

Multidimensional approach of Ayurveda in management of Morbid obesity- A case report

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Abstract

Sthoulya (Obesity) has been a burning epidemic for decades. Due to lifestyle changes, improper diet patterns, and decreased involvement in exercise, the obesity rate is increasing worldwide. Globally, at least 2.8 million population die each year as a result of being obese, and an approximate rate of 35.8 million (2.3%) of global DALYs are caused by overweight or obesity^[7]. A 37-year-old gentleman had been suffering from a range of obesity symptoms like rapid weight gain and associative complaints such as constipation, bloating of the abdomen, difficulty in breathing, frequent coughing, loss of appetite, and heaviness of the body. Gradually, he noticed that within 5 years he reached 157 kgs of weight because of his poor diet and lifestyle. The treatment protocol had been planned with *Udwarthana* for 16 days, *utsadana* for 16 days, *lekhana basti* as *yoga basti* and *Takra Basti* for 10 days. Along with internal medications, the patient followed a specific *guru atharpana* (non-nourishing therapy) diet that is low in calories and increased fibre. Yogic asana practices and physical therapies (*Vyayama*) help to increase calorie expenditure and increase fat metabolism. A multidimensional approach of *Nidana parivarjana*, including *Shamana*, *Shodhana*, *Pathyahara sevana*, *Vyayama*, and behavioural therapies, has significantly reduced BMI of patient and other associated symptoms of obesity.

Key words : *Sthoulya*, Morbid obesity, *Lekhaniya basti*, *Takra basti*, *Guru Atarpanam*.

Obesity is a multifaceted metabolic disorder. Body mass index (BMI), which is calculated by dividing a person's weight in kilograms by their height in meters squared, is a basic population indicator of obesity in adults. Its unit is kilograms per square meter (kg/m²).

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Obesity is usually defined as having a BMI of 30 or more than that. A patient is deemed overweight if his/her BMI is 25 or higher. Several diseases are linked to general obesity⁵. In Ayurveda obesity is considered under the title of *Medoroga* which is one among *Ashta Ninditya Roga* as '*sthoulya Roga*' in charaka samhita. *Sthoulya* is having *lakshanas* like *Meda mamsa ativruddhi*, *Ayatha Upachaya*, *Krathana*, *Nirutsaha*, *Gadgada*, *Gaatrasada Chala sphik udara Sthanaha*⁷.

Ayurveda derived its treatment protocol for obesity under 3 approaches

1. *Nidanparivarjana*, 2. *Shodhana*, 3. *Shamana*. A line of treatment for *Sthoulya* has been said in Charaka samhita as "*Guru cha Atarpanam*". Acharya mentioned several methods for treating *atisthoulya* in *Astouninditiya adhyaya* and *Santarpaniya adhyaya*, including *Sadyovamana*, *Rukshana*, *Udwartna*, and *vasti chikitsa*¹².

So, this case report is a sincere effort to observe the effect of *Basti* and other Ayurvedic treatments along with proper *pathya* and *vihara* for *Sthoulya* and its associative conditions of the patient to improve his physical and mental health.

A clinical case study of *Atarpana Chikitsa* with *Deepana*, *Pachana*, *Udwartana*, *Swedana*, *Rukshana*, *lekhaniya basti*, *Takra basti* was given to the patient having *Sthoulya* and its associative conditions.

Case study :

A 37-years-old gentleman who is

entrepreneur by profession had been suffering from obesity and its associative symptoms for over 8 years, like rapid weight gain and his associative complaints included constipation, bloating of the abdomen, difficulty in breathing, frequent coughing, loss of appetite and heaviness of the body. Also difficulty in walking, rashes below abdomen and thighs, excessive sweating and foul odour. He is involved in sedentary work style, intake of processed foods, non vegetarian foods 5 days a week, and a lot of sugar-based confectionaries. Gradually, he noticed that within 5 years, he reached more than 150 kilograms of weight because of his poor diet and lifestyle. Also having habit of alcohol consumption twice a week and smoking. Since last 3 years, the bloating of the abdomen has increased along with difficulty in defaecation, hyperacidity, frequent belching and swelling in lower limbs. The patient came to Swasthavritta OPD of SDM College of Ayurveda and Hospital, Hassan, for better relief from weight gain as well as associated conditions.

1. *General examination :*

- *Nadi* - 78/min
- *Mala* - *badha*, *Asamyak pravritti*
- *Mutra* - *Anavilam*, 4-5 times/day
- *Jihwa* - *Liptha*
- *Agni* - *Mandha*
- *Shabda* - *Prakritha*
- *Sparsha* - *Anushna sheetha*
- *Druk* - *Prakritha*
- *Akrithi* - *Atisthula*
- *Bala* - *Madhyama*
- *Rakthachapa* - 160/90mmhg

2. To measure BMI and anthropometry :

Table-1. Measurement of BMI and Anthropometry.

On 08/05/2024

| | |
|---------------------------|-----------------------|
| Height | 166cms |
| Weight | 157.8kgs |
| Body Mass Index | 57.3kg/m ² |
| Chest circumference | 138cms |
| Upper Waist circumference | 132cms |
| Lower Waist circumference | 134cms |
| Abdomen circumference | 163cms |
| Hip circumference | 123cms |

In consideration with the findings of clinical examination & investigations following Drug were given internally.

3. Treatments :

Table-2. Internal medication

| S.No | Drugs and No of days given | Dosage | Timings | Anupana | Given For |
|------|--------------------------------------|--------|--------------|------------|-----------------------------------|
| 1 | <i>Madiphala Rasayana</i> x 32 days | 15ml | Thrice a day | Water | Loss of appetite |
| 2 | <i>Hinguvashataka vati</i> x 23 days | 1 NO | Twice a day | Warm water | Bloating of abdomen |
| 3 | <i>Shikaramodini vati</i> x 29 days | 1NO | SOS | Warm water | Coughing |
| 4 | <i>Lavangadi vati</i> X 20 days | 1NO | SOS | Warm water | Difficulty in breathing |
| 5 | <i>Gokshura churna</i> X 5 days | 1tsp | Twice a day | Warm water | Swelling and edema in lower limbs |
| 6 | <i>Varunadi Kashaya</i> x 16 days | 20ml | Twice a day | Warm water | Swelling and edema in lower limbs |
| 7 | Cap Grab x 5 days | 1NO | Twice a day | Water | Rashes in abdomen |
| 8 | Cap Decrin plus x 32 days | 2No | Twice a day | Water | Increased weight |

External therapies :

- 1.Sarvanga Udwartana followed by sarvanga parisheka with Dashamoola Kashaya + Dhanyamla along with nadi sweda – 16 days
- 2.Sarvanga Utsadana with Brihatsaindhavadi taila followed by sarvanga parisheka with Dashamoola Kashaya + Dhanyamla along with nadi sweda – 16 days

Table-3. *Lekhana basti: Niruha basti-*

| Ingredient | Quantity |
|---|--------------------------|
| Honey | 80ml |
| <i>Saindava Lavana</i> | 10gms |
| <i>Brihat saindhavadi taila</i> | 80ml |
| <i>Kalka- Shatapushpa churna</i> <i>Haritaki churna</i> <i>Vacha churna</i> | 10 grams each – 30 grams |
| <i>Triphala Kashaya</i> | 250ml |
| <i>Dashamoola kashaya</i> | 50ml |
| <i>Amritasatva</i> | 50ml |

Anuvasana basti-

| | |
|---------------------------------|------|
| <i>Brihat saindhavadi taila</i> | 80ml |
|---------------------------------|------|

Table-4. *Lekhana basti schedule*

| Date | 11/05/2024 | 12/05/2024 | 13/05/2024 | 14/05/2024 | 15/05/2024 | 16/05/2024 |
|-----------|------------------|------------------|------------------|------------------|------------------|------------------|
| Morning | | <i>Niruha</i> | <i>Niruha</i> | <i>Niruha</i> | <i>Niruha</i> | |
| Afternoon | <i>Anuvasana</i> | <i>Anuvasana</i> | <i>Anuvasana</i> | <i>Anuvasana</i> | <i>Anuvasana</i> | <i>Anuvasana</i> |

Table-5. *Takra basti*

| Ingredient | Quantity |
|------------------|----------|
| <i>Takra</i> | 400ml |
| <i>Saindhava</i> | 10gms |
| <i>Triphala</i> | 10gms |

Table-6. *Takra basti schedule*

| Date | 21/05/2024 | 23/05/2024 | 25/05/2024 | 27/05/2024 | 29/05/2024 |
|---------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Morning | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> |

| Date | 30/05/2024 | 01/06/2024 | 03/06/2024 | 05/06/2024 | 07/06/2024 |
|---------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Morning | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> | <i>Takra Basti</i> |

Pathya ahara

Table-7. diet Schedule from 08/05/2024 to 21/05/2024

| TIME | AHARA | DOSE |
|---------|--------------------------------|---------------|
| 08:00AM | <i>Mudgaamalaka yoosha</i> | 300ml |
| 11:00AM | Boiled vegetables | 250gms |
| 01:00PM | <i>Yava rotika</i> + veg gravy | 2 No + 150gms |
| 05:00PM | Vegetable soup | 300ml |
| 08:00PM | <i>Peya/ Ganji</i> | 300ml |

Table-8. Diet Schedule from 22/05/2024 to 08/06/2024

| TIME | AHARA | DOSE |
|---------|--|-------------------------|
| 08:00AM | <i>Mudgaamalaka yoosha</i> | 200ml |
| 11:00AM | Boiled vegetables | 250gms |
| 01:00PM | <i>Yava rotika</i> + veg gravy/ <i>Mehari kichadi</i> | 2 No + 150gms 250gms |
| 05:00PM | <i>Laja Manda</i> | 200ml |
| 08:00PM | <i>Mehari Kichadi</i> | 250gms |

4. *Vihara Krama* :

- Obesity yoga at 11am to 12pm from 22/5/2024
- Loosening Exercises and mild exercises
- Pranayama at 4.00PM to 5.00PM *Nadishudhi, Bhramari, Yoganidra*

After 32 days of treatment, there were significant results:

- Reduction in body weight
- Lightness of body
- Reduction in coughing, breathlessness
- Significant reduction in bloating of the abdomen
- Appetite has improved
- Bowel passes without difficulty

Table-9. Measurements after Treatment: on 08/06/2024

| Parameters | Before treatment | After treatment | Improvement after 32 days |
|---------------------------|-----------------------|------------------------|------------------------------|
| Height | 166cms | 166cms | No change |
| Weight | 157.8kgs | 134kgs | 23.8kgs reduced |
| Body mass index | 57.3kg/m ² | 48.6 kg/m ² | 8.7kg/m ² reduced |
| Chest circumference | 138cms | 134cms | 4cms reduced |
| Upper Waist circumference | 132cms | 128cms | 4cms reduced |
| Lower Waist circumference | 134cms | 129cms | 5cms reduced |
| Abdomen circumference | 163cms | 151cms | 12cms reduced |
| Hip circumference | 123cms | 120cms | 3cms reduced |

Effect of *Udwarthana* :

Sushruta Samhita states that the deranged Vata is brought back to *prakruta avastha* by doing *Udwardhana*. It does *dravikarana* of *Kapha* and *Medas*, gives the skin

smoothness and shine and imparts limb firmness. *Udwardhana* also reduces *ama* segregation in the body because of *agnimandhya* and also improves *agni* indirectly¹.

Effect of *Utsadana*: Same effect of

udwartana is seen through *utsadana* along with reduction of *rukshata* and rashes in body¹.

Lekhana basti :

Basti therapy is considered as *Ardha Chikitsa* among all the therapeutic measures and some physicians accept it as a complete therapeutic measure because it has a varied range of actions.² It majorly handles *Vataja vyadhis* but it also helpful in handling *Dosha Sansarga & Sannipata avastha of Kaphaja & Pittaja vikruti. Shakhashrita & Koshtashrita* diseases of all the 3 doshas can be managed by combination of different types of *Basti Dravyas*. Charaka samhita in context of *Mahakashayas* mentioned *Lekhaniya Gana*³. *Lekhaniya basti* which is chosen here is *anubhoota yoga*, where *Charakoktha lekhaneya Dashemani* is used as *Kalka* and *kwatha dravya* and in *basti* form it is given.

Takra basti :

The *dravyas* used here for *takra basti* are *triphala, takra* and *saindhava*, endowed with *vatanulomana, pachana, Krimighna, and kaphahara* qualities. Thus this *Basti* is included in the management of *sthoulya*.² In this *Takra Vasti*, *takra* is used as an *avapa dravya*. The qualities of *Takra* includes *Kashaya, Amla Rasa, Laghu Guna, Ushna Veerya, and Deepana*. In all the classics of *Ayurveda* we can find *takra* has *lekhanaya, and laghu gunas*, and hence *Takraprayoga* is considered as the most excellent *Aushadhi* in *sthoulya roga*.

Shamanaushadhis :

1. *Madiphala rasayana* – *Jambeera rasa*,

Adraka Rasa, trikatu, chitraka, Saindhava lavana, Sugar, - given for loss of appetite and *aruchi*

2. *Hinguvastaka vati*- It is official in *Ayurvedic Pharmacopoeia of India* that combination of seven reputed herbs and one salt, comprised of the fruits of *Pippali*, fruits of *Maricha* and rhizomes of *Shunthi*, fruits of *Ajamoda*, *Saindhava Lavana*, fruits of *Shweta Jeeraka*, fruits of *Krishna Jeeraka*, Exudate of *Hingu* can be used to patient for Digestive impairment, bloating of abdomen and constipation⁹.
3. *Lavangadi vati*- It contains *Lavanga, Maricha, Vibithaki, Khadira*, Aqueous extract of *Acacia arabica* q. s. *Lavangadi Vati* is given to patient as an expectorant, to reduce cough and difficulty in breathing¹⁰.
4. *Gokshura churna*- *Gokshura* induces diuresis due to its large potassium content and alkaloids. It helps to relieve the symptoms by *vata shamana* and nourishing the *dhatu*s with increased osmo regulation of plasma⁶.
5. *Varunadi Kashaya*- It is well-known *kashaya* used for treatment of *atisthoulya, medoroga, yakrut vikaras, arbuda* and chronic arthritis. It has been found to have antioxidant property and anti-lipase activity⁸.

The treatment protocol had been planned with *Sarvanga Udwartana* followed by *sarvanga parisheka with Dashamoola Kashaya + Dhanyamla along with nadi sweda* – 16 days, *Sarvanga Utsadana with Brihatsaindhavadi taila* followed by *sarvanga parisheka with Dashamoola Kashaya + Dhanyamla along with nadi sweda* – 16 days, *lekhanaya basti* for 6 days and *Takra*

Basti for 10 days. *Basti* was given in a modified format due to the patient's extended time limit. During the *Udwarthana*, the patient had a feeling of lightness in the body, which persisted through the last day of the procedure. On 32nd day, after completion of the one month of treatment, there was significant change in weight of 23.8 kilograms and associated symptoms, BMI, and anthropometric measurements.

Multidimensional approach of *Nidana parivarjana*, *Shamana*, *Shodhana* in form of *basti*, *Pathyahara paripalana*, *Sukshma Vyayama*, and altering the life style and daily behaviours, has shown a significant reduction

in weight there by BMI and anthropometric measurements and associated symptoms. The patient was able to recover from breathlessness, coughing, loss of appetite, bloating of abdomen and able to move by himself without difficulty and support. In this regard, the condition of *atishoulya* has to be dealt with continuous motivation for lifestyle changes and behaviours. Studies need to be conducted to support the definitive connection between obesity and all its associative disorders, as this link will throw light on to the treatment of those disorders too.

We would like to thank the patient for their cooperation and full support.

I confirm that process of publication has been explained to me adequately and I have understood it and had the opportunity to ask questions. The information given by me will be used for medical research only and I will not be identified in any way in the analysis and reporting of the results. I understand that my participation is voluntary and my information can be published without my medical care or legal rights being affected.

Signature of patient:

Date:



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