu in Kostha. So, person indulges more food, which produce excessive Meda and vitiated cycle go on. This cycle is broken (Samprapti Vighatana) by Katu-Rasa & Ushna-Virya Pradhana drugs – Triphala and Guduchyadi Yoga which decreases Meda by its Lekhana, Shoshana and Kaphanashaka properties, Kaphanashaka properties due to Agni and Vayu Mahabhuta dominance in them (Su.Su15). Triphala also having Medakaphahar properties alongwith it enhances agni and ultimately it helps in increasing lekhan and dhatwagni so the samprapti is broken for further meda preparation.

The Difference between before intervention and after intervention score of both groups compared by 'Mann-Whitney U Test'. It was found that the sum of rank for the symptom Karya anutsaha Mann Whitney U' statistics was 475, Test statistic (U) was 425, where the test statistic U was not between Population Mean \pm 1.96 SD which was

consider as not significant at 5% level of significance. ($P>0.05$) Therefore the difference between Symptom Score of Karya anutsaha of Experimental and Control group is not statistically significant, so therefore we can conclude that in the symptom Karya anutsaha both interventions are equally effective statistically.

However, in the symptoms Daurbalya, Swedadhikya, Kshudrashvasa, Daurgandhya, Kshudhadhikya, Nidradhikya which was not significant at 5% level of significance as the p value > 0.05 hence in these symptoms experimental group and Control group intervention is equally effective statistically.

For comparison of Objective parameters of 60 Patients of Sthaulya 'Unpaired test' was applied for both experimental and Control group. Regarding the Weight the Mean \pm SD of Exp. Group was 2.50 ± 1.50 and in

Control Group, it was 1.79 ± 1.36 where reduction of weight is more in experimental group than in Control group and t value obtained is 1.92 with 58 degree of freedom p value obtained is 0.06 which is not significant statistically. So it can be concluded that there is no difference in both group statistically. Experimental group intervention is equally to the Control group intervention. Like in BMI (Body Mass Index) the p value obtained is <0.04 which can be considered as significant statistically.

and Meda Vilayana action. Katu-Rasa, Ushna-Virya encounters Dhatwagnimandya & potentiates the weakened Dhatwagni and help in

So it can be concluded that there is difference in both group statistically and Experimental group intervention is better than Control group intervention. In Abdomen the p value obtained is <0.01 which can be considered as significant statistically. So, it can be concluded that there is difference in both groups statistically and Experimental group intervention is better than Control group intervention. However, in Waist, Hip and Waist Hip Ratio the value obtained is >0.05 which is not significant statistically. So, it can be concluded that there is no difference in both the group statistically. Experimental group intervention is equally to the Control group intervention. Overall it was observed that Percentage of Relief in Each Patient of 60 Patients of Sthaulya in experimental group was 55.79 while 49.60 % in Control group. On an average in both group 52.70 % relief got in each patient of Sthaulya.

Mode of action:

Guduchyadi Yoga

Guduchyadi Yoga contains Guduchi, Musta encounters Vata & Kapha Dosha by virtue of its Katu, Kashay-Rasa dominance & Ushna-Virya. Meda & Kleda are the chief culprits in Sthaulya. Katu-Rasa performs Medo-Kledopa-Shoshana action. Sthairy Guna of Madhura Rasa combats Sharira Shaithilya. Ushna-Virya also helps in Kleda Amapachana thereby alleviates Aparipakwa and Ama dhatu. Ultimatellit act as medohar and breaks the Samprapti of Sthaulya.

Triphala Churna:

It contains Amalaki, Haritaki and Bhibitak. Haritaki is lagu, Rukhsa and Ushna veerya due to which it act as Vatahar , it also help in Deepana karma and amapachak. Due to Katu-Rasa, Amalaki & Bhibhitak Haritaki hhg katu rasa, kaghu, ruksha all the involved channels are dilated i.e. “Srotansi Vivrunoti” action. Katu-Rasa and Ushna-Virya check over Medovaha and Mamsavaha Srotodushti, it helps in medohar action. In nut cell in Triphala Churna all ingredient have Katu Ras & Laghu, Ruksha and Ushna Virya, Katu Vipak, Vata-Kaphashamak, Karshana, Lekhaniya, Medorogahara, Amapachana, Dhatu shoshana properties, which normalize the state of Agni. Thus, regulated Jatharagni, checked the excessive growth and accumulation of Medodhatu and thereby causing Lakshana Upshamana of disease Sthaulya.

Limitation & Scope of study:

Study duration could be longer for better results. Along with medicine patients of obesity can

References:

1. Pandit Kasinath Panday et. al., Charka samhita, Chaukhambha bharati academy, Varanasi 2005 Page no 779.
2. Prof.K.R.Srikantha Murthy editor. 1st ed, Susruta Samhita, Sutrasthan, Chapter 21, Verse 27. Vol-II. Varanasi: Chaukhamba Orientalia, Sharirsthana, 2001; 280.
3. Shastri Girijashankar Mayashankar, (3rd edition) AcharyaCharaka, Charak Samhita,

also be iced for exercise and Pathyapathya. Drug can be given in Vati or tablet form. Patient counselling need to be done for diet and exercise management.

Conclusions:

Guduchyadi Yoga and Triphala churna are found both equally effective in subjective parameters like Karya –anutsaha Daurbalya, Swedadhikya, Kshudrashvasa, Daurgandhya, Kshudhadhikya, Nidradhikya of Obesity. Mean reduction of weight in experimental group was 2.50 kg and in Control group in control group it was 1.79 kg however it is not significant statistically. Overall it was observed that Percentage of Relief in Each Patient of 60 Patients of Sthaulya in experimental group was 55.79 while 49.60 % in Control group. On an average in both group 52.70 % relief got in each patient of Sthaulya.

Sutrasthan:Chapter21, Verse9 . Ahmedabad:

SastuSahitya Vardhaka Karyalaya, , 1981;169

4. Dr.Ravidutt Tripathi, editor, Ashtanga Samgraha of Vridha Vagbhata, Sutrasthan 31th chapter sloka no 34, Chaukhamba publication 2003, page no 399.
5. Prof.K.R.Srikantha Murthy editor. 1st ed, Sushruta Samhita, Sutrasthan, Chapter 15, Verse 7. Vol-II. Varanasi:Chaukhamba Orientalia, Sharirsthana, 2001; 180.

6. Shukla V.editor,(2nd ed.).Charaka Samhita of Charak, Chikitsta stan:Chapter 28, Verse 19. Varanasi: Chowkhambha Sanskrit Series, 2002; 217.
7. Shastri Girijashankar Mayashankar, (3rd edition) AcharyaCharaka, Charak Samhita,

Sutrastan:Chapter21, Verse19 . Ahmedabad: SastuSahitya Vardhaka Karyalaya, , 1981;178

Financial support and sponsorship : Nil.

Conflicts of interest : Nil.

© 2020 IJIM (An International Journal of Indian Medicine | Official publication of Ayurveda Research & Career Academy.