

AN OBSERVATIONAL STUDY OF ETIOPATHOLOGICAL FACTOR OF MEDO ROGA
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ABSTRACT

Medoroga and Sthaulya (obesity) is considered as synonyms in *Ayurvedic samhita* on various places. It is characterized by excessive deposition of *meda dhatu* (~ adipose tissue) and *mansa dhatu* specially in particular part of body hips abdomen and breast create superfluous mobility of *sphiga, udara, stana*, and abdominal extension, the metabolism (anabolism) of that kind of stout patient bothered, patient suffering from lack of interest i.e. deprived mental status. Obesity is often expressed in terms of body mass index (BMI). Overweight is usually due to obesity but can arise from other causes such as abnormal muscle development or fluid retention. There are several causes like sedentary life style, lack of exercise, faulty dietary intake, excessive intake of sweet, stress, psychological and genetic etc. To prevent this troublesome problem, it is necessary to avoid most of the Etiological factors which are the main preventive measures. Obesity like Metabolic syndrome has received increased attention more and more in the past few years.

KEYWORDS: Obesity, Medoroga, Sthaulya.**INTRODUCTION**

Since the Vedic period, healthy and long life has been praised. Must be maintained, otherwise man can't be healthy. The important concept of Ayurveda is keeping of good health. WHO defines good health as not merely disease-free State, but as a state of complete physical, mental, and social well-being. Charaka and Sushruta defined it as the only way to accomplish the ultimate goal among chaturvidha purushartha. Sushruta further said that Madhyama Sharira is finest but Ati Sthula or Ati Krishna Sharira always may have some complaint. Sthoulya vyadhi is explained in Santarpanajanya Vyadhi in Ayurveda and Atisthoola purusha has been considered as one of the Asthanindita purusha. Meda or fat is one of these dhatus, which serves many purposes, important of which is to create and maintain body-heat, which keeps us alive. Meda also protects delicate structure of our body from any injury etc. Meda gives necessary supports to skeletal structure of our body and brings about necessary form or shape to our body.

Charakacharya described the features of healthy body, having equal distribution of Mamsa meda etc (muscular tissue, Adipose tissue) and properly distributed build up. But now a day, Most of the individuals are habituated to luxurious and comfortable lifestyle lead to various chronic and non-communicable diseases. Hypertension,

Diabetes millets, ischemic heart disease, varicose veins, atherosclerosis, cancer etc. are recognized as major non-communicable diseases for which Sthoulya (Obesity) is traced to be a major risk factor. Sthoulya is the commonest nutritional disorder in affluent societies and mostly prevalent in developed countries.^[1,2]

In Ayurveda, Sthaulya has been described since very early days in various Samhitas, Sangraha Granthas etc. as Charaka has described Sthaulya among the eight most unwanted diseases (Ch. Su. 21) and Samtarpanajanya Roga (Ch. Su. 23). In pathogenesis of Sthaulya, Kledaka Kapha, Samana & Vyana Vayu, Meda (fat /lipid) and Medodhatvagni Mandyata are main responsible factors.

According to W.H.O 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese.^[3]

35% of adults aged 20 and over were overweight in 2008, and 11% were obese. In 2011, more than 40 million children under the age of five were overweight. Overall more than one in ten of the world's adult population was obese and women more likely to be obese than men.^[4]

In modern medical science Sthoulya may be compared with Obesity. Enlargement of fat cell in its size or an increase in number or both leads to an abnormal growth of adipose tissue, which is known as Obesity. In such condition body fat is extensively accumulated under the skin and around certain organs such as belly, buttocks, breast, thighs and individual becomes significantly overweight.^[5] It has been categorized as AtiSthoulya (Obesity). Sthoulya is thus abnormal and excess accumulation of medodhatu. Muscles, bone, fat and water in the body increases body weight excessively and labelled as Sthoulya. Sthoulya (overweight and obesity) is major risk factors for number of chronic diseases such as coronary heart disease (CHD), High Blood Pressure, Stroke, Diabetes, Cancers, Osteoarthritis etc.^[6]

Metabolic syndrome is group of risk factors that raises risk for cardiovascular diseases and other health problems. The coronary arteries supply oxygen-rich blood to your heart. If Body Mass Index (BMI) rises the substance called plaque block the coronary arteries and reduce the blood flow and causes heart failure. Similarly, if you are Sthoulya, there are greater chances of high blood pressure. The risk of having a stroke rises as BMI increase. Most people who are Sthoulya (Obese) have type 2 – Diabetes. In Sthoulya people, osteoarthritis is a common joint problem of knee, hips and lower back. People having Sthoulya are at increased risk of having gallstones. In women Sthoulya may develop menstrual problems and infertility. In children, there is higher risk of disability in adulthood or even pre-matured death. The common way to find out whether you are Sthoulya or AtiSthoulya is to calculate your Body Mass Index (BMI).

Once considered a problem in high-income countries overweight and obesity are now dramatically on the rise in low-and middle-income countries, particularly in urban settings. Of late Sthoulya has also become problem of concern in under developed and developing countries. Recently, it has been reported that Sthoulya level in poor families of lower income group people in the under developed countries has gone higher than those of people in the well developed countries like United States of America, United Kingdom, Japan, Germany etc.

The Hetus (causes) of Sthoulya Roga have been clearly explained in Ayurveda.^[7] A lack of energy balance most often causes Sthoulya (Obesity). Energy balance is the amount of energy or calories you get from food and drink etc. which is equal to the amount of energy your body uses for things like breathing, digesting and being physically active. To maintain a healthy weight your energy or calories taken in and calories used do not have to balance every day. It is the balance over time that helps you maintain the healthy weights.

Definition of Obesity according to World Health Organization: Overweight and obesity are defined as

abnormal or excessive fat accumulation that presents a risk to health. A crude population measure of obesity is the Body Mass Index (BMI), a person's weight (in kilograms) divided by the square of his/her height (in meters). A person with a BMI of 30 or more is generally considered obese. A person with a BMI equal or more than 25 is considered as overweight.^[8]

Life-style diseases characterized those diseases whose occurrence is primarily based on the daily habits of people and are the result of an inappropriate relationship of people with their environment. The main factors contributing to lifestyle diseases include bad food habits, physical inactivity, wrong body posture and disturbed biological clock. A report jointly prepared by World Health Organization and the World Economic Forum says India will incur and accumulated loss of 236.6 billion by 2015 on account of unhealthy life style and faulty diet. According to the reports 60% of all deaths world wide in 2005 (35 million) resulted from non-communicable diseases and accounted for 40% of premature deaths. Of these around 80% of death will occur in middle income countries like India.^[9]

According to the survey conducted by Associated Chamber of Commerce and Industries (ASSOC-HAM), 68% of working women in the age (of 21 to 52 yrs) were found to be afflicted with lifestyle ailments such as Obesity, depression, Chronic backache, Diabetes mellitus and Hypertension.^[9] The concept of Obesity has been known since ancient world; the current standard definition of obesity was endorsed only about a decade ago.

Overweight was defined as weight that exceeded the threshold from the reference value where reference value was derived from the distribution of population based on observed association of body weight with mortality.^[10]

MATERIAL AND METHODS

Sthoulya or obesity is a disease which occurs due to inappropriate functioning of BMR affecting Endocrine system. Some specific type of lifestyle which increase kapha and dietary habit which is disturbed due to intake of excessive oil, junk food items etc. And sedentary life style, some hereditary causes are the precipitating factors of causing disease like sthoulya (Obesity). The factors like- dietary history and life styles which play major role in precipitating any of the disease. Along with them hereditary factors & Mental issues are severely responsible for the occurrence of the disease. It has been noted that this disease with its complications like Hyperlipidaemia, Atherosclerosis and Degenerative Heart Disease is a major cause for mortality and morbidity not only in western countries but in India too. Review of Ayurvedic and modern literature to find out the causes of sthoulya in different aspects such as life style disorders, mental issues, secondary causes etc.

Aims & Objectives

- To Evaluate the Etiological Factors of Classical Ayurvedic Text
- To Evaluate the Etiological Factors of Contemporary Medical Science

Study Design

Content of Material was collected from the Ayurvedic text books, Morden Science, Websites, and Journals etc.

This is an observational study, Clinical Etiological factors evaluation was done on 40 patients from OPD/IPD of P.G. Deptt. Of Roga Nidan evam Vikriti Vigyan, Govt. Ayurvedic & Hospital College, Varanasi.

OBSERVATION AND RESULT**According to Ayurvedic texts-**

- H/o taking Atisampurnaad in 17 patients (42.5%),
- Guru Madhur Sheet Snigdha arah in 38 patients (95%),
- Avyayaam in 27 patients (67%),
- Avyavaaya in 15 patients (37%),
- Atiswapnaad in 34 patients (85%)
- Harshniyatvaat in 32patients (80%)
- Achintnaad in 27patients (67%)
- Beejswabhawaad in 30 Patients (75%)

According to contemporary Modern Science- some causes and Sign and Symptoms

- Breathlessness in 30 pt- 75%
- Overweight- 40 Patients- (100%)
- Excessive sleep – 34patients – (85%)
- Tiredness – 30patients- (75%)
- Excessive Sweating 19 Patients – (47.5%)
- Stress free –27 patients- (65.5%)
- Stress full- 13patients (32.5%)

Risk Factors

- Junk food- 28 patients- (70%)
- Oily and spicy food- 27 patients-(65.5%)
- No Exercise –27 patients-(65.5%)
- Excessive sleep- 34 patients-(85%)
- No mental stress- 27 patients-(67.5%)
- Age factor – more than 40 years and less than 65 age group of people are more obese

DISCUSSION

Above study on Etiological factor is suggestive that after examined causes of obesity (sthulya) on 40 patients are much more similar to the contemporary medical sciences and our classical Ayurvedic texts.

These etiopathological factors were observed in 40 patients, are discussed as follows.

This is the Demographic study. It is beneficial in the prevention and the management of obesity after getting the percentage of improper diet habits and life style we

can advise the patient how to prevent the causes of obesity.

- Atisampurnaad in 17 patients (42.5%), In it last one quarter part of vayu gets occupied by the food which in turn disturbs the digestion leading to 'kapha prakopa' and 'aamnirmiti'.
- Guru substances are dominant in earth and water element in composition. It is found in 38 patients (95%), thus, they are heavier to digest and by 'Samanya-Vishesh Siddhant' (Theory of Similarity and Dissimilarity) lead to accumulation of kapha dosha and production of adipose tissue. Madhura rasa is saatmya to our body from the birth itself. If matravat upyog is done, it leads to 'Ayushya', 'Jeevan'. But if used in excessive quantities, it leads to meda and sleshma vrudhijanya vyadhis like Sthoulya. Snigdha/Unctuousness is one of the attributes of water element. It acts as Vatahar and Sleshmakari
- Vyayam leads to lightness, ability to work, increase in digestive power and loss of excessive adipose tissue. Catabolic activity which is generated by vyayam is low in a person living luxurious sedentary lifestyle and not doing any physical exercise. Avyayaam in 27 patients (67%) So, there is more tendency of accumulation of kapha and meda leading to Sthoulya.
- Avyavaya (lack of sexual intercourse) in 15 patients (37%), creates stagnation of adipose tissue, and in turn causing increase in adipose tissue. Secondly vyavaya needs sankalpa (mental resolve) and conversely avyavaya means lack of 'sankalpa'. This condition leads to increase in tamoguna. Tamo guna is heavy in nature and kapha increasing.
- Atiswapnaad in 34 patients (85%) acharyas considered it as a kapha prakopak hetu and a santarapak hetu.
- Harshniyatvaat in 32patients (80%). Being happy all the time is one of the measures, which relieve karshya. In such a condition kapha dosha is increased and dhatus get over nourished.
- Achintnaad in 27patients (67%) Achintanat is 'lack of tensions and worries' or 'thoughtless mind'. Achintana, Harshanitya, Manasonivritti greatly contribute for nourishment
- Beejswabhawaad in 30 Patients (75%) Acharya Charaka has specifically mentioned beejdosha as the nidana for Sthoulya and Chakrapani comments over it as "ati sthula mata pitru shonita shukra swabhavat"
- Irregular diet and life style causes obesity and increased strain leads to Sthaulya. Irregular Ahara-Vihar causes Agnimandya, which produces Apakva rasadhatu "Ama" the main cause of SrotoAvarodha, in turn leading to increase weight.
- Due to irregular Ahar Vihar and sroto avarodha uttarottar dhatus become weak and cause dhatu chhayajanya.

- Discomfort in normal routine work, sometimes weakness and obesity is the major cause of different other major cardiac disorders, dyslipidaemia, heart attack etc.:

CONCLUSION

This observational study on Etiological factor plays major role in the management and prevention of Sthaulya. Ayurveda has emphasized on all the important factors of any disease like *Nidana* (cause), Clinical sign and symptoms, *Samprapti* (pathogenesis), and *Chikitsa* (treatment) etc. Nidan is one of the major factors which are responsible to start the diseases. Proper evaluation of the actual cause of the disease, are applicable to diagnose and may fulfill the primary management i.e. Nidan Parivarjana of that particular Disease. Depending on the stage of the disease and other essential parameters, different treatment modules have to be incorporated. Thus, the quality of life is greatly improved. Assessment of Nidan of any disease is therapeutically as well as diagnostically important.

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