



Review Article

A CRITICAL ANALYSIS OF ETIOLOGICAL FACTORS OF *STHAULYA* (OBESITY)

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Ayurveda, *Kapha*, *Tama*.

ABSTRACT

In this era of rapid modernisation, lifestyle disorders are on a rise. Obesity is a rapidly emerging disorder of nutritional abundance happening due to sedentary lifestyle and abundance in calorie intake by a person. Obesity is a state of excess adipose tissue deposition and increase weight in a person. Ayurveda which is a holistic life science also describes obesity as *Sthaulya* under *Santarpanjanya vikara* (over nourishment disorder). Multifactorial in nature, *Sthaulya* etiology lies in diet, lifestyle, mental and genetic factors as intake of *Madhur rasa*, *Atisampoorana* (overeating), *Avyayama* (no physical activity), no mental exertion and *Bijaswabhabha* (hereditary factor). Main pathogenesis lies in increase in *Guru*, *Sheeta* and *Snigdha* properties in a person in different proportions. *Madhura rasa* increases all 3 *Guna*, no physical exertion increases *Guru* and *Sheeta Guna* etc. In this article, all *Nidana* of *Sthaulya* are critically evaluated to help understand and treat *Sthaulya* in its primary stage only. It helps in decreasing treatment load of any disease in further stages.

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INTRODUCTION

Obesity is a disorder of excess of adipose tissue in body. The term overweight and obesity is often used to signify increase in body weight in a person due to excessive deposition of fat. In *Ayurveda* which is a holistic science, obesity is explained under the caption *Medoroga* or *Sthaulya*. *Sthaulya* is classified under *Santarpanjanya Vikara* (nutritional disorder) by *Ayurveda* classics.^[1] *Sthaulya* is caused by intake of *Kapha Vardhak Aahar* and *Vihar* particularly *Madhur Rasa* having *Guru*, *Sheeta* and *Snigdha* properties.^[2] On further explanation of etiological factors, *Acharya Charak* has mentioned *Nidana* of *Sthaulya* as following.^[3]

- *Guru-Madhur-Sheeta –Snigdha*
- *Atisampoorana* (over eating)
- *Avyayama* (no physical activity)
- *Avyavaya* (no indulgence)
- *Divaswapana* (excess daytime)
- *Harshnitya* (over joyous)
- *Achintana* (no mental exertion)
- *Bija Swabhabha* (hereditary factors)

Due to intake of *Sthaulya Vardhak Aahar Vihar* there is formation of *Aam* (improperly digested) in *Amashaya*, spreads in body, leads to *Meda-dhatwagni Mandya* which in turn produces

more *Meda*. As a general *Siddhant* in *Ayurveda*, *Agnimandya* of a *Dhatu* hampers the formation of its next *Dhatu* and a major part of its constituents are converted into its *Mala*. Same cycle happens in *Medadhatwagni Mandya* as *Sneha* is the *Mala* of *Medo Dhatu* and formation of *Dhatu* next to *Meda* like *Asthi*, *Majja* and *Shukra* are hampered or these are formed in inadequate amount to sustain bodily functions. This *Vikrita Meda* obstructs body channels in *Koshta* causing increased *Saman Vayu* and *Tikshagni*. Combination of inadequate *Dhatu* formation and channel obstruction by *Vikrit Meda* produces a variety of symptoms. So, *Sthaulya* is a *Kapha Pradhan Tridoshaj Vyadhi* involving *Kledaka Kapha*, *Samana Vayu*, *Vyana Vayu* and *Pachak Pitta* along with *Medadhatwagni Mandya* and *Tikshna Jatharagni* producing excess of *Meda* in a person.

It is believed that *Sthaulya* affect a person physically, mentally and socially. A physically imbalanced looking person is generally not acceptable socially especially in teenager group, therefore, undergoes mental pressure for social acceptance and appreciation. On physical context, 8 body types are disregarded by *Ayurveda* namely *Atisthoola*, *Atikrisha*, *Atideergha*, *Atiharisva*,

Atilooma, Aloom, Atikrishna and Atigaur.^[4] Out of these 8, *Atisthoola* is considered most troublesome due to difficult treatment and bad prognosis. Clinical features of *Sthaulya* are^[5]

- Excessive hunger (*Atikshuda*)
- Excessive thirst (*Atitrishna*)
- Excessive sweating (*Atisweda*)
- Breathlessness on mild exertion (*Shvaskrichita*)
- Excessive sleep (*Atinidra*)
- Difficulty in performing heavy work
- Sluggishness (*Jadata*)
- Short life span (*AlpaAayu*)
- Decreased body strength (*Alpa Bala*)
- Inertness (*Utsaha Haani*)
- Foul body odour (*Daurgandhya*)
- Unclear voice (*Gadgadata*)

In this review article an attempt has been made to study etiological factors of *Sthaulya* in depth to help in effective treatment of *Sthaulya* by *Nidana Parivarjana* as first line of treatment. *Shodhan* and *Shaman Chikitsa* are secondary treatment modalities whose role can be effectively made up only after a person has stopped intake of etiological factors causing the disease. Dietary habits and physical exercise play an important role in management of *Sthaulya* which are included in *Nidana Parivarjana*.

Madhur Rasa

As stated by *Acharya Charaka*, excess consumption of *Madhurrasa* out of 6 rasa, is the main cause in development of *Sthaulya*. Consumption of *Madhurrasa* in moderate amount increases all body *Dhatu* in equal proportion providing strength, stability, soothing, nourishment and invigorating properties to all senses. Over consumption leads to features like softness, flaccidity, plumpness of body with excessive sleep, heaviness, decrease in digestive power and obstruction in body channels.^[6]

Madhurrasa contains 3 *Guna* namely *Guru*, *Sheeta* and *Snigda* which are synonymous with *Meda Dhatu*. Excessive intake of *Madhur Rasa* over a long period increases *Medadhātu* in body as compared to other *Dhatus*. An imbalance between *Dhatu* formation leads to weakness (*Daurbalya*) in a *Sthoola* person.

Sheeta Guna in a *Dravya* characteristic function is *Stambana*, to restrict movement of any substance to one place. It happens in *Amashaya* during *Aam* formation in *Ajirna*. *Ajirna* is the cause in pathogenesis of *Sthaulya*.

Guru Guna in a *Dravya* causes features like heaviness, *Mala Vridhi*, nourishment and increase in

body growth, ultimately causing *Alasya* (lethargy), early ageing, increase sleep and decrease work output in a person.

Snigda Guna in a *Dravya* causes softness in body. Increase softness produces flaccidity in a person, a person appears to be of great built but little enthusiasm and strength to perform daily activities. Flaccidity cause signs of premature ageing, shortness of breath, decreased age, vigour, strength in a person.

Ati Sampoorna Ahara

Intake of high calorie diet is the main culprit of *Sthaulya* which need to be compensated by increase in physical exertion by a person so as not to become obese.

Due to rapid modernisation especially in developed countries, high calorie diet in form of packed food with sedentary lifestyle due to development of modern tools has contributed majorly towards obesity and other non communicable lifestyle disorders like diabetes, hypertension, stroke etc.

Atisampoorana can be in the form of *Dravya Samanya* or *Guna Samanaya*. *Dravya Samanaya* in form of intake of *Madhur Aahar* taken in excess amount then required. *Guna Samanya* is in the form of *Aahar* with *Guru*, *Sheeta* and *Snigda* properties in it like *Ikshu*, *Navneet*, *Ghrith* etc.

The term *Atisampoorana Aahara* has been coined for this which includes binge eating disorder in children and teenagers. As a general rule of diet *Acharya* has mentioned, one should fill *Koshta* with 1 part of solid diet, 1part with liquid and remaining 1 part to be kept empty for easy movement of *Tridosha*.^[7] *Acharya Sushruta* has further explained this by referring to *Ajirna* and *Adhyashana* as a *Nidana* of *Sthaulya* causing formation of *Aam*.^[8] Increase intake of food quantity by a person causes derangement of *Agni* and vitiation of *Tridosha* causing *Ajirna* (improper digestion). This extra food gets accumulated in *Amashaya* at one place without digestion causing formation of *Aam*.^[9] When it combines with *Kapha*, *Santarpanajanya* diseases occur like *Sthaulya*, diabetes etc. *Ajirna* include mostly *Aamajirna* (due to *Kapha*) happening due to *Kapha* predominant *Aahar* intake or food rich in fat. It leads to *Aam* formation particularly due to *Guru Guna* producing heaviness, lethargy in a person, unable to perform daily activities and developing *Sthaulya* in long run.

Avyayama

Obesity is a condition resulting due to increase calorie intake and decrease energy expenditure lack of physical activity is a major

contributory factor in development of *Sthaulya*. A person engaged in intake of high calorie diet particularly fatty foods and not performing sufficient physical activities to burn those calories end up getting obese. Physical activity helps in building muscle mass of body and decrease adipose tissue. A small powerful outburst of high intensity physical exercise increases basal metabolic rate for several hours. Basal metabolic rate is the amount of heat generated by an average weighing person at rest and is directly proportional to muscle mass in a person. On an average, 30% of this heat generated in body is contributed by skeletal muscle mass present in a person.^[10] Heat generated and liberated in body is nothing but dissipation of *Sheeta Guna*, adding in amount *Ushna Guna* in the body.

According to *Acharya Charak*, *Vyayama* is a *Karma* making body stable, increases strength, incorporating lightness in body, making one able to perform various activities, resistance to discomfort, decreasing *Kapha Dosha* and stimulate digestion.^[11] Body stability and strength can be attributed to increase muscle mass of body which help one to perform various strenuous activities in a day to day life without getting tired and without causing any difficulty to bear discomfort caused by weather, exertion, hunger etc.

Acharya Sushruta has mentioned benefits of *Vyayama* as one causing physical development of body with lustre, body compactness, stimulation of digestion, no lethargy, firmness, lightness, cleanliness and tolerance in body. According to *Sushruta*, there is no anti obesity measure as suited as *Vyayama*.^[12]

Sense of lightness (*Laghuta*) is attributed to decrease adipose tissue in body which is heavier than muscle. Stimulation of digestion is due to increase in *Ushna Guna* of body due to increased heat dissipation. So, an act of *Vyayama* helps in combating *Guru* and *Sheeta Guna* of *Kapha* and *Meda* with an increase in muscle mass and proportionate decrease in adipose tissue. So, *Avyayama* or lack of physical activities causes accumulation of *Sheeta* and *Guru Guna* of *Kapha* and increase in *Meda Dhatu* which in turn causes *Sthaulya* in a person.

Avyavaya

In *Sthaulya*, consumption of *Kapha Vardhak Aahar Vihara* leads to production of *Meda* and little of other *Dhatus* like *Asthi*, *Majja* and *Shukra*. *Shukra* is the ultimate or final *Dhatu* of body providing strength and vitality to body.

Indulgence in sex can be considered as being a mechanical act responsible for a considerable

amount of energy utilization. So, a person not involved in physical activities like indulgence end up storing energy producing lethargy in long run and developing *Sthaulya* over a considerable period of time.

Avyavaya or *Kricha Vyavayta* (difficulty in indulgence) has also been included as one of the symptoms of *Sthaulya*. Decrease in *Shukra Dhatu* formation and body channels obstruction by *Meda* both contribute to difficult act of indulgence, further contributing to decrease energy expenditure as compared to calorie intake. This causes *Sthaulya*.

Divaswapna

Good sleep is responsible for health and happiness in a person. Sleep happens when the person's sense organs are exhausted and disassociate themselves from external environments and objects. So an individual sleeps.^[13] 6 types of *Nidra* has been mentioned by *Acharya Charaka*.^[14] Among them *Divaswapna* is attributed by excess of *Tama Guna* and *Kapha Pradhan Nidra*. Sleep has been given great emphasis as being responsible for a person's stout or emaciated body.^[15] Excessive of day time sleepiness has been prohibited by Ayurveda as it increase *Snigdha Guna* in body.^[16] *Snigdha* in body is due to increase in *Kapha Dosha*, ultimately contributing to etiology of *Sthaulya*.

Acharya Vagbhata has described the *Samprapti* (pathogenesis) of *Nidra* in a beautiful sequence of events. Increase daytime sleep increases *Kapha* in body causing various channel obstruction. It leads to increase in body heaviness, lethargy and more sleepy behaviour.

So, by *Ayurveda Kapha Pradhan Aahar Vihar* are first and foremost factors responsible for increased sleep and wrong sleeping habits causing increase in *Snigdha* in body. Persons who are denied with *Divaswapna* are mainly one with excess of *Kapha Vikara* and persons whose daily intake of *Sneha* is proportionately high.

Manasika Nidana

Chinta is a normal physiological body function. An excess of both *Chinta* and *Achinta* is a matter of concern. In *Sthaulya*, a person not indulging in any type of mental work aggravates the *Tama Guna* of mind causing depression which worsens the condition. A depressed mind withdraws itself from society, living in isolation and involved in minimum of any physical and mental activity causing *Sthaulya* in long run.^[17]

Harsh is the happy state of mind, responsible for a disease free state of mind but over joyous nature may be a problematic condition.

Harsh is of 3 types according to *Bhagvata Gita-Satvika, Rajasika* and *Tamsika*.^[18] *Rajasika Harsh* gives *Dukh* and *Tamasika harsh* produces *Nidra* and *Alasya*. *Tamasika harsh* is due to increase in *Kapha* and *Tamu Guna* in body and mind causing *Guruta* (heaviness) in body leading to weight gain and *Sthaulya*.

Bija Swabhava

Role of hereditary factors in *Sthaulya* is considered important by *Acharya Charaka*. It has been seen that obese parents tend to have obese children. It happens due to similar environment and dietary patterns.

Nidana	Increased Kapha Guna
<i>Madhur Rasa</i>	<i>Guru, Sheeta, Snigda</i>
<i>Atisampoorana</i>	<i>Guru</i>
<i>Avyayama</i>	<i>Guru, Sheeta</i>
<i>Avyavaya</i>	<i>Guru</i>
<i>Achinta, Harshnitya</i>	<i>Tama, Guru</i>

CONCLUSION

Nutritional (*Santarpanjanya*) *Vikara Sthaulya* is a disorder caused by excessive intake of *Kapha* dominant diet along with decrease in physical activities in a person. Food with properties of *Guru, Sheeta* and *Snigda* are particularly responsible for increase in *Kapha Dosha* and *Meda Dhatu* leading to *Meda Dhatwagni Mandya* and production of excess of *Meda* in comparison to other *Dhatus*. While treating any disease, particularly in *Hetu Viprit Chikitsa*, factors which increase particular *Dosha* are to be kept in mind while selecting *Aahar* and *Vihara Paricharya*. In case of *Sthaulya, Dravya -Guna- Karma* which are opposite to *Guru, Sheeta* and *Snigda Guna* are to be employed for its effective management. Majority of diseases mentioned in *Ayurveda* are treated with this *Siddhant*.

REFERENCES

1. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.327.
2. Ibid; pg.383.
3. Ibid; pg.309.

4. Ibid; pg.307.
5. Ajay kumarsharma. Kayachikitsa part 3. Varnasi; chaukhamba publishers; edition 2011;pg.171.
6. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.303.
7. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.602.
8. Keval Krishna Thakral. Sushrut Samhita commentary by Acharya Dalhana and Shri Gayadasa. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg 174.
9. Harishchandra Kushwaha. Charak Samhita Chakrapani 'AayushiTeeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.603.
10. Guyton & Hall. Medical physiology. 11th edition; pg. 872.
11. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg. 111.
12. Keval Krishna Thakral. Sushrut Samhita commentary by Acharya Dalhana and Shri Gayadasa. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg. 423.
13. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.314.
14. Ibid; pg318.
15. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.314.
16. Harishchandra Kushwaha. Charak Samhita Chakrapani 'Aayushi Teeka' Part-1. Varanasi; Chaukhambha Orientalia; Revised Edition 2016; pg.316.
17. V.K.M.Lavanya. psychological approach to overweight and obesity In Ayurveda. Indian journal of agriculture and allied sciences. 2016; Volume-2 issue-2: pg 2 Srimadabhagvatagita English translation. Gorakhpur; Gita press;2006.

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