



THE CONCEPTUAL STUDY OF *STHAULYATA* W.S.R. TO OBESITY

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ABSTRACT

Ayurveda is one of the most ancient medical sciences of the world. It conceives and describes the basic and applied aspects of life process, health, disease and its management in terms of its own principles and approaches. In Ayurveda, *Sthaulya* has been described since very early days in various Samhitas, Sangraha Granthas etc. Acharya Charaka has described *Sthaulya* among the eight most unwanted diseases (*Nindita Purusha*) and *Samtarpanajanita Roga*.

The term *Medasvi* is suggestive of nutritional status of the individuals indicating a well nourished disposition rather than disease. *Sthaulya* is involving the *Medovridhi* which deals with study of typical obesity that is a reflection of endocrine imbalance, not with the reasonable adiposity. Obesity is the most common nutritional (metabolic) disorder in wealthy societies. *Sthaulya* (obesity) is discouraged by the society for social as well as medical reason. Commonly obesity is due to excessive eating and lack of adequate exercise. Three main causes have been described in modern literature viz. 1) Dietetic, 2) Genetic, 3) Hormonal.

Dalhana seems to be more explicit while commenting on a *Medo Roga* specified that Agni which is involved in pathogenesis of the disease viz. *Dhatvagnimandya*. In pathogenesis of *Sthaulya*, *Kledaka Kapha*, *Samana & Vyana Vayu*, *Meda* (fat /lipid) and *Medodhatvagni Mandyata* are main responsible factors. So that type of therapy should be selected, this can effect on all these factors. We all are accepting the concept 'prevention is better than cure'. So after looking the vital importance of obesity (*Sthaulya*), it is selected for the present conceptual study.

KEYWORDS: *Medodhatu*, Obesity, *Sthaulyata*, *Sthaulya Chikitsa*.

INTRODUCTION

The 21st century, every person is running after life's goal. Hence, does not have time to think and act for the healthy life and does not able to follow the proper *Dinacharya* (daily routine), *Ritucharya* (Seasonal regimens), dietetic rules & regulations. Because of this artificial living life-style, person has gotten so many disorders for himself. *Sthaulya* (obesity) is one of them. *Sthaulya* is one of the most effective disease which affect someone social, physical and mental features. Acharya Charaka listed eight defects underlying- *Sthaulya Purusha*, *Ayuhrasa*, *Javopradha*, *Alpa-vyavayita*, *Daurbalya*, *Daugandhya*, *Swedabadha*, *Ati-trisha*, *Ati-kshudha*. 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.

The World Health Report of W.H.O. listed obesity under the 10 top selected risks to the health. The incidence of Diabetes mellitus, hypertension, angina pectoris, and myocardial infection is higher among obese individuals. It is frequently blamed on ingestion of heavy and over food, endocrine factors, body built or heredity etc. BMI (Body Mass Index) more than 27 indicate increasing risk of health. Treatment of obesity is difficult without the cooperation of patient. Patients need motivation for this. Still appropriate

remedy is awaited, which defeat the obesity without any adverse effect on body.

Here, I tried to highlight how can body physiological entities turn in pathological state & responsible for disease (*Sthaulyata*) and How can bring this abnormal entities back to its normal state by applying our traditional *Ayurved* therapy.

Definition of *Sthaulya*

A person having pendulous appearance of *Sphika* (Hip), *Udara* (Abdomen) and *Stana* (Chest) due to excess deposition of *Meda* (Fat) along with *Mamsadhatu* and also having unequal an abnormal distribution of *Meda* with reduced enthusiasm towards life is called *Atisthula* [1]. Obesity is an increase in body weight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat [2].

Classification

Vagbhata have been mentioned three types of *Sthaulya* i.e. *Adhika*, *Madhyama* and *Hina* with management point of view [3].

(1) ***Hina Sthaulya*** : (B.M.I. 25-30 kg/m² – Over Weight)-Mild degree of overweight, without any complication or secondary disease, with less than four undesirable symptoms and with duration of less than 1 year – can be considered as *Hina Sthaulya*.

(2) ***Madhyam Sthaulya*** : (B.M.I. 30-40 kg./m² - Obese)- Moderate degree, with least complications without secondary disease, with less than 8 undesirable symptoms and duration of 1 to 5 years can be considered as *Madhyam Sthaulya*.

(3) ***Adhika Sthaulya*** : (B.M.I. > 40 kg./m² – Very Obese)-Excessive degree, with complication and secondary disease with all 8 undesirable symptoms and duration of more than 5 years can be considered as *Adhika Sthaulya*.

Nidana (Etiological factors)

All the etiological factors can be classified into four groups: ***Atisampuranat***: Excessive indulgence in various diet articles; ***Avyayamat***: Less physical activities; ***Manasaja***: Psychological; ***Beejadoshaj***: Genetic / Hereditary defect.

Role of *Aharatmaka Nidana*

Ahararasa plays a major role for increasing *Medadhatu* in *Sthaulya*. So, *Acharya*

Sushruta has mentioned, *Sthaulya* and *Karshya* depends upon the quality and quantity of *Ahararasa*[4]. On the basis of *Samanya Vishesh Siddhanta* and *Ashraya-ashrayi Sambandha* the excessive consumption *Kapha Vriddhikara Ahara* causes the over production of *Rasadhatu* with further over production of *Medodhatu*.

Role of *Viharatmaka Nidana*

All the *Aharatmaka Nidana* ultimately decreases physical activity, which aggravates *Kapha* and leads to *Meda* deposition. *Viharatmaka Nidana* like *Divaswapa* having *Abhishyandi* property leads to blockage of the micro channels of the body, specifically in *Medovaha srotas*. Moreover, reduced metabolic rate during sleep is an important factor for genesis of excess fat.

Role of *Manas Vyapara*

Due to adaptation of modern lifestyle, a person has reduced his physical activity and instead of that, the mental work is increased. *Sthaulya* is also considered under the group of psychosomatic diseases. *Harshanitya* (Excessive pleasure) and *Achintana* (jolliness) are two psychological factors mentioned by *Acharya Charaka*, which are responsible for *Kapha* aggravation and lead to *Meda vriddhi*. With this type of psychological well being and jolliness that person indulges more in worldly pleasure and excess energy stored in the form of *Meda*.

Role of *Beejadosh*

Acharya Charaka has mentioned that *Beejadosh* plays a major role for *Medovriddhi*. Defect of *Beejabhagavayava* i.e. part of *Beeja*, which resembles with Genes, may lead to defective development of that organ. Also, *Bhavamishra* has mentioned that increased proportionate of *Meda* and decreased proportion of *Shukra* in *Beeja* at the time of conception predisposes towards development of fleshy but weak body. Moreover, over nutrition particularly with *Madhura Rasa* during pregnancy is mentioned as a causative factor for birth of obese child, which indicate role of hereditary factor in genesis of *Sthaulya*.

Samprapti (Pathogenesis)

Vitiation of few basic component of body is required for the manifestations of any disease which are as follows:

1. *Dosha* 2. *Dushya* 3. *Srotasa* 4. *Agni* and *Ama*

1. *Dosha*: In pathogenesis of *Sthaulya*, all three *Doshas* are vitiated.

a) *Kapha*: *Sthaulya* is described by most of *Ayurvedic* classical text as *Shlesma Nimitaja Vyadhi*. So *Kapha* is main *Dosha* in pathogenesis of the disease. Excessive consumption of *Ahara* like *Guru*, *Snigdha*, *Madhura*, *Sheeta*, *Picchila*; *Vihara* like *Avyayama*, *Divaswapna* etc. and *Manasika Nidana* like *Achinta*, *Nitya Harsha* etc.; leads to vitiation of *Kapha*. Most of symptoms of *Sthaulya* come under the category of *Kapha Vriddhi* (*Prakopa*). i.e. *Alasya*, *Gatrasada*, *Angagaurava*, *Nidradhikya* etc. Usually the *Sthaulya Rogi* belongs to *Kapha Prakriti* so they may have slow and lethargic physical activity with *Sthula Anga* by nature and also they have more pleasure and less tension - anxiety, so *Kapha Prakriti* persons are more prone to become obese (*Sthula*).

b) *Pitta*: In obese persons, *Pitta* is also remains in higher sight because the symptoms of *Sthaulya* like *Ati Kshudha*, *Ati Pipasa*, *Swedadhikya*, *Daurgandhya* have also been mentioned in the *Pitta Vriddhi* Mainly the *Pachaka pitta* is involved in the aetiopathogenesis of the disease.

c) *Vatta*: In this disease, *Vata* has been mentioned in the state of *Avrita* in *kostha*, which makes the *Agnivaishamyā*, ultimately increases the *Abhyavaharana Shakti* or demand of food. The process of circulation, digestion and proper distribution of *Dhatus* are controlled by *Samana* and *Vyana Vayu*. Hence, involvement of *Samana Vayu* can be clearly postulated with the evidence of *Agni Sandhukshana* and improper distribution of fat in the body proves the involvement of *Vyana Vayu*.

2. *Dushya*

Acharya Sushruta has mentioned *Sthaulya* as a *Dushya* dominant disease and in this disease the excessive production of abnormal *Medadhatu* is clearly visualized. *Kapha* is seated in *Meda* along with other *Dhatus*. So, on the basis of *Ashray-ashrayi bhava* vitiation of *Kapha* also lead to vitiation of that *Dhatu* in which *Kapha* seated. Moreover, excessive consumption of such *Guna* dominant diet forms that specific *Guna*

dominant *Poshaka Annarasa*. This specific *Dhatu poshakansha* in excessive a quality and quantity increased the particular *Dhatu*. In disease *Sthaulya* excessive intake of *Guru Snigdha*, *Madhuradi Guna* dominant diet, increase accumulation of *Medodhatu*.

3. *Srotasa*

In the disease, involvement of *Medovaha Srotasa* is the main factor along with the involvement of other *Srotasa*. According to *Acharya Charaka*, *Avyayama*, *Divaswapa* excessive intake of *Medur dravyas* and *Varuni*, are the *Nidana* of *Medovaha strotodushti*. It indicates clear involvement of *Medovaha srotasa* along with *Rasavaha srotasa*. *Atisweda* and *Daurgandhya* indicate the involvement of *Swedavaha srotasa*. Presence of *Atipipasa* indicates the involvement of *Udakavaha srotasa*. In the pathogenesis of *Sthaulya*, increase fat deposition inside the muscle (*Vasa*) indicates the involvement of *Mamsavaha srotasa*.

4. *Agni* and *Ama*

According to *Vagbhata*, *Mandagni* at *Jatharagni* and *Dhatvagni* level is considered as root cause of all disease. Due to *Mandagni*, formation of *Ama* occurs. Some disorders like *Ajirna*, *Alasaka*, *Vishuchika* emerge as a result of derangement of *Jatharagni*, while disorders like *Sthaulya* results from derangement of *Dhatvagni*.

In *Sthaulya*, due to vitiation of *Vata* by obstruction of *Meda*, *Tikshnagni* is a prominent feature. Here, a question arise, how *Ama* formation can take place instead of *Tikshnagni*. Commentators *Chakrapani* and *Dalhana* have tried to clarify this controversy by giving explanation, that in the stage of *Tikshnagni*, person go for *Adhyashana*, *Kalavyatita ahara sevana* again and again, which leads to disturbance in *Agni* and subsequently formation of *Ama* may take place. It has been further explained by *Dalhana* that in the *Sthaulya*, formation of *Ama* is more due to decrease of *Medodhatvagni* than *Jatharagni*.

According to '*Dhatu Parinama* concept', (at *Dhatvagni* level) *Vriddhi* of previous *Dhatu* and *Kshaya* of further *Dhatu* are take place [5]. In cases of *Sthaulya*, excessive consumption of *Guru*, *Madhura*, *Snigdha guna* dominant diet produces excessive and inferiority *Medodhatu Poshaka Annarasa*, this makes

Medodhatvagnimandya. So as per above concept in the state of *Medodhatvagni mandyata*, previous i.e. *Medodhatu* increase and further/*Uttaradhatu* i.e. *Asthi, Majja, Shukra* are decreased.

According modern sciences, Obese persons having an increase in number and/or size of adipose cells suggest hypertrophy and/or hyperplasia of adipocytes either due to functional demand in particular age or sex or due to genetic, endocrine, behavioral, psychological or iatrogenic factors. After reduction in weight the adipose cells shrink in size but hyperplasia remains fixed. Adult onset obesity is characterized predominantly by adipose cell hypertrophy with minimum hyperplasia. There are three main factors in the pathogenesis of obesity.

- Excessive lipid deposition
- Diminished lipid mobilization and
- Diminished lipid utilization

Assessment of obesity

According to Ayurved : Diagnostic method describes in *Ayurvedic* text are subjective as well as objective type. According to *Astavidha Pariksha*, *Sthaulya* can be diagnosed by *Akriti Pariksha*, *Ayurvedic Pramana Pariksha* and *Samhanana Pariksha* can be correlated with objective criteria of diagnosis like measurement of height, weight, various girth measurements and skin-fold-thickness. *Acharya Charaka* has been mentioned anthropometry of body, under the caption of *Dashavidha Pariksha*. It may provide a relative measurement and objective criteria for patient of *Sthaulya*.

According to modern: Obesity can be assessed by following tools [6]:

- Body Mass Index
- Waist circumference
- Waist / Hip ratio
- Relative Weight (Rw)
- Skin fold thickness

Body mass index: The B.M.I. is the actual body weight divided by the height squared (kg/m²). This index provides a satisfactory measure of obesity in people who are not hypertrophied athletes. The classification of obesity:

Under weight	-	<18.5 kg/m ²
Normal weight	-	18.5 - 24.9 kg/m ²
Over weight	-	25 - 29.9 kg/m ²
Obesity (Class-I)	-	30 - 34.9 kg/m ²
Obesity (Class-II)	-	35 - 39.9 kg/m ²
Morbid Obesity (Class-III)	-	> 40 kg/m ²

Chikitsa of Sthaulya

Acharya Vagbhatta mentioned that *Karshya* is better than *Sthaulya*; because there is no perfect remedy for the *Sthaulya* [7]. In the *Samprapti* two factors are of prime importance, *Tikshna Jatharagni* and *Medodhatvagnimandya*. Irrationality between two levels of *Agni* makes the disease *Krichha Shadhya*, but *Panchkarma* therapy can give better solution for this problem. In *Ayurvedic* texts different *Shodhna* procedure i.e. *Vamana, Virechana, Lekhana Basti, Raktamokshana* are mentioned for the treatment of *Sthaulya*.

"*Lekhana Vasti with Varaadi kwatha*" produced statistically significant improvement in the disease obesity. *Lekhana Vasti with Varaadi Kwatha*' by virtue of its ingredients have *Katu, Tikta, Kashaya rasa, Laghu, Ruksha, Tikshna Guna, Ushna virya, Katu vipaka, Lekhana, Kapha-vata hara, Deepana-pachana & Sroto-shodhaka* properties[8].

Shamana Chikitsa can be implemented through seven different ways. *Deepana, Marutsevana, Kshudha Nigraha, Pachana, Atapasevana, Trusha Nigraha, Vyayama. Langhana* is advisable in *Samtarpanajanya Vyadhi*, in *Amashyotha Vikara*, in *Shleshmika Vikara*, in *Rasaja Vikara* and it is the best remedy for the *Sama* condition of disease. So, all seven types of *Langhana* can be applied for the patients of *Sthaulya* according to *Rogi-Roga Bala*. i.e. Administration of *Guru* and *Apatarpaka* articles which possess additional *Vata, Shleshmaghna* and *Medonashaka* properties is considered as an ideal for *Samshaman* therapy.

Medicinal Treatment

Single drug	Anupan	Reference	Compound preparation	Anupan	Reference
Rasanjana	-	Vagbhat	Rasasindura	Madhu	Rasa Tarigini
Guggula	-	Ashtang Sangraha	Trikatu	Madhu	
Guduchi	Madhu	Vagbhat	Lohdrasava	hot water	Ashatang Hrudaya
Triphala	Madhu	Vagbhat	Navaka Guggulu	hot water	Chakradatta
Haritaki	Madhu	Vagbhat	Amrutadi Guggulu	hot water	Chakradatta
Musta	Madhu	Vagbhat	Arogyavardhini Vati	hot water	-
Shilajit	Agnimantha Swaras	Vagbhat	Triphala Guggulu	hot water	-
			Chavyadiyoga	-	Yogaratanakara

Nidana Parivarjana is most important measure for *Sthaulya*. In *Sthaulya*, the factors which are responsible causes of the disease should be avoided to stop further progress of the disease.

According to modern science, First aim of therapy is to reduce weight; second aim of therapy is prevention of further weight gain. The strategy for treatment of obesity includes phases as:

- Patient counseling
- Dietary management
- Exercise therapy
- Pharmacotherapy
- Weight loss surgery

CONCLUSION

Sthaulya is a *Dushya* dominant *Vyadhi*. Etiological factor mainly Vitiates *Vata Kapha-Meda*. This increases gravity of the disease and make the *Sthaulya Kritichsadhaya*. *Vyana Vayu* could not transport nutrient to other *Dhatu* due to obstruction by *Meda*; so *Medadhatu* is increased and *Uttardhatu* decreased. *Sthaulya* is a predominant metabolic disorder, which is described by *Charaka* in *Ashtaunindita Purusha*. Sedentary life, lack of exercise, faulty food habits, urbanization, psychological factors like *Harshanitya*, *Manasonivrita* etc. along with genetic predisposition play a major role in aetiopathogenesis of *Sthaulya*. *Acharya Charaka* has illustrated that *Krishata* is better than *Sthaulya* because when *Sthula purusha* affected by disease suffers more due to it as compare to *Karshya*. *Kapha Prakriti* persons are more prone to become obese (*Sthula*).

Obesity occurs more in female than male and specially increases after marriage, light nature of work, use of IUCD, contraceptive pills, after delivery and in menopausal period etc. In the *Samprapti* of *Sthaulya Medodhatvagnimandya*, *Ama Rasa*, *Kapha-Vata pradhana Tridosha* play important role. Hence, Treatment modality should be planned considering vitiated *Meda, Kapha* and *Vata*. *Lekhana Basti* and *Virechana Karma* are amongst them. *Basti* provided better result because it eliminates *Doshas* from the body and simultaneously absorbed drug perform their action of *Samprapti Vighatana* at cellular level. Some herbal drugs like *Musta*, *Triphala*, *Guggulu* possesses *Kapha-Medohar & Vataghna*.

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