



Conceptual study

An Ayurvedic perspective of Obesity (Sthaulya) and its Management – A Conceptual study

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Article Received on: 24/08/2018

Accepted on: 20/09/2018

ABSTRACT:

Atisthula is one among the 'AshtauninditiyaPurusha' described by AcharyaCharaka. In Ayurvedic literature, *Sthaulya* or *Medoroga* is considered as a *Santarpana-janyavikara* i.e. an excess nutritional disorder. According to modern science, Obesity is a disorder of adipose tissue. It is a chronic and increasingly common disease characterised by excess body fat. The prevalence of Obesity is higher in urban areas than in the rural population of India, due to a steady erosion of the holistic way of life as well as sedentary life style and overeating habit. Nowadays Obesity has become a life style disorder. It causes many health consequences such as Coronary Heart Disease (CHD), Hypertension, Diabetes Mellitus (DM). It has become essential to understand aetiopathogenesis and management of *Sthaulya* due to its dreadful consequences. In Ayurvedic literature, many remedies, techniques and drugs are described to treat the *Sthaulya* and its complications. Drugs like *Guggulu* and *Shilajatu* are emerging as drugs of global potential for Obesity and Hyperlipidemia. The prevention and management techniques described in Ayurvedic literature provides a great success in obese patients. The successful leads from Ayurveda may form a scientific basis for the management of Obesity.

KEY WORDS: *Sthaulya*, *Medoroga*, *Agni*, Obesity.

INTRODUCTION:

In the today's era of urbanisation, Obesity has recognised as one of the important lifestyle and metabolic disorder. Obesity is a condition in which an individual is significantly overweight and an excessive amount of body fat has accumulated under the chin, belly, buttocks and thighs. It develops gradually and often persists throughout life. In Ayurvedic literature, Obesity is regarded as *Medoroga*. AcharyaCharaka has mentioned *Sthaulya* in *Medodhatu-pradoshajaVikara*. *Medoroga* means a disorder of *MedaDhatu* i.e. adipose tissue and fat metabolism. According to Ayurveda Obesity begins with an imbalance of *Tridoshas*, imbalance of *Agni* (digestive fire) and imbalance of *Malas* (waste products). From the Ayurvedic perspective, the key cause of Obesity is found in lifestyle and diet choices that disrupt the balance. The incidence of obesity has been felt more dramatically in

Urban areas and gradually increases in semi-urban and rural areas. Obesity is emerging as an important health problem in India. 22millions Indians are obese especially abdominally obese. The Nutrition Foundation of India (NFI) study shows that 32.3% of middle-class males and 50% of middle-class females in Delhi are Obese.

Concept of Obesity (Sthaulya):

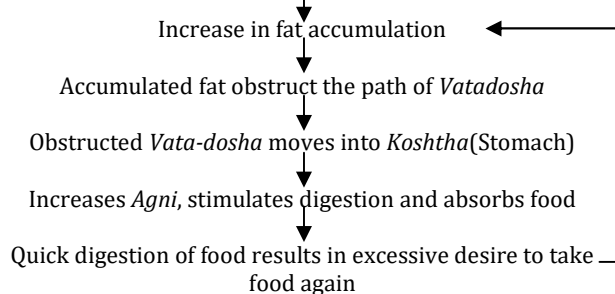
The term *Sthula* derived from the root '*Sthulabrimhane*' with an addition of *ac pratyaya*, Which stands probably for thick or solid or strong. It means a person in whom excessive and abnormal increase of *Medadhatu* in the body.

Obesity occurs when excess fat builds up in the adipose tissue. The conventional concept of

etiopathogenesis, prognosis and management of obesity is very similar and equally advanced to the *Medoroga/Sthaulya*, mentioned by *Acharya Charaka*. In *Ayurvedic* literature, *Acharya Vagbhata* has mentioned that Obesity (*Sthaulya*) is mainly due to over-eating both in quantity and qualities of food. *Acharya Charaka* has mentioned that Over-obese (*Sthaulya*) is a disease of mainly *Agni* and *Vayu*¹.

The vicious cycle -

Mithya Ahara-Vihara (Overeating, lack of exercise, excessive sleeping habit)



Types Of Obesity (*Sthaulya*):

Acharya Vagbhata has mentioned the three types of *Sthaulya*. While describing the efficacy of *Langhana* therapy².

1. *Hina Sthaulya* – mild degree of overweight.
2. *Madhyama Sthaulya* – moderate degree of Overweight.
3. *Ati Sthaulya* – Excessive state of overweight.

According to modern science, obesity has classified in two way, on the basis of BMI (Body Mass Index) and on the basis of body fat distribution.

Table No. 1 : Classification of Obesity on the basis of BMI

Classification	Obesity class	BMI (Kg/m ²)
Underweight	-	< 18.5
Normal weight	-	18.5 – 22.9
Overweight	-	23.0 – 27.9
Mild Obesity	Class 1	28.0 – 32.9
Moderate Obesity	Class II	33.0 – 37.9
Extreme Obesity	Class III	≥ 38

Table No. 2 : Classification of Obesity on the basis of Body fat distribution

Android Obesity	Gynoid Obesity
Collection of fat mostly in the abdomen – above the waist	Collection of fat mostly in the hips and buttocks – below the waist or gluteo-femoral
Apple shaped body	Pear-shaped body
Associated with increased risk of metabolic complications such as Coronary Heart Disease (CHD)	Makes the person more prone to a mechanical disorder such as Varicose veins and disorders of joints
Typically men carry excess weight in the upper body	Typically women carry excess weight in the lower body

ETIOLOGY :

The Causes of Obesity include over-eating, excessive intake of heavy food and cold drinks, oversleeping, lack of exercise, frequent eating and fast food.

In *Ayurveda*, causes of *Sthaulya* are different according to various *Acharya*.

Table No. 3 : Causes of *Sthaulya* according to various *Acharya*

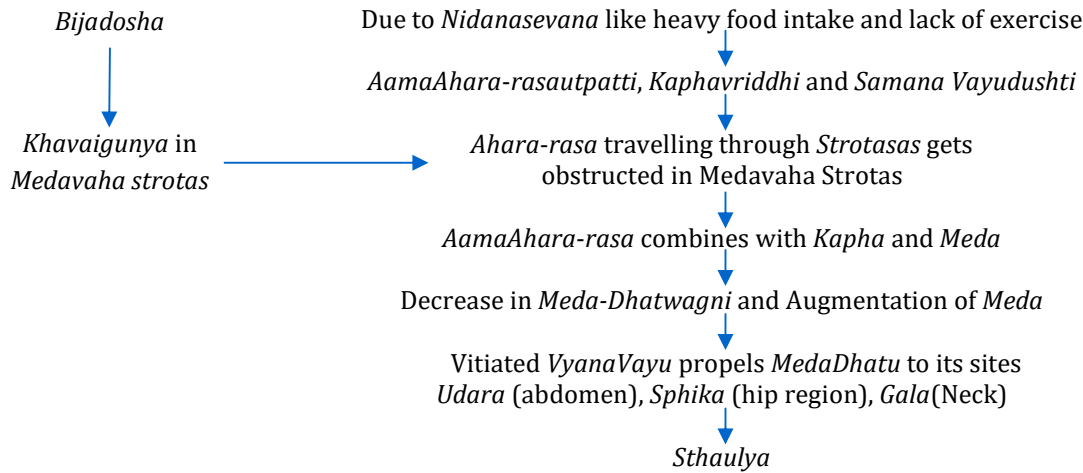
Causes of <i>Sthaulya</i>			
	<i>Charaka Samhita</i>	<i>Sushruta Samhita</i>	<i>Ashtang Hridaya</i>
Aharaja	Intake of heavy, sweet, unctuous cold and fatty diet, new cereals, fresh wine, meat of marshy and aquatic animals, milk and its products, jaggery.	<i>Kaphavardhaka Ahara</i> , over-eating.	-
Viharaja	Indulgence in day sleeping and exhilaration, lack of exercise.	Same as <i>Charaka Samhita</i>	Excess of <i>brimhana therapy</i>
Manasika	Lack of mental work ³	-	-
Other	Genetic defect ⁴	<i>Rasadhatu Dushti</i> ⁵	-

According to modern science, Obesity is a multifactorial condition. Factors playing role in eating and weight control are genetic, cultural, socio-economic, behavioural, situational, metabolic and physiological. An imbalance in energy intake and

energy expenditure is a cause of primary obesity. Other causes are Genetic alterations, Endocrine diseases (Cushing's syndrome, Hypothyroidism, Hypogonadism), Drugs and Neurological Diseases.

Pathophysiology of Obesity (*Sthaulya*):

In the pathogenesis of *Sthaulya*, all the three *doshas* are vitiated, especially *kledakakapha*, *Pachakapitta*, *SamanaVayu* and *VyanaVayu* are the *Doshaja* factors responsible for *Samprapti* of *Sthaulya*.



Symptoms of Obesity (*Sthaulya*) -

Table No. 5 : Symptoms according to various *Acharya*

Symptoms	<i>Charaka Samhita</i>	<i>Sushruta Samhita</i>	<i>AshtangHridaya</i>
<i>Udaravridhi</i> (visceral obesity)	+	+	+
<i>Chalodara</i> (pendulous abdomen)	+	-	+
<i>Chala-stana</i> (pendulous breasts)	+	-	+
<i>Chala-sphik</i> (pendulous buttocks)	+	-	+
<i>Angashaitilya</i> (Flaccidity)	+	-	-
<i>Gourava</i> (heaviness in the body)	+	-	-
<i>Swakriya-asamarthata</i> (poor self-care)	+	+	-
<i>Nidradhikya</i> (oversleeping)	+	+	+
<i>Utsahanasha</i> (Lethargy)	+	+	+
Breathlessness	+	+	-
<i>Sukumarata</i> (delicate and tender)	+	+	-

Ashtau-Atisthauya Vikara (Doshas) And Health Consequences :

Table No. 6 : *Atisthauya Vikara (Doshas) and Health consequences*

<i>Ashtau-AtisthauyaDosha</i>	Health consequences
<i>Ayushya-rhaas</i>	Coronary Heart Disease (CHD) and Stroke
<i>Javaparodha</i>	Hypertension
<i>Kricchravyavaya</i>	Dyslipidemia
<i>Daarbalya</i>	Type - 2 Diabetes Mellitus
<i>Swedabadha</i>	Liver and Gallbladder disease
<i>Dourgandhya</i>	Sleep apnea and Respiratory problems
<i>Kshudhaatimatra</i>	Osteoarthritis
<i>Trishnadhikya</i>	Gynaecological problems

Complications of Obesity (Sthaulya):

Acharya Sushruta has described the complications of Atisthauya as below,

1. Prameha (Diabetes) and PramehaPidika.
2. AlpaPrana (low vitality of activities).
3. Jwara.
4. Bhagandara (Fistula in Ano).
5. Vidradhi (Abscess).
6. Vataja disorders.

Impact of Obesity on Health and Life Process :

The management of morbid obesity is considered difficult. Decreased life span (Ayu-kshaya) is stated to be an important consequence of obesity.

- Most of the Cardiac patients die of Obesity. Obesity is implicated most strongly in Coronary Heart Disease. Overweight also contributes to the development of DM, HTN and elevated blood lipid levels, kidney and gallbladder disorders.
- Overweight persons suffer from osteoarthritis, which acts as an obstacle for mobility.
- More chances of menstrual irregularities.
- Obesity may accompany bad body odour.

Assessment of Obesity :

In Ayurvedic literature, the differentiating features of overweight (Pushta), Obesity (Sthula) and Morbid Obesity (Atisthula) have recognized very well. Acharya Charaka has described the assessment of Obesity by the person's own fingers (Angula-Pramana) to measure the breadth and length of the abdomen and other body parts.

In Modern science, presently there are three commonly used objective methods of estimating Obesity in clinical practice.

1. Body Mass Index (BMI) -

It is also called as 'Quetelet index' and is calculated by using the formula,

$$BMI = \frac{\text{Weight(Kg)}}{\text{Height(m)}^2}$$

2. Waist to Hip Ratio (WHR) and Waist circumference -

The WHR provides information about the distribution of body fat,

Table No. 7 Desired WHR and Waist circumference:

	Men	Women
WHR	≤ 1.0	≤ 0.8
Waist Circumference	> 90 cm	> 80 cm

Table No. 8 Waist Circumference and Risk:

Waist circumference and Risk		
	Increased Risk	Substantial Risk
Men	≥ 85 cm	≥ 90 cm
Women	≥ 80 cm	≥ 85 cm

3. Body Fat Distribution (Fat phenotypes) -

On the basis of the distribution of body fat, Obesity may be classified into Android and Gynoid Obesity.

Management of Obesity (Sthaulya):

According to Ayurveda, Sthaulya is a Santarpan-janya vikara and treatment of it is Apatarpan. Acharya Charaka and Vagbhata has mentioned that Apatarpana or Langhana in the treatment of Sthaulya. Acharya Vagbhata has described that Langhana should be done daily to persons suffering from Atisthauya.

Apatarpana - it is of 2 types

- 1) Shodhana - Panchakarma
- 2) Shamana - Dipana, Pachana, Kshut, Trut, Vyayama, Atapa and Maruta.

Table No. 9 Sthaulya Treatment according to Ayurveda

Types of Sthaulya	Apatarpana Treatment
Hina Sthaulya (Mild obesity)	Kshudha and Trishna Nigrhana (control of hunger and thirst)
Madhyama Sthaulya (Moderate obesity)	First Dipana and Pachana then Shodhana (administration of digestive and hunger substances)
Ati - Sthaulya (Severe obesity)	Shodhana (purificatory therapies like emesis, purgatives.)

- Guru and Apatarpana Aahara - the foods which are heavy and non-nutritious are ideal for the obese persons⁶.

- Udvartana - Massaging the body with soft and fragrant powders mitigates the Kapha and liquefies the fat⁷.

Table No. 10 Ahara-viharaja Chikitsa of Sthaulya

	Treatment
Aahara	<i>Kulattha, Shyamaka, Yava, Mudga and Honey water</i>
Vihara	<i>Jagaran – Avoidance of Sleep Chinta – Indulgence in worry</i>
Ayurvedic remedies (Yoga)	<i>Triphala, Guduchi, Abhaya and Ghana with honey water. Rasanjana, Mahat-Panchamula, Guggulu and Shilajatu with fresh juice of Agnimantha. Vidangand Nagar churna, KsharaandKalaloha raja with honey. Yava-Amalakachurnawith honey.</i>

- *AcharyaCharaka* has mentioned *LekhaniyaDashemaniMahakashayai*.e.a group of 10 drugs, these drugs principally performs the *Lekhanakarma* of excess and abnormal *Medadhatu* and causes weight reduction as well as relief in other sign and symptoms. These drugs are *Mustaka, Vacha, Kushtha, Haridra, Ativisha, Katu-Rohini, Chitraka, Chirabilva, Daruharidra and Haimavati*⁸.

- **Pathya-Apathya –**

Table No. 11 Pathya-Apathya in Sthaulya

	Pathya	Apathya
Aahara	<i>Yava, Kodrava, Mudga, Rajamasha, Kulattha, Takra, Madhu, Ushnodaka, Asavarishta, jirnamadya, sarshap tail</i>	<i>Navanna, Masha, Tila, Madhurashaka and phala, kshira, Dadhi, Anupa and Audakamamsa.</i>
Vihara	<i>Shrama, Jagarana, Nityabhramana, Vyavaya.</i>	<i>Sheetaljalasevana, Diwaswap, Avyavaya, Atyashana, Sukha-shaiyyasevana.</i>
Manas	<i>Chinta, ShokaandKrodha</i>	<i>Nityaharsha, Achinta and Manasnivritti</i>

According to modern science, the goals of weight loss and management are,

1. To prevent further weight gain.
2. Lose weight to achieve a realistic target BMI.
3. To maintain a lower body weight over the long term.

Following strategies are helpful in weight management,

1. **Dietary therapy –**

- Nutritionally adequate diet
- Greater intake of fruits and vegetables
- High fibre food and less fat diet.

2. **Exercise –**

- Exercise should be initiated slowly and intensity increased gradually.
- At least 30 minutes of moderate intensity

exercise helps in weight management.

3. **Behavioural therapy –**

- Eating only 3 times a day.
- The proper proportion of eaten food.
- Eating slowly with concentration.
- Avoid over-eating.
- Drinking warm water.
- Remain properly hydrated.

4. **Drug therapy –**

- The drug should be given in those patients whose BMI is > 27 kg/m² and associated with obesity-related complications like CHD, DM, HTN etc.

A combination of drug therapy, dietary therapy, exercise and behavioural therapy provides the most successful therapy for weight loss and maintenance.

CONCLUSION :

Due to sedentary life style and wrong food habits, the problem of Obesity is gradually increasing today.

The pathophysiology of Obesity mentioned in *Ayurveda* is completely scientific and reliable. Obesity causes many life-threatening health consequences like CHD, DM, HTN etc.

An *Ayurvedic* therapies like *Dinacharya* (daily regimen) and *Pathya* provides proper treatment and motivation in weight management.

As the Obesity is a lifestyle disorder, the change in lifestyle and to educate and aware the people about Obesity and its complications are the effective measures in preventing Obesity than to treat. Because there are no magic pills for obesity.

4Maintain daily schedule and choose healthy food over tasty food is the key to maintain the weight and treat the Obesity.

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Cite this article as:

Priyanka S. Patil, Gayatri S. Sawant, An Ayurvedic perspective of Obesity (Sthaulya) and its Management – A Conceptual study, ADJIM 2018: 3(3), p. 05-10.