



THE HOLISTIC APPROACH FOR OBESITY MANAGEMENT

A CASE STUDY

Goswami Chandani¹, Dobariya Nitin², Vyas Hitesh³

1. Final year scholar Dept. of Basic Principles, I.P.G.T&R.A, G.A.U, Jamnagar

2. Final year scholar Dept. of Basic Principles, I.P.G.T&R.A, G.A.U, Jamnagar

3. Associate professor, Dept. of basic principles, I.P.G.T&R.A, G.A.U, Jamnagar

ABSTRACT :

Obesity comes with many health hazards and numbers of overweight persons are increasing rapidly worldwide and in our country also. There are many ayurvedic drugs under research for obesity management. Need is to control overweight along with improvement in general health aspects. *Maharshi Charak* describes principle of management for obesity i.e. *Sthaulya* in 23rd chapter of *Sutrasthan*. A 38 years old female patient having 90 kg weight and 36.8 kg/m² BMI consulted OPD, Dept. of Basic Principles, IPGT & RA. *Musta-Aaragvadhadi Yoga* (in *Kashaya* form) from *Charak Samhita*, *Sutrasthan* 23rd chapter along with dietary changes and lifestyle modifications was administered for 60 days. Bodyweight was reduced to 78 kg and BMI was reduced up to 31.64 kg/m². Significant changes were noted in subjective parameters as well as objective parameters like skinfold thickness, fat percentage, and body girth measurement after completion of the management. This observation shows importance and utility of ancient protocol for obesity. The detailed description and probable mode of action of treatment protocol will be discussed in full paper. This can be an effective management for the disease and its study on larger scale may give clear picture of its encouraging effect.

Key words: obesity, charak samhita , holistic approach

INTRODUCTION:

Holistic means, relating to or concerned with wholes or with complete systems rather than with the analysis of, treatment of, or dissection into parts. Rather than dealing symptomatically with any disease, Ayurveda approaches all the aspects related with pathogenesis and treatment of the disease. Obesity was believed to be associated with affluent life style in the west. Several studies in India have shown that changes in dietary pattern, physical activity levels, life styles associated with affluence and migration to urban areas are related to increasing frequencies of obesity and the risk of disease. A study published in the noted medical journal Lancet says India is just behind US and China in this global hazard list of top 10 countries with

highest number of obese people. Every five Indian men and women are either obese or overweight. According to the study, number of overweight and obese people globally increased from 857 million in 1980 to 2.1 billion in 2013. This is one-third of the world's population.ⁱ *Charaka* describes a group of diseases as a consequence of *Santarpana*. Obesity (*Sthaulya*) is among one of them.ⁱⁱ *Charaka* mentioned *Ayushyahrasa* (decreased life span) as a first complication among eight complications of *Sthaulya*.ⁱⁱⁱ In obesity management it is the need to control overweight along with improvement in general health aspects. *Charaka* has described oral medications along with diet and lifestyle modification as obesity management at various places in

Samhita. The holistic approach for obesity treatment was adopted to treat an obese female patient visited in OPD, Dept. of Basic principles, I.P.G.T. & R.A.

METHODS (CASE STUDY): A 38 year old woman having *Ayathopachaya* (uneven fat distribution), *Atikshudhapipasa* (excessive hunger and thirst) and *Swedadhikya* (excessive sweating) as her chief complain visited to OPD, dept. of basic principles, IPGT & RA. She was having occasional giddiness and exertion after little efforts. Onset of symptoms was gradual and she started excessive weight gaining in adulthood. Patient mentioned that childbirth with caesarean section and sedentary lifestyle were precipitating factors for weight gain. After detailed history taking no specific medical past history was noted. Family history for obesity was positive in siblings (brother and sister). In personal history of patient; it

was noted that she was habitual to *Madhura Rasa, Sheeta Gunapradhan* vegetarian diet. Regular intake of water just after meals was observed. Occasionally patient was eating in between meals. Patient had no habit of physical exercise and had Stress free temperament (*Achintana*). Her menstrual history was normal. No h/o intra uterine contraceptive device, oral contraceptives pills and oral intake of steroids was observed. Physical examination noted her weight 90 kg and height 157 cm. Her BMI, body-girth (in cm), skinfold thickness, and fat percentage were measured. As per above history and measurements, she was diagnosed as obese. Her treatment protocol was decided after assessing all pathological aspects of her present condition. *Musta-Aaragvadhadi Yoga* (in *kwatha* form) by *Acharya Charak* in *Sutrasthana 23rd* chapter was selected as an oral medication.

Ingredients of *Musta Argydhadi Kuthaya*:

No.	Name of Drug	Botanical name	Part used	Proportion
1.	<i>Musta</i>	<i>Cyperus rotundus Linn.</i>	Rhizome	1 Part
2.	<i>Aargvadha</i>	<i>Cassia fistula Linn.</i>	Fruit pulp	1 Part
3.	<i>Patha</i>	<i>Cissampelos pareira Linn.</i>	Root	1 Part
4.	<i>Haritaki</i>	<i>Terminalia chebula Retz.</i>	Fruit	1 Part
5.	<i>Bibhitaki</i>	<i>Terminalia belerica Roxb.</i>	Fruit	1 Part
6.	<i>Aamalaki</i>	<i>Emblica officinalis Gaertn.</i>	Fruit	1 Part
7.	<i>Devadaru</i>	<i>Cedrus deodara Roxb.</i>	Heart wood	1 Part
8.	<i>Gokshura</i>	<i>Tribulus terrestris Linn.</i>	Whole plant	1 Part
9.	<i>Khadir</i>	<i>Acacia catechu Willd.</i>	Stem Bark	1 Part
10.	<i>Nimba</i>	<i>Azadirachta indica A.Juss.</i>	Stem bark	1 Part
11.	<i>Haridra</i>	<i>Curcuma longa Linn.</i>	Rhizome	1 Part
12.	<i>Daru haridra</i>	<i>Berberis aristata Roxb.</i>	Stem	1 Part
13.	<i>Kutaja</i>	<i>Holarrhena antidysenterica Wall.</i>	Stem Bark	1 Part

Dosage and duration: Dosage of *Yavakuta* for decoction^{iv} was 25 gms twice a day with *Anupana* of normal water for 60 days of duration.

Method for Preparation of decoction: Decoction of above mentioned drugs was prepared by classical Ayurvedic

method. Mixed rough powder of *Kwath-dravya* was boiled with quality sufficient water up to the evaporation of ¾ parts. Remaining part (1/4) with filtered to be used as medicine. Diet and lifestyle modifications were advised. She was advised to have diet in following manner.

Table 1: diet modification

diet	Take	Don't take
Grains, pulses	wheat, pearl millet, oats, green gram, horse gram(<i>Kulathi</i>)	Rice, pulses other than green gram, refined wheat flour items
Water	When needed, Boiled with dry ginger and coriander seeds	Chilled water, cold drinks, Water just after meal
Vegetables	Bottle gourd, bringal, bitter gourd, radish, cabbage, spinach, fenugreek leaves, garlic	Potatoes, sweet potatoes
fruits	Papaya, pomegranate, orange in less quantity	Fruits having heavy pulp (banana, chikoo, apple), dry-fruits
milk/milk products	Skimmed milk, fresh butter milk Cow milk	Curd, Cheeze, butter, paneer, Milkshakes, sweets, buffalo milk
		Fast food, fermented foods , pastry, cake

Lifestyle modification-

- Drinking water just after meals was restricted.
- Brisk walking at morning and evening time, for 30 minutes was advised.

- Patient was advised to change her eating habits. Meal only two times per day was advised.
- *Upvas* (of one day) was advised at interval of every fortnight. *Laghu Aahar* up to two days after *Upvas* was advised

RESULTS:

Table 2: Improvement in chief complains after therapy

Chief complaints	
Before treatment	After treatment
excessive fat deposition over abdomen and hip region	Moderate fat deposition over abdomen. Moderate to mild fat deposition over hip region
Feel hunger in 4-5 hours	Feel hunger in 5-6 hours

3 to 4 litre intake of water	2 to 3 litre intake of water
Profuse sweating after little work and movement	Profuse sweating after moderate work and movement

Table 3: changes in weight, BMI and fat %

	B.T.	A.T.
Weight (kg)	90	78
BMI (kg/m²)	36.8	31.64
Fat %^v	42.5	38

Table 4: bio-chemical parameters

Bio-chemical parameters	BT	AT
RBS mg/dl	92	101
S. Cholesterol	133	124
S. Triglyceride	185	135
S.LDL	44	43
S.VLDL	37	27
S.HDL	52	54

Table 5: girth measurement

Girth measurement (cm)	BT	AT
Neck region	37	35
Mid arm	34	32
Forearm	24	22
Chest	108	102
Abdomen	104	101
Hip	127	121
Mid-thigh	55	51
Mid-calf	39	35

Table 6: Skinfold thickness (cm)

Skinfold thickness (cm)	BT	AT
Biceps	1.0	0.8
Triceps	2.0	1.5
Scapular	0.5	0.3
abdomen	1.0	0.8
Supra iliac	1.0	0.5

DISCUSSION: Weight reduction of 12 kg from prior weight and decrease of body fat percentage (Table: 2) is due to *Apatarpankarak* effect of the treatment protocol. All the measurement also shows significant effect of therapy that is reduced body mass from all body parts (Table 5, 6). There was reduction in S. triglyceride

level but it was within normal limits. (Table: 4)

Probable pathogenesis and breaking of pathogenesis: More water intake just after meals leads to obesity^{vi}; sedentary habit, lack of physical exercise, stress-free temperament (*Achintana*)^{vii} leads to hyper nutrition and obesity. These factors results in *Rasadushti*, which leads

Medodhatuvridhi. Increased *Medodhatu* causes obstruction to *Srotas* that leads to *Kosthagata Vata* *vridhi*. Increased *Vata* in *Kostha* enhances hunger that produces more craving for food. This excessive food intake gives nutrition only to *Medodhatu*, and abnormal cycle of *Medodhatuvridhi* takes place. Treatment protocol was planned to break this cycle and to correct each level of pathogenesis. Diet modification led to proper *Rasanirmana*. Daily brisk walking may be acted as *kapha-meda kshayakaraka Vyayama* to the patient; that melted accumulated fat of body. Among thirteen contains of the *Musta-Aaragvadhadi* *Yoga*, hyperlipidemic activity is found in *Musta*, *Trifala*, *Haridra* and *Khadir* that is proven by researches. Classically, *Medohar* property is found in *Musta*, *Trifala*, *Haridra*, *Daruharidra*, *Patha* and *Khadir*.^{viii} *Ruksha* quality of *Nimba*, *Khadira*, *Haridra-Daruharidra*^{ix} and *Medoghna*^x quality of *Khadira* may reduce vitiated *Medodhatu*; that purify *Srotas* and stabilises *Vata*. *Dipana-Pachana*, *Lekhan* property of *Musta* and *Dipana* property of *Gokshura* may lead proper *dhatvagnikarma*. *Aaragvadh* having *Sransana*^{xi} property may lead to *Kosthashuddhi*. These *Karma* may ultimately result in *Samyak Upachaya* of body.

CONCLUSIONS:

- *Acharya Charaka's* principle management (holistic approach) gives significant result to treat obesity. Changes in diet and lifestyle modification along with medication prevents further development of the disease. (As no weight gain found in two months of follow up.)
- This can be an effective management for the disease and its study

on larger scale may give clear picture of its effect.

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Corresponding Author: Dr.Goswami Chandani, Final year scholar Dept. of Basic Principles, I.P.G.T&R.A, G.A.U, Jamnagar,India.

E-mail:chandnigoswami77@gmail.com

