

LEKHANA BASTI: AN ALTERNATIVE FOR BARIATRIC SURGERY

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Abstract

Sthaulya (obesity) is a burning problem in today's techno-friendly generation. This disease with its complications like Hyperlipidaemia, Diabetes, Atherosclerosis and Degenerative Heart Disease is a major cause for mortality and Morbidity in world. Many choose natural ways of weight loss instead of bariatric surgery. Panchakarma is always a ray of hope in such type of cases. So in the present study Udvaartana and Lekhana vasti in sushrutha samhita were used to evaluate the role in case of Sthaulya.

Key words: Sthaulya; Obesity; Lekhana vasti; Weight; BMI; Udvaartana; Circumferences.

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INTRODUCTION

Obesity is considered as metabolic disorder in modern literature. The World Health Report 2002 of W.H.O. listed obesity under the 10 top selected risks to the health. Obesity is a dreadful disease with its hazardous complications like hypercholesterolemia, ischemic cardiac disorders, hypertension, diabetes mellitus (DM) etc. It is frequently blamed on ingestion of heavy and over food like fast food, junk food, endocrine factors, body built, mechanical life style or heredity etc.

Obesity is the only one disease which is gaining more and more attention of scientists at global level. Many institutions and Medical schools are making efforts to find a perfect remedy for this burning problem. It is precursor to coronary heart diseases, high Blood pressure, Diabetes mellitus, Osteo arthritis, infertility & impotence, as well as psychological disorders like stress, anxiety, depression etc., which have been recognized as the leading diseases of the millennium.^[1]

Despite developed techniques like liposuction & bariatric surgery, still safe & appropriate remedy is awaited due to complications after these life threatening procedures. Dumping Syndrome, dehydration, gall bladder stones, dysphagia, indigestion, kidney stones, incisional hernia, malnutrition, ulcers, intolerance to certain foods, beverages & drugs and dental problems are being faced by people after bariatric surgery.^[2]

So after looking the vital importance of obesity (Sthaulya), it was selected for the present study. Hence the management of this disease is merely insufficient in other systems of medicine and patients are continuously looking with a hope towards Ayurveda to overcome this challenge. In all classical texts, Udavartana (powder massage) is mentioned as part of Dincharya (daily regimen) and for Sthaulya, Ruksha (dry) Udavartana was

narrated by Acharyas. The benefits of Udavartana was also mentioned i.e. Kaphahara (reduces kapha), Medasah Pravalayanam (dissolves fat), Sthirikaranam Anganam (increases the stability of extremities), Tvaka prashadakar (promotes the excellence of skin).^[3] In Sthaulya Udavartana procedure removes the foetid odour, restricts the process of excessive sweating, and alleviates the aggravated doshas by function.

Lekhana basti is mentioned by different Acharyas for Santarpanotha Vyadhi, Kaphaja Roga and Kaphavrita Vata.^[4] Sthaulya is also among these.^[5] The word Lekhana itself indicates its action means - "Lekhanaam Patlikaranam" (scarifying helps in reducing fat).^[6] Thus Lekhana is nothing but a process of emaciation while Sharangadhara considered Lekhana in a wide sense i.e. Lekhana is a process of drying up or desiccation of all excess Dosha, Dhatu and Mala i.e. Deha Vishosanam,^[7] Dhatun - Malan va Dehsya Vishoshya Lekhayechha yat Lekhanam.^[8] That means the drug which clarifies the protoplasmic contents of tissue cells and thus gradually clears the system of its deranged constituents is known as Lekhana. Basti is prepared by following the method of Asthanabasti.

Different types of Lekhana Bastis are described by different Acharyas and a lot of work with good results has been done on Lekhana Basti. It also explained in other Samhitha's like Madava Nidhana-Medo nidhana, Sharangadhara Samhitha, Bavaprakasha and Sangraha granthas like Chakradatta, Dipika, Basavarajiyam, Yoga Ratnakara etc.^{[9][10]} In the present study Lekhana Basti by sushrutha was evaluated for its efficacy in obesity.

AIMS AND OBJECTIVES

To assess the efficacy of Lekhana vasti mentioned by sushrutha in Sthaulya and to assess the efficacy of udavartana in sthaulya.

MATERIAL AND METHODS

Material Required

For Udvartana Triphala churna was used.

The drugs of Lekhana basti and their details are described as follow^[11]

Anuvasana Basti

Dashmoola taila - 50ml (for single day)

Niruha Basti^[12] (for single day)

Kwatha Dravya	- (400ml)
Triphala	- 100 g
Prakshepa dravya	
Shilajit	- 5g
Yavakshara	- 5g
Kasisa (Feso ₄ 7H ₂ O)	- 5g
Tuttha (Cuso ₄ 5H ₂ O)	- 5g
Hingu (Asafetida)	- 1g
Madhu (Honey)	- 50 g
Katu Taila (Mustard oil)	- 50 ml
Gomutra (Cow's urine)	- 150 ml

Basti is prepared according to asthapanasthi basti method described in classics. (Table 1)

Table 1: Asthapanasthi dravyas

Drug	Latin Name	Part used
Amalaki	<i>Phyllanthus emblica</i>	Fruit
Vibhitaki	<i>Terminalia bellirica</i>	Fruit
Haritaki	<i>Terminalia chebula</i>	Fruit
Shilajeet	<i>Asphaltum punjabinum</i>	Niryas
Yava	<i>Hordeum vulgare</i>	Kshar (extract)
Hingu	<i>Ferula northax</i> Bioss.	Niryas
Sarshap	<i>Brassica campestris</i> Linn.	Oil

Plan of study

It was a pilot study, 10 patients of the Sthaulya (obesity) were selected from I. P.D. & O. P.D. Units of Panchakarma department, Ch. Brahm Prakash Ayurved Charak Sansthan, Khera dabar, New Delhi.

Diagnostic criteria

Detailed medical History was taken and physical examination was done in detail according to both Modern & Ayurvedic clinical methods. Patient was diagnosed according to diagnostic criteria of Sthaulya as mentioned in the classics with the Symptoms of Chala spik Udara stana, Alasya, Anga Gourava etc.,^[13] and patients with BMI (25kg/m²-35kg/m²), weight, circumference of Chest, Abdomen, Hip, mid-Arm, Thigh, are taken into consideration. Necessary investigations like FBS, PPBS, RBS, TSH, Lipid profile are done. Method of grading of the symptoms was adopted by the previous research study carried out in I.P.G.T. & R.A., Jamnagar. (Table 2)^[14]

Revised BMI for Indian status^[15]

<18.5 kg/m ²	- under weight
18.5 kg/m ² - 22.9 kg/m ²	- Normal
23.0 kg/m ² - 24.9 kg/m ²	- over weight
25.0 kg/m ² - 26.9 kg/m ²	- Grade-I obesity
27.0 kg/m ² - 28.9 kg/m ²	- Grade-II obesity
29.0 kg/m ² - 31.9 kg/m ²	- Grade-III obesity
32.0 kg/m ²	- morbid obesity

Inclusion criteria

- Age of pt 18 yrs-60 years.
- Having clinical signs & symptoms.
- BMI-between 25kg/m² to 35kg/m².
- Controlled DM (RBS 140-200mg/dl), HTN (sys-upto140/dia-upto90mm of Hg), and Hypothyroid (Below10miu/l).

Exclusion criteria

- Age below 18yrs & above 60 years.
- Patient having cardiac problems (CHD, MI etc.), renal problems, Hepatic problems, using Long-term Steroid patients, uncontrolled DM, HTN, Hypothyroid.
- Pregnant women & lactating mother.

Table 2: Grading of Subjective Parameters

Sl. No.	Subjective Parameters	Grade
Flabbiness in Hip-Abdomen-Breast (Chala Spika Udara Stana)		
1.	Absence of Chalatra	0
2.	Little visible movement (in the areas) after fast movement	1
3.	Little visible movement (in the areas) even after moderate movement	2
4.	Movement (in the areas) after mild movement	3
5.	Movement (in the areas) even after changing posture	4
Laziness/ Lack of Enthusiasm (Alasya / Utsahahani)		
1.	No Alasya (doing work satisfactory with proper vigour in time)	0
2.	Doing work satisfactory with initiation late in time	1
3.	Doing work unsatisfactory with lot of mental pressure and late in time	2
4.	No starting any work in his own responsibility doing little work very slowly	3
5.	Does not have any initiation and not wants to work even after pressure	4
Dyspnoea On Exertion (Kshudra swasa / Ayasena swasa)		
1.	Dyspnoea after heavy work (movement) but relieved soon and upto tolerance	0
2.	Dyspnoea after moderate work but relieved later and up to tolerance	1
3.	Dyspnoea after little work but relieved later and upto tolerance	2
4.	Dyspnoea after little work but relieved later and beyond tolerance	3
5.	Dyspnoea in resting condition	4
Excess sleep (Nidradhikya)		
1.	Normal sleep 6-7 hrs./per day	0
2.	Sleep upto 8 hrs./day with Anga gaurava	1
3.	Sleep upto 8 hrs./day with Anga and Jrimbha	2
4.	Sleep upto 10 hrs./day with Tandra	3
5.	Sleep more than 10 hrs./day with Tandra and Klama	4
Excess Sweating [Swedadhikya] (At normal temperature in normal condition)		
1.	Sweating after heavy work and fast movement or in hot season	0
2.	Profuse sweating after moderate work and movement	1
3.	Sweating after little work and movement	2
4.	Profuse sweating after little work and movement	3
5.	Sweating even at rest or in cold season	4
General weakness [Daurbalya (Alpa Vyayam)]		
1.	Can do routine exercise	0
2.	Can do moderate exercise without difficulty	1
3.	Can do only mild exercise	2
4.	Can do mild exercise with very difficulty	3
5.	Cannot be even mild exercise	4
Heaviness in the Body (Anga Gaurava)		
1.	No heaviness in body	0
2.	Feels heaviness in body but it does not hamper routine work	1
3.	Feels heaviness in body which hamper daily routine work	2
4.	Feels heaviness in body which hamper movement of the body	3
5.	Feels heaviness with flabbiness in all over body which cause distress to the person	4
Oily Body luster (Snigdhagata)		
1.	Normal snigdhata (luster)	0
2.	Oily luster of body in summer season	1
3.	Oily luster of body in dry season	2
4.	Excessive oily luster of body in dry season which can be removed with difficulty	3
5.	Persistence and profuse stickiness all over body	4

Study design

To all the 10 patients Udvartana was performed and Lekhana vasti (kala vasti schedule) was administered in 2 sittings each

of 16 days duration with a gap of 1month between each sitting.

Follow up period: Once in 15 days for 2 months

Assessment Criteria

Each selected patient after completion of 2-cycles of treatment (2 months) subjected for both subjective and objective parameters and treatment were assessed in terms of statistical evaluations based on change in both parameters, before treatment & after treatment.

Procedure Pattern

First udvartana was done for 20 minutes on whole body. After that Basti karma is preceded by local Abhyanga and Sweda to abdomen, back and thigh regions. In Pradana karma administering Anuvasana and Niruha vasti alternatively for 16 days (kala basti). Same procedure was followed again with a gap of 1 month. With the above procedure pattern of Basti, no complication was observed. The significant changes in Wt, BMI, Body circumferences, & symptoms shows reduction with effect of “Lekhana vasti” due to Lekhana prabhava of the drugs.

DISCUSSION

Obesity can be defined as "Excessive deposition or distribution of fat in the body". According to Dorland, "Obesity is an increase in body weight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat". In Sthaulya, due to obstruction by Meda - Vyana Vayu could not transport nutrient to other Dhatu so Medadhatu is increased and Uttaradhatu decreased.

In the disease Sthaulya, Tikshnagni occurs. Here, Jatharagni is found in excessive condition whereas Medodhatvagni is found in Manda condition. It is due to Avarana of Vayu in Kostha. So person indulges more food, which produce excessive Meda and vitiated cycle goes on. This cycle is broken (Samprapti

Vighatana) by Ushna-Virya Pradhana triphala churna (used in udvartana) which decreases Meda by its Lekhana Shoshana and Kaphanashaka properties, Laghu, Ruksha Guna, Karshana, Lekhanaiya, Amapachana, Dhatushoshana properties, which normalize the state of Agni. Thus the function of Strotovibandhanasana acts against Kapha, Kleda and Meda, which is effective on Rasa, Meda, Medodhatvagni, and provided good results in all signs and symptoms. Thus, regulated Jatharagni, checks the excessive growth and accumulation of Medodhatu and thereby causing Lakshana Upshamana of disease Sthaulya. By the properties such as Laghu, Ruksha, Ushna, Tikshna gunas it causes medodhatvagni deepana at the same time it removes avarana of meda on vata dosha hence bringing jatharagni to its normalcy. By the virtue of aforesaid gunas it removes abhisyanda from srotas & absorbs excessive kleda which adds in samprapti of sthauilya and brings mamsa meda dhatu to their normal sanghnana state.

Lekhana Vasti by virtue of its ingredients have Katu, Tikta, Kashaya rasa, Laghu, Ruksha, Tikshna Guna, Ushna virya, Katu vipaka, Lekhana, Kapha-vata hara, Deepanapachana & Sroto-shodhaka properties. 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.^{[16][17][18]} Hence, in the present study a humble effort was made to treat obesity, 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 Lekhana vasti (a type of Niruhavasti) in Chikitsastana which can be used in Sthaulya.^[19]

The drugs which are used for preparation of Lekhana vasti possess following gunas like; Katu, Tikta, Kashaya rasa, Laghu, Ruksha, Tikshna guna, Ushna virya, Katu vipaka

Lekhanaa, Kapha-vata hara, Deepana-pachana & Sroto-shodhaka properties.^[20] Having all these properties, Dravya of Lekhana vasti performs Shodana by means of the penetration into deeper Dhatu's & corrects the Datvagni which helps in reducing Sthaulya.

Weight reduction and circumference of the abdomen, thigh, chest and mid arm was noted in this study. (Table 3) It shows the significant of this study.

Table 3: Overall Result (Average)

Parameter	Before therapy	After 1 st sitting	After 2 nd sitting
Weight	91.6kg	89.1kg	87.8kg
Inches loss			
Abdomen			
1 inch above umbilicus	47.8"	46.3"	45.3"
1 Inch below umbilicus	48.2"	46.8"	46"
Mid thigh circumference	24"	23.3"	22.9"
Chest circumference	43.2"	42.3"	41.7"
Mid arm circumference	16.2"	15.8"	15.7"

CONCLUSION

Lekhana Vasti produced significant improvement in both subjective parameters & objective parameters but, when compared to objective parameters, subjective parameters produced high significant improvement. But, a clinical study on a larger sample is also required before coming to any conclusion on regarding the procedure & drug.

However the outcome of the present study definitely gives an inspiration to proceed with the study on this Lekhana vasti in the disease Sthaulya. It was observed that symptomatic improvement and inches loss was more effectively noticed than weight loss. Basti therapy along with udvartana was observed more effective along with oral medicines.

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