

CASE STUDY

Management of Obesity through Ayurveda - A Case Study

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ABSTRACT

Obesity is a complex, chronic disease with several causes that lead to excessive body fat and sometimes, poor health body fat itself is not a disease, of course. But when your body has too much extra fat, it can change the way it functions. These changes can worsen over time, and they can lead to adverse health effects. Ayurveda has described obesity as *Sthoulya* and *Acharya Charaka, Shusruta* and *Vagbhata* have described the causes, symptoms and treatment in dedicated chapter. They have described the root cause of *sthoulya* as improper eating habits, lack of exercise and physical work i.e *apthyakar ahara vihara*. Along with its symptoms and treatment they have also mentioned different *ahariya dravyas* to be given to the patient of *sthoulya* as it is closely related to digestive system. This article discusses about the details of obesity described in various texts of ayurveda. In this article different *shamana aushadhis* along with its *shodhana* treatment has been given to the patient and relief in sign and symptoms along with its pre and post assessment like weight and BMI has been discussed and result obtained is given. hence it is proved that *ayurvedic* treatment can be effectively used in the management of obesity.

Key Words *Sthoulya, Apathyakar ahara vihar, Shamana, Shodhana*

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INTRODUCTION

Obesity may be defined as an abnormal growth of the adipose tissue due to an enlargement of fat cell size or an increase in fat cell number or a combination of both¹. Obesity is often expressed in terms of body mass index (BMI). It is now so common that it is replacing the more traditional public health concerns including under nutrition. It is one of the most significant contributors to ill health it has been suggested that such increase in body weight have been caused primarily by reduced levels of physical activity rather than by

change in food intake or by other factors. Overweight prevalence was higher among females than males and in urban areas than in rural areas. Low prevalence was recorded among lower level of education and in people whose occupation was connected with agriculture or manual work. Obesity is a key risk factor in natural history of other chronic and non-communicable disease, the typical time sequence of emergence of chronic disease following the increased prevalence of obesity is important in public health planning.

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A 45 yr male patient come to OPD of *Panchakarma*. M. A. Podar Medical Hospital with a complaints of increasing body weight since 3 yrs. Associated with exertional dyspnea, fatigue, heaviness in body and pain in lumbar region. Past history revealed that patient was a known case of HTN since 2 yrs under medication Telma 40mg. No history of Diabetes mellitus, Bronchial Asthma, Hypothyroidism. There is a no family history of gaining weight and obesity. *Astavidha Pariksha*, *Dashavidha Pariksha*, systemic and general physical examinations with anthropometry of the patient was done. Investigations showed normal Hematological report but changes were seen in the biochemical tests with special reference to lipid profile. Considering the examinations, BMI (>29.99Kg/m²), lab investigation findings, patient was diagnosed as obese class 2.

1) International Classification of Adult Underweight, Overweight and Obesity according to BMI² – As per Table no.1

Table 1 WHO Classification of Weight Status

Weight Status	Body Mass Index BMI Kg/m ²
Under Weight	<18.5
Normal Range	18.5 – 24.9
Over Weight	25.0 – 29.9
Obese	≥ 30
Obese Class I	30.0 – 34.9
Obese Class II	35.0 – 39.9
Obese Class III	≥ 40

Method

Apatarpanam Chikitsa was followed and assessment was done before and after treatment of the patient.

2) *Ashtavidha Pareeksha* - As per Table no.2

3) *Dashvidha Rogi Pareeksha* – As per Table no.3

4) *Nidan Panchak* – As per Table no.4

5) **Personal history and Anthropometry measurement of the patient** – As per Table no. 5

6) **Physical examination** – As per Table no. 6

7) **Systemic Examination** – As per Table no. 8

8) **Laboratory Investigation** – As per Table no. 7

9) **Lipid Profile** – As per Table no. 9

Samprapti of Sthoulya

Due to the *Nidana Sevana* specially *Madhura Rasa*, *Snigdha Ahara*, *Guru*, *Vidahi Ahara* *Avyayama*, *Divaswapna*, *Kevala Medo Dhatu Vriddhi* takes place, which leads to *Sroto*

Table 2 *Astavidha Pareeksha*

<i>Nadi</i>	<i>Prakruta (kapha pitta)</i>
<i>Mala</i>	<i>Niram mala, prakrut</i>
<i>Mutra</i>	<i>Prakrut</i>
<i>Jivha</i>	<i>Alpa sama</i>
<i>Shabda</i>	<i>Spashta</i>
<i>Sparsha</i>	<i>Anushnasheeta</i>
<i>Druka</i>	<i>Prakrut</i>
<i>Pakruti</i>	<i>Sthool</i>

Avarodha by *Medas* and *Vayu* restricted to *Koshtha* and *Jatharagni Vriddhi* takes place consumption of food increases and *Sthoulya* (*Atitrishna*, *Atikshudha*, *Swedadhikya*, *Alasya*) occurs.

Samprapti Ghataka – As per Table no. 10

Considering all examination mentioned in tables the disease was understood and diagnosed as *Sthoulya* after assessing all parameter like *Satwa*, *Agni*, *Bala*, *Koshtha*, *Vaya*. *Panchakarma* treatment was given

1) *Sarwanga udawartan* - *Kolkulthadi churna* contains *Kola*, *Yava*, *Kulatha*, *Rasna*, *Vacha*,

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Musta, Devdaru, Erandmul, Shatpushpa, Mash, Atasi for 30days

2) *Petisweda* with Dashmool Kwath for 30 days

3) *Katibasti* with *sahachara taila* for 7 days

4) *Erandmuladi basti*³ for 30 days

5) *Yoga (Suryanamaskar, Pacchimouttanasan, Kapalbharati)*

6) Physiotherapy –

a. Tummy twister 15 min

b. Cycling exercise 15min

c. Continuous fast walking for 20 min

Along with *Panchkarma* therapy *Shamana*

Aushadhies was given – As per Table no. 11

DIET – As per Table no.12

On completion of these treatment for 30 days once again assessment were taken to assess changes in parameters – As per Table no. 13

Table 3 *Dashvidha Rogi Pareeksha*

Prakruti	<i>Dwandaja (Kapha pitta)</i>
Vikruti	<i>Kapha vata</i>
Sara	<i>Madhyam</i>
Samahan	<i>Madhyam</i>
Praman	<i>Madhyam</i>
Satmya	<i>Madhyam</i>
Satwa	<i>Awar</i>
Aharshakti	<i>Prawar</i>
Vyayamshakti	<i>Madhyam</i>
Vaya	<i>Madhyam</i>

RESULTS

Patient was admitted on 1/4/22 with a weight of 86kg and BMI of 38.22 which got reduced to 80 kg on date of discharge 22/4/22 result shows that 6kg of weight reduction takes place within 30 days of treatment. patient was discharged on 22/4/22 and said to continue *Shaman Aushadhis*, diet chart, *yogasana, pranayama*. Follow up done after 7 days.

Same medicine were given on discharge

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Satmya	<i>Madhyam</i>
Satwa	<i>Awar</i>
Aharshakti	<i>Prawar</i>
Vyayamshakti	<i>Madhyam</i>
Vaya	<i>Madhyam</i>

Table 4 *Nidan*

Aahara	<i>Madhura, Snigdha, Sheetahara like Dadhi, Mansaahara, Matsya sevan, Vidahi, Gurubhojana Shaali, Yava, Godhuma</i>
Vihara	<i>Avyam, diwaswap, Atiasana, shitavayusewana</i>
Purvaroop	Nothing significant
roopa	Increased body weight, <i>Atitrushna, Atikshudha, swedadhikya</i>

Table 5 Personal history and Anthropometry measurement

Appetite	Good
Bowel	Regular sometimes constipation
Micturation	Adequate (5-6 times/day, 1-2 times/night)
Sleep	Sound but disturbed since 3 months due to back pain
Habit	Sleeping, sitting for long hours, drink more water after food, eating fried items in more quantity
Aahara	Non-vegetarian
Vihara	Sedentary, <i>Avyayama, Divaswapna</i> (1-2 hours)
Blood Pressure	120/80 mmhg
Pulse	72/min
Height	150cm
Weight	86kg
BMI	38.22kg/m ²
Chest circumference	112cm
Abdomen circumference	110cm
Mid arm circumference	Right hand 30cm Left hand 30 cm
Mid thigh circumference	Right leg 50cm Left leg 52 cm
Waist	100cm

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circumference	
Hip circumference	120cm

Table 6 Physical examination

Appearance	Bulky
Built	Normal
Nourishment	Overnourished
Gait	Nomal
Paller	Absent
Icterus	Absent
Clubbing	Absent
Cynosis	Absent
Edema	Absent
lymphadenopathy	Absent

Table 7 Laboratory Investigation

HB	14.4gm
WBC	8000cm/cumm
ESR	10 mm/hr
Platelet	1.5lakh/cumm
RBC Count	3.50mill/cum
Fasting	100mg/dl
Post prandial	120mg/dl
Blood urea	20mg/dl
S creatinine	1.0mg/dl

DISCUSSION

According to *Ayurveda*, patient was diagnosed with *Sthaulya* having symptom such as weight gain, *Atikshudha*, *Atitrushna* with *Vata Kapha* as *Vikruta Dosh* and *Ras, Mansa, Meda* as *Vikrut Dushyas*. Patient had sedentary lifestyle with *Guru Vidahi Snigdha Madhura Rasa sevan*, improper dietary habits, lack of exercise and *diwaswapa*. Considering *Sthoulya* as a

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Santarpanjanya Vyadhi and following the principle of *Guru Atarpanam Chikitsa*, *Udawartana*⁴ was used which helps in liquefaction of *Meda dhatu* and *Kapha dosha*, *Petisweda*⁵ in which patients whole body fomented with decoction of *Dashmool Kwath* helps to pacify *Vata Dosh* and normalizes the *Kapha Dosh*. *Erandmuladi Basti* contains *Gomutra* which is added in *Basti* according to *bala* of patient. It helps to eliminate *Vata* and *Kapha Dosh*. *Basti Dravya* becomes hypertonic solution as it contains *Madhu, Saindhav, Kalka, Kashaya* and *Gomutra* which is introduced into body through the intestinal epithelial cells by the process of osmosis and it throws out *Doshas* from body. *Basti dravya* help to removes the morbid factors from body. *Katibasti* helps in reducing painful condition of lowerback. *Shamana Aushadhis* helps to normalize the *Doshas* and normalizes the *Dhatwagni* and *Dhatu(Meda)*. Exercise, *yogasana* and *pranayama* normalize the fat metabolism and helps in achieving lightness in the body. In this way patient shows a significant changes in his body, patient advised to continue medicine with proper dietary restrictios and daily activites and *yogasana*.

Table 8 Systemic Examination

Central nervous system	Conscious, oriented
Respiratory system	AEBE Clear
Cardiovascular system	S1 S2 Normal
Per abdomen	Soft Non tender

Table 9 Lipid Profile

Lipid profile	Before Treatment	After Treatment
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Total cholesterol	219 mg/dl	150mg/dl
H.D.L.	50mg/dl	49mg/dl
Cholesterol		
L.D.L cholesterol	80mg/dl	77mg/dl
Triglyceride	100mg/dl	80mg/dl

Table 10 Samprapti Ghataka

Udabhava sthan	<i>Amashaya</i>
Vyakta bhava	<i>Uru udara bahu</i>
Adhithana	<i>Medo dhatu</i>
Rogmarga	<i>Abhyantara</i>
Agni	<i>Teekshagni</i>
Dhatwagni	<i>Mand</i>
Dosh	<i>Kapha vata</i>
Dushya	<i>Rasa, mansa, meda, asothi</i>
Strotos	<i>Medovaha ,rasavaha</i>
Stroto dushti	<i>Sanga</i>
Sadhya aasadhya	<i>Kruchyasadhya</i>

Parameter	Before	After
Weight	86kg	80kg
BMI	38.22kg/m ²	35.55kg/m ²
Chest circumference	112cm	100cm
Abdomen circumference	110cm	105cm
Mid arm circumference	Right hand 32cm Left hand 32 cm	Right hand 29cm Left hand 30 cm
Mid thigh circumference	Right leg 50cm Left leg 52cm	Right leg 47cm Left leg 48cm
Waist circumference	100cm	95cm
Hip circumference	125cm	120cm

Table 11 Shamana Aushadhies

Kala	Medicine	Dose	Anupana
<i>Aapane</i>	<i>Aarogyavardhini vati</i>	500mg	Lukewarm water
	<i>Chandraprabha vati</i>	500mg	Lukewarm water
<i>Vyanodane</i>	<i>Triphala guggulu</i>	500mg	Honey 5ml+ Lukewarm water
	<i>Maharasnadi kadha</i>	20 ml	Lukewarm water
	<i>Medohara guggulu</i>	500mg	Lukewarm water

Table 12 Diet

Mudga yusha	50 gm
Siddha takra	100 ml
Vegetable soup	60 ml

CONCLUSION

Sthaulya (obesity) is a condition in which proper dietary habits and daily activities should be observed and change for life-long effect along with treatment modalities. Based on causes, signs and symptoms of disease proper medication and procedure was selected and scheduled diet and exercise was recommended to patient.

Table 13 Assessment

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