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# **Review Article**

# STHOULYA AND ITS PREVENTION IN AYURVEDA

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#### ABSTRACT

Sthoulya is an abnormal and excess accumulation of medodhatu. Frequent and excess intake of foods which increase kapha and medodatu, sedentary lifestyle, lack of mental and physical exercise are the most common etiological factors. Sthoulya can also occur due to beejadosha i.e. hereditary causes. In Western medical science Sthoulya can be compared with Obesity. It is a chronic disease, prevalent in both developed and developing countries and affecting children as well as adults. It is now so common that it is replacing more traditional public health concerns including undernutrition. It is one of the most significant contributions to ill-health. As obesity not only reduces the life span of an individual but also leads to life threatening complications like stroke and ischaemic heart disease (IHD), Prevention of this condition is the need of the hour. Prevention of obesity can be done initially in early stage of life by adopting regimens mentioned in Ayurvedic classics. As secondary prevention following rutushodhana, shamanoushadhis and pathyapathya is highly beneficial.

Keywords: Obesity, Sthoulya, Prevention

#### INTRODUCTION

Sthoulya is a condition wherein there will be ayatopachaya of shareera associated with abnormal increase in medodhatu. Charaka samhita gives one of the best definitions of Sthoulya as –

" Medomamsa ativrudhatvat chalasphik udara stana Ayathopachaya utsahonaro atisthulauchyate "<sup>1</sup>

The increase of the medo and mamsa dhatu causes flabbiness and thus movement of the abdomen, buttocks and breasts. This improperly formed medo dhatu causes utsahahani in the individual; such a person is called atisthula<sup>2</sup>. In Western medical science Sthoulya can be compared with Obesity, Obesity is an abnormal growth of the adipose tissue due to an enlargement of fat cell size or an increase in fat cell number or a combination of both. Nidana of Sthoulya can be broadly classified into bahyanidana and abyantaranidana. Bahyanidana includes ahara, vihara, manasika nidana while abhyanthara nidana includes beejadusti. Nidana's of sthoulya can be summarised aharajanidana, viharajanidana, bijadoshaswabhavat. manasikanidana and Aharajanidana's are adhyashana (eating when the previous food is not digested), atisampurana (over eating), atibrumhana (eating foods high in calories), guru ahara (foods which are heavy to digest), madhuraahara (foods having sweet taste), snigdhaahara (oily foods), sheetaahara (cold foods), navanna (freshly harvested grains), navamadya (freshly prepared alcohol), gramya rasa (domestic animal's meat and soups), payavikara (milk and it's preparations like curd, ghee), ikshuvikara (sugarcane and its products), guda (jaggery), godhuma

(wheat ), mashasevana (black gram). Viharajanidana's are avyayama (lack of physical exercise), avyavaya (lack of sexual intercourse), divaswapna (sleeping during the day time), asana sukha (remaining seated for a long time), bhojanottarasnana (bathing after taking swapnaprasangat (excessive sleep). Harshanitya (always being cheerful), achintana (lack of heavy mental activities), priyadarshana (constantly seeing those things which are liked), manasonivritti (relaxation of the mind) and saukhya (happiness) are manasikanidana's<sup>3</sup>. Charaka samhita mentions the cardinal symptoms of Sthoulya as medomamsaativruddhi (excessive accumulation medaandmamsa), chalasphik, udara, stana (flabby buttocks, abdomen, breasts due to excessive fat deposition), ayathopachaya-anutsaha (improperly formed medodhatu causes utsahahani in the individual)<sup>1</sup>. Besides the lakshana, eight detrimental effects of Sthoulya have also been explained as follows ayushohrasa (diminution of lifespan), javoparodha (lack of interest in physical activity), kricchravyavaya (difficulty in having coitus), dourbalya (debility), dourgandhya (unpleasent smell from body), swedaabadha (excessive the kshudhatimatra (excessive hunger) and pipasatiyoga (excessive thirst)<sup>4</sup>. Some of health hazards mentioned in western medical science for obesity are hypertension, diabetes mellitus, coronary artery diseases, stroke, hyperlipidaemia, varicose veins, abdominal hernia, lowered fertility, gall stones. Charaka samhita has mentioned the bad prognosis of Sthoulyaas, an obese person if not duly managed, will die soon due to excessive hunger, thirst and other complications<sup>5</sup>. Over weight is associated with an increased rate of mortality at all ages. The level of excess mortality varies more or less in proportionate to the degree of obesity. Obesity can be assessed by assessing tools like body weight, body mass index, skin fold thickness, waist-hip ratio. Overweight and obesity have reached epidemic proportions in India in the 21<sup>st</sup> century affecting 5 % of country's population<sup>6</sup>. As many as two-thirds of adults in developed nations are overweight or obese. Recent surveys show that there are more than 1 billion obese adult's worldwide<sup>7</sup>. India ranks among the top 10 obese nations of the world and about one million urban Indians are overweight or obese. No wonder that the World Health Organization has concluded that obesity is the major unmet public health problem worldwide<sup>8</sup>. Obesity is a health hazard and detriment to well- being which is reflected in the increased mortality and morbidity. The most fundamental and perhaps important task in to combat the epidemic of obesity is prevention.

#### Prevention

Prevention is defined as the art and science of health promotion, disease prevention, disability limitation and rehabilitation<sup>9</sup>.

## Levels of prevention

- Primordial: prevention of development of risk factors in countries or population group in which they have yet not appeared.
- Primary prevention: action taken prior to the onset of disease, which removes the possibility that a disease will ever occur.
- Secondary prevention: action which halts the progress of the disease at its incipient stage and prevents complications.
- Tertiary prevention: all measures available to reduce to limit impairments and disabilities minimize suffering caused by existing departure from good health to promote patients adjustment to irremediable conditions.

Even Ayurvedic classics have also explained these levels of prevention. Ayurvedic principles give more importance to prevention of diseases rather than curing them after its manifestation<sup>10</sup>. This concept has gained popularity in Western medical science in recent days. Certain diseases are better to be prevented rather than to be cured. For instance obesity, as it affects other major systems of the body in later phases and may turn out to be fatal. Henceforth for the prevention of diseases a continuous intervention is needed. In the santharpaniyaadhyaya of Charaka samhita, the term 'pratikarma' is used for the prophylactic treatment<sup>11</sup>. Primordial prevention can be achieved by discouraging the individuals from adopting harmful lifestyles and making them to adopt Ayurvedic health principles through individual and mass education. Various preventive measures explained swasthavritta are the primary prevention of the Sthoulya. General rule in swathavruttapalana is to adopt the food and lifestyle opposite to ones prakruti considering desha, atma<sup>12</sup>. kala and Swasthavrittapalana includes: rutucharva, dinacharya, nishacharya, sadvritta, adharniyavegaadharana, dharaniyavegadharana, rasayana and vajikarana. Primary prevention in terms of ahara can be achieved by encouraging consumption of katu, tikta,

kashaya rasa and ruksha foods and drinks, consumption of more shakavargadravya (leafy vegetables), intake of food in proper quantity with all nutrients, drinking water before taking food, drinking madhoodaka (honey mixed with water) after food. Primary prevention in terms of vihara can be achieved by adopting physical exercises and brisk walk as a part of daily routine, undergoing rutushodana and udvartanam. Avoidance of adhyasana (taking food before digestion of previous food), avoidance of excessive consumption of madhura rasa food (carbohydrate and fats/energy dense food), not consuming food when tired, angry or worried, secondary prevention can be achieved by early diagnosis and early treatment. Early diagnosis should be based on the signs and symptoms of Sthoulya. Early treatment consists of pathyapathya followed by shamanoushadis and yoga practice. Pathya consists of dravyas having the properties of vata, kapha and medahara like yava (Hodium vulgare), kodrava (Paspalum scrobulatum), mudga (Phaseolus radiatus), kulatha (Dolicus biflorus), patola (Trichosanthus cucumerine), shyamaka (Echinochloa frumentacea), cabbage, carrot, bitter gourd, leafy vegetables and honey. Using shamanaushadi's which consists of guduchi (Tinospora cardifolia), mustha (Cyperous rotundas), triphala, vidanga (Emblica ribes), nagara (zingiber officinal), vavakshara and preparations like takrarista, triphala guggulu, amrutadya guggulu, navaka guggulu, vyoshadi guggulu are beneficial. Following some of the yogic postures like suryanamaskara, paschimotasana, bhujangasana, sarvangasana, katichakrasana, naukasana, halasana are useful. Panchakarma procedures like lekhanabasti, rukshakashaya bastis are apt in secondary prevention of Sthoulya. One should avoid intake of food articles which aggravates kapha and meda. Shodhana modalities like virechana, teekshna lekhaneeya bastis along with proper diet and exercises will help in tertiary prevention of Obesity.

#### DISCUSSION

Ahara and viharatmaka nidanas mentioned for Sthoulya causes aggravation of kapha and are responsible for medovriddhi. These factors are contributing to get obesity in persons who have tendency to gain weight due to genetic predisposition (beejadusti). The concept of santarpaka (over nourishment) ahara and vihara, when viewed with western medical science, then it can be interpreted that the nidana, which are explained, are nothing but the high caloric foods and sedentary life styles. The life span of an obese person decrease proportionally with increase of BMI. As a result there will be increased chances of developing complications like stroke, IHD. Hence prevention of Sthoulya is very much essential. Among the different levels of prevention mentioned in western medical science, are all applicable in obesity. The primordial prevention of obesity aims at general education about the different aspects of the disease like causes, complications and prevention to the public. Since obesity is having its early origin from childhood, modifications in lifestyle like alterations in eating patterns, adopting physical exercises and prevention of addictions can be undertaken. Primary prevention is most useful in people having positive family history. This level of prevention can be adopted through controlled diet, regular physical exercises, avoiding day sleep. The secondary prevention can be implemented to prevent the further stages of obesity after its manifestation. Regular exercise, diet control along with various treatment modalities is adopted which help in controlling, reducing the complication. Following purificatory therapies limit the impairments and minimize the disabilities. Thus this acts as an effective tertiary preventive method.

# **CONCLUSION**

Sthoulya is a disorder of santarpananidana with the involvement of mainly medodhatu and kaphapradhana tridosha. The main line of treatment is nidanaparivarjana and apatarpana. Apatarpana consists of dietary regimens, treatment modalities which decreases the fat from the body. Ayurvedic classics mentioned about prevention of obesity in early childhood itself. Successful prevention requires broader efforts by families, schools and communities. One has to adopt Ayurvedic preventive aspects from early childhood and also in day-today practice to prevent obesity. Ayurveda provides first line of help in dealing with people with a genetic predisposition to obesity and in the management of the risk factors. With its detailed understanding of diet and lifestyle for each individual's prakruti (constitution), Ayurveda has a better role to play in the prevention of obesity.

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