

AYURVEDIC UNDERSTANDING OF OBESITY W.S.R TO STHAULYA

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ABSTRACT

Obesity is a metabolic disorder. Obesity involves the abnormal growth of the adipose tissue. Obesity resembles the features of *Sthaulya roga* /*Medo roga* in Ayurveda. *Acharya Charaka* has included *Sthaulya roga* under the list of *Astanindita purusha*. Diet and life style play a significant role both in development and control of obesity. Obesity causes health hazards by various modes. Obesity persistently leads to a cluster of conditions commonly known as Metabolic syndrome characterised by features like increased blood pressure, high blood sugar level, excess body fat around the waist and abnormal cholesterol levels and all these factors together increases the risk of heart disease, stroke and diabetes. *Sthaulya roga* involves various features told in *Ayurveda samhita*. Present article will help to understand obesity in context to *Ayurveda* reference.

Keywords: Obesity, *Ayurveda*, *Sthaulya roga*, *Medo roga*, *Astaninditiya purusha*

INTRODUCTION

Sthaulya and *Medo roga* are the similar terms and obesity is the resemblance disease with *Sthaulya*. Obesity is a global health problem affecting human population worldwide. The term Obesity is applied to excessive deposition or distribution of fat in the body. Obesity involves the abnormal growth of the adipose tissue¹. *Acharya Charaka* has included *Sthaulya roga* under the list of *Astanindita purusha*². Obesity may lengthen the waist line but shortens the life line³. Obesity imparts health risk; a body weight of 20% excess over ideal weight for age, sex and height is considered a health risk⁴. Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, breathing difficulties during sleep, certain types of cancer, and osteoarthritis. All

these disorders singly as well as in combination lead to serious health conditions. Obesity contributes to a medical condition known as metabolic syndrome which includes features like Hyper-tension, Hyperglycaemia, Hypertriglyceridemia, reduced high-density lipoprotein Cholesterol (HDL-C), and abdominal obesity. *Sthaulya roga* as described by *Acharya Charaka* itself is a leading cause of health hazards.

Medoroga

Medoroga (obesity) is characterized by following features⁵:

- a) Excessive increase of fat and other tissues of body (*Medo mamsa ati vridha*)
- b) Bulky look of body (*Ati sthoolta*)

- c) Pendulous appearance of buttocks, abdomen and breast (*Chalasphigagudarstanaha*)
- d) Excessive anabolic conditions (*Ayatha upachaya*)
- e) Lack of vitality (*Utsaha haani*)

Commonly abdominal enlargement stated as *Sthaulya* and the morbid changes occur due to the obstruction of channels of *Meda* (*srotoavrodha*). The physiological concept of *Ayurveda* is based on *Ahara* which further helps in growth and other activities of body. Improper consumption of food and Improper digestion of food due to *Agnimandya* forms *Ama Rasa* which circulates all over the body, causing *Srotodusti*, which help to accumulate the *dhatu* called *Dhatu-vridhhi* as well as *Srotoavrodha* manifest in the form of *Medoroga*⁶.

STHAULYA NIDANA⁷

- Absence of physical activity (*Avyayama*)
- Sleeping during day time (*Divaswapana*)
- Intake of foods which increase *Kapha* (*Shaleshmla ahara sevana*), make the end product of digestion abnormally sweet which in turn causes increase of *Medas* (fat). This obstructs the nutrient channels of the tissues and leads to condition like obesity. This makes the person incapable of various activities. Difficulty in breathing even on slight exertion, thirst, delusion, sleep, breathlessness exhaustion, excessive hunger, bad smell of the body, poor physical and sexual capacity etc. gradually develop. As the abdomen and bones are the chief depots of fat, the abdomen gets enlarged in such persons, buttocks, abdomen and breasts begin to show movement (during activity) due to dis-proportionate accumulation of fat on those places to his age. The aetiological factors of *medo roga* may be classified as follows:

1. Aharaja hetu:⁸

Atisampurnam Atibhojnam, Guru, Madhura, Sheeta, Snigdha ahara sevana, Medasvi prani mamsa sevana, Varuni madya ati sevana

2. Viharaja Hetu:⁹

- *Atinidra* (more sleep)
- *Avyayama* (Lack of exercise)

- *Divaswapana* (day time sleep)
- *Avyavaya* (lack of sexual intercourse)
- *Sukha shaiya* (Comfortable luxurious bed)

3. Mansika hetu:

- *Harshanatitaya* (Cheerfulness)
- *Achintata* (Free from worries)

4. Madhura rasa as Garbhopghatkar bhava in relation to sthauilya:

Charaka has considered that when mother takes excessive *Madhura ahara* during pregnancy, the progeny will be '*Sthoola*' It is well known that *Madhura rasa* increases *Kapha* in body which has maximum effect on *Medo dhatu* responsible for enhancing *Sthauilyata* in the body and the infant become *Sthoola* due to excessive *Medo dhatu*. *Vagbhata* has called such pregnancy as "*Garbhaja vyadhi*" and subdivided it in *Anarasaja* type.

5. Bijasvabhava:

The role of *Bijasvabhava* or genetic abnormality in pathogenesis of *medo-roga* is stated by *Acharya Charaka*. It can be explained that when parents or grandparents are indulged in *Madhura, Snigdha ahara* they may develop *Bija dosha*, which gives rise to a constitution that there is tendency for the formation of *Meda* even with normal or subnormal diet. The *Matrubija* is responsible for *Medo dhatu*. From abnormal *Bija* the development of *Medo dhatu* is excessive and child becomes *Sthoola*.

CONCEPT OF NINDANIYA PURUSHA IN CONTEXT OF STHAULYA:

In context of body, eight type of persons are criticized and discarded (*Nindaniya*) such as

1. *Ati Deergha* (Over tall)
2. *Ati Hruswa* (Over short)
3. *Ati Loma* (Over hairy)
4. *Aloma* (Less hairy)
5. *Ati Gaura* (Over fair)
6. *Ati Krushna* (Over black)
7. *Ati Sthoola* (Over obese)
8. *Ati Krisha* (Over lean)

Among all the above *Nindaniya purusha*, *Ati Sthoola* is having peculiarity in regard to health haz-

ard. *Sthaulya dosha* told by *Acharya Charaka* are also known as *Asta sthauilya dosha* are as follows¹⁰:

1. *Aayush hrasa* (*Ayu haani*)
2. *Javoprodha* (*Akala vriddhavastha*)
3. *Krichravayavayta* (*Maithuna asamarthtata*)
4. *Daurbalyam* (*Durbalata*)
5. *Daurgandhyam* (*Sharirika durgandha*)
6. *Swedabadha* (*Atyadhika sharirika jaladhatu haani*, more sweating)
7. *Ati Kshudha*
8. *Ati Pipasa*

In obese individuals the life span decreases because of laxity and due to softness and heaviness of fat, there is restriction in movement. Further due to non-abundance of semen, there is difficulty in sexual intercourse. Due to disequilibrium of *Dhatus* there is debility. Foul smell is due to defect in fat and excess sweating. Due to association of *Medas* with *Kapha* it is of oozing nature having heaviness and intolerance to physical exercise there is excess sweating. Because of intensified *Agni* and increase of *Vayu* in stomach, there is excessive hunger and thirst. Due to obstruction of passage by fat, *Vayu* moves faster and stimulates digestion and absorbed food, hence the person digest food quickly and further desires to have food in excess quantity and even short delay in consuming food may cause severe disorders.

Obesity is caused by over saturation, intake of heavy sweet, cold and fatty diet, indulgence in day sleeping and exhilaration, lack of mental work and genetic defect. Obesity is the accumulation of fat results from a discrepancy between energy consumption and expenditure. Increasing energy intake can be understood by increase portion size, increase snacking and loss of regular meals, increase energy dense food (mainly fat), increase affluence (wealth). Decreasing energy expenditure can be understood by increase car ownership, decrease walking to school/work, increase automation and decreased manual labour, decrease sports in schools, increase time spent on videos and watching TV, increase central heating¹¹.

Obesity is also having the similar features like of *Asta Sthauilya dosha*, as follows;

1. Obesity causes reduced life expectancy due to side by side health hazardous disease production which affects longevity of life
2. Obesity promotes untimely ageing
3. Obesity causes difficulty in sexual intercourse due to more body weight
4. Obesity causes dullness, lassitude, Fatigability of the body
5. Obesity causes Foul smell from the body due to unhygienic protocols followed by person
6. Obesity cause more sweating due to more fat as obese people have low body surface area (BSA) relative to their weight, they cannot eliminate body heat efficiently, so they sweat more than thin people
7. Obesity is promoted by excessive eating and so it is outcome of eating too much and moving too little
8. Obesity also increases thirst

OBESITY IN RELATION WITH SOME DISEASES

Obesity & High blood pressure:

Multiple factors are responsible for increase in blood pressure in obesity. Weight gain is associated with decrease in elasticity of blood vessels & increase heart rate. Excess calories are deposited in body as fat in fatty tissue. This fatty tissue increases demand for oxygen & nutrients, which in turn increases amount of blood circulating in the body. More blood travelling through arteries adds pressure on walls of arteries leading to increase in blood pressure. Obesity increases level of insulin in body. Insulin causes sodium & water retention in body, which results in increase in blood volume & extra pressure on arteries. All of these factors can increase blood pressure.

Obesity & Diabetes: Increased blood sugar level:

Type2 diabetes is a common health problem in diabetes. Insulin controls blood sugar. Insulin is required for the entry of sugar (glucose) into body cells from blood. Excess body fat in obesity makes

body resistant to insulin. Because of this insulin resistance, sugar will remain in blood, which will lead to increase in blood sugar or diabetes. High amount of sugar in blood leads to complications in kidney, eye, blood vessel & heart.

Atherosclerosis or fatty deposits in blood vessels: Cholesterol is carried in the blood as two compounds: Low-density lipoproteins (LDL) and High-density lipoproteins (HDL). HDL is also called the 'good' cholesterol and LDL is also called the 'bad' cholesterol. Obesity is associated with low levels of good (high-density lipoprotein) cholesterol and high levels of bad (LDL) cholesterol. When cholesterol levels are high, some of the cholesterol is deposited on the walls of the blood vessels. Cholesterol deposits reduce the elasticity of blood vessels, narrows blood vessels & decreases blood flow. All these changes lead to atherosclerosis and an increased risk of heart disease & stroke.

Coronary artery disease – angina & heart attack: Atherosclerosis (fatty deposits in arteries) in coronary arteries (arteries that supply heart) reduces blood supply to heart. Decreased blood flow to heart can cause angina (chest pain) and complete blockage of blood flow to heart can cause heart attack. Obesity causes higher risk of diabetes, heart problems, high blood pressure and stroke.

STHAULYA SAMPRAPTI IN RELATION TO SHATKRIYAKALA

- 1) **Sanchaya:** *Sanchaya* of *Kapha* takes place because of intake of excessive *Madhura*, *Snigdha*, *Guru Ahara*, *Divasvapna*, *Avyayama* and also because of *Bijasvabhava*
- 2) **Prakopa:** The *Kapha* increases in quantity and quality and is responsible for the formation of the *Atimadhura* and *Atisnigdha ahara rasa*
- 3) **Prasara:** *Atimadhura* and *Atisnigdha ahara rasa* circulates all over body through channels
- 4) **Sthanasansrya:** *Kha-vaigunya* in *Medovaha srotas* leads to collection of circulating *Ahara rasa* in *Medo dhatu*. That increases *Medo dhatu*

and increased *Medo dhatu* gets accumulated in *Udara* etc.

- 5) **Vyakti:** The *Medodhatu* accumulation in body parts causes increase in size and thus gives them. Pendulous like movement when the person moves. The channels get blocked by the *Meda*, causing ill effects of *Sthaulya*
- 6) **Bheda:** The manifestation of the *Upadrava* or the complications of obesity such as *Prameha* (diabetes), *Prameha-pidika* (diabetic carbuncle), *Bhagandara* (fistula) etc. can be considered as the *Bhedavastha* of *Sthaulya roga*

COMPLICATIONS OF OBESITY

Risk factors

Outcomes

1. Metabolic syndrome

Type 2 DM-

Coronary artery disease

HTN -

Stroke

Hyperlipidemia-

Diabetes complications

2. Liver fat accumulation-

Non alcoholic

steatohepatitis, cirrhosis

3. Restricted ventilation- Exertional dyspnoea, sleep apnoea, Respiratory failure

4. Mechanical effects of weight- Urinary incontinence, varicose veins, Osteoarthritis

5. Increased peripheral steroid inter-conversion in adipose tissue - Hormone dependent cancers (breast, uterus) polycystic ovary syndrome (infertility, hirsutism)

6. Others - Psychological Morbidity (low self esteem, depression) Socioeconomic disadvantage (lower income, less likely to be Promoted), Gall stones, colorectal cancer, Skin infections (Candidiasis)

DISCUSSION

Sthaulya in the resemblance of Obesity is a health hazardous status as in both Literatures the harmful effects are mentioned very well. *Asta sthaulya dosha* as told in *Ayurveda Samhita* puts light on the body conditions after attaining *Sthaulya roga*. Various causes are elaborated in literatures for the disease Obesity as well as for *Sthaulya* in contemporary sci-

ence. A list of *Nidana* is given, which helps in the production of *Sthaulya roga* from *Aharaja nidana* to *Bijaswabhavaja Nidana*. *Shatkriyakala* of *Sthaulya* will help to understand the disease properly.

CONCLUSION

Good metabolism of the body leads to a good health but the disturbed metabolism causes impairment in the body functions especially metabolic disturbance. Such disturbance produces diseases like obesity. Present article has given a good platform to understand obesity by means of modern science as well as of *Ayurveda* perspective. The ill effects of *Sthaulya roga* or the obesity are clearly told which will definitely help readers to understand this particular disorder of human being.

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Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Sunil Kumar Godara: Ayurvedic Understanding Of Obesity W.S.R To Sthaulya. International Ayurvedic Medical Journal {online} 2018 {cited June, 2018} Available from: http://www.iamj.in/posts/images/upload/1290_1294.pdf