

Efficacy of ayurveda chikitsa in the management of Sthoulya (obesity)

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Abstract:

Sthoulya (obesity) has become so common in the World's population that it is beginning to replace under nutrition and infectious diseases as the most significant contributor to ill health. It exacerbates a large number of health-related problems, both independently and in association with other diseases. Obesity, a major worldwide epidemic, is fundamentally caused by the intake of high caloric food and a modern sedentary lifestyle which results in gross energy imbalance between calories consumed and calories expended and also due to genetic pre-disposition (Kopelman,2000). When fat gets accumulated in the body, the person faces difficulty even in performing routine activities as it is associated with dyspnea on exertion, thirst, drowsiness, voracious appetite, sudden obstruction to respiration, body ache, excessive sweating and bad odour from the body leading to decreased life expectancy (Prasad et al.,2009). Obesity, if left unattended leads to various major complications like hypertension, coronary heart disease, atherosclerosis, diabetes and some types of cancer (Kopelman,2000). The incidence of obesity is increasing very rapidly. According to the World Health Organization, more than 13% of the world's adult population was obese in 2016 (World Health Organization,2018). Six hundred million adults and around 100 million children were obese in 2015 (Kishoret et al.,2018). Ayurveda offers a range of formulations designed to manage obesity through natural and holistic methods. Key formulations include Navaka Guggulu, a blend of Guggulu and other potent herbs that enhance fat metabolism and support detoxification. Triphala, a combination of Amalaki, Bibhitaki, and Haritaki, aids in digestion and overall metabolic health. Kanchanar Guggulu, which features Kanchanar and Guggulu, helps reduce excess fat and supports thyroid function. Fenugreek and Cumin Churna are used in powder form to improve digestion and suppress appetite. Guduchi is valued for its immune-boosting and metabolic-regulating properties. Finally, Vasant Kusumakar Ras, a mineral-based formulation, supports metabolic function and helps with weight control. This article explores these formulations, their therapeutic benefits, and their role in a comprehensive approach to managing obesity.

Keywords: sthoulya, obesity, ayurveda, navaka guggulu, kanchanara guggulu

INTRODUCTION

Obesity, a chronic condition characterized by excessive body fat accumulation, poses significant health challenges worldwide. The World Health Organization (WHO) identifies obesity as a major risk factor for numerous diseases, including cardiovascular disorders, diabetes, and certain cancers. The conventional approaches to obesity, often involving lifestyle changes, dietary adjustments, and pharmacological treatments, have their limitations. As a result, there is a growing interest in exploring alternative and complementary strategies for managing this complex condition. Among these, Ayurveda, the ancient system of medicine from India, offers a holistic approach that emphasizes the balance of body, mind, and spirit. Ayurveda is rooted in the philosophy of maintaining harmony within the body and between the body and its environment. This system of medicine dates back over 5,000 years and is based on the principles of balance and natural healing. According to Ayurveda, obesity is not merely a result of overeating or lack of physical activity but is a complex imbalance involving the body's metabolic processes, digestive functions, and doshas (biological energies). The Ayurvedic approach to obesity is therefore comprehensive, addressing not only the symptoms but also the underlying imbalances that contribute to the condition.

Central to Ayurvedic treatment for obesity are formulations that combine various herbs and minerals, each chosen for its specific therapeutic properties. These formulations aim to enhance digestion, boost metabolism, detoxify the body, and restore balance. This introduction explores some of the key Ayurvedic formulations used in the management of obesity, shedding light on their ingredients, mechanisms of action, and benefits.

Navaka Guggulu is one of the cornerstone formulations in Ayurvedic treatment for obesity. This preparation combines Guggulu (*Commiphora wightii*) with a range of other potent herbs. Guggulu, a resin derived from the *Commiphora* tree, has been used in Ayurveda for centuries due to its powerful fat-burning properties. It is believed to stimulate metabolism and facilitate the breakdown of fat. Navaka Guggulu enhances these effects through the synergistic action of additional herbs, which together support detoxification and improve overall metabolic health. The formulation not only targets fat loss but also addresses metabolic dysfunctions that contribute to obesity.

Triphala, another prominent Ayurvedic formulation, consists of a blend of three fruits: Amalaki (*Embllica officinalis*), Bibhitaki (*Terminalia bellirica*), and Haritaki (*Terminalia chebula*). This combination is renowned for its digestive benefits and detoxifying effects. Triphala helps regulate digestion, promote bowel regularity, and support the elimination of toxins from the body. Its ability to improve digestive efficiency can lead to better nutrient absorption and reduced fat accumulation, making it a valuable tool in managing obesity. Additionally, Triphala's antioxidant properties contribute to overall health and well-being, further supporting weight management efforts.

Kanchanar Guggulu is another important formulation used in Ayurvedic practice. It includes Kanchanar (*Bauhinia variegata*), a herb traditionally used for its anti-inflammatory and thyroid-regulating properties. Thyroid imbalances can significantly impact metabolism and contribute to weight gain, so addressing thyroid health is crucial in managing obesity. Combined with Guggulu, Kanchanar Guggulu aids in reducing excess fat, supporting thyroid function, and enhancing metabolic efficiency.

In addition to these formulations, Fenugreek and Cumin Churna are commonly used in Ayurvedic practice to support weight management. Fenugreek (*Trigonella foenum-graecum*) and Cumin (*Cuminum cyminum*) are spices known for their digestive benefits. Fenugreek seeds are rich in soluble fiber, which helps regulate appetite and blood sugar levels. Cumin, on the other hand, enhances digestion and metabolic processes. When used as a churna (powder), these spices can effectively improve digestion, reduce cravings, and support weight control.

Guduchi (*Tinospora cordifolia*) is another key herb used in Ayurveda for managing obesity. Guduchi, often referred to as "Amrita" or "the nectar of immortality," is valued for its immune-boosting, detoxifying, and metabolic-regulating properties. It helps balance the body's doshas, supports digestive health, and enhances overall vitality. Guduchi's role in metabolic regulation and detoxification makes it a valuable component of an Ayurvedic approach to weight management. Lastly, Vasant Kusumakar Ras is a mineral-based formulation used to support metabolic function and weight control. This Ras (preparation) is formulated with a blend of precious metals, minerals, and herbal ingredients. It is believed to enhance metabolic processes, support overall health, and aid in the management of obesity by improving the body's ability to process and utilize nutrients efficiently.

Each of these formulations represents a unique aspect of Ayurvedic treatment for obesity. By combining herbal remedies with dietary and lifestyle recommendations, Ayurveda offers a holistic approach that addresses the root causes of obesity rather than merely treating its symptoms. This integrative approach emphasizes the importance of balance and harmony within the body and seeks to restore optimal health through natural means.

As modern science continues to explore the benefits of traditional medicine, Ayurvedic formulations for obesity are gaining recognition for their potential to support weight management in a safe and effective manner. This article delves into the specific herbs and formulations used in Ayurveda, their mechanisms of action, and their role in a comprehensive approach to managing obesity. By understanding these traditional remedies and their applications, individuals can make informed choices about incorporating Ayurvedic practices into their weight management strategies.

The term "Sthaulya" is described in Ayurveda for the "Obesity". It refers the overweight in comparison to the minimum required standard but Medorogas term is used for the group of diseases caused by the obesity. Overweight (BMI > 25) is a major determinant of many NCDs including NIDDM, CHD and stroke and it

increases the risk of several types of cancer, gallbladder disease, musculoskeletal disorders and respiratory symptoms. In some populations, the metabolic consequence of weight gain starts even at modest levels of overweight. Healthy young men and women have a total body fat content below 20% and 25% respectively. When excess calories are supplied in any form, they are stored as fat. A person having BMI higher than 30 is considered as obese. Sthaulya is a predominant metabolic disorder. It is described by Charaka in Ashtanidita Purusha. He categorized this problem under Santarpanajanya Vyadhi. According to it eight kinds of persons are describable such as over-tall, over-short, over-hairy, over-hairless, over-black, over-fair, over-weight and over-lean. Sthaulya (over-weight) is caused by over-saturation intake of heavy, sweet, cold and fatty diet, indulgence in day-sleep and exhilaration, lack of mental work and genetic defect. Obese person is said to suffer from the following eight defects; Ayurhasa, Javoparodha, Alpa-vyavayita, Daurbalya, Daurgandhya, Swedabadha, Ati-trisha, Ati-kshudha. According to Charaka Samhita, the dhatu (body tissues) get disequilibrium due to several complications. Therefore Ayurveda has a principle that the weak agni (the metabolic agent) plays a major role as a cause of many diseases. The sthauilya is one of them, which leads to the srotovaharodha (blocking in to micro channels of the body) that causes different complications and may shorten the life span. Bhasrajya Rathnavali emphasized the uses of the Navaka Guggulu and Amritadya Guggulu etc.

Paribhasha: *Medo mamsa ati vrudhatvat chala sphik udara stanaayathopachayautsaho nara atisthula uchyate*

The increase of the *Meda & Mamsa Dhatu* causes flabbiness and pendulous appearance, thus movement of the abdomen, buttocks and breasts. This improperly formed *Medodhatu* causes *Utsahahani* in the individual; such person is called *Atisthula*.

Paryaya: *Amarkosha* has given synonyms of *Sthula* as *Vipula*, *Pina*, *Pinvi*, *Pivara* which indicates over nutritional condition of the person's weight.

Obesity: In modern *Sthoulya* is correlated with obesity. Obesity may be defined as an abnormal growth of the adipose tissue due to an enlargement of fat cell size or an increase in fat cell number or a combination of both. The measurement of obesity is done by Body Mass Index (BMI).

Based on BMI, Obesity can be classified as follows

BMI = Weight is calculated in kilograms / height in meters square.

BMI	Obesity
18.5 – 24.9	Normal weight
25.0 – 29.9	Over weight
30.0 – 34.9	Class 1
35.0 – 39.9	Class 2
>_40	Class 3

Nidana: *Nidana* is the factor which causes the disease process. In our classics *Nidana* has been given utmost importance because the knowledge of *Nidana* is essential to understand the *Samprapti*, to know the *Saadyasadyata* and plan for *Chikitsa* as the first step of treatment starts with *Nidana Parivarjana*.

In brief, all *Nidana* of *Sthoulya* described in *Ayurveda* can be classified into four groups as follows:

Aharaja	Viharaja	Manasika	Anyasika
Atisampoorna			
Guru Sheeta	Avyayama		
Snigdha	Avyavaya	Achintata	
Madhura	Divaswapna	Harshita	Beeja Dosha

Purvarupa: None of Ayurvedic texts has described the *Purvarupa* of *Sthoulya*. *Acharya Charaka*, in *Nidana Sthana*, has mentioned similar pathogenesis of *Prameha* and *Medoroga*, the reason being that in both of them there is vitiation of *Kapha* and *Meda*. Therefore, *Purvarupa* of *Prameha* and *Medovaha Strotodushti Lakshanas* can be considered as *Purvarupa* of *Sthoulya*. These are as follows.

- ❖ *Atinidra*
- ❖ *Tandra*
- ❖ *Alasya*
- ❖ *Visra Sharira Gandha*
- ❖ *Anga Gaurava*
- ❖ *Anga Shaithilya*
- ❖ *Ati Sweda*

Rupa: The *Rupa* manifest in fifth stage (*Vyaktavastha*) of *Vyadhi Kriya Kala*. The symptomatology of *Sthoulya* is asserted by *Acharyas* in broad manner. *Charaka Samhita* mentions the cardinal symptoms of *Sthoulya* as

Pratyatma Lakshana: *Medomamsa Ativriddhi, Chala Sphik, Chala Udara, Chala Stana, Ayathaopachaya, Anutsaha*. Besides the *Lakshanas*, eight detrimental effects of *Sthoulya* have also been explained by *Acharya Charaka* as **Ashta Mahadosha**

- ❖ *Ayushohrasa* (Diminution of lifespan)
- ❖ *Javoparodha* (Lack of interest in Physical activity)
- ❖ *Kricchra Vyavaya* (Difficulty in having coitus)
- ❖ *Dourbalya* (Debility)
- ❖ *Dourgandhya* (Unpleasant smell from the body)
- ❖ *Swedaabadha* (Excessive sweating)
- ❖ *Kshudhatimatra* (Excessive hunger)
- ❖ *Pipasatiyoga* (Excessive thirst)

Bheda: *Vagbhata* has explained three types of *Sthoulya* for better management

- ❖ *Hina Sthoulya*
- ❖ *Madyama Sthoulya*
- ❖ *Adhika Sthoulya*

Samprapti: According to *Charaka*, due to *Avarana* (obstruction) in the *Strotas* (channels) by the *Meda*, there is *Vridhhi* of *Koshtasthit Samana Vayu*, which in turn causes *Ati Sandhukshana* of *Jatharagni*. The increase in *Jatharagni* leads to rapid digestion of consumed food and leaves the person craving for more food. If at all due to some reason the person doesn't receive more food the increased *Agni* causes *Dhatu Pachana* which may lead to various complications. But because of the hunger the persons tend to eat more and the cycle continues. In this way it becomes a vicious circle creating excessive improperly formed *Medo Dhatu* with giving rise to various symptoms. Because of such condition of *Strotorodha*, the other *Dhatu*s are not nourished properly causing *Shaithilya* (flabbiness) of *Dhatu*s prior to *Meda Dhatu* and depletion of *Dhatu*s next to *Medo Dhatu*s.

According to *Sushruta*, *Kaphavardhaka Ahara, Adhyasana, Avyayama, Diwaswapna* etc. leads to formation of a *Ama Rasa* i.e., *Apachit Adya Rasa Dhatu*. The *Madhura Bhavayukta Ama Rasa* moves within the body, the *Snigdhamsa* of this *Ama Rasa* causes *Srotosanga* which leads to *Sthoulya*.

Samprapti Ghatakhas

Dosha	Kapha, Kledaka Pitta, Pachaka Vata, Samana
Dushya	Rasa, Meda
Agni	Jatharagni, Medodhatvagni
Ama	Jatharagni Vishamata Janita, Medo Dhatvagni Mandhya Janita
Srotas	Medovaha
Sroto Dusti	Sanga
Udbhava	Amashaya

Prasara	Sarva Deha (specially where ever Medodhara kala is present)
Adhishtana	Vrukka and Vapavahana
Vyakta Sthana	Sarvanga specially Sphik, Sthana, Udara, Gala
Roga Marga	Bahya and Abhyantara
Vyadhi Prakara	Chirakari
Sadhya	
Asadhyata	Kruchrasadhya

Chikitsa: The general principle of treatment in *Ayurveda* is

- ❖ *Nidana Parivarjana*
- ❖ *Samshodhana*
- ❖ *Samshamana*

While describing the *Chikitsa* of *Sthoulya*, *Acharya* has said that it is very difficult to treat *Atisthoola* person because, if *Karshana* therapy is applied then it leads to further aggravation of already aggravated *Jathra Agni* and *Vayu* and if *Brimhana* therapy is applied it further increase the *Meda*. The management of *Sthoulya* is explained in detail as follows:

Guru Cha Atarpanam Cheshtam Sthulanam Karshanam Prati

- *Guru Ahara* and *Atarpana Chikitsa* is the line of treatment for *Sthoulya*
- ***Bahya Shodhana - Ruksha Udvardana***

Abhyantara Shodhana

- ***Snehana - Medohara Taila*** like - *Sarshapa Taila*^[19], *Tuvaraka Taila*^[20]
- ***Swedana - Mrudu Swedana***^[21], *Niragni Sweda* like *Guru Pravarana*, *Bahupana*, *Kshudha Nigraha*, *Atap Sevan*, *Vyayama*.
- ***Pancha Karma - Vamana***^[22], *Vireacana*^[23], *Nasya*^[24], *Ushna-Teekshna Basti*^[25], *Lekhana Basti*^[26], *Raktamokshana*.^[27]

Drugs

Eka Moolika Prayoga - Guduchi, Bhadramusta, Haritaki, Vibhitaki, Amalaki, Agnimantha, Guggulu. (C.S)

Churna Yogas – Triphala churna, Trikatu Churna, Vidangadi Churna. (C.D)

Vati Yogas - Navaka Guggulu, Amritadya Guggulu, kanchanara guggulu, Taramandoora Guda (C.D)

Rasa Yogas - vasantakusumakara rasa ,Trayushanadi Loha, Rasabhasma Yoga, Vadavagni Rasa, Trimurti Rasa, Mahalakshi Vilasa Rasa, Vidangadi Loha (Y.R)

Kashaya Yogas - Aragvadadi Kashaya, Varunadi Kashaya, Triphaladhya Kashaya, Brihatmanjistadi Kashaya (S.S)

Taila Yogas - Sarshapa Taila, Tuvaraka Taila, Yavatiktaka Taila, Triphaladhya Taila, Mahasugandhi Taila (Y.R)

Arista - Takra Arishta (C.S), ***Loharista*** (B.R)

Udvardana Yogas - Kolakulattadi Churna, Rasnadi Churna, Triphala Churna, Karpuradi Churna (C.D), ***Dhattura Patra Svarasa*** (Vangasena)

Lepa Kalpana - Medohara Lepa, Shareera Dourgandhyahara Lepa

Pathya – Apathya

In case of treatment for *Sthoulya* diet i.e., *Pathya* is the most important which an individual should follow.

Acharya Charaka advices *Vata*, *Kapha*, and *Medahara Anna Pana* for *Sthoulya* that are as follows:

Ahara

Ahara Varga	Pathya	Apathya
Shuka Dhanya	Puran Shali, Kodrava, Shyamaka Yava, Priyangu, Laja, Nivara, Koradushaka, Prashatika,	Godhuma, Naveena Shali
Shami Dhanya	Mudga, Rajamasha, Kulatha, Chanaka, Masura, Adhaki, Makusthaka	Masha
Shakha Varga	Patola, Patrashaka, Shigru, Vruntaka, Katutikta, Rasatmaka, Vastuka, Trapusha, Vartaka, Evaruka, Adraka, Mulaka, Surasa, Grajjana	Kanda, Shaka, Madhura, Rasamtaka
Phala Varga	Kapittha, Jambu, Amalki, Ela, Bibhitaki, Haritaki, Maricha, Pippali, Erand Karkati, Ankola, Narang, Bilvaphala.	Madhura Phala
Drava Varga	Honey, Takra, Ushnajala, Tila & Sarshapa Tail, Ashava Arista, Surasava, Jeerna Madhya	Dugdha Varga, Ikshu Vikara
Mamsa Varga	Rohita Matsya	Aanupa, Audaka, Gramya Mamsa, Sevana

Vihara

Pathya	Apathya
Shrama	Sheetala jala sevana
Jagarana	Diwaswapna
Nitya bhramana	Avyayama
Vyayama	AVyavaya
Vyavaya	Ati shayana

Manasika

Pathya	Apathya
Chintana	Achintana
Shoka	Harshita
Krodha	Manaso nivrutti

Discussion

In the *Sthoulya*, etiological factors mainly vitiate the *Meda-Kapha*. Due to continuous consumption of *Kapha Vardhak Ahara*, *Vihara*, *Meda Dhatu* is being increased by principle of *Samanyam Vriddhi Karanam*. This vitiated *Meda* obstructs the path of *Vata*, which results in to provocation of *Vata*, in turn it

ignites the *Agni*. In the *Samprapti* two factors are of prime importance, *Tikshna Jathara Agni* and *Medodhatu Agnimandya*. Irrationality between two levels of *Agni* makes the disease *Krichha Sadhya*. In *Medasvi Purusha* only *Meda Dhatu* get *Poshana* and *Uttaraottara Dhatu Poshana* does not takes place and that leads to *Asthi, Majja, Sukra Dhatu Kshaya, Shareera Spoorti Abhava, Sukumarata* and *Guru Guna* of *Meda* makes *Sthula Purushato* be inactive. Because of a *Poshana* of *Uttara Dhatu, Dhatu Vishamata* and *Margavarodha* by *Meda, Sthula Purusha* experience difficulty in *Vyavaya*, become *Durbala. Meda Kapha Samsarga, Meda Adhika Vruddhi* and *Swabhavatah Sweda* is *Mala* of *Meda Dhatu*, leads to excessive sweating and *Dourgandha*.

The obstructed *Vata Dosha* in *Koshta* stimulates the *Agni* hence, *Sthula Purusha* will feels *Adhika Kshut* and *Pipasa*. To break the *Samprapti* of *Sthoulya* administration of *Guru* and *Atarpana Ahara* which possess additional *Vata, Shleshma* and *Medonashaka* properties are considered as ideal. Chakrapani has explained that *Guru Guna* is required to alleviate vitiated *Agni* thereby suppressing the *Atikshudha*. Gangadhara has interpreted that *Guru Guna* is suitable to alleviate *Tikshnagni* and vitiated *Vata* especially *Koshtagata Vata* and there by *Atikshudha*, and *Atarpana* property is that which does not provide *Tarpana* and cause reduction of *Meda*. Hence *Guru, Teekshna, Ushna, Rooksha, Guna Ahara Dravya* are advised as they are opposite to *Manda, Snigdha & Sheeta Guna* of *Vata, Kapha & Meda*. As drugs used for *Atarpana Chikista* is *Tikta Rasatmak, Katu Vipaki* and having *Laghu, Ruksha* property.

It improves *Meda Dhatwagni* and it acts as *Strotoshodhak* there by helps in proper nourishment of *Uttara Dhatu* and also with the help of *Tikta* and *Kashaya rasa* it does *Pittashamana*. Acharya *Sushruta* and *Vagbhata* has mentioned the benefits of *Rooksha Udavartan* as *Vatahara, Kapha hara, Meda Pravilayana, Anga Sthirakarana*. *Vamana* helps to expel out the *Utklista Kapha* from the *Shareera*. *Virechana* is the choice of treatment for *Pittaja Vikara* and *Pitta Sthanagata Vata Vikara*, as its action is seen in *Pakvashaya* in the form of *Vata Anulomana*.

This can be adoptable in *Sthoulya* to counteract both the vitiated *Agni* and *Vata*. *Lekhana Basti* is one particular *Basti* which has been explained in *Sthoulya* as it is *Kapha* and *Medohara* in action.

Navaka Guggulu is a polyherbal ayurvedic formu-lation which is effective in treating weight loss,improving digestion and in relieving rheumatoidarthritis. It has no known side effects (Vyaset al.,2017)

Conclusion

Ayurveda is a rich source of therapeutic majors. '*Sthoulya*' described in our *Samhita* from its *Nidana* to *Chikitsa* and *Pathya - Apathya* which is comparable with Obesity in modern medicine. *Ayurveda* uses various dosage forms

and treatment modalities in different disease conditions like *Shodhana* and *Shamana* therapies etc. with suitable dietary and lifestyle modifications, which have been found very effective in controlling obesity. It is suggested that there are significant results are obtained for *Ayurveda* management.

This shows that *Anta Parimarjan Chikista (Basti, Virechana* etc.) and *Bahir Parimarjan Chikista (Udhvartana, Lepa* etc.) are more effective in relieving signs & symptoms of *Sthoulya*.

In some case it may require longer duration to obtain the results. But *Anta Parimarjana* simultaneously *Bahiparimarjan Chikista* along with *Pathya – Apathya* will definitely give us hope in the management of *Sthoulya* i.e., Obesity.

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