

AYURVEDIC MANAGEMENT OF ATI STHAULYA (SUPER OBESITY): A CASE REPORT

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ABSTRACT

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health. It is defined by body mass index (BMI). Obesity is one of the leading preventable causes of death worldwide. Obesity increases the risk of many physical and mental conditions. These co-morbidities are most commonly shown in metabolic syndrome, a combination of medical disorders which includes: diabetes mellitus type 2, high blood pressure, high blood cholesterol, and high triglyceride levels. In *Charak Samhita*, *Sthaulya* is described widely and with deep interpretation. Also in *sutrasthana* which is most important part of *Charak Samhita*, in different *adhyaya* (e.g. *Astauninditiya*, *Langhanabrumhaniya*, *Santarpaniya*) causes, symptoms and treatment are described. As an alternative approach, Ayurvedic treatment may serve as promising modality. A 22 years old male patient came in P.D. Patel Ayurveda Hospital at 16th May 2017. Patient measured weight was 132.5 kg and BMI was 51.75 which is fairly included in super obesity category. He also had some associated complaints like exertional dyspnoea, increased appetite, and excessive perspiration. He was admitted in hospital and was treated with *Snehana* (*Aabhyantara* and *Bahya*), *Swedana*, *Virechana*, *Niruha Basti*, *Udavrtana* along with oral medicines like *Varunaadi Kwatha*, *Arogyavardhini Vati*, *Triphala Guggulu*. Also patient was advised to follow prescribed dietary regimes and life style strictly. The patient responded very well. He lost about 8.8 kg of weight, which was 123.7 kgs and BMI was 48.32 only in 15 days without any complications and any signs and symptoms of malnutrition. So with the help of Ayurvedic management patient got weight loss significantly.

Keywords: A case study, Obesity, BMI, Metabolic syndrome, *Varunadi kwatha*, *Arogyavardhini vati*.

INTRODUCTION

Obesity in India has reached epidemic proportions in the 21st century, with morbid obesity affecting 5% of the country's population⁽¹⁾. Due to genetic tendency of Indians towards abdominal obesity and its associated risk of related lifestyle diseases like Diabetes & Heart Disease, Ministry of Health & Family Welfare along with the Indian Council of Medical Research released updated guidelines in 2012 and according to that, Normal BMI: 18.0 - 22.9 kg/m², Overweight : 23.0 - 24.9 kg/m², Obesity: > 25 kg/m². The World Health Organization (WHO) predicts that overweight and obesity may soon replace more traditional public health concerns such as under nutrition and infectious diseases as the most significant cause of poor health⁽²⁾.

A Case Study:

We are presenting a case of 22 years old male patient. He came to our OPD on 16th June, 2017 and diagnosed as patient of super obesity. He was not suffering from any other underlying systemic pathology. Family history of the patient was positive for obesity from both maternal and paternal side. The patient presented with symptoms like Weight gain with gradual onset since early adolescence, exertional dyspnea and excessive perspiration. As per *Charak Samhita*, symptoms like *Bhar vriddhi* (weight gain), *Chalaspik Udara* (excessive movements of abdomen, gluteal region), *Ati Kshuhudha* (excessive appetite), *Swedabadha* (excessive perspiration), *Daurbalya* (weakness) were found.

Rogi Pariksha:

<i>Astavidha pariksha</i>		<i>Dashavidha pariksha</i>	
<i>Nadi</i>	<i>Pittakaphaj</i>	<i>Sharira Prakruti</i>	<i>Pittakaphaja</i>
<i>Mootra</i>	<i>Avishesha</i>	<i>Manasa Prakruti</i>	<i>Rajatama pradhan</i>
<i>Mala</i>	<i>Avishesha</i>	<i>Vikruti</i>	<i>Pravara</i>
<i>Jihva</i>	<i>Niram</i>	<i>Sara</i>	<i>Avara</i>
<i>Shabda</i>	<i>Avishesha</i>	<i>Samhanana</i>	<i>Avara</i>
<i>Sparsha</i>	<i>Ushna</i>	<i>Pramana</i>	<i>Avara</i>
<i>Drikka</i>	<i>Avishesha</i>	<i>Satva</i>	<i>Madhyama</i>
<i>Aakruti</i>	<i>Ati sthaulya</i>	<i>Satmya</i>	<i>Pravara</i>
		<i>Aahara shakti</i>	<i>Pravara</i>
		<i>Vyayama shakti</i>	<i>Avara</i>
		<i>Vaya</i>	<i>Madhyama</i>

On examination as objective criteria, his weight was 132.5 kgs and BMI was 51.75. He was also analysed with body fat analyzer at every follow up. So, on the basis of modern and classical symptomatology, through examination, he was

diagnosed as a patient of Super Obesity (*Atisthaulya*). He did not take any medicine previously for obesity. We started his *Ayurvedic* treatment as follows:

Treatment Plan

Si.No.	Treatment Modality	Days	Specifications
1	<i>Snehapana</i> (As <i>poorvakarma</i> of <i>Vamana</i>)	1 st day to 6 th day	<i>Till tail</i> was started with 40 ml twice a day which gradually increased up to 150 ml twice a day on 6 th day
2	<i>Chhardiripu</i> (orally)	4 th day to 5 th day	On the fourth day of <i>Snehapana</i> , when dose of <i>Tila tail</i> was 125 ml twice a day, patient was having nausea after <i>Snehapana</i> and for that patient was advised <i>Chhardiripu</i> 1 gm twice a day before <i>Snehapana</i>
3	<i>Sarvanga Abhyanga & Baspa Swedana</i>	7 th day to 9 th day	<i>Sarvaanga Abhyanga</i> with <i>Narayana Tail</i> and <i>Sarvang Baspa swedana</i> of <i>Nirgundi Patra</i> were done for 3 days.
4	<i>Virechana</i>	On 9 th day	<i>Virechana karma</i> done with By <i>Eranda sneha</i> – 40 ml with <i>Dindayala choorna</i> – 4 gm.
5	Rest	On 10 th day	No any internal or external medicines were given or procedures were performed.
6	Oral Medicine	From 11 th day to 15 th day	<ul style="list-style-type: none"> ➤ <i>Varunadi kwatha</i> 40 ml BID empty stomach. ➤ <i>Triphala guggulu vati</i> 3 tabs TID before meal/snacks. ➤ <i>Arogyavardhini vati</i> 2 tabs TID before meal/snacks.
7	<i>Sarvanga Udavartana</i>	From 12 th day to 15 th day	From 12 th day of admission, patient was started <i>Udavartana</i> by <i>Aamalaki + Lodhra choorna</i> for 30 min. followed by <i>Sarvang Baspa swedan</i> of <i>Nirgundi Patra</i> till the the day before discharge i. e. for 4 days
8	<i>Sarvanga Baspa Swedana</i>	From 12 th day to 15 th day	<i>Sarvanga Baspa Swedan</i> of <i>Nirgundi Patra</i> was given before <i>Sarvanga Udavartana</i>
9	<i>Niruhabasti</i>	From 12 th day to 14 th day	From 12 th day of admission, patient was given <i>Niruha Basti</i> prepared with <i>Trifala Kwatha</i> 320 ml a day till the day before discharge i. e. for 3 days

Interventions

Diet: As patient was treated on IPD base so, patient was advised to have boiled *Munga* (green gram) and boiled vegetables in diet throughout course.

Exercises:

1. Morning and evening fast walk for 3 kms

2. *Kapalbhati pranayama* – 300 round (Divided in 6 parts)
3. *Yogasana – Paschimotanasana* (in form of stretching exercises – 200 times in 4 sets)
- *Uttanpadasana* (maintain the leg at 30, 45, 90 degree for 5 seconds, 3 sets of 15 times with either leg followed by both leg)

Follow ups and Outcomes

Table 1: Signs and symptoms:

NO	Signs and symptoms	Initials (On first visit) 16/06/17 *BT	1 st follow up 23/06/17	2 nd follow up 30/06/17 *AT
1	Exertional dyspnea (<i>Ayase swaskastataa</i>)	+++	++	++
2	Excessive Perspiration (<i>Swdabadha</i>)	+++	++	+
3	Weakness (<i>Daurbalya</i>)	++	+	+
4	Polyphagia (<i>Ati kshudha</i>)	+++	++	+

Note:

(++++)- severe presentation of symptom

(+++)- Moderate presentation of symptom

(++) - Mild presentation of symptom

(+) - Least / sometimes presentation of symptom

Table2: Tests and Clinical examinations:

No.	Tests and clinical examinations	Initials (On first visit) 16/06/17 *BT	1 st follow up 23/06/17	2 nd follow up 30/06/17 *AT
1	Weight (kgs)	132.5	125.5	123.7
2	BMI (kg/m ²)	51.75	49.02	48.32
3	Fat Mass (%)	68.3	72.0	66.3
4	Muscle Mass (%)	34.5	33.9	34.6
5	Bone Mass (kgs)	3.8	3.7	3.4
6	Water contain (%)	24.2	21.5	25.9
7	Waist Girth (cm)	133 cm	-	124 cm
8	Hip Girth (cm)	128 cm	-	120 cm

*Before Treatment

**After Treatment

DISCUSSION

The patient showed very encouraging results just in first follow up. He lost about 8.8 kg. of weight in 15 days and according to fat analyzer it is not water contain which helped in reducing weight. At last follow up BMI of patient ranged from 51.75 to 48.32 which shows significant decrement and patient reached to morbid Obesity category. Before treatment waist circumference of patient was 133 cm and waist / hip circumference was 1.03 which is greater than 0.9. This indicates patient was having central Obesity⁽³⁾. It was significant improvement in waist circumference from 132 cm to 124 cm which

shows reduction in abdominal obesity. In all subjective criteria patient showed significant improvement and not only patient felt lightness in body but also felt energetic. Orlistat and Sibutramine etc. currently used pharmacological medicines help to lose 5 to 10 % of body weight with long term use but are having Side effect like tachycardia, hypertension, headache and insomnia. While this case shows that Ayurvedic tripod approach (Diet, Exercises and Treatment) to obesity helps to lose more than 6.64 % of body weight and most importantly without any side effect in just 15 days. We found gradual weight loss throughout treatment. In relation

with that hydration, muscle mass and bone mass mostly remain intact. Super Obesity (BMI > 50) confers extremely high risks of many other life style diseases. For example, even overweight people experience a two to threefold elevation in the risks of CAD and hypertension and a more than tenfold increase in the risk of type 2 diabetes compared with lean individuals (BMI less than 23)⁽⁴⁾. As patient was having Super Obesity, waist circumference 133 cm before treatment, patient was at very high risk of other life style diseases but after treatment patient lost 8.8 kg of body weight and patient came to the category of morbid obesity which has defiantly comparatively lower down the risk of its morbid consequent pathologies.

All above treatments are fairly mentioned in classical Ayurveda texts:

As per *Charaka*, *Vamana* is contraindicated in *Ati Sthaulya*⁽⁵⁾. But being a syndromic condition (*Bahu Doshasya Laksanama*) *Samsodhana* therapy is highly recommended for *Sthaulya* patients possessing stamina & strength⁽⁶⁾. *Sushruta* has given contraindication of *Vamana* in *Sthaulya*, while it is indicated in *Medorog*⁽⁷⁾. All *Sthula* patients with *Adhika Dosha* & *Adhika Bala* should be treated with *Samsodhana* Therapy, including *Vamana*, *Virechana*, *Ruksha Niruha*, *Raktamoksana* & *Sirovirechana*⁽⁸⁾. Patient was from super obesity category and also having *dushchhardana* (always having troubles during vomiting) so *Vamana* was not planned for this patient and only *Virechana* was planned for this patient. *Ruksha*, *Ushna* & *Tikshna Basti* has been also suggested in *Ati Sthaulya* by *Acharya Charaka*⁽⁹⁾ and according to that we have planned *Niruha Basti* prepared with *triphala kwatha* . *Ruksha Udvartana* is the *Bahya Sodhana* indicated for the management of *Sthaulya*⁽¹⁰⁾. For that we have used *Aamalaki*

and *Lodhra choorna*. Oral medicines are also mentioned in our texts which are as under.

1. *Arogyavardhini vati*⁽¹¹⁾ :

It is clearly indicated as “*Medovinasini*” (causing fat loss), “*Sarvaroga prasamani*” (curing all diseases), it performs all these works in association with *Dipan*, *Pachana karma* and impact of *pathya* and *Hridya prabhava*. *Arogyavardhini vati* potentiates the antioxidant activity and shown less degree of carbon tetra chloride inducing hepatic damage. It suppress the formation of free radicals so, might have contributed for antioxidant activity.

2. *Varunadi kwatha*⁽¹²⁾ :

Acharya Susruta has mentioned this *Kwatha* for *Medovaha Srotasa Dushti*. They mentioned it as “*kapha medo nivarana*” and for *Shirah shula*, *Gulma*, *Abhyantara Vidradhi* too. Also it has anti lipidemic and having property of lowering blood glucose level.

3. *Triphala Guggulu*⁽¹³⁾ :

Acharya Sharangdhara mentioned this *yoga* in *Bhagandara*, *Gulma*, *Shotha* and *Arsha*. It contains *triphala*, *pippali* and *guggulu*. *Triphala* has known effect of *Tridosha shaman*. *Pippali* helps to modulate digestive power even associate with *Ama Pachana*. *Guggulu* is *Rasayana* and *Lekhana* effect. So, combine all these drugs maintain digestive fire and inhibit *Ama* production and gradually decreases extra fat from the body.

CONCLUSION

The cocktail of bilateral positive family history along with sedentary lifestyle and high calorie intake were responsible for early onset and intensive weight gain. At last follow up BMI of patient ranges from 51.75 to 48.32 and weight of patient ranges from 132.5 to 123.7 kg which shows significant decrement in just 15 days. A well integrated Tripod of Diet, Physical exercis-

es and Ayurvedic medicine give excellent results in obesity and other life style diseases. Ayurvedic treatment is more Cost effective and safe as compared to other surgical interventions. Ayurveda can provide not only weight loss but sense of well being and quality life style to even in super obese person. There is no any side effect observed for this Ayurvedic medicine. This case report suggests standard clinical practice guidelines for obesity as black box (Individual) method and gives reference to examine it on research bases by testable hypothesis.

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