



ROLE OF AHARIYA KALPANA (MANDA), PATHYA-APATHYA IN THE MANGEMENT OF OBESITY

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ABSTRACT

Ayurveda has its own basic concept regarding the health and disease. Sthaulya is excessive production of meda. To break down samprapti of sthoulya, Drug should have a formulation having properties like kaphaghna, Deepak, Pachak, Medoghna, Lekhana, Ruksha, and Laghu Guna. Manda as per reference in Bhavprakash posses all these properties. Taking all these point into consideration, I thought to evaluate the effect of Manda in the management of Sthoulya. In present study 60 patients of *Sthaulya* were selected from OPD and IPD of Shree Dhanvanteri Ayurved medical college mathura. These patients were undergone throw laboratory investigations. They were treated with *Manda* given orally, duration of treatment was 1 months and follow up was done with parameters like Height, weight, BMI, Waist circumference, Waist Hip ratio and symptoms of *Sthaulya*. Symptoms are reduced significantly. It shows relief in weight, BMI, Waist Circumference and Waist Hip ratio

KEYWORDS : obesity, manda

INTRODUCTION

Acharya charaka was the first to present a detailed account of Sthaulya. Atisthula is one among the Ashtaunindita Purusha described by him. According to Acharya Charaka- In the case of fatty person, other Dhatus doesn't grow to the extent. In today's fast life incongruous food habit and relatively less exercise can be taken as major cause of Obesity. Obesity (Sthaulya) is discouraged by the society for social as well as medical reason. Obesity is the most common nutritional disorder in affluent societies. The incidence of Diabetes mellitus, hypertension, angina pectoris, and myocardial infarction etc. is higher among obese individuals. Commonly obesity is due to excessive eating and lack of adequate exercise In the pathogenesis of sthaulya, all the three doshas are vitiated; especially Kledaka Kapha, Pachaka Pitta, Samana and Vyana Vayu are the Doshika factors responsible for the samprapti of sthaulya. Aama annarasa traveling in the body channels gets obstructed in the Medovaha Srotas owing to the khavaigunya due to bijasvabhava or sharir shaithilya and combines with kapha and meda, decreasing the medo dhatvagni which in turn gives rise to augmentation of meda. Vitiated Vyana Vayu propels this augmented meda dhatu to its sites viz. udara(abdomen), sphika(hip region), stana(breast), gala(neck) etc. resulting in sthaulya.

Manifestations of these Rupas are associated with either excessive accumulation of meda dhatu or diminished nourishment of other dhatus or obstruction in various Srotas(channels) by medojanya margavarodha or the aama or vitiation of vata and slesma Dosa, so excessive accumulation of Medo Dhatu produces various signs and symptoms in Sthaulya patient.

Keeping in view, this burning problem of the present era and its associated devastating disease, it has been decided to do research on Sthaulya with certain Ayurvedic Classical remedies. This research work is a paradigm in the pathway of solution of the disease Sthaulya. Taking all the above mentioned facts in consideration, as described in Bhavaprakasha, *Manda* was formulated for the present study, which is reported to have, *Dipana* and *Pachana*. It acts as fat reducing with digestion & metabolism stimulating action. *Manda pathya kalpana* is *Dipana*, *Pachana*, and *Sthaulyahara*. *Hingu* has *Tikshna*, *Ushna*, *Dipana*, *Pachana* action.

AIM

Study The Role Of Ahariya Kalpana (manda), In The Mangement Of Obesity

MATERIALS AND METHODS

Study Type:

open clinical trial. Patients fulfilling criteria and attending OPD and IPD of shree dhanvanteri pg ayurvedic research and hospital Mathura were selected for present study. An informed written consent of all 60 patients was taken in language best understood by them.

TIME:

twice a day i.e. early morning (prataha kala) and at night (nisha kala)

STUDY DURATION: 1Months.

DOSE:

Manda - 80 ml
Hingu - 125 mg

PREPARATION OF MANDA

The patients included in the study had given rakta shali, and hingu in a divided dosage required for one time to prepare. Then patient was taught how to prepare manda through video clip. After preparation of manda patient was asked to add the provided hingu in it as a prakshep.

Diet:

According to the pathya apatyta mentioned in ayurvedic text diet was prescribed in all selected patients of sthaulya

Parameters Of Assessment:-

Assessment of the patients were done subjectively as well as objectively

1. Subjective parameters
2. Objective parameter

Objective parameter

1. Weight

2. Body mass index (BMI)

1. <18.5 -- Underweight
2. 18.5 - 24.9 -- normal weight
3. >=25 -- overweight
4. 25 - 29.9 -- pre obese

- 5. 30 -34.9 -- obese class 1
- 6. 35 -39.9 -- obese class2
- 7. >40 -- obese class 3

3. Waist Hip Ratio (WHR):

In male > 1 and in female > 0.85 considered as obese

Waist Measurement WC:

midpoint of lower border of rib case & iliac crest

Hip measurement HC : largest part of buttocks.

WC/HC= WHR

Subjective Parameters: Different symptoms were graded into four grade scale (0-3) on the basis of severity to assess the changes in the clinical symptoms of obesity. Study in the changes of gradation of each symptom was done in each follow up.

SCORING OF SUBJECTIVE CRITERIA:

1. Nidra (excessive sleep)

- 1) Grade 0- Normal sleep
- 2) Grade 1- Sleep more than 8 hours
- 3) Grade 2-Sleep more than 10 hours
- 4) Grade 3-Feeling of sleepiness throughout the day

2. Swaskashtata :(dysponea)

- 1) Grade 0-Absence of dysponea
- 2) Grade 1-Dysponea after heavy work & relived by rest
- 3) Grade 2-Dysponea on slight exertion
- 4) Grade 3 -Dysponea even at rest

3. Swedaatipravrutti: (excessive sweating)

- 1) Grade 0-No sweating
- 2) Grade 1-Sweating on more exertion
- 3) Grade 2-Sweating on little exertion
- 4) Grade 3-Sweating at rest

4. Gaurav (feeling of heaviness)

- 1) Grade 0-No feeling of heaviness
- 2) Grade 1-Feeling of heaviness but no effect on routine work
- 3) Grade 2-Feeling of heaviness with slight affect on routine work
- 4) Grade 3-Feeling of heaviness more affecting the routine work

ANALYSIS OF DATA

Data collected from CRF were then subjected to demographic and statistical analysis. Student t-test was applied to objective

data generated and significance of improvement was studied. However subjective data of symptoms, as they are generated by ranking, they did not follow normal distribution, hence forth evaluated by Wilcoxon Sum Rank signed test.

OBSERVATIONS AND RESULTS

Clinical study observed on 60 patients by sorting patients as per sex, age, occupation, diet, *Prakruti, Koshtha* and *Agni*.

- 40% of patients included in the trial were male and remaining 60% patients were female. It can be inferred that *Sthoulya* occurs more commonly in females.
- It was observed that only 8(13.33%) patients was found in 20-25 age group, 19 (31.66%) were there in 26-30 age group, 17 (28.33%) belonged to 31-35 age group and 16 (26.66%) were there in 36-40 age group.
- 2(3.33%) patients were from poor -income group. However 52(86.66%) patients were noted from Middle class. only 6(10%) patient from upper middle group. .
- There were 15(25%) patients were Housewives. 31 (51.66%) were doing job, 5(8.33%) were Business class & 9(15%) were students.
- 39 (65%) were married, 20(33.33%) unmarried, 1 (1.66%) widow female.
- 23(38.33%) were vegetarian and 37(61.66%) were consuming mixed diet.
- 40 (66.66%) were doing *adhyashana*, 8 (13.33%) were doing *samashana*, 11(18.33%) were doing *vishamashana* and 1(1.66%) were doing *anashana*.
- 23 (38.33%) individuals were found with *Kapha-Pitta prakruti*. 15 (25%) patients were of *Kapha-Vata prakruti*. Individuals having *Pitta-Kapha* predominance were 5(8.33%) in number. 10(16.66%) patients were with *Vata-Kapha* Predominance, 5 (8.33%) were *Vata-pitta prakruti*, 2(3.33%) patient were with *pitta-vata prakruti*
- 9 (15%) patients had *mrudu koshttha*, 45 (75%) had *madhyama koshttha* and (10%) had *krura koshttha*
- 8 (13.33%) were found with *manda agni*, *vishama agni* was found in 20(33.33%) individuals and there were 32 (53.33%) individuals had *tikshna agni*.

Assessment of Subjective Parameters *manda* reduces *swedaatipravrutti* by 49.5%, *swas kashtata* by 51.02%, *gaurav* by 48%, *nidra* by 45.63%,

Assessment of Objective Parameters *Mand* and *hingu* shows remarkable difference in weight by 3.033 ± 1.371, BMI by 1.197 ± 0.5356, Waist circumference by 4.283 ± 2.366, difference in Waist hip ratio by 0.01185 ± 0.01752.

Table 1 Showing Statistical Analysis Of Symptoms Of Patients Of Sthoulya Wilcoxon –rank sum test:

Sr No	Symptoms	Mean			SD			Sed	P
		BT	AT	DIFF	BT	AT	DIFF		
1	Swedaatipravrutti	1.767	0.9000	0.87	0.7673	0.6298	0.137	0.01775	<0.00 01
2	Swaskashtata	1.633	0.8167	0.817	0.8018	0.6763	0.125	0.01619	<0.00 01
3	Gaurav	1.75	0.9	0.85	0.7507	0.6023	0.148	0.01918	<0.00 01
4	Nidra	1.71667	0.93333	0.783	0.7612	0.6069	0.155	0.01992	<0.001

BT-before treatment AT-after treatment SD-sta

Table 2 Showing Assessment Of Objective Parameters: Paired T Test Total Effect of Therapy

Sr. No.	Parameter	Mean ± S.D. BT	Mean ± S.D. AT	Difference of Mean ± S.D	Sed	T Value	P Value
1	Weight	82.5 ± 6.218	79.467 ± 5.882	3.033 ± 1.371	0.1770	17.135	<0.0001
2	Body Mass Index	32.587 ± 1.426	31.390 ± 1.447	1.197 ± 0.5356	0.06915	17.309	<0.0001
3	Waist Circumference	89.276 ± 9.620	84.983 ± 8.877	4.283 ± 2.366	0.0354	14.025	<0.0001
4	Waist Hip Ratio	0.9158 ± 0.05427	0.9039 ± 0.05547	0.01185 ± 0.01752	0.002262	5.239	<0.0001

No one patient has found completely relived and markedly improved. 41 patients (68.33%) of *Sthoulya* treated with *Manda&Hingu* were improved. 19 (31.66%) patients have show very miner improvement. *Acharya Bhavprakash* has described *manda &Hingu* for treatment of *Sthoulya*. It shows better results in Subjective Parameters. It also reduces Weight, BMI, Waist Circumference, Mid Arm Circumference and Waist Hip ratio. 41 patients were Improved and 19 shows minor improvement.

DISCUSSION.**Mode of Action of Manda**

Manda pathya kalpana is Dipana, Pachana, and Sthaulyahara. Hingu has Tikshna, Ushna, Dipana, Pachana action. All the drugs used in *manda* are *Tikshna, ushna, katu ras tikta rasatmak, havings lekhan, medoghna, kaphahar* properties. Whole combination acts to break vicious cycle of *samprapti of sthoulya*. Hingu digests the *amasadushta annarasa*. For strotoshodhana requirement is sukshma guna fulfilled by hingu & manda. Hingu is shreshtha in vatashaman& Manda is agnipradipaka. Medadhataavagni is corrected by tiktarasatmaka dravya Hingu. Hence the above combination of drugs is effective in breaking the *samprapti of Sthouly*.

CONCLUSION

This clinical study shows that females are more prone towards obesity. Age group 30-40 years should be conscious towards obesity. People having mixed diet, doing job, and people having *kaphapitta prakruti* and *tikshagni* have more chances of getting obesity. It was observed that symptoms are reducing significantly. It shows relief in weight, BMI, Waist Circumference, Mid Arm Circumference and Waist Hip ratio. From this we can conclude that the *manda & Hingu* can be used in the regular treatment of obesity.

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