

Ayurvedic Panchkarma Management of Sthaulya (Obesity): A Case Report

Case Report

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Abstract

Obesity is burning health problem for society nowadays. 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* (eg. *Astauninditiya*, *Langhanabrumhaniya*, *Santarpaniya*) causes, symptoms and treatment are described. As an alternative approach, Ayurvedic treatment may serve as promising modality.

A 27 years old male patient came in P.D. Patel Ayurveda Hospital at 5th June 2015. Patient measured weight was 98.1 kg and BMI was 33.94 which is fairly included in obesity category according to NHI guidelines. He also had some associated complaints like exertional dyspnoea, increased appetite, excessive perspiration. He was admitted in hospital and was treated with *Snehana* (*Aabhyantara* and *Bahya*), *Swedana*, *Vamana*, *Virechana*, *Niruha Basti*, *Udavrtana* along with oral medicines like *Varunaadi Kwatha*, *Arogyavardhini Vati*, *Triphala Guggulu*, *Kaishor Guggulu* and *Navayasa Lauha*. Also patient was advised to follow prescribed dietary regimes and life style strictly. The patient responded very well. He lost about 10.2 kg of weight, which was 87.9 kgs and BMI was 30.41 only in 26 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 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)(1). Obesity is one of the leading preventable causes of death worldwide(2). 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(3). According to "The Hindu" 2007-10-12, "India facing obesity epidemic: experts", Obesity in India has reached epidemic proportions in the 21st century, with morbid obesity affecting 5% of the country's population. 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(4).

A Case Study

We are presenting a case of 27 years old male patient. He came to our OPD on 5th June 2016 and diagnosed as patient of obesity. He was not suffering from any other underlying systemic pathology. Family history of the patient was negative for obesity. The patient presented with symptoms like Weight gain with gradual onset since 3 years, exertional dyspnoea and excessive perspiration. As per *Charak Samhita*, symptoms like *Bhar vridhhi* (weight gain), *Chalaspahik Udara Stana* (excessive movements of abdomen, breast and gluteal region), *Ati Kshuhudha* (excessive appetite), *Ati Pipasa* (excessive thirst), *Swedabadha* (excessive perspiration), *Daurbalya* (weakness) were found. On examination as objective criteria, his weight was 98.1 kgs and BMI was 33.94. He was also analysed with body fat analyzer at every follow up. So, on the basis of modern and classical symptomatology, through examination and tests he was diagnosed as a patient of grade - I obesity (*Sthaulya*). He did not take any medicine previously for obesity. We started his *Ayurvedic* treatment as follows:

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Treatment Plan:
Table No 1: Treatment modality

Sl.no	Treatment Modality	Days	Specifications
1	<i>Snehapana</i> (As <i>poorvakarma</i> of <i>Vamana</i>)	1 st day to 3 ^{ed} day	<i>Till tail</i> was started with 40 ml twice a day which gradually increased up to 70 ml twice a day on 3 ^{ed} day.
2	<i>Sarvanga Abhyanga</i> & <i>Baspa Swedana</i>	4 th day to 5 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 2 days.
3	<i>Vamana</i>	On 5 th day	<i>Madanafala Choorna</i> – 3.5 gm with <i>Madhu</i> was used for <i>Vamanakarma</i> .
4	Rest	On 6 th and 7 th day	No any internal medicines were given or procedures were performed. Patient was prescribed modified <i>Sansarjana Krama</i> .
5.	<i>Snehapana</i> (As <i>poorvakarma</i> of <i>Virechana</i>).	8 th day to 10 th day	<i>Till tail</i> again started with 40 ml twice a day from 8 th day which gradually increased up to 70 ml twice a day on 10 th day.
6.	<i>Sarvanga Abhyanga</i> & <i>Baspa Swedana</i> .	11 th day to 13 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.
5	<i>Virechana</i>	On 13 th day	<i>Virechana karma</i> done with By <i>Eranda sneha</i> – 30 ml with <i>Dindayala choorna</i> – 4 gm.
6	Rest	On 14 th day	No any internal or external medicines were given or procedures were performed.
7	Oral Medicine	From 15 th day to 26 th day	<i>Varuṇadi kwatha</i> - 40 ml BID empty stomach. <i>Triphala guggulu vati</i> - 3 tabs. TID before meal/snacks. <i>Kaishaur Guggulu tab</i> - 3 tabs. tab. TID before meal/snacks.
8	<i>Sarvanga Udavartana</i>	From 15 th day to 26 th day	From 15 th day of admission, patient was stared <i>Udavartana</i> by <i>Aamalaki</i> + <i>Lodhra choorna</i> for 30 min. followed by <i>Sarvang Baspa swedan</i> of <i>Nirgundi Patra</i> till the discharge i. e. for 12 days.
9	<i>Sarvanga Baspa Swedana</i>	From 15 th day to 26 th day	<i>Sarvanga Baspa Swedan</i> of <i>Nirgundi Patra</i> was given before <i>Sarvanga Udavartana</i> .
10	Oral Medicine	From 16 th day to 26 th day	<i>Arogyavardhini vati</i> 2 tabs TID before meal/snacks.
11	<i>Niruhabasti</i>	From 16 th day to 25 th day	From 15 th day of admission, patient was given <i>Niruha Basti</i> prepared with <i>Trifala Kwatha</i> 350 ml a day till the day before discharge i. e. for 10 days.
12	Oral Medicine	From 19 th day to 26 th day	<i>Navayasa Lauha</i> 2 gm BD before meal/ snacks.

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

- Morning and evening fast walk for 3 kms
- Kapalbhati pranayama* – 300 round (Divided in 6 parts)
- Yogasana* –
 - Pascimotanasana* (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-2 Signs and symptoms

Sl. No.	Signs and symptoms	Initials (On first visit) 05/06/15 *BT	1 st follow up 12/06/15	2 nd follow up 19/06/15	3 rd follow up 23/06/15	4 th follow up 26/06/15	5 th follow up 29/06/15 ** AT
1	Exertional dyspnea (<i>Ayase swaskastataa</i>)	++++	+++	+++	++	++	+
2	Excessive Perspiration (<i>Swdabadha</i>)	+++	++	+	+	-	-
3	Weakness (<i>Daurbalya</i>)	++	+	+	+	-	-
4	Polydipsia (<i>Ati Pipasa</i>)	+++	++	++	++	++	+
5	Polyphagia (<i>Ati kshudha</i>)	+++	++	++	+	+	+

Note: (++++) – severe presentation of symptom

(+++)- Moderate presentation of symptom

(++) - Mild presentation of symptom

(+) - Least / sometimes presentation of symptom

Table-3: Tests and Clinical examinations

Sl. No.	Tests and clinical examinations	Initials (On first visit) 05/06/15 *BT	1 st follow up 12/06/15	2 nd follow up 19/06/15	3 rd follow up 23/06/15	4 th follow up 26/06/15	5 th follow up 29/06/15 **AT
1	Weight (kgs)	98.1	93.7	92.5	91.1	89.3	87.9
2	BMI (kg/m ²)	33.94	32.42	32	31.52	30.89	30.41
3	Fat Mass (%)	41.3	41.1	41.5	36	37.8	35.4
4	Muscle Mass (%)	38.4	38.5	38.5	39.9	39.5	39.3
5	Bone Mass (kgs)	3.3	3.2	3.2	3.2	3.2	3.2
6	Water contain (%)	45.1	45.3	45	49	47.8	48.7
7	Waist Girth (cm)	117	-	-	-	-	112
8	Hip Girth (cm)	114	-	-	-	-	108

*Before Treatment **After Treatment

Table-4: Lipid Profile

Sl.No.	Lipid	Initials (On first visit) 05/06/15 *BT (mg/dl)	5 th follow up 29/06/15 **AT(mg/dl)
1	Serum Cholesterol	225	169
2	Serum Triglyceride	216	99
3	HDL	29	34
4	VLDL	43.2	19.8
5	LDL	152.8	115.2

*Before Treatment **After Treatment

Discussion

The patient showed very encouraging results just in first follow up. He lost about 10.2 kg. of weight in 26 days and according to fat analyzer it is not water contain which helps in reduced weight but because of the treatment patient saw actually losing weight by reducing fat mass. At last follow up BMI of patient ranged from 33.94 to 30.41 which shows significant decrement and patient reached to lower border of class – 2 Obesity. Before treatment waist circumference of patient was 117 cm and waist / hip circumference was 1.02 which is greater than 0.9. This indicates patient was having central Obesity(5). It was significant improvement in waist circumference from 117 cm to 112 cm which shows reduction in abdominal obesity. In all subjective criteria patient showed significant improvement and not only patient feel lightness in body but also is feeling 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 10.39 % of body weight and most importantly without any side effect in just 26 days. We found significant decrease in S. cholesterol, S. Triglyceride, LDL and VLDL along with increase in HDL after treatment which has defiantly lower down atherogenicity in patient. We found gradual weight loss and specifically decrement in fat mass throughout treatment. In relation with that hydration and muscle mass of patient were gradually improved. In association with that bone mass mostly remain intact. Overweight / Obesity (BMI of 25 to 30) confers elevated risks of many diseases. For example, 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)(6). As patient was having Class - 2 Obesity, waist circumference 117 cm before treatment, patient was at very high risk of other life style diseases but after treatment patient lost 10.2 kg of body weight which has defiantly 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*(7). But being a syndromic condition (*Bahu Doshasya Laksanama*) *Samsodhana* therapy is highly recommended for *Sthaulya* patients possessing stamina & strength(8). *Sushruta* has given contraindication of *Vamana* in *Sthaulya*, while it is indicated in *Medorog*(9). All *Sthula* patients with *Adhika Dosh* & *Adhika Bala* should be treated with *Samsodhana* Therapy, including *Vamana*, *Virechana*, *Ruksha Niruha*, *Raktamoksana* & *Sirovirechana*(10). So *Vamana* and *Virechana* were planned for this patient. *Ruksha*, *Ushna* & *Tikshna Basti* are also suggested by *Acharya Charaka*(11) and according to that we have planned *Niruha Basti* prepared with *Trifala Kwatha*. *Ruksha Udvartana* is the *Bahya Sodhana* indicated for the management of *Sthaulya*(12). For that we have used *Aamalaki* and *Lodhra choorna*. Oral medicines are also mentioned in our texts which are as under.

Arogyavardhini vati(13) :

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.

Navayasa loha churna (14) :

Navayasa loha churna described for mainly *Pandu*, *Hridroga*, *Kushtha*, *Arsha* and *Kamala* but in *Charak samhita santarpaniya adhyaya*. *Charak* described many medications for *Sthaulya chikitsa*. With that reference most of all drugs are ingredient of *Navayasa loha churna*, even *Pandu* and *Kushtha* etc, are *Santarpanjanya vyadhi*. To have impact on *Sthaulya* and also preventing measures for other complications it is very useful. In that *Trikatu* is very effective in *Ama Pachana* which is prime cause of all the diseases. *Triphala* is tonic for whole body and also having property of *Tridosha Shaman*. *Motha* have property of anti-inflammatory, anti diabetic and anti helminthic effect. It's also has *Lekhaniya Pachaniya* and *Triptighna* effect. *Vidanga* have carminative and hepatoprotective effect. *Chitraka* reduces vitiated *Vata* and *Kapha*.

Varunadi kwatha (15) :

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.

Triphala Guggulu (16) :

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

At last follow up BMI of patient ranges from 33.94 to 30.41 and weight of patient ranges from 98.1 to 97.9 kg which shows significant decrement and patient reach to lower border of class – 1 obesity. A well integrated Tripod of Diet, Physical exercises and Ayurvedic medicine give excellent results in obesity and other life style diseases. Ayurvedic treatment is more Coast effective as compared to other treatment. Ayurveda can provide not only weight loss but sense of well being and quality life style to 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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