



A Review Article on Diagnosis and Management of Sthaulya W.S.R. Obesity

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Abstract

Acharya Bhavamishra said that a person having heaviness and bulkiness of the body due to excessive growth, especially in abdominal region is termed as Sthula and the state of Sthula is called as Sthaulya. Obesity as a common chronic disorder of abnormal fat metabolism and excessive accumulation in whole body or specific parts of the body predominantly. According to WHO in 2025, it is projected that 2.7 billion adults would be overweight, over 1 billion people will be obese, and 177 million people will be severely affected by obesity if current trends continue. The burden of obesity increases in the global population and is projected to increase by 2050 in the urban areas of developing countries. Due to faulty eating and lifestyle habits all are causative factors of Medoroga (~Obesity).

Rooksha Udvartana, vama, Virechana, Lekhan basti and Shamana aushadha along with pathya sevan are effective in the management of obesity.

Keywords: Sthaulya, Obesity, Medoroga, Sanshaman Chikitsa.

Introduction

Ayurved acharya Cahrak and Sushurat has mentioned Atisthaulya (Obesity) under Ashtauninditiya purusa, Santarpanjanya, Medodhatudustivikar [i] and Rasa Nimittaja Vyadhi[ii]. Madhava Nidana is the first text book which has dedicated a separate chapter for the discussion of obesity under the label Medoroga and used Medosvina, Atisthula and Sthula words as synonym. Acharya Bhavamishra, a person having heaviness and bulkiness of the body due to excessive growth, especially in abdominal region is termed as Sthula and the state of Sthula is called as Sthaulya[iii]. In contemporary medical science it is compared with obesity and defined as excess body and visceral fat

that poses diseases risk. World Health Organization (WHO) defines Obesity as a common chronic disorder of abnormal fat metabolism and excessive accumulation in whole body or specific parts of the body predominantly, which has become a global epidemic in present time not only in the industrialized world but also in many developing and even in underdeveloped countries. It is not only one among the eight undesirable physical status, but also the most severe and untreatable form of them. Worldwide obesity has nearly tripled since 1975. In 2016, more than 1.9 billion adults, 18 years and older, were overweight of these over 650 million were obese [iv]. The burden of obesity increases in the global population and is projected to increase by 2050 in the urban areas of developing countries. Obesity in the urban populations of developing countries is predicted to double by 2030[v]. According to the W.H.O., Overweight and obesity are the fifth leading risk factor for global deaths. In 2022, 1 in 8 people in the world were living with obesity. Between 1975 and 2016, the obesity rate almost tripled globally. By 2025, it is projected that 2.7 billion adults would be overweight, over 1 billion people will be obese, and 177 million people will be severely affected by obesity if current trends continue [vi]

Various affords have been used by number of people to find out effective solution for treatment of obesity. Unfortunately, drugs used to treat me disease in modern medical science have several side effects and have chance of weight gain again after certain time limit of medication stoppage. The surgical treatment for obesity is very costly. So Ayurveda researchers have tried to find out solution of sthaulya treatment with standard effective guideline.

Measurement of Sthaulya (Obesity)

According to the Ayurveda^[i]

1. Ayushohrasa (Diminution of life span): In Sthool, due to Srotorodha, only Dushta Meda Dhatu gets nourished, it cannot nourish the uttar Dhatu. Healthy long-life depends upon Sarbhut i.e. 'well nourished' seven Dhatu.
2. Javoparodha (Lack of enthusiasm): Shaithilya (flabbiness), Saukumarya (delicacy) and Guruta (heaviness), early signs of senility.
3. Kriccha Vyavaya (Difficulty in sexual act): Due to malfunctioning of dhatu-'Indriyatarpan' (nourishment of Indriya) hampers resulting in lack of sexual desire in the subject.
4. Daurbalya (General debility): Malnourishment of these Dhatu; malfunctioning is observed. Main function of Rasa Dhatu is preenan i.e. providing nourishment to the other Dhatu, is greatly affected which causes Daurbalya.
5. Daugandhya (Foul smelling of body):Vikrut Kapha Dosha is mixed with Meda Dhatu in the form of Kleda and vitiated earth and water in Kleda (especially earth), MedaDhatu and vitiated earth and water in Kleda (especially earth)
6. Swedabadha (Distressful sweating):
7. Kshudhatimatra (Excessive hunger)
8. Pipasatiyoga (Excessive thirst)

According To the Who Measurement of Obesity

The major anthropometric measurement of Obesity includes the;

1. Body Mass Index (BMI),
2. Waist Circumference,
3. Waist Hip Ratio,
4. Skin fold thickness

Body Mass Index (BMI)

Although not a direct measure of adiposity, the most widely used method to gauge Obesity is the body

mass index (BMI).The BMI, which describes relative classification an individual with BMI 30 kg/m² or above is called as OBESE^[iii]

Table 1: WHO classification of BMI

BMI	Classification
< 18.5	Underweight
18.5-24.9	Normal BMI
25.0-29.9	Overweight
30.0-34.9	Class I Obesity
35.0-39.9	Class II Obesity
≥ 40.0	Class III Obesity

Waist Circumference

waist circumference is considered to be a good indicator of abdominal fat, This risk increases with a waist measurement of over 40 inches (101 cm) in men and over 35 inches (88 cm) in women^[iii].

Waist- to- Hip Ratio (WHR)

A WHR greater than 1.0 in men or greater than 0.8 in women is considered obese^[iv].

Skin fold thickness

Using a skin fold caliper to measure percent body fat is another way to determine Obesity. Generally, men with more than 25% body fat and women with more than 30% are considered obese^[v].

Body Fat (%)

The BMI is typically closely correlated with percentage body fat in a curvilinear fashion; some important caveats to its interpretation apply. In view of these limitations, some authorities advocate a definition of Obesity based on percentage body fat. For men, a percentage of body fat greater than 25% defines Obesity, with 21-25% being borderline. For women, over 33% defines Obesity, with 31-33% being borderline^[vi].

Nidan

Aharatmaka Hetu

Ati Sampurna and Adhyasana can be considered as faulty eating habits. AtiSampurnanat means Atibhojana (excess food intake in a single meal), while Adhyasana means frequent food intake before

digestion of a previous meal. In Medoroga, Atimatra bojana provoke the Tridosha^[vii] as well as Ama formation at Jatharagni level, whereas Adhyasana cause Ama formation at Medodhatvagni level. Guru-Snigdha Guna dominant Ahara can increase Kapha as well as Meda Dhatu by Ashrayashryi bhava and Samanya Vriddhi Karanam concept^[viii]. Madhura rasa like Ikshu, Paya, Guda are dominant in Madhura Rasa is considered as Meda aggravating factor and Gramya, Uudaka and Anopa Mamsa have Brimhana karma, Godhuma and Masha have Guru, Snigdha, Sheeta properties and Shleshma Vardhaka, Madya like Varuni Sura and Gaudika are described as etiological factors of Medoroga, Bhojanottara Jalapan has been mentioned as a causative factor of Medoroga by most of the Ayurvedic texts.

Viharatmaka Hetu

Sharirakacheshta or physical activity is termed as Vihara. Avyayama can cause opposite actions of vyayama in the body like Gaurava, Sharira Shaithilya, Agni Vikrit, Alasya, Dosha Vriddhi, Dukha Asahishnuta etc. Avyayam, Divaswapana and Ati Nidra is one of the main causes for aggravation of Kapha. During Nidra and Divaswapana physical activity diminishes which further provokes Kapha leading to Meda deposition. Asana Sukha, Bhojanottara Snana and Gandhamala Sevan and Taila Abhyanga, Snigdha Udavartana and Madhura Snigda Basti^[ix]

Manasika Hetu

Achintana, Harshanitya, Mansonivriti, Saukhyena etc are the psychological factors described by Ayurvedi texts. These factors are Kapha aggravating factors, which in turn aggravates Meda .

Anya Hetu

Only Charaka Samhita has defined Beejadosh as one of the cause besides other. According to Charaka, defect in Beejabhagavayava i.e. part of Beeja, which resembles with chromosomes and genes may lead to defective development of that organ. Bhavaprakasha has mentioned that decreased proportion of Meda and increased proportion of Shukra in Beeja at the time of conception results in development of potent and lean body and conversely increased proportionate of Meda and decreased proportion of Shukra predisposes towards development of stout but weak body^[x].

Purvarupa

Purvarupa of Prameha which can be considered as Purvarupa of Medoroga as well as obesity also, because Bahudrava Shleshma and Abadha Meda are the two components vitiated in pathogenesis of Prameha^[xi] as well as Medoroga or Sthaulya. So, the symptoms of Medovaha Srotodushti like Alasya, Sharira Shaithilya, Anga Daurgandhya, Nidra, Tandra, Javoparodha (Sluggish movement) can be considered as Purvarupa of Medoroga.

Rupa

Excessive accumulation or Meda Dhatu produces various sign and symptoms in Medoroga patients. Charaka has narrated cardinal symptoms or Pratyatma Lakshana of Medoroga as a Chala Sphika, Chala Udara, Chala Stana, Ayatha Upachaya and Anutsah. The cardinal sign & symptoms of Sthaulya as per Charaka are

मेदोमांसातिवृद्धत्वाच्चलस्फिगुदरस्तनः।

अयथोपचयोत्साहो नरः अतिस्थूल उच्यते॥ (Ch.Su. 21 / 15)

Samprapti

Charaka and Sushruta have different opinion about Samprapti of Medoroga. Charaka has accentuated

Ahara as most common pathogenic factor for Medovridhhi in Medoroga, while Sushruta accepted Ama Dosha. According to Sushruta Ama Rasa is produced due to Kapha Vardhaka Ahara, Adhyasan, Avyayama, Divaswapna. The Madhura Bhava Ama Rasa moves about within the body. The Snigdhansha of that Ama Rasa causes Medo Vriddhi, which produces excessive tubbiness. Dalhana, commentator of Sushruta Samhita, has further clarified this concept & has discussed the phenomenon of conversion of Madhura Rasa Dravya into Sneha Dravya leading to adiposity. Commenting on Su.Su.15/37 in his 'Nibandha Sangraha' commentary, he says if indulge in frequent consumption of Shleshmala ahara (Madhura, Guru, Sheet, Snigdha) without undertaking adequate physical activity & rather sleeps for a long time, his Annarasa remains Apakva & become Ama. Medo dhatwagnimandhya takes place due to which the capacity to digest Medamsa by the Medodhatwagni is hampered, leading to the formation of Apakva Meda which is incapable of nourishing the Uttar Dhatu. The Ama Meda gets accumulated in Sarvanga especially in the Sphig-Udar-Stana regions resulting in Medoroga.

Sadhyasadhya

Acharya Charaka has mentioned the bad prognosis of **Medoroga** as if an obese person is not duly managed; he is prone to death due to excessive hunger, thirst and complications^[xii] (Ch. Su. 21/8). Sahaja **Medoroga** can be considered as Asadhya.

Chikitsa

Nidana Parivarjana

Nidana Parivarjana Chikitsa means avoiding all the Aharatmaka, Viharatmaka, Mansika and other factors responsible for the manifestations of a disease.

Samshodhana Chikitsa

Bahir Parijaman Chikitsa

- 1.Udvartana
- 2.Avagaha
- 3.Parisheka
4. Lepa

Rooksha Udvartana like Kaphahara, Medasa Parivilayana, Sthirikarnam Aangam^[xiii]etc property eliminates the samprapti of obesity.

Abhyantar Samsodhan

Sthaulya as a Santarpanjanya Vyadhi and has recommended the use of Vamana, Virechana and Raktamokshana in all Santarpanjanya Vyadhi is including Medoroga. Besides this he has also mentioned Rooksha, Teekshna, Ushna basti for the management. Charaka has contraindicated Snehapana in Sthoola Purusha but at the same time he has mentioned that if Vamana,Virechana etc. Samshodhan therapy is needed to be given to such a patient then he should be given Katu, Tikta, Kashayarasa Pradhana dravyas and then Snehapana can be done followed by Samsodhan therapy. Besides this acharya has also advocated the use of taila due to its Sookshmagamitva property because of which it reduces Margavrodha^[xiv]. Similarly, Niragni Sweda in the form of Vyayama, Atapa Sevan and Upnaha can be recommended in the patient of Medoroga.

'Lekhana Basti' is considered as the best therapy for Medoroga / Medovruddhi. Sharangdhara has given a clear description regarding the properties of Lekhana Dravyas^[xv] and characteristics of Lekhana Basti. Maharshi Kashyapa and Bhavmishra have recommended Raktamokshana for the treatment of Medoroga. Kashyapa has mentioned Karshana Nasya as a treatment for all Kaphaja disorders including

Medoroga. Triphaladi Taila Nasya has recommended the in the patients of obesity^[xvii].

Sanshaman Chikitsa

Aushadha (Drug Therapy)

Single drugs recommended for Medoroga:

Guggulu, Shilajeet, Haritaki, Vibhitaki, Amalaki, Guduchi, Mustak, Vidanga, Shunthi, Shyonaka, Patla, Gambhari, Agnimantha, Apamargakshara, Gomutra, Madhu.

Combined Therapy

Rasa: Parada Bhasma, Trimurti Rasa, Vadvagni Rasa.

Pathya – Apathya

Ahara

Vati/ guggul: Arogyavardhini- Kutaki Vati, Navaka Guggulu, Amritadya Guggulu, Tryodashanga Guggulu, Medohara Guggulu.

Churna: Triphala churna, Vacha churna, Trikatuchurna, Pushkaramula churna.

Kwatha/Asava-Arishta: Mustadi Kwath, Brihat Panchmool Kwatha, Lauharishtha Vidangaasav, Lauhasava.

Lauha Yoga: Vidangadi Lauha and Triushanadya Lauha

Ahara Varga	Pathya	Apathya
Shuka Dhanya	Yava, Venuyava, Kodrava, Nivar,	Godhuma, Navanna, Shali
Shami Dhanya	Mudga, Rajmasha, , Adhaki	Masha, Tila
Shaka Varga	Vruntak, Patrashaka, Patola	Madhurshaka, Kanda
Phala	Kapitha, Jamun, Amalak	Madhuraphala
Dravya	Til Tail, Sarshap Tail, Arishtha Asava, Jirnamadya	Dugdha, Ikshu, Navnit, Ghrita, Dadhi
Mamsa	Rohit Matsya	Anupa, Audaka, Gramya

Vihara

Pathya	Apathya
Shrama	Sheetala Jala Snana
Jagarana	Divaswapa, Svapna Prasanga, Sukha Shaiya
Vyavaya	Avyayama
Chintana	Achintana,
Shoka	Nityaharsha
Krodha	Mansonivritti

Discussion

Acharya Charaka described a person with a balanced proportion of muscles and compactness of the body and firmness in sense organs is not overcome by the onslaught of disorders. Such people can tolerate hunger, thirst, the heat of the sun, cold and physical exercise. Their digestion, assimilation of food and muscle metabolism is in a state of equilibrium. The modern lifestyle in terms of fast foods, increased luxury, lack of physical work, have contributed to the etiology of Medoroga. Manasivritti and Harsanivatva are the main causes but now a day's stress is also a causative factor because it leads to the vigorous demand for the food which causes episodes of binge eating so as to divert the mind which leads to the Medoroga. Medoroga (Obesity) develops due to Brimhana i.e. over nourishment, so for this disease line of treatment should have Medohar, Deepan,

Pachan and Vata- Kapha Shamak and Laghavkar effect. Various Shodhan and Shamana therapy mentioned in Ayurveda is effective for the management of obesity along with Pathya palana.

Conclusion

The Sthaulya is mainly Vata –Kapha dosha related lifestyle disorder since the management of Sthaulya done by reducing the alleviated Vata dosha and Kaphadosha, through change in lifestyle (Ahara-Vihara). So it is wisely said “Longer is the belt shorter is the life”.

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