

## UNDERSTANDING THE STHAULAYA IN MODERN ERA: A REVIEW ARTICLE

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Article Received on 16/12/2018

Article Revised on 06/01/2019

Article Accepted on 27/01/2019

### ABSTRACT

The people say that obese life is dangerous life. Now this is the modern lifestyle problems in the routine life. Obese person are looking so badful. This article revolves around the details of Obesity described in various texts of Ayurveda. An attempt has been made to understand Obesity through Modern and Ayurvedic perspective and to find out the likely solutions for obesity through Ayurveda. Obesity has been described as Sthaulya or Medoroga in Ayurvedic texts. It is described under the caption of Santarpanotha Vyadhi (Disease caused by over nourishment). Various Internal and External treatment modalities are described in the treatment of Obesity.

**KEYWORDS:** Obesity, Over Nourishment, Ayurveda, Apatarpan.

### INTRODUCTION

Today more and more jobs are becoming sedentary and dietary patterns are also changing with a decline in cereal intake and increase in the intake of sugar and fats. This all has resulted in increase in incidence of obesity along with its associated problems. According to survey by Nutrition Foundation of India, 55 % of women and 39% of men in urban area of the country are overweight. India is in 3<sup>rd</sup> place in terms of obesity index. Earlier, obesity was a life style problem, but now World Health Organisation have classified it as a disease. Ayurveda has given more emphasis on balanced state of Body tissues while mentioning definition of health. According to Ayurveda, Obesity is a condition in which Medodhatu (Fatty Tissue) is in a state of Vikrita Vriddhi (Abnormal increase).

#### Definition of atisthaulya (obesity)

A person who due to extensive growth of fat and flesh is unable to work and disfigured with pendulous buttocks, belly and breasts is called Atisthula and condition is termed as Atisthaulya. The term obesity is defined as an excess storage of energy in the body in the form of fat. Obesity is an increase in body weight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat. BMI (Body Mass Index) more than 30 kg /m<sup>2</sup> is also used for diagnosing obesity.

#### Causative factors for obesity

The heredity component (Bijadosha), besides dietetic, regimen and psychological factors in the causation of obesity is described in Charaka Samhita. Except these

factors, the components which may vitiate Meda (Fatty Tissue) and Kapha (One of the three humors of the Body) could be considered as causative factors of Obesity.

Dhatvagni Mandya (Weak digestive fire at the level of body tissues) is the main cause besides other components in the etiopathology of Sthaulya.

In the context with obesity, exogenous causes are Meda potentiating diet and regimens where as Dosha (Three humors of the body), Dhatu (Body tissues), Mala (Excreta) Srotas (Body channels) etc. come under the endogenous factor.

#### Pathogenesis of obesity (modern perspective)

Adult onset obesity is characterized predominantly by adipose cell hypertrophy with minimum hyperplasia. Apart from the increase in size of normal depots eg. The subcutaneous tissue, the omentum, the retroperitoneal tissues and epicardium, adipose tissue in obesity may be extended to the tissues, where it is normally absent. Excessive lipid deposition, diminished lipid mobilization and diminished lipid utilization are the three main components in pathogenesis of obesity.

Excessive lipid deposition is due to increased food intake, hypothalamic lesions, adipose cell hyperplasia or hyper lipogenesis. Increased food intake in the form of carbohydrates, proteins and fats by metabolic process lastly converts into fats and gets stored in fat depots.

Diminished lipid metabolism is due to either decrease in lipolytic hormones, abnormality of autonomous innervating thyroxine and adrenaline which stimulates mobilization of unsaturated fatty acids from adipose tissue, abnormality of these two causes diminishes lipid mobilization, increases lipid deposition and ultimately leads to obesity.

Diminished lipid utilization is either due to ageing, defective lipid oxidation, defective thermogenesis or inactivity. Diminished lipid utilization is the main pathology in middle age obesity.

### Rupa (Sign and Symptoms)

1. Charaka has enlisted the following symptoms as cardinal symptoms of Obesity. Medomamsa ativriddhi (Excessive growth of Muscle & Fat tissue).
2. Chala Sphik-Udara- Stana (Pendulous Buttocks-Abdomen-Breast).
3. Ayatha Upachaya Utsaha (Disproportionate strength with his physical growth). Besides these cardinal symptoms, eight disabilities of Atisthaulya (Morbid Obesity).

I.E. Ayusho Hrasa (Deficient in longevity), Javoparodha (Less energy levels), Krichchra Vyavaya (Difficulty during Sexual Intercourse), Daurbalya (Weakness).

Specific criteria for diagnosis of obesity:

1. Age specific weight for height table
2. Body Mass Index (BMI)
3. Skinfold Measurements
4. Body girth measurement

### Classification of sthaulya (obesity)

The manifestation of sthaulya can be elaborated on the basis of causative factors, manifestation etc. as follows:

Hina Sthaulya (BMI 25-30-  $\text{kg}/\text{m}^2$ ) – Overweight

Mild degree of overweight without any complications or secondary diseases with less than 1 year duration is considered as Hina Sthaulya.

Madhyama Sthaulya (BMI 30-40  $\text{kg}/\text{m}^2$ )

### Obese

Moderate degree of overweight with least complications without secondary diseases having duration of 1 to 5 years can be considered as Madhyama Sthaulya.

Adhika Sthaulya (BMI > 40  $\text{kg}/\text{m}^2$ )

### Morbid Obese

Excessive stage of overweight with complications and secondary diseases, with all 8 undesirable effects and having duration more than 5 years can be considered as Adhika Sthaulya.

### Types of Obesity

#### I. Android

Male type of obesity where excess fat is marked in upper half of the body. The lower portion of the body are thinner beyond proportion and comparison with upper part.

It is common in female too:

- Undergone hormone treatment.
- Around menopause due to thyroid glands disturbance.

Vital organs affected – Heart, Liver, Kidney & Lungs.

Major risk factor for heart diseases.

#### II. Gynaecoi

Common in both sexes but females more affected. Excess fat deposition is in lower part of body. Spine is never erect due to heavy hips and thighs.

- Vital organs affected: Kidneys, uterus, intestines, bladder.
- These organs may have effect on heart.

#### III. Neither Android or Gynoid

Whole body affected. The fat tissues in their body hinder the movement of all the internal organs and consequently affect their functioning.

### Upadrava (Complications)

Chronic consistence of Obesity leads to the deformity of several systems, and organs thus ultimately leading to death.

The following complications are described in Ayurveda

1. Amaroga;
2. Apachi;
3. Arsha;
4. Atisara;
5. Bhagandara;
6. Jwara;
7. Kamla;
8. Kasa;
9. Kustha;
10. Mutra Kriccha;
11. Prameha;
12. Prameha pidika;
13. Shlipada;
14. Sanyasa
15. Udarroga;
16. Urusthambha;
17. Vata vikara;
18. Vriddhi.

### Diet

Diet must be nutritionally adequate but must be lower in calories, with vitamins and mineral supplements. A mixed balanced diet is a sensible approach to long term weight reduction. The protein should be of high quality so that essential amino acid can be utilized to maintain

lean body mass. Food, high in fiber should be used liberally because of their low caloric density.

## DISCUSSION

Charaka has given detail description of causative factors, etiopathogenesis, sign and symptoms of Obesity. Acharya Susruta has added the complications of the disease & given importance to avoid causative factors of the disease. Out of the commentators, Dalhana has introduced the concept of Dhatvagni Mandya. The term 'Sthula' (Obese) itself indicates the deposition of Prithvi and Apa Mahabhuta dominant factors in the body.

Nidana of Sthaulya is divided in four categories Aharatmaka, Viharatmaka, Manasa and Anya. Besides these Nidanas, nowadays it is seen that due highly refined food with maximum percentages of carbohydrates & high-tech machineries which makes a person less active & prone to Obesity. Nowadays, Nidanas of Sthaulya are changing e.g. previously Manasonivrtti and Harsanivrtti were said to be the Nidanas of Sthaulya but these are now changing to increasing stress which causes episodes of binge eating leading to Obesity. Hereditary factor is also coming up as the prominent cause for Obesity.

Etiopathology of Obesity can be interpreted two ways, according to Charaka Samhita in which there is just increased Jatharagni (Digestive fire) which causes maximum ingestion and leads to maximum absorption of Prithvi and Apa Mahabhuta dominant factors in the body leading to increased Medodhatu in the body. According to Dalhana, there is a state of Medodhatvagnimandya, which leads to excessive formation of improper Medodhatu leading to Obesity.

There is abundant growth of Medodhatu in Obesity which is having Prithvi and Apa Mahabhuta dominance. It is a condition of Vriddha (Increased) Medodhatu. It requires the drug which can cause diminution of Medodhatu for its cure. Ayurveda recommends various treatment modalities like Shodhan and Shaman. According to the stage of the disease and strength of the patient suitable treatment modality can be selected.

## CONCLUSION

- Charaka has mentioned Sthaulya (Obesity) under the caption of Santarpanottha Vikara and it should be treated with Apatarpan (Reducing Therapy).
- Though Sthaulya is mentioned as Krichchrasadhya Vikara but on the basis of BMI one can say that if a person's BMI lies between 25-30 kg/m<sup>2</sup> it can be termed as Sadhya (Curable) but if it goes beyond 30 kg/m<sup>2</sup> then it becomes difficult to cure.
- Nidanas of Sthaulya, mentioned in classics are now changing. Increasing stress, faulty dietary habits and decreased awareness regarding exercise are becoming the prominent causative factors.
- Kapha prakriti (Kapha predominant body

constitution) persons are more prone to Sthaulya so they should be advised proper diet regimens and exercise.

In Society, Percentage of population suffering from Sthaulya is increasing day by day so they should made aware regarding the disease and its severe complications before it reaches to its epidemic level.

- It is clear that reducing overall energy intake is key to losing weight. Increasing physical activity can also be helpful alongside calorie reduction in achieving weight loss and sustaining a healthy body weight, as well as improving overall health.
- Multinational food and drink corporations, physical activity and sport organizations, NGOs, employers and local NHS staff all need to work together to help communicate the messages about why we need to look at our individual lifestyles, but also to change the environment so the healthier choice becomes the easier choice.
- Prevention is the most important key factor for this disease. Patients should be educated to follow the life style changes recommended by Ayurveda.
- Use of Biopurification methods along with drugs can give better results in obesity.

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