Sthoulya: An Ayurveda Review Study

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Abstract: Obesity is an abnormal accumulation of body fat, usually 20% or more over an individual ideal body weight. In Ayurveda, Obesity is described as Medo Roga or Sthoulya. Continuous indulgence in highfat food, fried items, etc., along with a sedentary lifestyle leads to excess accumulation of body fat which gets deposited in the numerous body channels. Appropriate Ayurvedic internal medicines along with Shodhan procedures are used to achieve the best results, without any side effects. Vamana, Virechan, Basti, Udvartan according to vitiation of Dosha, these Shodhana procedures gives effective results. Pathya, Apathya (Diet management) & Lifestyle modifications play an important role in the management of Obesity. Sthaulya (Obesity) is such a disease, which provides the platform for so many hazards like hypertension, diabetes mellitus etc. as well as psychological disorders like stress. The mortality and morbidity rates are more in obese person. It is one of the most common, yet among the most neglected public health problems in the present world.

Keywords: Sthoulya, Medodhatu, Bijadosha, Ayurved

INTRODUCTION

Obesity is a complex, multifactorial, and largely preventable disease[1], affecting, along with overweight, over a third of the world's population today [2,3]. The fundamental cause of obesity and overweight is an energy imbalance between calories consumed and calories expended. Globally, there has been an increased intake of energy-dense foods that are high in fat and sugars; and an increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization[4]. If secular trends continue, by 2030 an estimated 38% of the world's adult population will be overweight and another 20% will be obese[5]. Obesity is typically defined quite simply as excess body weight for height,but this simple definition belies an etiologically complex phenotype primarily associated with excess adiposity, or body fatness, that can manifest metabolically and not just in terms of body size[6]. The amount of excess fat in absolute terms, and its distribution in the body - either around the waist and trunk (abdominal, central or android obesity) or peripherally around the body (gynoid obesity) - have important health implications[7]. A central distribution of body fat is associated with a higher risk of morbidity and mortality than a more peripheral distribution[8]. Obesity greatly increases risk of chronic disease morbidity—namely disability, depression, type 2 diabetes, cardiovascular disease, certain cancers and mortality. In ayurveda, obesity is considered as Sthaulya and Medo roga. Sthaulya is classified in three types – Hina, Madhyam and Adhika Sthaulya. There are many updravas created by Sthaulya which are described in different Ayurvedic texts. Various types of chikitsa is described in different texts to treat Sthaulya, mainly these four chikitsa siddhantas are used - Nidan parivarjan, Karshana guru aptarpan chikitsa, Sanshodhan chikitsa, Sanshamana chikitsa. Obesity can be seen as the first wave of a defined cluster of non-communicable diseases called "New World Syndrome", creating an enormous socioeconomic and public health of 21st century in both developed and developing countries[9]. Obesity is associated with an increased risk of

morbidity and mortality as well as reduced life expectancy and contributes to 2.6 million deaths worldwide every year[10]. Despite certain limitations with its use, there is general agreement with the applicability of BMI measurements for assessing underweight, overweight and obesity in adults. The case for children and adolescents is, however, different because unlike adults, BMI changes significantly with age during these stages of growth. In the late 1970's WHO recommended the use of a growth reference for young children developed by the United States National Centre for Health Statistics .

Nidana

All causative factors described in Ayurveda can be classified into four groups as follows:

1. Aharatmaka Hetu
2. Viharatmaka Hetu
3. Manasika Hetu
4. Anya Hetu

Aharatmaka Hetu

- Atisampurnata
- Adhyashana
- Guru Ahara Sevana
- Madhur Ahara Sevana
- Sita Ahara Sevana
- Snigdha Ahara Sevana
- Navanna Sevana. Viharatmaka Hetu
- Avyayama
- Avyavaya
- Divaswapa
- Atinidra
- Sukh Shaiya Sevana Manasika Hetu
- Harshanityatvat
- Achintanat
- Manaso Nivriti.

Samaprapti

Achrya Charaka and Sushruta have different opinion about Samprapti of Sthaulya.

Charaka has accentuated Ahara as most common pathogenic factor for Medovridhhi in Sthaulya, while Sushruta accepted as Ama Dosha. As Per Acharya Charaka due to obstruction of Srotas by Meda, the Vata moving mainly into Aamashya, augments the Agni and absorbs the food. Thus the obese person digests food speedily and craves for food tremendously.

Over eating produces excessive growth of Meda Dhatu, this leads to Sthulata. As Per Acharya Sushruta Aama Rasa is produced due to Kapha Vardhaka Ahara, Adhyasan, Divaswapna. The Madhur Bhava Ama Rasa moves within the body. The Snigdhansha of that Ama Rasa lead to Medo Vriddhi, which produces excessive tubbiness.

Rupa

- Ayushohrasa (Diminution of life span)
- Javoparodha (Lack of enthusiasm)
- Kriccha Vyavaya (Difficulty in sexual act)
- Daurbalya (General debility)
- Daurgandhya (Foul smelling of body)
- Swedabadha (Distressful sweating)
- Kshudhatimatra (Excessive hunger)
- Pipasatiyoga (Excessive thirst)

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

- Amaroga
- Apachi
- Arsha
- Atisara
- Bhagandara
- Jwara
- Kamla
- Kasa
- Kustha
- Mutra Kriccha
- Prameha
- Prameha pidika
- Shlipada
- Sanyasa
- Udarroga
- Urusthambha.

Samrapti

According to Charaka, due to avarana (obstruction) of all the strotas (channels)

by the meda, there is vriddhi of kosthasthit samana vayu, which in turn causes ati sandhukshan of jatharagni. The increase in jatharagni leads to rapid digestion of consumed food and leaves the person craving for more food. If at all due to some reason the

person doesn't receive more food the increased agni causes dhatu pachan which may lead to various complications. But because of the hunger the persons tend to eat more and the cycle continues. In this way it becomes a vicious circle creating excessive improperly formed medo dhatu, giving various symptoms. Because of such a condition of strotorodha, the other dhatus are not nourished properly causing shaithilya (flabbyness due to excess of water element) of dhatus prior to meda dhatu and depletion of dhatus next to medo dhatus. According to Sushruta, Kaphavardhaka ahara, Adhyasana, Avyayama, Diwaswapna etc. leads to formation of aama rasa i.e. Apachit Adya Rasa Dhatu. The madhur bhavayukta aama rasa moves within the body, the snigdhansha of this aama rasa causes strotosanga which leads to Sthoulya.

DISCUSSION

Modern Review

In 21st century obesity is emerging as an important health problem in world. In all over the world about 1.9 billion adults are overweight. In India 10% of population are affected by morbid obesity i.e. BMI above 40. Obesity is a medical condition in which excess body fat accumulated to an extent that it may have negative effects on health of an individual.

Substantial evidence suggest at the energy intake and body weight is regulated by both endocrine and neural component that ultimately influence the energy intake and expenditure .This complex regulatory system small imbalance between energy intake and expenditure ultimately have large impact on body weight.

Etiological Factors

a. Physiological – Observed temporarily during puberty, pregnancy

b. Pathological – It is again divided into three viz

1. Exogenous – Caused due to overeating & physical inactivity

2. Endogenous –Due to Endocrine disorders i.e. Cushing's Syndrome, Hypothyroidism,
Polycysctic ovarian syndrome, Hypoglyceamia, Frohlich's syndrome, etc.

3. Idiopathic – When every possible causative factors of Obesity has been investigated and find out.

Pathogenesis of Obesity

There are three main factors in the pathogenesis of Obesity:

1) Excessive lipid deposition
2) Diminished lipid mobilization and
3) Diminished lipid utilization.

1. Excessive lipid deposition is due to rised food intake. Increased food intake in form of Carbohydrates, Proteins and Fats by metabolic process lastly converts in Fat and get stored at fat depots.
2. Diminished lipid mobilization is due to decrease lypolytic hormones or defective cells or abnormality of autonomous innervation. Thyroxin and Adrenaline stimulate mobilization of unsaturated fatty acids from adipose tissue, this abnormality causes diminished lipid mobilization and excessive lipid deposition, ultimately leading to Obesity.
3. Diminished lipid utilization is due to ageing, defective lipid oxidation, defective theromogenesis or physical inactivity. It is the main pathology in middle age Obesity.

Manifestation of Obesity

In the Modern medical science, the sign and symptoms of Obesity are

Sign of Obesity

- Weight gain- more than 20% of normal body weight.
- Body mass index- >30 kg/m2 called obese.
- Skin fold thickness - More than 20 mm in a man and 28 mm in a woman.
- Waist hip ratio –Waist hip ratio >1 in males and >0.8 in females, known as Obese.
- Waist circumference- >102cm in males and >88 cm in females.

Symptoms of Obesity

- General lassitude
- Day time hypersomnalism
- Protuberant abdomen
- Dyspnoea on exertion
- General lassitude
- Menstrual disturbance and sterility in fatty female
- Depression
- Snoring
- Sleep apnoea.

Complications

Complications associated with Obesity are as below:

- Cardiovasculer system • Coronary heart disease • Myocardial infarction • High blood pressure.
- Respiratory system • Asthma • Bronchitis
- Gastro intestinal system • Fatty liver disease • Cholelithiasis
- Reproductive system • Menstrual disorders • Infertility • Polycystic ovarian syndrome • Complication during pregnancy.

Treatment of Sthaulya (Obesity)

As Described In Ayurveda According to Acharya Charaka, such actions, which maintain the equilibrium of Dhatus, constitute the treatment of diseases. Acharya Charaka has further amplified the scope of the term Chikitsa. According to him, the aim of Chikitsa is not only at the radical removal of the causative factors of the disease, but also at the restoration of the Doshika equilibrium". So, the first line of treatment for Sthaulya is to avoid those factors which are responsible for the causation of Sthaulya. All the factors, having Snigdha Guna dominance in general should be avoided. Nitya Langhana therapy & Langhana even in Shishir Ritu is advised for the patients of Sthaulya by Vagbhatta. Then types of Langhana therapy i.e. Vamana, Virechana etc. are advised for practice according to Vyadhibala & Dehabala by Charaka .Amongst Shadavidha Upakramas, Langhana & Rukshana therapies are more suitable for the management of Sthaulya. Vagbhatta included all therapies under two main headings i.e. Langhana & Brimhana. Langhana, the line of treatment for Sthaulya has been further divided into Samsodhana & Samshamana.

Samsodhana :- All Sthula patients with Adhika Dosha & Adhika Bala should be treated with Samsodhana therapy, including Vamana, Virechana, Niruha, Raktamoksana & Sirovirechana.

Shamana:- The therapy which neither expels the Dosha from body nor disturbs the homeostasis of Dosha is called Shamana & is of seven types ie. Pachana, Dipana etc.. Among the Shat Upakramas, Langhana & Rukshana can be administered in them.

Principals of Dietetic and Physical Management In Obesity

1. Diet therapy
2. Physical exercise

Diet therapy Energy : For a sedentary worker, 20kcl/kg of body weight is preferred .while 25 kcal for moderately active worker.

- Protein: There is about 0.8 – 1 gm /kg is prescribed for tissue repair and for specific dynamic function.
- Carbohydrates: The Carbohydrate reach foods like potatoes, rice, sugar in empty stomach and fruits like banana should be avoided in meal.
- Fat: For reduced weight, low fat less, should be given while nuts oil seed rich in fat should be avoided. Skimmed milk should be preferred as diet.
- Vitamins: There is supplementation of fat-soluble vitamin – A and D is necessary.
- Fluid: A glass of water before meals helps to cut down food intake.
- High fibre: The High fibre and low calorie foods like green leafy vegetable, fruits, vegetables salads, whole grain cereals and pulses can be included in the diet.

CONCLUSION

Ayurveda, has described Sthaulya, nidaan of Sthaulya, Lakshanas, updravas, pathogenesis and its management. In sanshodhan chikitsa –Vamana, Virechana, Nirooh basti prayoga Karshan nasya prayoga is mentioned as it works, to eradicate excessive Doshas from body. In Sanshaman chikitsa various aushadhis are used for the management of Sthaulya like diiferent churna, Kwatha, Vati, Asava – Arishta, etc. And it has been seen by various researches that if these medications taken properly with balanced diet and nidaan parivarjan is done then they give very better results.

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