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# A REVIEW – AN IMPACT OF LEKHANA BASTI ON THE MANAGEMENT OF METABOLIC RISKS

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### **ABSTRACT**

The ability of people to engage in physical activity has decreased as a result of the numerous inventions that have been produced in the contemporary era to make living easier. It is directly related to diseases associated with metabolic impairment of the body. The disease is a term, used to describe a condition in which the body's metabolism is interrupted and it is unable to execute natural tissue (*Dhatu*) transformation due to the dysfunction of various sets of *Agnis* (bio fire). The primary objectives of treating metabolic disorders are to balance the *Dosa* and to bring the *Medodhatvagni* (the digestive fire that metabolizes lipids) back to its normal form (*Vata*, *Pitta* & *Kapha*). The main *Ayurvedic* purifying, and healing procedure is called *PanchKarma*. *Basti* is a form of *Panch-Karma* and is also referred to by *Acharya Charaka* as an *Ardhachikitsa* for *Vata* disorders. *Lekhana Basti* has been suggested by *Acharya Susruta* and the symptoms of *Medodushti* were shown to be significantly improved with it. *Lekhana Basti* is a suitable option for treatment due to its properties of *Lekhana* (scrapping lipid from tissue), *Rukshna*, and *Ushna*.

**Keywords:** Ayurveda, PanchaKarma, Lekhana Basti, Metabolic disease.

#### INTRODUCTION

In today's modern times, many inventions have been made to make life easier, due to which the ability of physical activity has been reduced in the people. The recent COVID-19 pandemic caused by the widespread SARS-Co-2 virus also affects mental & physical health due to fear, worry, grief, restricted movement out of home, limited movement in the house & oily junk food [1]. Poor lifestyle, the habit of eating faulty foods, mental stress, depression, and anxiety all affect the metabolism of the body. A sedentary lifestyle and physical inactivity are risk factors for metabolic syndrome [2]. PanchKarma is the chief purification & healing process of Ayurveda. Basti is a type of PanchKarma & also mentioned as Ardhachikitsa for Vata disorder by Acharya Charaka [3]. This is quite an uncomplicated, easiest procedure

among all types of *PanchKarma* & also a type of drug administration procedure of *Ayurveda* through various routes by using several varieties of herbal & mineral drugs.

#### Lekhana Basti

Lekhana Basti is mentioned by Acharya Sushruta [4] & Sharangdhara [5]. Lekhan Basti is a form of Niruha (Asthapana) Basti hence it has the properties of Shodhana & Lekhana. Lekhana refers to scraping, scratching, or removing. In Sharangdhara Samhita Acharya has written that Lekhniya Dravya is the substance that removed the increased dhatu, rasa & mala by scraping or scratching. [6] The ingredients of Lekhana Basti are Triphala Kwatha, Gomutra, Madhu, Yavakshara, and Ushakadigana prakshepa.

Table No 1: Ingredients of Lekhana Basti

Sn	Sanskrita Name	<b>Botanical Name</b>	Part Used	Karma
1	Amalaki	Embelica officinalis Gaertn	Fruit	Tridoshahara, mainly PittaShamaka.
2	Haritaki	Terminalia chebula Retz.	Fruit	Tridoshahara.
3	Vibhitaki	Terminalia bellerica Roxb	Fruit	Tridoshahara, mainly KaphaShamaka.
4	Shilajatu	Asphaltum	Mineral	Tridosha Shamaka
5	Honey	Mal depuratum	-	Tridoshahara (su)
				Kapha-pittaShamaka (ch)
6	Yavakshara	Hordeum vulgare	Whole plant	Vata-KaphaShamaka
7	Saindhava Lavana	Mineral	Salt	Tridoshahara
8	Hingu	Asafoetida	Niryasa	Vata-KaphaShamaka
9	Tila taila	Sesame	Seed	Vata Shamaka
10	Gomutra	Cow urine		Vata-KaphaShamaka,
				Pitta prakopa

#### Dose [7] -

In the chapter of *Niruhakramachikitsa*, *Acharya Sushruta* mentioned the dose of *Niruha Basti*, which is 12 *Prasruta* (1,152 ml) in amount (1 *Prasruta* = 2 pala = 96 ml).

Madhu
Saindhava
Sneha
Sneha
Kalka
Hrasruta
Kvatha
Avapadrava
2 Prasruta
4 Prasruta
2 Prasruta

Acharya Charaka has mentioned that the matra of Basti Dravya depends based on Dosha, Ausadha, Desha, Kala, Satmya, Agni, Satva, Oka, Vaya & Bala [8]. Based on the current situation, the Bala is comparatively heen than the previous era. Acharya Sharangdhara has described in Uttara Khanda that the Pramana of Niruha Basti in Heena Bala Purusha is 3 Kudava (1 Kudava = 4 Pala = 560 ml). [9]

# Preparation of Lekhana Basti [10]

In *Charaka Samhita*, the method of preparation of *Niruha Basti* is explained very well in a proper manner. *Lekhan Basti* is a form of *Niruha Basti*, so it is

prepared just like that. Firstly, measure all drugs and take the required quantity. Put the *Madhu*, *Saindhava*, *Sneha*, *Kalka*, *and Kwatha* respectively in *Khalva Yantra* & make a homogenous mixture by triturating them. The temperature of *Basti Dravya* should be *Sukhoshna* i.e close to the body's normal temperature

#### Administration of Lekhana Basti-

Basti is administered in 3 phases-

- Purva Karma.
- Pradhana Karma.
- Pashchata Karma.

#### Purva Karma-

The examination of the *Lakshana* of *Basti Yogya* & *Ayogya Purusha* is required before the administration of *Basti*. The physician should evaluate for *Samyaka Siddhi* of *Basti Karma* by looking at many aspects such as *Dosha, Ausadha, Desha, Kala, Satmya, Agni, Satva, Oka, Vaya,* and *Bala*. Before performing *Nadi/Vaspa Sweda, Abhyanga* should be applied with oil on the buttocks. *Basti* must be administered at *Aadra Pani* (Just after finishing the meal). If the previously eaten food is digested and there is less appetite, then *Niruha Basti* should be given.

#### Pradhan Karma –

The patient will be asked to lie on the *Droni* (Special table for Panchakarma procedure) in Vama Parshwa (left lateral position with right leg flexed) [11]. Ask the patient to take a deep breath. Bastinetra is gradually introduced into the rectum in the parallel direction to that of the spinal column up to 1/4 part of the Netra, then holding the Basti Putaka, press it slowly with persistent pressure, neither too fast nor trembling hand. Ask the patient to take a deep breath, after that push the Basti Dravya into the rectum until a small amount of Dravya is left in the Basti Putaka, otherwise, the Vayu will enter the Pakvasaya, and then slowly withdraw the Basti Netra. After the administration of Basti Dravya, the patient is asked to lie down in a dorsal decubitus position for 30 Matra (15-30 sec). Tadana was done over Back, Buttock, and Thigh Region and asked him/her to sit in Utkatasana (chair pose) and pass the urge.

#### Paschata Karma-

Pratyagamana kala for Sneha Basti is 3 Yama (1 Yama = 3 hr) & for Niruha Basti is 1 Muhurta (48 min). According to Sushruta, if there is a predominance of Doshas like Vata, Pitta, and Kapha then Mansaras, Kshira, and Yusha should be given respectively. After the completion of Basti Karma, the patient should strictly follow the period of abstinence, which time is double the Basti Karma (Dwiguna Parihara Kala).

# Role of Lekhan Basti in PCOS [12][13]

Polycystic ovarian syndrome, also called infertility queen, affects 10% of women of reproductive age. It is a systemic endocrine & metabolic disorder. Lekhana Basti is a boon for women who are suffering from PCOS. Basti is a chief treatment for Vata disorder Lekhana Basti has a property of Lekhana, Pachana, Ushna & Tikshna. It has the property of Amapachana, Srotoshodhaka & VatakaphaShamaka. It acts on Apana Vata & normalizes its function of it as a result of normal Rajaha Pravritti & Beeja Nirmana. i.e menstrual irregularity. It decreases the accumulation of Medo Dhatu. It may decrease the LH level & normalize the FSH level to stimulate the growth & development of follicles.

# Role of Lekhana Basti in Dyslipidemia [14][15][16]

Dyslipidemia is a disorder of lipid metabolism, also called hyperlipoproteinemia. Dyslipidemia is a major independent modifiable risk factor for cardiovascular disease. Dyslipidemia is a type of *Medovaha shrotodushti*. The drug used in *Lekhana Basti* has the property of *Vata-Kapha Nashaka*, *Medohara & Lekhana Karma*. It clears the channel i.e *Shrotasa* by scraping the *Doshas & Malaroopi Meda* which may decrease the level of Total cholesterol, Triglyceride, LDL& VLDL. *Triphala & Gomutra* act on the liver and enhance its metabolic activity.

# Role of *Lekhana Basti* in Coronary Artery Disease [17]

CAD is the most common form of Cardiac disease. It involves atherosclerotic plaque buildup in the lumen of arteries. It can narrow the arteries, and this leads to hampering in blood supply to the Heart thus decreased oxygen delivery to the myocardium may cause Angina, Ischemia, Myocardial infarction, and

even death. The Pathophysiology of Atherosclerotic cardiovascular diseases (ASCVD) are closely related to Dyslipidemia. *Lekhana Basti* has a property like *Lekhana, Karshana, Srotosodhaka, Pachana, Medohara, Asukari &Vatakapha Shamaka* and it acts with *Prabhakara vati* as cardiotonic and cardioprotective in general.

# **Role of Lekhan Basti in Hypothyroidism** [18][19]

Over 1% of people in the general population and about 5% of people over 60 have hypothyroidism, which is a prevalent condition. India has an 11% prevalence of hypothyroidism. Males are less impacted than females; the ratio is 1:6. Although not explicitly addressed in traditional *Ayurvedic* texts, hypothyroidism can be linked to *Atisthoola Purusha*, *Rasa Pradoshaja Vikara*, *Kaphaja Sotha*, *and Kaphaja Galagand*. *Dhatwagnimandya* is a primary factor that might result in hypothyroidism. *Lekhana Basti* possesses the *Deepana & Pachana* property, which improves *Agnimandya*, elevates *Agni*, and breaks down *samprapti*.

### Role of *Lekhana Basti* in Obesity [20][21][22]

At the present, obesity affects a lot of people. It is a significant monetary and health burden on the average person. Over 135 million people in India were afflicted by obesity. The prevalence of obesity and central obesity, respectively, ranges from 11.8% to 31.3% and 16.9 to 36.3%, according to the ICMR-INDIAB study from 2015. In *Ayurveda*, *Sthaulya* roga is a term that describes obesity. *Vyana Vata* is *avritta*, or concealed, in *Sthaulya Rog* by *Meda Dhatu*. The *Meda Dhatu* is expanded, and the remainder of the *Uttara Dhatu* is diminished since it was unable to convey *Rasa Prashada Bhaga* in *Uttarottara Dhatu*.

#### DISCUSSION

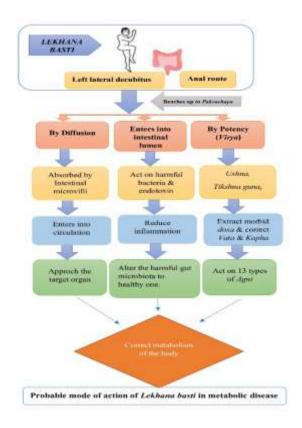
The sedentary lifestyle of the Modern era is directly related to diseases associated with metabolic impairment of the body. The qualities of *Vata-Kapha* 

Shamaka, Ushna, Tiksna, Deepana, Pachana, Lekhana, Karshana, and Srotoshodhaka are present in Lekhana Basti. Triphala Churna, Gomutra, Madhu, Yavakshara, and Usakadigana are the ingredients in Lekhana Basti. Triphala stimulates the islets of Langerhans, which generate insulin; as a result, it possesses anti-diabetic effects [23], antioxidant characteristics of Vitamin C, hepato-protective qualities [24], anti-inflammatory activities [25], gastroprotective properties [26], and hypolipidemic properties. [27]

As a *Vata-Kapha Shamaka*, *Kriminasaka*, *Vishagna*, *Deepana*, *Pachana*, & *Anulomana*, *Gomutra* performs. It has anti-obesity and bioenhancer <sup>[28]</sup>, anti-diabetic and wound healing <sup>[29]</sup>, anti-inflammatory, and anti-cancer properties. <sup>[30]</sup> *Madhu* is an *aushadhi* of the *Shrestha Shamana* for the *Kapha* disease. *Madhu* acts as *Yogvahi*, which improves the drug's therapeutic properties.

The root of the body *Sharira moola*, according to *Acharya Chakrapani's* citation of *Acharya Parashara*, is *Angus (Guda)*. According to *Ayurveda*, giving water to a tree's root nourishes the entire tree, just like *Basti* does <sup>[31]</sup>. The rectum receives adequate blood and lymph flow. The *Dravya* of *Basti* is able to penetrate through the mucosal barrier of the rectum by employing the diffusion principle, which states that molecules move from greater to lower concentrations.

The size of the solvent, temperature, ionization, surface area and vascularity are the physical parameters that determine the rate of diffusion and absorption in the colon. The pH of *Lekhana Basti* is alkaline in nature due to *Gomutra* (pH=8.5-9.5) & *Yavakshara*, hence the *Basti Dravya* is quickly absorbed via the colon due to its alkaline nature. Modern society's sedentary way of life is directly linked to illnesses brought on by a body's impaired metabolism. *Lekhana Basti* possesses.



the characteristics of Vata-Kapha Shamaka, Ushna, Tiksna, Deepana, Pachana, Lekhana, Karshana, and Srotoshodhaka. Lekhana Basti's components include Triphala Churna, Gomutra, Madhu, Yavakshara, and Usakadigana.

As a result, the medicine, also known as *Virya* of *Basti*, enters the portal and systemic circulation after being absorbed through the gut microvilli and eventually reaches the target site. It affects the enteric nervous system's receptors, according to contemporary science. Dopamine is produced by ENS along with other brain-found neurotransmitters and hormones. When serotonin from the gut enters the bloodstream, it plays a role in repairing liver and lung damage.

We can argue that gut microbiota contributes to metabolic inflammation and disorder because when microbiomes, such as bacteria & their endotoxins, enter the circulation, it generates a low level of inflammation, and it leads to discrepancy in gut microbiota and gut barrier. The *Lekhana Basti* has the ability to directly enter the lumen of the intestine and reduce the

number of harmful microbiomes in the gut. Its components, such as *Triphala, Gomutra*, etc, have antimicrobial activity and maintain the pH of the gut, which can change the gut flora of the ill person into healthy gut flora.

#### CONCLUSION

Medoghna properties can be found in these Lekhana Basti medicines. it has proven to have therapeutic promise for the treatment of serious metabolic disorders with pathological conditions. Contrary to Kapha, Ama, and Medodhatu are Katu, Tikta, and Kashaya rasa. When treating chronic metabolic or stress-related disorders, Lekhana Basti is especially beneficial. It harmonizes the doshas, restoring their equilibrium and the person's health in the process. We can infer from the foregoing explanation that Lekhana Basti is a significant samshodhana treatment that is essential for eliminating the body's harmful disease-causing metabolites and alleviating the symptoms of metabolic syndrome by purging the body's strotasa.

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