



# Role of *Dhanyamla Sarvang Dhara* in the Management of Obesity: Case Study

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## Case Report

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## Abstract

Modernization, affluence, science and technological development leads to still more sedentary life styles, which lead to many disorders in which obesity is considered as multifactorial disease. Obesity increases the likelihood of various diseases and conditions, particularly CVS, Respiratory Diseases, Type 2 diabetes, obstructive sleep apnea, certain types of cancer, osteoarthritis and depression. It is more common in women than men. WHO considers obesity as a global epidemic and public health problem. It estimated most common caused by a combination of excessive food intake, lack of physical activity and genetic susceptibility. It is physiological, psychological and social disorder. In Ayurveda obesity correlated with *Sthaulya* and *Medorog*. In modern, treatment is dietary changes and physical exercise and other drug which has many side effects. But Ayurveda consists of daily internal medications, doing fasts in the form of light diet and *Shodhan Chikitsa* which comprises of *Panchakarma* therapy, which is the most effective one in less time. *Ayurveda* also clearly mention *Bahirparimarjan Chikitsa* to decrease *Medo Dhatu* as continuous *Parishek Sweda* in form of *Dhara*. It is unique process which can pacify *Kapha* and *Meda Dhatu* without aggravating *Vata Dosh*. 40 years female house wife came to Dept of Panchakarma O.P.D D in Rishikul campus, Haridwar with complain of increase weight gain after pregnancy, Heaviness in body along with pain in lower back region and both knee joints for 5 years. During and after it she got moderate relief in obesity symptoms and objective parameters like weight, BMI, waist circumference, Hip circumference, waist hip ratio by *Dhanyamla Sarvang Dhara*.

**Keywords:** Obesity; *Sthaulya*; *Dhanyamla Sarvang Dhara*; *Panchkarma*; *Bahirparimarjan Chikitsa*; *Medo Dhatu*

## Introduction

Obesity is a complex disease involving an excessive amount of body fat. According to WHO overweight and obesity are the fifth leading risk for global death [1]. Obesity is not just a cosmetic concern. It increases your risk of diseases and health problems, such as heart disease, diabetes, cardiovascular disease and certain cancers. Usually, obesity results from a combination of inherited factors, combined with the environment and personal diet and exercise choices. In 2019, an estimated 38.2 million children under the age of 5 years were overweight or obese [2]. Most of people diets are too high in calories-often from fast food and high-calorie beverages.

People with obesity might eat more calories before feeling full, feel hungry sooner, or eat more due to stress or anxiety [3]. Leptin genes are responsible for controlling appetite through its action on central nervous system [4]. TNF alpha is also link factor between fat accumulation and metabolic disorders [5]. In modern science there is no definite treatment for obesity. In Ayurveda obesity can be categorized in *Santarpanjanya Vikaar* specially *Atisthaulya*. In *Charaka Samhita* in *Sutra Sthan Sthaulya* as a complicated health condition, duly recognizing it as *Nindita* (underirable) condition. In *Sthaulya*, *Jatharagni* is found in *Tikshna* state whereas *Medodhatvagni* is found in *Mandagni* state. So person indulges in more food, which produce excessive *Meda* and vicious cycle go on.

It is also described that *Atisthaulya* is responsible for various complications and morbid condition of the body [6]. In *Charaka Samhita* itself obesity is classified under *Medo Avrit*, which is difficult to treat but its impact on the health due to its morbidity and motility is common in both conditions [7]. It is clear obesity develops due to hypo functioning of catalysts that are responsible for breakdown of structural material of the cell. In Ayurveda this condition is called *Agnimandhya Avastha*. Main treatment of *Sthaulya* consisting of dietary and physical exercise which is described in *Charaka Samhita* [8]. In Ayurveda two types of treatment are clearly emphasized for the prevention, cure & rehabilitation of the patient called *Bahirparimarjan* and *Antahparimarjan*, both treatments have unique property in quality of pacification of *Doshas* [9]. *Charaka* and *Sushruta* both have clearly mentioned different types of *Bahirparimarjan Chikitsa* to decrease *Medodhatu* as *Ushna Jal Pareshek*, *Udvartan*, *Abyanga* and continuous *Parishek* in form of *Dhara* [10]. *Dhara* is unique treatment which can pacify *Kapha* and *Meda Dhatu* without aggravating *Vata Dosh*. The drug used in process of *Dhara* also adds its property to elimination of *Doshas*. *Dhanyamla* has *Ushna*, *Tikshna Guna* and *Ushna Veerya* which destroy vitiated *Vata*, *Kapha* and *Vata-kapha* and improve circulation and correct the metabolism [11].

### Case Report

A 40 year female Patient came to Panchakarma OPD, Rishikul campus Haridwar, and diagnosed case of obesity for 10 years. She had complaint of overweight for 10 years. Patient complained of heaviness in body, along with generalized weakness, lethargy and excessive sweating for 5 years. Associated symptoms like pain in both knee joints, lower back region. As per the patient, she was asymptomatic before 10 years, then she gradually started to gain weight. For 5 years patient began to experience heaviness in body, along with generalized weakness, lethargy and dyspnea. When symptoms became more aggravated along with increment of associated symptoms she came to Rishikul campus Department of Panchakarma OPD on 2/3/2019 for better management.

### Past History

- No H/O any significant family history.
- No H/O HTN, DM,
- H/O drug administration: Patient took local medication on & off when pain in both knee joints since 5 years.

### Personal History

- Appetite: Normal
- Diet: Mixed

- Thirst: Normal
- Micturition: Normal
- Bowel: Regular
- Sleep: More than normal (9hrs/night and 2 hrs/day)

### General Examination

Pulse – 70/min

B.P. -110/70 mm/Hg

Temp –Afebrile

Weight – 95 kg

Pallor – not present

Icterus – not present

Clubbing – not present

Cyanosis– not present

Edema –Present in bilateral knee joints.

### Systemic Examination

#### P/A

Inspection: - No scar, rashes & lesion present, Umbilical centrally placed.

Palpation: - Soft, no tenderness present, no organomegaly present.

Percussion: - Resonance sound present.

Auscultation: - Normal bowel sound heard

#### CVS

S1 S2 heard normally, no added sound present.

#### R/S

- **Inspection:** - No scar seen bilateral chest movement present.
- **Auscultation:** - Bilateral chest wall clear no added sound present.
- **Central nervous system:** –Patient are well oriented to time, place, and person.
- **Cranial nerve:** – All cranial nerve is intact with their normal function.
- **Higher function:** – Appearance and behavior, memory, orientation and intelligence all are intact.

- **Investigation:** – March 4/3/2019 (Table 1).

Sample	Particulars	B.T.
Blood	Hb gm%/ ABO Rh	11.66gm%, B +ve
	TLC/mm <sup>3</sup>	8900/mm <sup>3</sup>
	DLC - N%	62%
	B%	0%
	E%	4%
	L%	36%
	M%	3%
Blood sugar	ESR mm/hr	22mm/hr
	Fasting	93.69 mg/dl
Lipid profile	PP	125 mg/dl
	S.cholesterol	163.5 mg/dl
	S.triglycerides	83.40 mg/dl
	VLDL	17 mg/dl
	HDL	58.40 mg/dl
	LDL	99.23 mg/dl
Thyroid	T <sub>3</sub>	141 ng/dL
	T <sub>4</sub>	8.9 ug/dL
	TSH	4.27 uIU/mL

**Table 1:** Sample measures of particulars and BT.

### Therapeutic Intervention

*Dhanyamla Dhara* drug-Tandula, Pruthaka, Kulatha, Laja, Kangubeeja, Kodrava, Nagara, Nimbu, Deepyaka and water.

### Procedure of *Dhanyamla Sarvang Dhara*

Patient were treated were *Dhanyamla Sarvang Dhara* with 2 sittings (each sitting will be completed in 15 days), between the 2 sitting will be interval of 15 days.

**Purvakarma**–*Sarvang Abhyanga* and *Shiro Pichu*

### Pradhan Karma

The patient is made to sit straight on the *Droni* with legs and hands extended. The *Dhanyamla* is kept for warming maintaining a constant temperature. This is taken (at an optimum temperature for the body) in 4 nozzled pitches or kindis and made to pour by 4 attenders on the upper and lower parts of the body on either side. The other hand should be moved in the *Anuloma* direction running behind the *Dhara*. While pouring the other 4 pitches should be kept ready with warm *Dhanyamla* by another attender to maintain a constant flowing without break. It is then collected through the hole

in the leg end of the *Droni* and again warmed for *Dhara*. The temperature should be around 40°C. *Dhara* should be poured at a medium speed and from a height of 6 -12 cm. The process is done in seven positions of *Abhyanga.Dhara* should be continued till the *Samyak Swed- Aagam - Lakshanas*.

### Paschat Karma

Take bath in warm water using powder (usually green gram, *Mudag Yoosha*).

### Follow Up

After completion of therapy, patient was advised to visit OPD after one month. Patients were given few common instructions to follow from the date of initiation of treatment till completion of the follow-up period. She was satisfied with treatment and also felt improvement after one month and also relief in associated symptoms like knee joints and low back region pain. There was no relapse of symptoms. She was able to perform her day to day activities properly.

### Assessment Criteria

To assess the effect of the therapy, Subjective and objective criteria taken.

### Observation and Results (Table 2-4)

Symptoms	BT	AT
<i>Jawaprodh</i> (Lack of enthusiasm)	+++	+
<i>Daurbalyam</i> (General weakness)	++++	+
<i>Dauryagandham</i> (Bad body odour)	++	+
<i>Swedaabadh</i> (Excessive sweating)	+++	+
<i>Kshudaatimatram</i> (Excessive hunger)	++++	+
<i>Pipasaatiyog</i> (Excessive thirst)	Nil	Nil
<i>Chalatva</i> (Protubrant abdomen)	++++	+

**Table 2:** [Special Note-Grading of Symptoms zero (not present) mild (+) moderate (++) severe (+++) very severe (++++)].

Parameters	BT	AT
BMI	39.58 kg/m <sup>3</sup>	35.41
Weight	95 kg	86 kg
Mid arm circumference	40cm	30cm
Waist circumference	110cm	100cm
Hip circumference	130cm	117cm
Waist hip ratio	0.84cm	0.85cm

**Table 3:** Parameters of BT/AT.

Date	Clinical event and intervention
2010	Patient begins to experience overweight, diagnosed as obese
2015	Heaviness in body, generalized weakness, lethargy
2017	Pain in both knee joints and lower back region
02-03-2019	Above mentioned symptoms began to disturb her daily activities, so came for Ayurveda treatment <i>Dhanyamla Sarvang Dhara</i> planned.
20-03-2019	After completion of 15 days of <i>Dhanyamla Sarvang Dhara</i> , weight reduction of 5 kg, lightness in body, Gain of enthusiasm
06-04-2019	At follow up, reduction of weight was 4 kg, BMI reduced to 35.41kg/m <sup>3</sup> , improvements in all symptom like pain in knee joints

**Table 4:** Timeline of Case.

## Discussion

### Effect of Drug

Due to its *Ushna Guna* and *Ushna Veerya*, *Dhanyamla* destroys the vitiated *Vata* or *Kapha* or *Vata - Kapha*, *Dhanyamla* antagonistic to *Ama* and *Meda*, removes the blocks in the cell and channels of transportation and nutrition. Due to *Amla Rasa* of *Dhanyamla* it acts as *Deepan* and gets rid of *Ama* and also corrects metabolism.

Chemical action - Glucoside called hesperidin present in *Dhanyamla* has the ability to prevent in capillary bleeding and reduces inflammation. It has also hypoglycaemic and anti hyperlipidaemic actions. Thus it is useful in eliminating metabolic disorder like obesity [12].

### In Ayurveda

*Dhanyamla* drug (form of *Sarvang Dhara*) in *Dhanyamla* most of the drugs have *Amla*, *Katu Rasa*, *Ushna*, *Tikshan*, *Ruksha Guna*, *Ushna Veerya* and *Katu Vipaka*. By all these properties *Dhanyamla Dhara* works on *Sthaulya*, further discussion are as follows:-

- **Rasa**–*Amla Rasa's Vatanulomaka*, *Jarayati* (digests the food) [13] and *Kapha Vilayana* [14] property which improves vitiated *Vata* which further improve *Utarotar Dhatu Posan* and *Badha Meda*. *Katu Rasa* has *Deepana* and *Pachana* property which improves *Tikshnagni* and reduce obesity. It also has *Kleda Mala Upahanti* and *Medasamupahata* [15] property, by this property it helps in the elimination of waste product and removal of extra fatty tissue in obese. *Katu Rasa's Mamsa Vilikhati* [16] property scrapes away unwanted growth in muscle tissue and cure obesity.
- **Guna** - By *Ruksha Gunas's Medososhaka*, *Kaphahar* [17] property it helps in drying of the *Meda* and easily reduces of *Kapha*. Due to *Laghu Guna's Lekhana*, *Kaphahara* [18]

property it helps in scrapping of *Badha Meda* (extra subcutaneous fat) and correct the metabolism. *Tikshna Guna* has *Sodhana*, *Lekhana*, *Kaphahara*, [19] property by these properties it helps easily and fast removal of vitiated *Meda* and *Kapha* from the body.

- **Veerya**–*Ushna Veerya* has *Pachana*, *Vatakaphara*, *Swedana* [20,21] properties which improves digestion and maintain *Vata - Kapha Dosh*, elimination of waste products respectively.
- In *Dhanyamla* present of these properties medicine reaches *Twagmamsantar Aashrit* then correct *Dhatavagni Mandyata* and decrease *Badha Meda* by *Dravikaran* of *Meda* (liquefaction of fat).

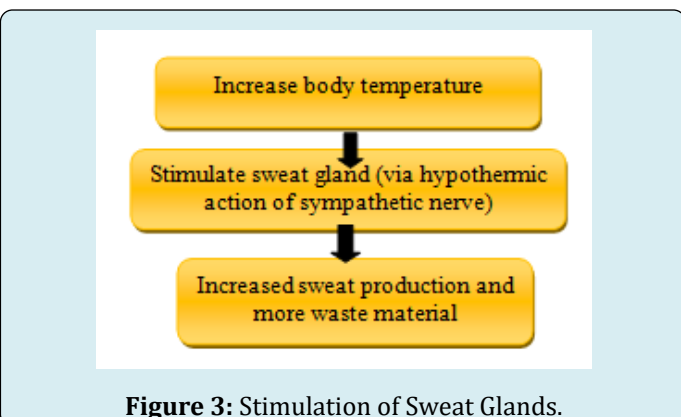
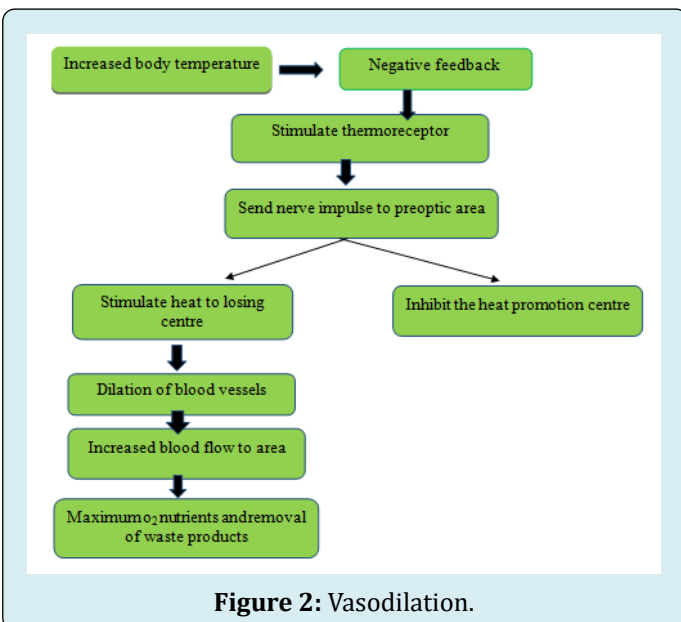
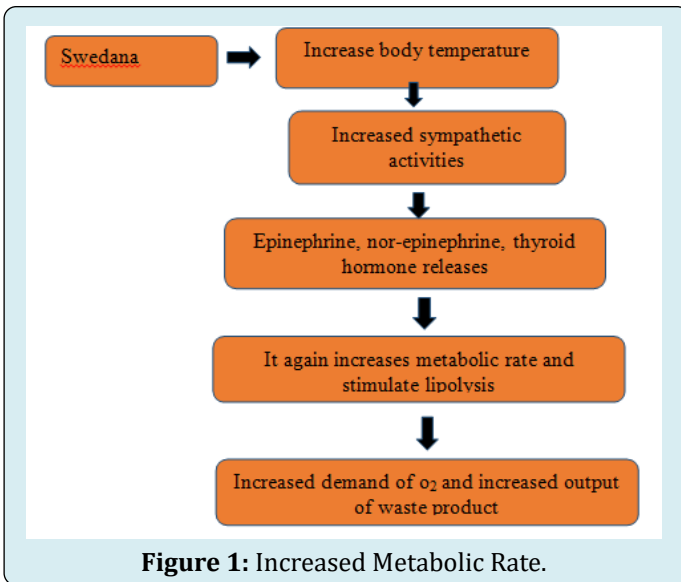
### Effect of Therapy

When decoction is poured over the body it helps in proper perspiration of the body which thereby detoxifies the body. The drug in *Dhara* comes in contact with the skin pores. Since the procedure is performed from a particular height and a particular temperature is maintained, there will be formation of energy by which the medicine can easily enter pores through friction and thermal action it stimulated Proprioceptor and thermoreceptor. The permeability of the medicine through the skin pores is enhanced. Because the temperature vasodilation happens, which leads to increased blood flows through the area so that necessary oxygen and nutrition materials are supplied and disease-causing toxins like excessive subcutaneous fat, sweat are removed (Figures 1-3).

Due to *Swedana*, it is type of *Parishek Swed* there is:

- Increased metabolic rate; It can be co-related with digestion of *Ama*.
- Vasodilation: It can be co-related with *Shrotomukha Vishodhana*.
- Stimulation of sweat glands: *Swedana* corrects *Swedavaha*

Sroto Dushti



## Conclusion

It can be concluded from present case study that Panchkarma treatment provided marked relief in *Sthaulya* (obesity) along with knee joints pain with special importance given to manual external therapies with a limited period of time. This shows the stable efficacy of treatment as there was no recurrence after 60 days of treatment. *Jawaprodh*, *Daurbalyam*, *Dauryagandham*, *Kshudaatimatram*, *Chalatva*, waist circumference, waist hip ratio *Dhanyamla Sarvang Dhara* had good result. So, we can say *Dhanyamla Sarvang Dhara* is very effective in obesity and joints pain.

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