

**EFFICACY OF LEKHAN BASTI IN THE MANAGEMENT OF STHAULYA ROG W.S.R.  
TO OBESITY: A REVIEW****Dr. Ravi Shankar Patel\*<sup>1</sup>, Dr. Pramod Kumar Baghel<sup>2</sup>, Dr. Ranjip Kumar Dass<sup>3</sup>, Dr. Somesh Kushwaha<sup>4</sup> and  
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**ABSTRACT**

Obesity is one of the major burning problems in today's era, due to continuous changes in life styles, environment and diet habits. It is very similar to Sthaulya or Medoroga in ayurveda. In this disease jatharagni and dhatwagni especially Medodhatwagni is vitiated. Due to this Dhatuparinama is affected, so that Medo Dhatu is not formed properly. Ama Dosh is formed at various levels and it interacts with different Dhatus. Due to Medodhatwagnimandya excessive production of Sama Meda Dhatu, which causes the Medo Roga. This Sama Meda Dhatu is accumulated in various srotases leading to srotorodha resulting in various complication. Obesity is an increase in body weight of 120% or above due to accumulation of excess fat in adipose tissue. Sthaulya is one of the santarpanjanya vyadhi acc to Ayurveda. So Apatarpana chikitsa more specific lekhanam is the treatment which can removed abnormally increased Sama Meda Dhatu. Basti is indicated in all srotogatyadhi. Thus lekhanam basti is useful in sthauilya (Obesity).

**KEYWORDS:** Obesity, Sthaulya, Medoroga, lekhanam basti.**INTRODUCTION**

Obesity is now recognized as a chronic or non-communicable disease. It is common after the age of forty, in women after child birth and during menopause. Obesity occurs more in female than male and specially increases after use of IUCD, contraceptive pills, post delivery, and in menopausal period. It is precursor to coronary heart diseases, high Blood pressure, Diabetes mellitus, Osteo arthritis, infertility, as well as psychological disorders like stress, anxiety, depression etc<sup>[1]</sup>

Many theory and medicament put towards us for the management of this disease but till now perfect remedy for this problem is not found in modern medicine also, so people are expecting solution from Ayurveda. In Ayurveda, Sthaulya has been described since very early days in various Samhitas, Sangraha grantha's, Nighantu's etc., As, Charaka has described Sthaulya among the "Asta Ninditha Purusha" & Sleshma Nanatmaja, Santarpana Nimitaja Vyadhi<sup>[2]</sup>

In pathogenesis of Sthaulya, dosha's like "Kapha (kledaka), Pitta (pachaka), Vata (Samana & vyana) Dusya's like rasa, Meda and Medo Datvagni mandyata"

are main responsible factors.<sup>[3-4]</sup> Hence, using Ayurvedic Panchakarma therapy i. e., vasti because Vata is playing an important role in Samprapti of Sthaulya. Here, in Vasti procedure, Acharya susruta described a Lekhanam vasti (a type of Niruhavasti) in Chikitsastana<sup>[5]</sup> which can be used in Sthaulya.

The word Lekhanam itself indicates its action means - "Lekhanam Patlikaranam"(scarifying helps in reducing fat.<sup>[6]</sup> Thus Lekhanam is nothing but a process of emaciation while Sharangadhara considered Lekhanam in a wide sense i.e. Lekhanam is a process in which Lekhaneya Dravyas drying up or removing the increased Dosha, Dhātu, and Mala by scraping.<sup>[7]</sup> In the present study Lekhanam Basti by susruta was evaluated for its efficacy in obesity.

**Definition of Sthaulya<sup>[8]</sup>**

A person in which there is excessive and abnormal increase of meda dhatu along with mamasa dhatu resulting in pendulous apperane of buttocks, belly, and breasts, body grows disproportionately and there is lack of energy.

**Aetiology of Sthaulya**<sup>[9,10,11,12,13,14]</sup>

All the nidana described by various acharyas for sthauylaroga can be classified under four heading as follows

Aharatamaka Nidana	Viharatamaka Nidana	Manasika Nidana	Anya Nidana
Santarpana	Avyayama	Harsnityatwata	Bijadoshaswabhaba
Guru, madhura, sheeta-snigdha ahara sevana	Avyavayaa	Achintanat	Snigdha Madhur Basti Sevana
Atisampurana	Diwaswap	Priyadarshana	Snigdha Udvartana
Navanna sevana	Asana Sukham	Mansonivritti	Amarasa
Pistanna sevana	Gandhamalyanusevana		
Mamsa sevana	Bhojnottara Snana		
Guda vikriti			
Dadhi sevana			

**Rupa (Clinical Feature)**<sup>[15]</sup>

Acc. to Acharya charak chal sphik chal udara, chal stana, ati meda, mamsa vriddhi are lakshana of sthaulya

craves for food tremendously. Over eating produce excess accumulation of meda dhatu, this leads to sthaulya.

Besides these symptoms Acharya charak mention eight doshas of medoroga which is as follows:-

1. Ayushohrash (Diminution of life span)
2. Javoparodha (Lack of enthusiasm)
3. Krichhvyavaya (Difficulty in sexual intercourse)
4. Daurbalya (Generalised debility)
5. Dargandhya (Foul smell from the body)
6. Swedabadh (Excessive sweating)
7. Kshudhatimatrata (Excessive hunger)
8. Pipastiyoga (Excessive thirst)

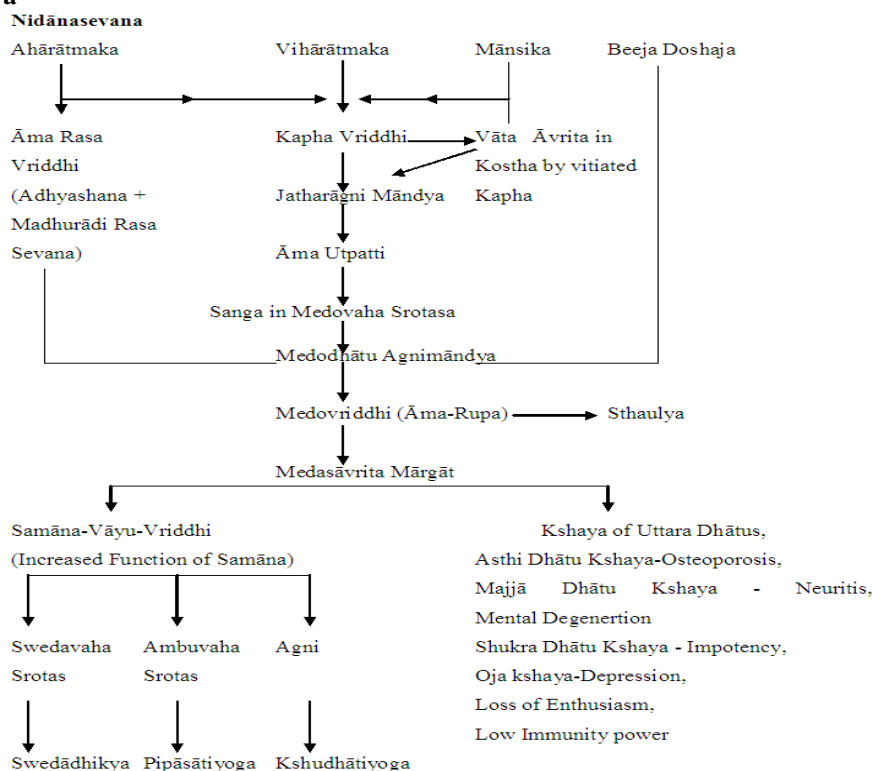
**Samprapti Ghatak**

- Dosha -Kaphapradhana tridosha, Samānavāyu, Vyānvāyu, Pāchaka Pitta Kledaka Kapha
- Dushya - Meda pradhan, Rasa, Mamsa
- Agni - Jatharagni, Medodhatwagni
- Srotasa -Medovaha
- Srotodusti - Sang (Margavarodha)
- Adhistan - Whole body specifically udara, sphika, stana
- Udhbhav Sthan - Kosth(Amashaya)
- Vyakta Sthan -Sarva Shareera esp. Sphik, Udara, Stana
- Prasara - Rasayani
- Rogmarga - Bahya
- Ama - Jatharagnimandyajanit, Dhatwagnimandyajanit
- Swabhav - Chirkalin
- Sadhyasadhyata - Krichhrasadhya

**Samprapti**<sup>[16]</sup>

Due to obstruction of srotas by meda the vata moving mainly in the stomach, augment the agni and absorb the food. Thus the obese person digest food very quickly and

**Samprapti Chakra**



**Definition of Obesity**<sup>[17]</sup>

Obesity described a weight of 120% or above. Obesity is often express in terms of body mass index, but pathophysiologically may be considered to be present when sufficient body fat has accumulated to adversely affect health.

**Etiology of Obesity**<sup>[18]</sup>

**Sedentary life style** - Enforced inactivity (postoperative)

**Dietary Factor** - Overeating, high fat diet

**Endocrine Disorder** - Hypothyroidism  
Cushing's syndrome  
Polycystic ovary syndrome  
Hypogonadism  
Growth hormone deficiency

**Psychiatric Disorder** - Night eating syndrome

**Genetic Disorder** - Autosomal recessive traits  
Autosomal dominant traits  
X-linked traits  
Chromosomal abnormalities

**Drugs** - Steroids  
Clozapine  
Amityryptiline  
Cyproheptadine  
β blocker

Oestrogen-containing contraceptive pill  
Tricyclic antidepressants.

**Complication**<sup>[19]</sup>**1. Endocrine and metabolic disease**

- Type-2 diabetes mellitus
- Dyslipidemia

**2. Cardio vascular system**

- Hypertension
- Coronary heart disease
- Cerebrovascular and thromboembolic disease

**3. Pulmonary disease**

- Restrictive lung disease
- Obstructive sleep apnoea

**4. Musculoskeletal disease**

- Gout
- Osteoarthritis

**5. Neurologic disease**

- Idiopathic intracranial hypertension

**6. Cataract****7. Gastrointestinal, biliary, and pancreatic disease**

- Gastroesophageal reflux disease
- Gall stone
- Pancreatitis

**8. Liver disease**

- Non alcoholic steatohepatitis

**9. Genitourinary disease in women**

- Irregular menses
- Amenorrhoea
- Infertility

**10. Pregnancy** - Neural tube defect, perinatal mortality, pre-eclampsia, gestational diabetes, preterm labour, deep vein thrombosis.

**Assesment of Obesity With Body Mass Index**<sup>[20]</sup>

BMI is calculated as the person's weight in kilogram divided by the square of his or her height in meters ( $\text{Kg/m}^2$ ).

BMI( $\text{Kg/m}^2$ )	Classification	Risk of obesity
18.5-24.9	Normal range	Negligible
25.0-29.9	Over weight	Mildly increased
>30	Obese	
30-34.9	Class I	Moderate
35-39.9	Class II	Severe
>40	Class III	Very severe

**Probable Mode of Action of Basti**<sup>[21]</sup>**Absorption of Basti:**

First sodium ion in Saindhava actively absorb from colon

High concentration of sodium ion facilitates sugar influx.

Increase sodium ion in mucosal membrane generate osmotic gradient.

Water follows this osmotic gradient, thus passive absorption of water take place.

Free fatty acid is easily absorbed by passive diffusion in the colon.

From above description, it can be understood that how Saindhava, Madhu, Sneha and kwātha is absorb from the colon. And along with the Sneha (Lipids) and kwātha lipid and water soluble portion is absorbed from the colon.

**Imporatance of Basti Dravya**

**Saindhava:** Saindhava Lavana is considered best among all the lavana described in Āyurveda. Saindhava play an important role to intiate the absorbtion of Basti as discussed earlier.

**Madhu:** Main role of Madhu is to increase the retention time of Basti by counteract the irritative property of Saindhava. The retention time of irritative substance in rectum may be favoured by making solution as nearly isotonic as possible by using colloidal fluid such as starch water as diluent.

**Sneha:** By using Sneha the fat soluble portion of the drug easily absorbed from the colon. Lipids and Lipid soluble substance can easily enter the cell. In this, way Sneha helps the Basti dravya to reach at cellular level.

**Kalka:** It gives required thickness to the Basti. Fresh drug and drug containing volatile property can be utilized in the form of Kalka.

**Kwātha:** It is use to get water soluble part of Kwātha Dravya. Instead of Kwātha as a Drava Dravya Kshira, Gomutra, Āmlakānji, Prasanna, Māmsarasa etc. are also used or for the preparation of Kwātha itself.

**Āvapa Dravya:** They are used some time in order to make the Basti either Tikshna or Mrudu and to affect the particular Dosha.

#### Action of Basti Dravyas

##### Saindhava: Because of its

1. Sukshma Guna – It reaches up to the Micro channel of the body.
2. Tikshana Guna – It break down the morbid Mala and Dosha Sanghata.
3. Snigdha Guna – Liquefies the Dosha.
4. It reduces the Picchila, Bahula and Kashāya properties of Madhu.
5. Its become helpful for the elimination of Basti due to its irritant property
6. In excess quantity, it can cause Dāha and Atisāra, Absence or less quantity of Saindhava is responsible for Ayoga.

##### Madhu

If any drug is administered with appropriate vehicle it can absorbed and assimilated by the body very quickly.

Madhu is made of various substances and considered best among the vehicles. It forms the homogeneous mixture with the Saindhava. Madhu has predigested sugar and it is easy to digest and are readily absorbed and assimilated by the body. In this way it energized body in very short period

##### Sneha

Sneha Dravyas reduces Vāta Dushti, softens bodies microchannels, destroy the compact Mala, and removes the obstruction in the channels.

#### Properties of Lekhana Basti Dravyas<sup>[23]</sup>

S.N.	Dravya	Rasa	Guna	Veerya	Vipaka	Doshghnata	Action and Uses
1	Madhu	Madhura Kashaya	Laghu,Ruksha	Sheeta	Katu	Tridosahara	Deepan,Lekhan, yogwahi
2	Saindhav lavana	Lavana, Madhur	Laghu,Snigdha Sukshma, Tikshna	Sheeta	Madhura	Tridosahara	Deepan,Rochana, chakshusya, Hridya
3	Til Tail	Madhur, Tikta Kashaya	Snigdh Tikshna, Guru, sara, sukshma, vyavayi,vishada, vikasi	Ushna	Madhura	Kaphavatahara	Deepan, lekhana,Vatahara,Balya
4	Triphala Kwatha	Kashaya	Laghu, Ruksha	Anushna	Madhura	Tridosahara	Deepan, pramehahara, Medohara,chakshusya
5	Hingu	Katu	Laghu, snigdha Tikshna	Ushna	Katu	Kaphavatahara	Deepan, chhedana, Vatanulomana

Owing the Snigdha Guna it produces unctuousness in body, intern helps for easy eliminations of Dosha and Mala. It is already discussed in Virechana review that how Sneha increases the permeability of cell membrane and become helpful in elimination of Dosha and Mala.

Because of its Guru–Snigdha Guna, it liquefies the Dosha and breakdowns the compact Mala.

Apart form this functions it also protects the mucus membrane from the untoward effect of irritating drugs in the *Basti Dravya*.

#### Kalka, Kwatha and Āvapa Dravya

Kalka and Kwatha Dravya are the main constituents of the Basti Dravya.

They serve the function of Utkleshana or Dosha Harana or Shamana depending upon it contains and are selected accordingly.

They are selected on the basis of Dosha, Dushya and Srotasa so their main action is Samprāpti Vighatana of Roga.

Āvapa Dravya is also used for elimination of particular Dosha.

Lekhana Basti has prepared as per classical reference. Triphalā Kwātha was used because of its Ushna Veerya, Tridosha Shāmaka and Medohara property.

#### Drug Of Lekhana Basti<sup>[22]</sup>

Madhu

Saindhav lavana

Tila Taila

Prekshepa of Shilajita, Tuttha, Kāsisa,Yavakshāra, Hingu

Gomutra

Triphalā Kwātha

6	Tuttha	Katu, Kashaya, Madhura	Laghu	Ushna	Katu	Kaphavatahara	Lekhan, Bhedana, Medohara, Rasayana
7	Kasis	Amla, Kashaya Tikta	Laghu	Ushna	Katu	Kaphavatahara	Netrya, Vishaghna, Rajahpravrtaka
8	Yavakshara	Katu, Lavana,	sukshma, Tikshna	Ushna	Katu	Kaphavatahara	chhedana, Bhedana, Deepana, pachana vatanulomana
9	Shilajit	Tikta, Kashaya	Guru, Snigdha Mridu	Sheeta	Katu	Kaphavatahara	Chhedana, Rasayana, Medohara
10	Gomutra	Katu, Tikta Kashaya	Tikshna ushna, laghu	Ushna	Katu	Kaphavatahara	Deepana, pachana, Lekhana

### Avyavaprabhava of Lekhana Basti

The Avyavaprabhāva proportionate distribution of properties in the Lekhana Basti is arithmetically accessed and given below.

#### 1. Proportionate distribution of Rasa

Rasa	%
Lavana	20.00
Madhura	40.00
Kashāya	70.00
Katu	40.00
Tikta	40.00
Amla	10.00

#### 2. Proportionate distribution of Veerya

3. Veerya	%
Anushanasheeta	10.00
Sheeta	30.00
Ushna	60.00

#### 4. Proportionate distribution of Vipāka

Vipāka	%
Madhura	30.00
Katu	70.00

#### 5. Proportionate distribution of Doshagnatā

Doshghnta	%
Tridosahara	30.00
Kaphapitta Shamaka	10.00
Kapha-Vāta Shāmaka	60.00

#### 6. Proportionate distribution of Guna

Guna	%
Snigdha	40.00
Ruksha	20.00
Laghu	70.00
Guru	20.00
Tikshna	50.00
Sukshma	30.00
Sāra	10.00
Mrudu	10.00
Vishad	10.00
Vyavāyi	10.00
Vikasi	10.00

### Efficacy of Lekhan Basti on Sthaulya Roga

Basti keeps all the five types of Vāta in their normal status by affecting its Seat-Pakvāsaya. Thus it also reduces the vitiation of Samāna Vāyu. Atikshudhā plays most important role in Sthaulya. Because due to obstruction by Meda, Vāta remains in Kostha and through Agni Sandhukshana it causes Atikshudhā which leads the person to Adhyashana and to take Guru Snigdha Āhara. It again causes Vitiation of Meda and production of Āma. In this way, this cycle goes on. Hence, it becomes very difficult to manage this disease but Basti controls the Samāna Vāta and breaks this cycle, thus helps in the management of this disease.

It is already discussed in Basti review that how Basti Dravya get absorbed from the colon and reaches at the cellular level.

After reaching at cellular level, they perform the action of Samprāpti Vighatana by virtue of its Rasa, Guna, Veerya, and Vipāka. The drugs of Lekhana Basti have dominance of Katu-Tikta-Kashāya Rasa, Laghu-Tikshna-Shukshma Guna, Ushna Virya and Katu Vipāka.

#### On the basis of Rasa of Lekhana Basti

Lekhan Basti has Kashaya Rasa dominance 70% followed by Katu Rasa 40% and Tikta Rasa 40%.

**Kashaya Ras-** It is having Ruksh, Meda, Kleda Upshoshaka properties.

**Tikta Rasa-** It has Khara Guna which is opposite to Meda.

**Katu Rasa-** It is having Sneha, Meda, Kleda Upshoshak, Deepana, Pachana properties. Hence it digest the Ama and reduced the increased Kleda in the body.

Katu, Tikta, Kashaya Rasa by reducing increased Kleda, they cause wasting of all the Dhatus. Thus help in Lekhana Karma of all the Dhatus- Tikta, Kashaya Rasa also reduces Pitta dusti.

#### On the basis of Guna

Lekhan Basti has Laghu Guna dominance 70% followed by Tikshna Guna 50% and Sukshma Guna 30%.

**Laghu Guna** - It is having dominance of Vayu, Agni, and Akash Mahabhutas. It causes Krishata and Dhatukshaya Reduction of over nourished Dhātu is the main aim of Lekhana Karma which helps in Sthaulya.

**Sukshma Guna** - Sukshma Guna helps the drug to reach at cellular level because of its Vāyu, Ākasha and Agni Mahābhuta dominance.

**Tikshna Guna** - Tikshna Guna is dominated by Agni Mahābhuta and it break downs the Dosha Sanghāta in Srotas, thus it help in removing Sanga in Srotas. By removing Sanga it keeps Sanchrana mārga of Vyāna Vāyu in normal condition. Thus Vyāna Vāyu can transport the nutrient to its related Dhātu and Uttrotar Dhātu Nirmāna takes place properly. Hence the process of Medovridhi is checked.

#### On the basis of Veerya

Lekhana Basti has dominance of Ushna Veerya 60%. Ushna Veerya has dominance of Agni Mahabhuta possess Laghu and Tikshna Guna. Ushna Veerya is liable for the reduction of Meda. It also has Deepana, Pachana, and Kapha-Vatashamaka property. As a result of Deepana, Pachana Karma Basti Dravya increases Agni at all level by which reduces Ama and corrects Medo Dhatwagni Mandya.

#### On the basis of Vipaka

Lekhan Basti is having dominance of Katu Viapaka 70% Because of its Laghu, Ruksha, Guna causes Dhatukshaya and reduces excessive Meda Dhātu. It also pacifies increases Kapha.

#### On the basis of Doshakarma

Lekhana Basti is having predominance of Kapha-Vatashamaka property 60%. Kapha and Vata are the main doshas involve in the pathogenesis of Sthaulya Disease.

#### On the basis of Shodhanakarma

Lekhana Basti is specifically a Tikshna Shodhana Basti and it is indicated in Bahudoshā Avastha which includes Medovridhi<sup>[24]</sup> It removes vitiated doshas from whole body, thus causes srotosodhana. It makes the further removal of the doshas from the body, hence breaks the Samprapti of Medodusti.

#### CONCLUSION

Sthaulya is one of the santarpanajanya Vyadhi and Apatarpana is the remedy for Santarpanajanya Vyadhis. Among all the treatment modalities in Ayurveda, "Basti" seems the best due to its fastest Apatarpana karma when prepared with apatarpaka or lekhnēya Dravyas. So in the light of above references from classics of Lekhan Basti, Rasa, Guna, Veerya, Vipaka, Doshakarma and shodhana properties are useful to reduce Kapha-Vāta Dushti, increases Agni, digests the Āma, correct the Medodhātuvāgni Māndya, remove obstruction in

Medovaha Srotas and nourishes Uttardhātus. Thus, it becomes helpful in disease Sthaulya.

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