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A Review on *Lekhaniya Mahakashaya* w.s.r. to *Sthoulya* (Obesity)

Author: Srishti Kharkwal¹

Co Authors: D.C. Singh², O.P.Singh³ and Alpana Bhatnagar⁴

¹⁻³Rishikul Campus, P.G. Department of Dravyaguna, Haridwar, Uttarakhand India

⁴P.G. Department of Dravyaguna, Patanjali Bhartiye Ayurvigyan Evam Anusandhan Sansthan, Haridwar Uttarakhand India

ABSTRACT

Obesity is a complicated disease that can be caused by a combination of factors, including genetics, lifestyle and hormonal imbalances. Lifestyle changes, such as diet and exercise, can be effective in treating obesity. It is a chronic disease that requires medical attention and ongoing management. It is a condition affects millions of people worldwide. This condition is caused by a combination of factors related to genetics, metabolism and the environment and can lead to serious health problems if left untreated. But, by understanding what makes obesity a disease, you can take control of your health and work towards a healthier future.

In recent decades, because of the changed lifestyle, daily routine, food habits and environmental changes, the population of unhealthy people is increasing even in developed countries. Increasing work load and mental stress, time shortage and fast life is adding more to health problems. Owing to these factors, many ailments are becoming very common now a days like Obesity, Hyperlipidemia and the other related diseases.

Obesity is one of the nutritional lifestyle disorder and is vastly increasing in the world due to the change in the life style and working conditions. Obesity is a disorder characterized by increased body weight and excess fat deposition. It reduces the average life span and decreases the quality of life. In *Ayurveda*, *Sthoulya* (Obesity) is a condition where, due to aggravation of Doshas, there is improper transformation of nutrition, more of *Medodhatu* is formed and inappropriate nutrition goes to nourish other Dhatus of body. In *Ayurveda* many herbs has been described by Acharayas, which are effective in treatment of *Sthoulya* (Obesity). Acharya Charak specifies and describes 50 *Mahakashaya*, in which there is mention of group named *Lekhaniya Mahakashaya* i.e. group of herbs having scraping action (Lekhan). Lekhan is aimed basically for *Apatarpana* (emaciation) of the body which play major role in treatment of Obesity. This article is a review to explore the impact of *Ayurvedic* approaches in Obesity and to study the medicinal herbs of *Lekhaniya Mahakashaya* which are beneficial in *Sthoulya* (Obesity).

Key Words *Lekhaniya Mahakashaya Sthoulya (Obesity)*

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INTRODUCTION

Growing prevalence of obesity worldwide is an increasing concern. In 2022, 1 in 8 people in the

world were living with obesity. Worldwide adult obesity has more than doubled since 1990, and adolescent obesity has quadrupled. In 2022, 2.5

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billion adults (18 years and older) were overweight. Of these, 890 million were living with obesity. In 2022, 43% of adults aged 18 years and over were overweight and 16% were living with obesity. Obesity leads to cascade of secondary pathologies including Diabetes, Dyslipidemia, Cardiovascular Diseases, Thrombosis, Hypertension, Metabolic syndrome, Cerebrovascular disorders, some types of cancers etc.

Obesity is defined as body weight above a desirable standard as a result of lack of physical activity with increased intake of food. A BMI of 25 to 29.9 kg per m² is defined as overweight. A BMI of 30 kg per m² or more is defined as obesity. These conditions result from a problem of imbalance between energy intake and expenditure.

Obesity is not a new problem it is also described in Ayurvedic literature as well. Obesity is very well said in *Ayurveda* by *Sthoulya* and *Medoroga* by different *Acharya*'s. It has been classified under “*AstaNindit Purusha*” and *Santarpanothavikar*. *Sthoulya* (Obesity) is one among major diseases of modern era with continuous changing life styles environment, fatty diet regimen and dietary habits. It is discouraged by the society for social as well as medical reasons & the most common nutritional disorder in affluent societies. It is caused by combination of faulty diet, sedentary life styles and genetic susceptibility. *Acharya Charaka* was the first to present a detailed account of *Sthoulya*. *Atisthula* is one among the *Ashtaunindita*

Purusha described by him. He has described its causative factors mainly to be exogenous and hereditary type (*Bijadosha*), its etiopathogenesis, prognosis and management.

Sthoulya comes under the category of *Santarpanottha Vyadhi* (An excess nutritional disorder) as well as in *Medopradoshaja Vikara* in *Charaka Samhita* and as *Rasa-Nimittaja Vikara* in *Sushruta Samhita*. *Acharya Charaka* has described Obesity as a disease of fat tissue. *Ayurveda* gives a line of prevention as well as the management of Obesity. Obesity being the most common problems in adolescents as well as older age groups, there is a necessity to combat them with drugs mentioned in classics. According to *Acharya Charaka* basic treatment principle of *Sthoulya* is '*Guru Apatarpana*'. In this context *Teekshna*, *Vata-Kaphahara* and *Medohara* drugs are recommended. *Sthoulya* is a disorder of *Agnimandya* and *Sama Rasa* formation which leads to obstruction of the channels, hence to manage this condition the selected drugs should have *Dipana*, *Pachana*, *Kaphanashaka*, *Medoghna*, *Lekhana*, *Karshana* and *Srotoshodhaka* properties. The researches on *Sthoulya* suggest that *Laghu*, *Ruksha* and *Kashaya Rasa* dominant formulation is more effective against Cholesterol and LDL, while *Laghu*, *Ushna* and *Katu Rasa* dominant formulation is more effective in condition of Hypertriglyceridemia.

Acharya Charak specifies and describes 50 *Mahakashaya* with 10 herbal drugs in each group with common action to combat the particular

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disease or disorder or help contribute to positive health. Likewise there is mention of group named **Lekhaniya Mahakashaya** i.e. group of herbs having scraping action. Most of the contents of Lekhaniya Mahakashaya are *Laghu, Ushna, Tikshna, Ruksha and Katu, Kashaya Rasa* dominant. *Lekhan* is aimed basically for *Apatarpana* (emaciation) of the body. According to *Ayurveda* Obesity can be considered analogous with raised and vitiated *Medo Dhatu* (lipids) in the body which is caused by hypo-functioning of *Medodhatwagni* (*Medo-dhatvagnimandya*) and these *Lekhaniya* herbs correct the *Medo-dhatvagnimandya* and check the process of *Medovridhhi* (increase in the quantity and subsequent deposition of *medo dhatu*) in the body. These *lekhaniya dravaya* causes deplication of our body *dhatu*'s and also makes our body feel light and lean. Herbs of *Lekhaniya Mahakashaya* with *Tikta, Kashaya, Katu Rasa, Rukasha, Laghu Gunas and Katu vipaka* has properties like *Lekhana* (scraping agent), *Dipana* (Stimulates *Agni*), and *Pachana* (Digests vitiated *medodhatu*) which play major role in Obesity.¹⁻¹²

LEKHANIYA MAHAKASHYAYA

मुस्तकुष्ठहरिद्रादारुहरिद्रावचाअतिविषाकटुरोहिणीचित्र
कचिरबिल्वहैमवत्यइतिदेशमानीलेखानियानीभवन्ति

॥३॥ च०सू०४/३

Herbs of *Lekhaniya Mahakashaya* has properties like *Lekhana* (scraping agent), *Dipana* (Stimulates *Agni*), and *Pachana* (Digests vitiated

medodhatu) which play major role in obesity (*Sthoulya*).

Sthoulya is prominent disease caused by vitiated *kapha*. As per *Acharya Charaka* to normalize vitiated *kapha*, drug should be of *Katu, Tikta, Kashaya rasa*.

“तंकटुतिककषायतीक्ष्णोष्णरुक्षैरुपक्रमैरुपक्रमेत

स्वेदवमनशिरोविरेचनव्यायामादिभिः श्लेष्महरैर्मात्रां

कालं च प्रमाणीकृत्य, वमनं तु सर्वोपक्रमेभ्यः श्लेष्मणि

प्रधानतमं मन्यन्ते भिषजः, तद्ध्यादित

एवामाशयमनुप्रविश्यरोगतं केवलं वैकारिकं

श्लेष्ममूलमूर्ध्वमुत्क्षिपति, तत्रावजिते श्लेष्मण्यपि

शरीरान्तर्गताः श्लेष्मविकाराः प्रशान्तिमापद्यन्ते ।

च.सू. २०/१९

Drugs that are *katu tikta kashaya* in *rasa*, possessing *laghu, ruksha guna* are largely responsible for *medohara/ lekhaniya* activities. All these three *Rasas* (*Katu, Tikta, Kashaya*) are catabolic and absorbing effect and help in reducing *Kleda*. Hence they cause depletion of the *Meda Dhatus*. *UshnaVirya* is dominated by *Agni Mahabhuta* and is responsible for the reduction of *Meda*. *Ushna veerya* stimulates *Agni* thus corrects the *Medo-dhatvagnimandya* and checks the process of *Medovridhhi*. It opposes any increment of *kapha* and *meda* by the *vilayana* property. The predominance of *Agni, Vayu and Aakash Mahabhootas* causes *KatuVipak* and is responsible for *Medodhatukshay*. *Laghu Guna* produces *Laghutva* (decreases weight or bulk)

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and Rukshaguna is responsible for creating dryness in the body. Tikshna Guna is dominated by Agni Mahabhuta and it breaks down the Dosha Sanghata in srotas (channels), as a result it helps in removing Sanga (obstruction) in Srotas. Thus all of these factors regulate Jatharagni which in turn checks the excessive growth and accumulation of Medo dhatu. By the virtue of Deepana-Pachana Karma these herbs increase Agni at all levels and it reduces Ama and corrects Medodhatvagni Mandya.

Drugs of Lekhaniya mahakashaya possess mostly Laghu, Ruksha, Tikshna Guna, Tikta, Kashaya and Katu rasa, katu vipaka, with the help of which fulfils the required criteria of 'Sthoulya chikitsa'^{13,14,15}.

DRUG REVIEW

1) *Mustak (Cyperus rotundus Linn.)*

Mustak has been mentioned in *Charaka Samhita-Lekhaniya mahakashaya*, *Ashtanga Hridaya - Kaphaghna Gana*, *Dhanvantari Nighantu - Guduchyadi Varga - Shleshmaraktjit* (to pacify kapha dosha), *Raj Nighantu Pipalyadi Varga-Kaphaghni* (to pacify Kapha Dosha).

Through its Swedjanan and Mutrajanan properties, it helps to eliminate toxins through urine and sweat from the body. It is Agnideepak Pachak that may make it a good digestive drug digesting all Aamdosh and toxins of the body leading to a light body.

Mustak as *Bhadramusta* has been indicated in the treatment of *Atisthaulya* by Acharya Charak in

Ashtoninditiye Adhyay of *Sutra Sthanam*. *Mustadi Kwath* has been mentioned the treatment of *Santarpanjanya Vyadhi (C.Su.23/12)*. *Mustak* in *Charak Samhita Sidhdhi Sthan* has been mentioned as an ingredient of *Rasnaadi Niru Vasti* which has been indicated in *Kaphdosha Vyadhi* and to increase the metabolic activity by igniting the *Jatharagni*. Acharya Charak has mentioned *Mustak Ghana* as an ingredient in *Madhwarishth* which maintains the *Jatharagni* and pacifies *Kapha Dosha*.

The tuber of *Cyperus rotundus* Linn. is rich in Cu, Fe, Mg and Ni. Beta-sitosterol, isolated from the tubers, exhibits significant anti-inflammatory activity against carrageenan- and cotton pellet induced oedema in rats; the activity is comparable to hydrocortisone and phenylbutazone when administered intraperitoneally.

The alcoholic and aqueous extracts of the tubers of *Cyperus rotundus* Linn. possess lipolytic action and reduce obesity by releasing enhanced concentrations of biogenic amines from nerve terminals of the brain which suppress the appetite centre. Presence of eudalene group of sesquiterpenic compounds of sesquiterpene alcohol, isocyperol is said to play an important role in lipid metabolism¹⁶⁻²⁰.

2) *Kustha (Saussurea lappa C.B. Clarke)*

Tikta and *Katu* in *Rasa*, *Laghu* and *Ushna* and *Katu* in *Vipaka* are the properties that make *Kushth* do its *Lekhniye karma*. In *Ashtanag Hridaya Uttar Tantra 24/23*, *Kushth* has been said to be *Kled Nashak*. *KaphHar* properties have been said by various *Nighantus* for *Kushth*.

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Kushth has been mentioned by *Acharya Charak* as *Kushtadi Churna* as the treatment of *Prameha* and other *Santarpanjanya Vyadhi* (C.Su. 23/15). *Kushth* has been mentioned in *Kapha sanshaman Varga* of *Acharya Sushrut* (S.s. 39/9).²¹⁻²³

Ethanollic extract of *S. lappa* root might exert its anti-obesity action through the inhibition of intestinal absorption of dietary fat and triglyceride by lipase enzymes, its hypophagic activity, and its hypolipidemic activity may be due to its great free radical scavenging activity and active phytoconstituents. Thus, it is suggestive that the *S. lappa* root extract which contains flavonoids, triterpenoids and saponins reduces the fat accumulation in the cafeteria diet fed obese rats by inhibiting the activity of pancreatic lipase. The aqueous extract of *S.lappa* was found highly significant in the lipid lowering property (Upadhyay, 1994)^{24, 25}.

3) *Haridra (Curcuma longa L.)*

Haridra has been mentioned as *kaphshamak* in *Ashtang Hridaya*. Also *Haridra* has been mentioned as *Medaghna* in *Ashtang Hridaya*. A synonym of *Haridra* is said to be *Medoghna* by *Shaligram nighantu*. Due to its *Katu-Tikta Rasa*, *Ruksha*, *Laghu Guna*, *Ushna Veerya* and *Katu Vipaka* it effectively reduces the *Dushit Kapha*.^{26,28}

In this ex vivo study using HepG2 as a model showed that the extract of turmeric and curcumin have potential antiobesity effect. It is showed that turmeric extract and curcumin can inhibit the synthesis of TG and cholesterol and also the lipid droplet formation in HepG2 cells. Human

hepatoma HepG2 cells is the most suitable and accessible human-derived cells that retain many of the biochemical functions of human liver parenchymal cells for the ex vivo study including anti-obesity screening. Curcumin is a polyphenol which can be isolated from *Curcuma longa L.* (turmeric). Turmeric contains curcumin as the main active constituent (77%), in addition to demethoxycurcumin, bidehydroxycurcumin and cyclocurcumin. All four components together are termed curcuminoids. In this study, turmeric extract showed the higher inhibitory activity on TG and cholesterol synthesis that caused adipogenesis compared to curcumin²⁹.

Obesity is a complex disorder caused by chronic inflammation, oxidative stress as well as abnormal behaviours; biological pathways may also contribute to the development of obesity. *C. longa* is effective against inflammation, oxidative stress, increases adiponectin concentration, maintains harmony of nutritional substances, influences genetic point and hence may be beneficial for the management of obesity³⁰.

4) *Daruharidra*

Berberis aristata D.C.

Having properties like *Katu Tikta Ruksha Laghu Ushna* and *Katu* in *Vipaka*, *Daruharidra* shows *Kaphpittahar Karma*. The *Tikta Ras* of *Daruharidra* pacifies *Kapha* and *Pitta Dosha* and the *Katu Ras* of *Daruharidra* pacifies *Kapha Dosha*. The *Ruksha* and *Laghu Guna* of *Daruharidra* helps it to pacify *Kapha Dosha*³¹⁻³³.

According to this study, berberine as a major antioxidant component, suppresses adipocyte

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differentiation and decreases obesity. Also, it regulates glucose metabolism via decreasing insulin resistance and increasing insulin secretion. Berberine also has antihyperlipidemic and antihypertensive effects³⁴.

5) *Vacha* (*Acorus calamus* Linn.)

Katu, Ruksha, Ushna, Deepan, Kaphavaataghna, Pachanam properties exhibited by *Vacha* shows how they can accelerate the body metabolism, hence scrapping off all the unwanted *Dosha* and toxins of the body. It is also said to be *Aampachani* in *Kaydev Nighantu*, that also indicates its *Karma* towards digestion of undigested *Dosha* and *Dhatu*s of the body hence making it light. *Vacha* has been described as *Pramathi* and *Lekhniye Dravya* in *Purvabhag of Sarangdhara Samhita*. It is said to be *Kaphaghna* in various *Nighantus* like *Dhanwantari Nighantu, Kaydev Nighantu, Raj Nighantu* etc. A synonym of *Vacha* is *Karshani* that means it loses weight. Along with *Charak Samhita, Ashtang Samgraha* has also mentioned *Vacha* in *Lekhniya Gana*³⁵⁻³⁸. Aqueous extract of *Acorus calamus* Linn. rhizome possesses pronounced anti-obesity activity particularly at the dose levels of 300 mg/kg bwt. The anti-obesity potentials of the *Acorus calamus* Linn. might probably be mediated through delayed intestinal absorption of dietary fat due to the inhibition of pancreatic lipase activity, enhancement of antioxidant status mediated by the antioxidants such as flavones and activation of the leptin signaling pathway³⁹.

6) *Ativisha* (*Aconitum heterophyllum* Wall. Ex Royle)

Ativisha has been mentioned by *Acharya Charak* in *Santarparniye Adhyay of Sutra Sthanam, Ativisha* is an ingredient of *Vyoshadi Saktu* which helps in treating disorders born by *Santarpan* (C.s. 23/19) *Ativishadi Churna* has been mentioned by *Acharya Sushrut* in treatment of all *Kaph Janya Roga* (S.ci.22/74).

Many Researches showed that the *A. heterophyllum* markedly lowered total cholesterol, triglycerides in blood serum. It also showed positive effects (increase) on serum high-density lipoprotein cholesterol (HDL-c) concentrations. Presence of flavonoids, alkaloids, tannins and steroids may be responsible for its antiobesity activity⁴⁰.

7) *Kutki* (*Picrorhiza kurroa* Royle ex. Benth.)

In *Bhavprakash Nighantu, Kutki* along with *Triphala* and honey has been said to pacify disorders caused by *Kapha* and *Meda Avrit Vayu* as described by *Acharya Sushrut* in *Chikitsa Sthanam* chapter 5. (c. s. 5/34). Due to its *Laghu, Ruksha Guna* it pacifies increased *Kapha*. These *Gunas* help to reduce *Kapha* and *Meda* which are the main responsible factors of Hyperlipidemia and thus potentiates their action by way of synergism. *Laghu Guna* produces *Laghutva* (decreases weight or bulk) and *Ruksha guna* produces *Rukshtva* (Dryness) in the body⁴¹⁻⁴².

In medorog, unnecessary deposition of meda (fat/adipose tissue) due to hypo-functioning of Medodhatu occurs. By the virtue of *Deepan-Pachan Karma, Katuka* increases *Agni* at all levels and it reduces *Ama* and corrects *Medodhatvagni* Mandya. Because of its *Lekhan*

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action, it helps to reduce meda. Katuka is one of the most important drugs mentioned in Lekhaniya Mahakashaya, which has choleric (Pittavirechak) and cholegogue-Virechak (purgative) action. Katuka possesses Choleric action i.e. it increases bile production. It has cholegogue action which promotes flow of bile from gall bladder into the intestines. The bile salts are essential for absorption of fats and lipids from gut, thus the excretion of bile in feces leads to decrease absorption of fats, lipids in the gut hence concentration of lipids in serum is decreased.

In research work, a hypolipidemic effect of the water extract of *Picrorrhiza kurroa* was observed in hyperlipidemia. Liver weight, serum aspartate transferase (AST), alanine transferase (ALT), low density lipoprotein (LDL), triglyceride (TG) and total cholesterol levels were significantly reduced by the treatment. On the contrary, serum HDL level seems not affected by *Picrorrhiza Kurroa* (Katuka) water extract⁴³.

8) Chitrak

Plumbago zeylanica L.

Chitrak is *Katu*, *Laghu*, *Ruksha*, *Teekshna*, *Ushna* and *Katu* in *Vipaka* and it shows *Vata-Shleshmahar*, *Grahi*, *Deepen*, *Pachana Karma*.

Synonym of *Deepak* shows that due to its *Ushna Virya* property, it has such high digestive fire that must accelerate the metabolism of the body hence indicating to its *Lekhan Karma*⁴⁴.

Plumbagin is a naphthoquinone found in the roots of *Plumbago zeylanica*. A study demonstrated that plumbagin which is main phytoconstituent of

Plumbago zeylanica, reduced body weight gain, BMI and abdominal obesity in rats fed a high fructose diet. It improved the histopathology of the adipose tissue of rats by reducing the hypertrophy of adipocytes. It reduced insulin resistance and lowered serum glucose. It also improved the dyslipidemia in rats. It reduced the free fatty acids, TG and cholesterol in the liver of rats and reduced the weight of the liver. Plumbagin also suppressed lipogenesis and stimulated fat oxidation⁴⁵.

Plumbagin showed significant decrease in serum triglycerides (TG) and area under the curve of serum TG when compared with vehicle-treated rats. It was also seen that plumbagin possessed significant antiadipogenic effect as demonstrated by reduced oil red O staining and decreased TG contents. Thus, plumbagin may be a promising molecule to combat obesity⁴⁶.

9) Chirbilva

Holoptelea integrifolia (Roxb.) Planch.

The etymological derivation of *Chirbilva* has been said to be "*Bil Bhedane*" that means it immediately expels the vitiated *Doshas* from the body, this might be one of the reason for it to be included in the *Lekhaniye Mahakshaya*. Having properties like *Tikta*, *Kashaya rasa*, *Laghu*, *Ruksha* guna, *Ushna virya* and *Katu Vipaka*, *Chitrak* shows *Kaph -Pittashamak Karma*⁴⁷.

The methanolic extract of leaf and bark of *H. integrifolia* exert hypolipidemic effect by markedly lowering body weight, serum lipid, HMGR activity and apo-B as well as increasing high-density-lipoprotein-cholesterol and apo-A1

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concentration. The fecal analysis indicates the ability of the extract to prevent intestinal fat absorption. Extract possesses a compound 3-(7-ethoxy-4-methyl-2-oxo-2H-chromen-3-yl)propanoate, which might have inhibited HMGR activity, thus blocked intestinal fat absorption⁴⁸. Recent studies on plant show that it has potential to fight against tumor and obesity as well. Phytochemical investigation shows the presence of chemical constituents such as terpenoids, alkaloids, glycosides, carbohydrates, steroids, sterols, saponins, tannins, proteins and flavanoids. The isolated principles such as β -amyrin, β -sitosterol, holoptelin-A, holoptelin-B, hederagenin, hexacosanol, β -D-glucose, friedelin, epifriedelin, 2-amino naphthoquinone, 1,4-naphthalenedione, are considered as responsible for various activities⁴⁹.

Table 1 Description of 10 plants of *Lekhniya Mahakashaya*

Sr. no.	Drug name	Latin name	English name	Family	Part used
1)	<i>Mustak</i>	<i>Cyperus rotundus</i> Linn.	Nut grass	Cyperaceae	Rhizome
2)	<i>Kushtha</i>	<i>Saussurea lappa</i> C.B. Clarke	Costus	Asteraceae	Root
3)	<i>Haridra</i>	<i>Curcuma longa</i> Linn.	Turmeric	Zingiberaceae	Rhizomes
4)	<i>Daruharidra</i>	<i>Berberis aristata</i>	Indian berberri	Berberidaceae	Stem, roots
5)	<i>Vacha</i>	<i>Acorus calamus</i> Linn.	Sweet flag	Araceae	Roots, Rhizome
6)	<i>Ativisha</i>	<i>Aconitum heterophyllum</i> Wall	Indian atees	Ranunculaceae	Tuberous root
7)	<i>Katurohini</i>	<i>Pichorrhiza kurroa</i> Royle	Picrorhiza	Scropularaceae	Root
8)	<i>Chitraka.</i>	<i>Plumbago zeylanica</i> Linn.	Cyelon lead wort	Plumbaginacea	Root Bark , Root
)	<i>Chirabilva</i>	<i>Holoptelea integrifolia</i> Planch	Indian elm	Ulmaceae	Stem bark
10)	<i>Hemavati</i>	<i>Iris germanica</i> Linn.	Oris root	Iridaceae	Roots

Table 2 *Guna* of 10 plants of *Lekhniya Mahakashaya* according to different *Nighantu*

S.No.	Plant	<i>Guna acc. To Raj Nighantu</i> ⁸	<i>Guna acc. To Bhav Prakash Nighantu</i> ⁹	<i>Guna acc. to Kaydev Nighantu</i> ¹⁰	<i>Guna cc. to Dhanvantri Nighantu</i> ¹¹
1.	<i>Musta</i>	<i>Kashaya</i> <i>Tikt</i> <i>Sheet</i>	<i>Katu,</i> <i>Hima,</i> <i>tikta</i>	<i>Tikta,</i> <i>Hima,</i> <i>Katu,</i> <i>Kshaya</i>	<i>Tikta,</i> <i>Kshaya,</i> <i>Atishishira</i>

10) Hemavati

Iris germanica L.

Shweta Vacha is usually considered to be *Hemwati* that literally means born in Himalaya or growing in vicinity of Himalaya. Mostly all properties of *Vacha* are exhibited by *Hemwati* too. *Acharya Charak* has mentioned *Hemwati* in the list of 6 *Mulinis* as well as in *Lekhniya Mahakashya*. *Acharya Sushruta* has mentioned *Hemwati* in *Mustadi Gana*. *Bhavmishra* the author of *Bhavprakash nighantu* has called it *Parsik Vacha, Balvach or Khursanivach* i.e. one brought from Iran, Persia etc. We can consider its properties to be similar to *Vacha*. In *Raj Nighantu Shweat Vacha* has been separately mentioned and described as *Krimi Doshaghna*⁵⁰⁻⁵³.

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2.	<i>Kushtha</i>	<i>Katu, Ushna, Tikta</i>	<i>Ushna, Katu, Swadu, Tikta, Laghu</i>	<i>Tikta, Katu, Swadu, Laghu, Ushna,</i>	<i>Katu, Ushna, Tikta</i>
3.	<i>Haridra</i>	<i>Katu, Tikta, Ushna</i>	<i>Katu, Tikta, Ruksha, ushna</i>	<i>Tikta, Katu, Ruksha, Ushna</i>	<i>Ruksha, Ushna, Tikta, Swarase</i>
4.	<i>Daruharidra</i>	<i>Tikta, Ruksha, Ushna</i>	<i>Rukshna Tikta Ushna guna</i>	<i>Ruksha, Tikta, Ushna guna</i>	<i>Tikta, Katu, Ushna</i>
5.	<i>Katuki</i>	<i>Atikatu , Tikta, Sheet</i>	<i>Tikta, Ruksha, Hima, laghu</i>	<i>Sheetal, Tikta, Katu, Laghu</i>	<i>Tikta, Katu, Sheet</i>
6.	<i>Chitrak</i>	<i>Katu vipak</i>	<i>Katu pak, Ruksha, Laghu, Ushna</i>	<i>Katu pak, Ruksha, Laghu, ushna</i>	<i>Katu vipak</i>
7.	<i>Ativisha</i>	<i>Katu, Ushna, Tikta</i>	<i>Ushna, Katu, Tikta</i>	<i>Ushna, Laghu, Tikta</i>	<i>Katu, Ushna, Tikta</i>
8.	<i>Vacha</i>	<i>Tikshna, Katu, Ushna</i>	<i>Uragandha, Katu, Ushna, Tikta</i>	<i>Tikta, Katu, Ushna, Katu vipak</i>	<i>Katu, Ruksha, Ushna</i>
9.	<i>Chirbilva</i>	Not Mentioned	<i>Laghu, Ushna Katu pak</i>	Not Mentioned	Not Mentioned
10.	<i>Hemvati</i>	Not Mentioned	Not Mentioned	Not Mentioned	Not Mentioned

Table 3 Karma of 10 plants of *Lekhniya Mahakashaya* according to different *Nighantus*.

S.No.	Plant	<i>Raj Nighantu</i>	<i>Bhavprakash Nighantu</i>	<i>Kaydev Nighantu</i>	<i>Dhanvantri Nighantu</i>
1.	<i>Mustak</i>	<i>Pachani, Sangrahani, Pittajwara kaphaghni</i>	<i>Deepen, pachan, Jwara, aruchi, jantuhrit</i>	<i>Grahi, deepen, pachan, jwara, aruchi, jantujit</i>	<i>Shleshmaraktjit, Pittajwara atisaraghni, trishnakrimivinashini</i>
2.	<i>Kushtha</i>	<i>Shwasa, kasa, hikka, jwar</i>	<i>Visarpa, kasa, kushtha</i>	<i>Kushth, kasa, visarp, vish</i>	<i>Kaph marut raktjit, tridosh, vish, kandu, kushth roga</i>
3.	<i>Haridra</i>	<i>Kaph dosh, kushth, meh, kandu, vranan.</i>	<i>Twak dosh, meh, kandu, vranapaha</i>	<i>Pandu, vrana, apachi shothjit</i>	<i>Kandu, kushth, vrana, pinas, aruchi</i>
4.	<i>Daruharidra</i>	<i>Vran, meh, kandu, visarpa, akshidoshnut</i>	<i>Karna, netra, asya rog</i>	<i>Karna netra rog</i>	<i>Ruja kandu nashyet, vrana, mehjit.</i>
5.	<i>Katuki</i>	<i>Atikatu , Tikta, Sheet</i>	<i>Tikta, Ruksha, Hima, laghu</i>	<i>Sheetal, Tikta, Katu, Laghu</i>	<i>Tikta, Katu, Sheet</i>
6.	<i>Chitrak</i>	<i>Katu vipak</i>	<i>Katu pak, Ruksha, Laghu, Ushna</i>	<i>Katu pak, Ruksha, Laghu, ushna</i>	<i>Katu vipak</i>

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7.	<i>Ativisha</i>	<i>Katu, Ushna, Tikta</i>	<i>Ushna, Katu, Tikta</i>	<i>Ushna, Laghu, Tikta</i>	<i>Katu, Ushna, Tikta</i>
8.	<i>Vacha</i>	<i>Tikshna, Katu, Ushna</i>	<i>Uragandha, Katu, Ushna, Tikta</i>	<i>Tikta, Katu, Ushna, Katu vipak</i>	<i>Katu, Ruksha, Ushna</i>
9.	<i>Chirbilva</i>	Not Mentioned	<i>Laghu, Ushna, Katu pak</i>	Not Mentioned	Not Mentioned
10.	<i>Hemvati</i>	Not Mentioned	Not Mentioned	Not Mentioned	Not Mentioned

DISCUSSION

SAMPRAPTI (Pathogenesis of Sthoulya):

Samprapti means *Vyadhi Janaka Dosha Vyapara* which expresses the course of the disease, from *Nidana Sevana* to *Vyadhi Utpatti*. The knowledge of *Samprapti* helps in the comprehension of the specific features of a disease like *Dosha, Dushya, Srotodushti, Ama* and *Agni*. *Sthoulya* has been narrated as *Dushya* dominant disorder i.e. *Medaja Vyadhi* in following words.

The *Samprapti* of *Sthoulya* has been discussed according to the *Charaka & Sushruta* very well. *Acharya Charaka* has accepted "Ahara" as most common pathogenic factor for *Medovridhhi* in *Sthoulya*, whereas *Sushruta* has accepted *Ama Dosha*. But, in *Ashtanga Samgraha* has given more clear *Samprapti & etiopathogenesis* of *Sthoulya*.

According to Charaka: Due to obstruction of *Srotas* by *Meda*, the *Vata* moving mainly into stomach, whips up the *Agni* and absorbs the food. The corpulent man digests food speedily and craves for food unusually. Overeating produces more *Upadana rasa* which causes over growth of *Meda Dhatu* leads to *Sthoulya*.

According to Sushruta: *Ama Rasa* is produced due to *Kapha-vardhakahara, Adhysana*, lack of exercise, day sleep. The *Madhura Bhava Ama Rasa* moves within the body, *Snigdhansha* of this *Anna Rasa* causes *Medo vridhhi* which produces excessive toutness.

Herbs of Lekhaniya Mahakashaya described by *Acharay Charak* has properties like *Lekhana* (scraping agent), *Dipana* (Stimulates *Agni*), and *Pachana* (Digests vitiated medodhatu) which play major role in obesity. Most of the drugs of *Lekhaniya Mahakashaya* are *Laghu, Ushna, Tikshna, Ruksha and Katu, Kashaya Rasa* dominant.

Tikta, Katu and Kashay Rasa: All of these three *Rasas* are catabolic in effect and have absorbing effect and reduce *Kleda*. Hence they cause depletion of the *Meda Dhatus*. *Tikta* and *Katu rasa* dravyas repairs altered *Jatharagni* and *Medodhatvagni*. The both *Rasas* are *srotoshodha* (Channel cleaning). Due to *Vayu & Agni* predominance *Katu* rasa absorbs the fluid and expels the obstructive material. *Tikta* rasa acts in a similar way by absorbing the fluid and slimy material due to *Vayu* and thus vacating space on account of *Aakash*. Due to *Sookshma guna* it permeates even to minute channels thus helps the

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drug to reach at cellular level and it helps to deplete *Meda* and *Kleda*. *Tikta* and *Kashaya rasas* have *Lekhanaguna* that scraps out excessive *Kapha* and *Meda* from *srotas*.

Ushna veerya: *Ushna Virya* is dominated by *Agni Mahabhuta* and is responsible for the reduction of *Meda*. *Ushna veerya* stimulates *Agni* thus corrects the *Medo-dhatvagnimandya* and checks the process of *Medovridhi*. It opposes any increment of *kapha* and *meda* by the *vilayana* property. As *Agni* is the part and parcel of all bio-transformations in the body. In view of *Charak* any principle which is responsible for action is *Veerya*. *Shivdasa* in his commentary says that *Veerya* is the potency which is located in a particular fraction of the drug where the potency lies in concentrated form. This, more or less synchronises with the modern concept of active chemical fractions of the drug which are responsible for action.

Katu vipaka: The predominance of *Agni*, *Vayu* and *Aakash Mahabhootas* causes *Katu Vipak* and is responsible for *Medodhatukshay* (Reduction in excessive *Medodhatu*). Moreover, it pacifies increased *Kapha* due to its *Laghu, Ruksha Guna*.

Laghu, Ruksha and Tikshna Guna: These *gunas* helps *Rasas* and thereby potentiates their action by way of synergism. *Laghu Guna* produces *Laghutva* (decreases weight or bulk) and *Rukshaguna* is responsible for creating dryness in the body. *Tikshna Guna* is dominated by *Agni Mahabhuta* and it breaks down the *Dosha Sanghata* in *srotas* (channels), as a result it helps in removing *Sanga* (obstruction) in *Srotas*.

Thus all of these factors regulate *Jatharagni* which in turn checks the excessive growth and accumulation of *Medodhatu*.

By the virtue of *Deepana-Pachana Karma* these herbs increase *Agni* at all levels and it reduces *Ama* and corrects *MedodhatvagniMandya*. The *Tikta, Katu Rasa, Tikshna Guna* properties irritate the intestine leading to increased propulsive movement of intestine. Hence, provides less time for absorption of fats from intestine.

CONCLUSION

This review of *Lekhaniya Mahakashyaya* indicates that, all the *dravyas* of *Lekhaniya Mahakashaya* possess *Katu, Tikta, and Kashaya Rasa* prominently which causes depletion of *Med-dhatu* by reducing *Kleda*. *Laghu, ruksha and Tikshna Gunas* of *Lekhniaya Mahakashyay* helps in removing *Sanga* (obstruction) in *Srotas*. *Lekhaniya dravya* does scraping of *Meda dhatu* and *Kapha* from obstructed channels. *Deepana-Pachana Karma* of these herbs increase *Agni* at all levels and it reduces *Ama* and corrects *MedodhatvagniMandya*. *Lekhaniya Mahakashaya* has also got Hypolipidemic effect as per studies. Hence this review study is a sincere effort to bring to notice the *Lekhaniya mahakashaya* from *Charaka Samhita* is a effective remedy for *Sthaulya* (Obesity).

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REFERENCES

1. WorldHealthOrganisation(WHO),<https://www.who.int/news-room/factsheets/detail/obesity-and-overweight> 14june 2024.
2. Harshitha Kumari, Reshmi Pushpan, K. Nishteswar, Medohara and Lekhaniyadravyas (anti-obesity and hypolipidemic drugs) in Ayurvedic classics: A critical review, AYU, Jan-Mar 2013, Vol 34, Issue 1(11-15).
3. Rajalaxmi M.G GSA. DhamaniPratichaya (Atherosclerosis) Eventuating VataVyadhi (disorders caused due to vata). International Ayurvedic Medical Journal, 2014 Sept- October; 2(5).
4. Dr. Dhanashri U. Shelke, Dr. Manisha K. Dawre, Dr. Priyanka N. Salunake, Coceptual, Study of Obesity and Its Management By Ayurveda, World Journal of Pharmacy and Pharmaceutical, Vol. 8, Issue. 5, April 2019, P.152-159.
5. Acharya Charaka, Charaka Samhita, Sutrasthana 4 th Chapter, Shloka No-3, Charaka Chandrika Hindi commentary of Agnivesha, edited by Dr. Bramhananda Tripathi, ChaukhamhaSurabharatiPrakashana, Varanasi, Reprint, 2002; 77.
6. Dr. Brahamanand Tripathi, Charak Samhita, Viman sthanach 5/16, Chaukhamba Sanskrit Sansthan Varanasi, 2014; P. 699.
7. Acharya Charaka, Charaka Samhita, Sutrasthana 21nd Chapter, Shloka No-4-15,21-28, edited by Prof. Priyavrat Sharma, ChaukhamhaOrientalia, Varanasi, Reprint edition- 2011; P. 144-146.
8. Acharya Charaka, Charaka Samhita, Sutrasthana 23rd Chapter, Shloka No-3-25, edited by Prof. Priyavrat Sharma, Chaukhamha Orientalia, Varanasi, Reprint edition- 2011; P. 154-155.
9. [www.medline Plus.gov](http://www.medlineplus.gov)>Journal List>.2(2)14June2024.
10. Shivam et al. A comparative clinical study of Asanadi Gana and Gomutra Haritaki in management of hyperlipidemia w.s.r. Kapha Medo Margavarana.
11. Hemang et. al Clinical evaluation of Vyoshadi Guggulu and Haritaki Churna in the management of Dyslipidemia CCRAS research project.
12. Dr. J.L.N.Shastry, Dravayaguna Vijnana, Vol.II, Forworded by, Prof. K.C. Chunekar, Chaukhamba Orientalia, Varanasi, Second Edition : 2005; P.551
13. Acharya Charaka, Charaka Samhita, Charaka Chandrika Hindi commentary of Agnivesha, edited by Dr. Bramhananda Tripathi, ChaukhamhaSurabharatiPrakashana, Varanasi, Reprint, 2002; Ch/Su 4/3, 77.
14. Caraka Samhitā - 'Ayurveda Dipika' Commentary of Cakrapanidatta, edited by Dr. Lakshmidhar dwivedi, Chaukhambha krishnadas academy, Varanasi; Ca. Su. 20/19: 399.
15. Athesh K, Divakar M, Brindha P, Anti-Obesity Potential Of Cyperus Rotundus L. Aqueous Tuber Extract In Rats Fed On High Fat

REVIEW ARTICLE

- Cafeteria Diet, *Asian J Pharm Clin Res.*, 2014; 7(2): 88-92.
16. Tripathi, Brahmananda(Rep. 2011 A.D.). *Ashtangahridayam*. Varanasi,India: *Chaukhambha Sankrit Pratisthan*.
17. Sharma Guruprasad, *Dhanvantari Nighantu, Guduchyadi Varga, Shlok 41*, Rep. Ed. 2012, Chaukhamba Orientalia, Varanasi 221001.
18. Tripathi Indradev, *Raj Nighantu, Pippalyadi Varga, Shlok 140*, Fifth Edition 2010, Chaukhamba Krishnadas Academy, Varanasi 221001.
19. Shastri Kashinathand Dr. Gorakhnath Chaturvedi, *Charak Samhita*, Rep. ed. 2022, Chaukhambha Bharati Academy, Varanasi 221001.
20. C.P.Khare, *Indian Medicinal Plants*, First edition : reprint 2007; P.195
21. Tripathi, Brahmananda(Rep. 2011 A.D.). *Ashtangahridayam*. Varanasi,India: *Chaukhambha Sankrit Pratisthan*.
22. Shastri Kashinathand Dr. Gorakhnath Chaturvedi, *Charak Samhita*, Rep. ed. 2022, Chaukhambha Bharati Academy, Varanasi 221001.
23. Shastri Kaviraja Ambikadutta, *Sushrut Samhita*, Rep. Ed. 2017, Chaukhamba Sanskrit Sansthan, Varanasi 221001.
24. ain Vikas Kumar, Choudhary Gajendra Pratap, Assessment Of The Anti-Obesity Efficacy Of Ethanolic Extracts Of *Saussurea lappa* (Costus) Roots In Cafeteria Diet Fed Obese Rats, *Eur. Chem. Bull.* 2023, 12(Special Issue 5), 1390 – 1402.
25. Shastri JLN. *DravyagunaVijnana*, Vol-II. 3rd ed., Chaukhambha Orientalia; Varanasi; 2008, p. 545-550. 66.
26. Tripathi, Brahmananda(Rep. 2011 A.D.). *Ashtangahridayam*. Varanasi,India: *Chaukhambha Sankrit Pratisthan*.
27. Shastri Kashinathand Dr. Gorakhnath Chaturvedi, *Charak Samhita*, Rep. ed. 2022, Chaukhambha Bharati Academy, Varanasi 221001.
28. Shastri Kaviraja Ambikadutta, *Sushrut Samhita*, Rep. Ed. 2017, Chaukhamba Sanskrit Sansthan, Varanasi 221001.
29. udiman I et al. *Int J Res Med Sci.* 2015 May; 3(5):1165-1171
30. apil Deo Yadav, Anand K Chaudhury, *Indian Journal of Natural Products and Resources* Vol. 7(2), June 2016, pp. 99-106.
31. Chunekar Krishnachandra, *Bhavprakash Nighantu*, Rep. Ed. 2020, *Chaukhamba Bharati Academy*, Varanasi 221001.
32. Sharma Guruprasad, *Kaydev Nighantu*, Rep. Ed.2013, *Chaukhamba Orientalia*, Varanasi 221001.
33. Sharma J Guruprasad, *Dhanvantari Nighantu*, Rep. Ed. 2012, *Chaukhamba Orientalia*, Varanasi 221001.
34. Safieh Firouzi et al, *Barberry in the treatment of obesity and metabolic syndrome:*

REVIEW ARTICLE

- possible mechanisms of action, *Diabetes Metab Syndr Obes*, 2018; 11:699-705.
35. Tripathi Indradev, *Raj Nighantu*, Fifth Edition 2010, *Chaukhamba Krishnadas Academy*, Varanasi 221001.
36. Sharma Guruprasad, *Kaydev Nighantu*, Rep. Ed.2013, *Chaukhamba Orientalia*, Varanasi 221001.
37. Sharma Guruprasad, *Dhanvantari Nighantu*, Rep. Ed. 2012, *Chaukhamba Orientalia*, Varanasi 221001.
38. *Sharangadhar, Sharangadhar Samhita*, Ed. Smt. Shailaja Shrivastav, *Chaukhambha Orientalis*, Varanasi; 2009, verse no Purva Khand 4/10,23.
39. Athesh k, Jothi G, *Asian J Pharm Clin Res*, Vol 10, Issue 4, 2017, 384-390.
40. Jain Surendra Kumar et al, *Int J Pharma Bio Sci* 2019 July; 10(3): (P) 65-74.
41. Chuneekar Krishnachandra, *Bhavprakash Nighantu*, Rep. Ed. 2020, *Chaukhamba Bharati Academy*, Varanasi 221001.
42. Rajvaidya Pt. Shankar Dutta Gaur, *Shankar Nighantu*, Ed. 2002, *Chaukhamba Vidyabhawan*, Varanasi 221001
43. Surekha Khandekar, Role of katuka (*Picrorhiza kurroa* Royle ex Benth.) in obesity W.S.R to Ayurvedic and modern aspect: A review, *International Journal of Herbal Medicine*, 2019; 7(6): 31-35
44. Shastri Kashinathand Dr. Gorakhnath Chaturvedi, *Charak Samhita*, Rep. ed. 2022, *Chaukhambha Bharati Academy*, Varanasi 221001.
45. S.A. Pai et al., Plumbagin reduces obesity and nonalcoholic fatty liver disease induced by fructose in rats through regulation of lipid metabolism, inflammation and oxidative stress *Biomedicine & Pharmacotherapy* 111 (2019) 686–694
46. Pai SA, Martis EA, Munshi RP, Gursahani MS, Mestry SN, Juvekar AR.J *Tradit Complement Med*. 2019 Sep 6;10(6):577-585.
47. Dhaliya, Ravi & Krishan, Bal& Sharma, Saurabh. (2021). A Comprehensive Overview On *Chirabilva* (*Holoptelea Integrifolia* Planch.), With Ayurvedic Evidence For Its Therapeutic Potential. 8. 383.
48. Subhash AK, Augustine A. Hypolipidaemic effects of methanolic extract of *Holoptelea integrifolia* (Roxb.) planchon bark in diet-induced obese rats. *Appl Biochem Biotechnol* 2013;169:546-53.
49. Dinesh et al, A mini review on chemistry and biology of *Holoptelea integrifolia* Roxb. Planch (Ulmaceae), *Asian pacific Journal of Tropical Biomedicine*, Volume 2, issue 2, supplement, february 2012.
50. Chuneekar Krishnachandra, *Bhavprakash Nighantu*, Rep. Ed. 2020, *Chaukhamba Bharati Academy*, Varanasi 221001.
51. Shastri Kashinathand Dr. Gorakhnath Chaturvedi, *Charak Samhita*, Rep. ed. 2022, *Chaukhambha Bharati Academy*, Varanasi 221001.
52. Shastri Kaviraja Ambikadutta, *Sushrut Samhita*, Rep. Ed. 2017, *Chaukhamba Sanskrit Sansthan*, Varanasi 221001.

REVIEW ARTICLE

53. Pandit Narahari. *Raja Nighantu*, Tripathi.
Indradeva, editor. 3rded. Chowkamaba
Krishnadas Academy, Varanasi; 2003, verse no
Pippalyadivarga/51-54, Pg.144-45