

## AYURVEDIC MANAGEMENT OF HYPERLIPIDEMIA & OBESITY(STHAULYA): REVIEW ARTICAL

Gupta Payal<sup>1</sup>

Mishra Pramod Kumar<sup>2</sup>

Soni Anamika<sup>3</sup>

<sup>1</sup>PG Scholar , PG Dept. of Kaya Chikitsa, University College of Ayurved, Dr. S. R. Rajasthan Ayurveda University Jodhpur Rajasthan

<sup>2</sup>MD, Ph.d (Ayu.) ,Associate Professor & HOD ,PG Dept. of Kaya Chikitsa, University College of Ayurved, Dr. S. R. Rajasthan Ayurveda University Jodhpur Rajasthan

<sup>3</sup>MD (Ayu.),Assistant Professor ,PG Dept. of Kaya Chikitsa, University College of Ayurved, Dr S. R. Rajasthan Ayurveda University Jodhpur Rajasthan

### ABSTRACT

Obesity, a complex interplay between environmental and genetic factors and is associated with significant morbidity and mortality. It is one of the important risk factor and contributor for cardiac and cerebrum-vascular deaths globally since ancient time. In Ayurveda *AcharyaCharak* described *AshtaNinditaPurusha* and emphasized in detail about two pathological condition viz *Atisthula* and *Atikarshya*. *Atisthulapurusha* is worst among them ,due to its complicated pathogenesis,variable complication and treatment .Obesity exacerbates a large number of health related problems ,both independently and in association with other diseases The basic principles of treatment of *Sthaulya Roga* (Obesity) as described in *Ayurvedic* classics & modern texts of medicine are *Nidanaparivarjana*&*Apatarpanachikitsa* in the form of consumption of low caloric diet and increase in exercise.

*Lekhniyamahakashaya* ,*Varunadigana* ,& other hypolipidimic drugs in the form of *samana*&*shodhanchikitsa* can be used in the treatment of obesity .

**Key word:** - Obesity, hyperlipidemia,*Ashthanindita*, *Apatarpana*,

### INTRODUCTION

In the present era of modernization and fast life, techniques have made people busy hence living stressful life. People are taking more junk and fatty foods, cold drinks, consumption of fast foods having high calories. Availability of every comfort of living has reduced physical activity thus increase in body fats along with cholesterol in the body, which invites the disorders like obesity, dislipidemia, hypertension, heart disease, etc.

Obesity,Hyperlipidemia is recognized as one of the greatest risk factors for coronary artery diseases as well as ischemic heart

disease (IHD). These are the leading causes of morbidity and mortality in developed and developing countries and leading health problems in India also. Obesity is a metabolic disorder, generally occurring in affluent societies, because of imbalance between energy intake and energy expenditure. It is associated with mortality and predisposes to the development of fatal diseases like- Diabetes, Hypertension, M.I, etc. This is annutritional and metabolic disorder .several factors like physical,behavioural, cultural, metabolic, genetic factors are related to obesity.It is also expressed in terms of body mass Index

(BMI). BMI of 30 or more in males and 28.6 or more in females indicates obesity. In Ayurvedic system of medicine, obesity is considered under the title of *Medoroga*, which stands amongst *Astani-ditiyaroga* as *Sthaulyaroga*. *Sthaulya* is a *SantarpanjanyaVikar*.

#### Cause of Obesity (Modern & Ayurveda)

In modern science, Many Cause of obesity is:

1. Genetic factor
2. Environmental factor :- life style behavior like diet , physical activity
3. Social:- poverty, lower level of education
4. Cultural: - type of food way of cooking in different.
5. Drugs: -steroids, antidepressants.
6. Diseases: -hypothyroidism, cushion syndrome.

Endocrine factor of obesity: Obesity is associated with several endocrine diseases like

1. Hypothyroidism
2. Cushing syndrome
3. Polycystic ovarian syndrome
4. Hypothalamic disorder
5. Diabetes mellitus

The Ayurvedic classics describe various endogenous and exogenous causes for *medhodhatuvridhi*(excess depositions of fat tissue in body).

1. Dietary Causes:*KaphavardhakaAahara*
2. Life style and behaviour cause:- sedentary life style , lack of physical exercise , excessive sleep , sleeping during day especially soon after meal, lack of sexual life.
3. Psychological causes : lack of thinking , anxiety
4. Genetic:- “*beejswabhavat*”

**Pathogenesis of Obesity (According to Ayurveda) :** In *Ayurveda* ,Abnormal composition of is *Medodhatu* considered as *Medodsha* & subsequently as *Medoroga*.

Derangement of *Agni* or digestive powder leads to production of *Ama*, which disturbs *Dhatvagni* of *Medodhatu* & blocks the proper formation of further *Dhatu*. Improperly formed *Medodhatu* accumulates in the body causing *Sthaulya roga*. Accumulated *Medo* cause disturbance to the action of *Vata*, which cause increased appetite , due to *ChalaGuna* of *Vata*. patients therefore eat more & the entire food is abnormally converted into *Medodhatu*<sup>(1)</sup>

#### Ayurvedic Management of Hyperlipidemia & Obesity

The basic principles of treatment for *Sthaulya Roga* (Obesity) can be categorized in three groups:

1. *NidanaParivarjana* (Avoidance of causative factors)
2. General principles of management, which include
  - A. *Apatarpanachikitsa*
  - B. *Sodhanachikitsa*
  - C. *Samanachikitsa*
3. *Pathya&Apathya* (Modified Diet & Life Style)

Hypolipidemic drugs/lipid regulating drugs- according to *Ayurveda*,(*charak*) *lekhan* drugs can be correlated to hypolipidemic drugs .*lekhan* drugs are described in *lekhniamahakshaya*<sup>(2)</sup>

Drugs of *Lekhniamahakshaya*-*musta* ,*kutha* ,*haridra* , *daruharidra* ,*vacha* ,*ativisha* , *katurohini* , *chirbilva* , *hemvati* ,*chitrak* ,.

According to *Shusruta* , *varunadigana*<sup>(3)</sup> acts as *kaphamedhohar*.

Other hypolipidemic drugs :- *vidanga* , *agnimantha* ,*gugglu* ,*aamlaki* ,*haritaki* , *vibhitaki* , *rsone* , *vacha* , *arjuna* , *shigru* , *madanphala* ,*parisha* , *karvellaka* ,*kulatha* ,. Some pharmacological and clinical studies reported in Ayurvedic and other herbs are described below:-

1. **Triphla (Aamlaki)** (*Embilica officinalis*), **Haritaki** (*Terminalia chebula*), **Vibhitaki** (*Terminalia bellerica*) One study which evaluated the herbal formulation TPL in mice showed that the body weight was found to be reduced when compared with the control animals (Rasool et al., 2000). Gallic acid is a phenolic compound of TPL which is selected as a bioactive marker due to its easy availability, and its anti-obesity property (Sharma et al., 2009). Accordingly, a randomized, double-blind, placebo-controlled, clinical safety and efficacy trial at Shahed University in collaboration with Endocrinology and Metabolism Research Institute (EMRI) has been conducted for evaluation of the activity of TPL in obesity implementation (unpublished data)<sup>(4)</sup>

2. **Agnimantha** (*Premna obtusifolia*) The drug *Agnimantha* is having *katu tikta rasa, rukshanguna, ushanvirya, katuvipka*. On the basis of the quality of the drug, The pharmacodynamic action is considered. The drug is consisting of *katu* and *tikta* rasa, which consisted of *vayu* and *agni* and *vayu* and *aakash mahabhuta*, respectively. Due to the predominance of *akash, vayu* and *agni*, the *kapha* gets subsided. Subsequently, the *rukshanguna* counteracts *kapha*. *Katu rasa* directly combats *Sthaulya* and *tikta rasa* acts on *meda*. Therefore, both the *rasa (tikta & katu)* are responsible to encounter *Sthaulya* directly. *Agnimantha* (*Premna obtusifolia* R.Br.) showed significant therapeutic value in the treatment of obesity. It gave encouraging results when administered with scheduled diet and exercise. It is necessary to mention here that the drug is effective on LDL HDL ratio, which is known as atherogenic index. In respect to LDL HDL ratio, the drug was significant

after treatment of 6 and 9 months. This drug was effective on cholesterol HDL ratio after treatment of 6 and 9 months. Hence, the drug is effective for the treatment of obesity<sup>(5)</sup>

3. **Guggulu (Commiphoramukul)**: The use of *guggulu* in the treatment of obesity has been mentioned in *Susruta Samhita, Astangahridaya* and in *Charaksamhita*. The resin of the *Commiphoramukul* tree has been used in ayurvedic medicine for more than 2000 years to treat a variety of ailments. Studies in both animal model and humans have shown that this resin, termed *gumguggulu*, can decrease elevated lipid levels. The stereoisomers E- & Z-guggulsterone have been identified as the active agents in this resin. Recent studies have shown that these compounds are antagonist ligands for the bile acid receptor farnesoid X receptor (FXR), which is an important regulator of cholesterol homeostasis.

4. **Arjuna (Terminalia arjuna)**: The drug *arjuna* is having *laguruksanguna, kshaya rasa, katuvipaka, seetvirya*, on the basis of quality of drug, the drug acts as *medhohar*<sup>(6)</sup>. Clinical evaluation of this botanical medicine indicates it can be of benefit in the treatment of coronary artery diseases, heart failure, and possibly hypercholesterolemia. *Terminalia*'s active constituents include tannins, triterpenoids, saponins (arjunic acid, arjunolic acid, arjungenin, arjunglycosides), flavonoids (arjunone, arjunolone, luteolin), gallic acid, ellagic acid, phytosterols, calcium, zinc. Ayurvedic texts have described *Arjuna* as "Hridaya", which means something beneficial to the heart.

5. **Shigru (Moringa oleifera)**: The drug *shigru* is having *laguruksatikshanguna, katutikta rasa ushanvirya, katuvipaka*.

on the basis of quality of drug ,*shigru* is used in *lekhan karma*<sup>(7)</sup>. Three varieties of moringa explained in Ayurvedic text books –*Shyama* (black variety),*Shveta* (white variety ) and *Rakta* (red variety ).it is also called as *Madhushigru*. Black variety of *shigru* is the most common .It is good for heart ,Cardiac tonic .It helpful to decrease fat and obesity.

6.**Parish(Thespesia populnea ):**The drug is having *lagurukshaguna* , *kashaya rasa* , *seetvirya,katuvipaka* .on the basis of quality of drug , the drug acts as *medho-har*<sup>(8)</sup>

7.**Aralu(Ailanthus excelsa):** The drug is having *rukshaguna,tiktakashaya rasa* ,*seetvirya,katuvipaka* .on the basis of quality of drug ,the drug is used in *lekhan karma*.<sup>(9)</sup>

**SamanaChikitsa:** *Vyoshadiguggulu Amritadhguggulu*<sup>(10)</sup>, *Navaguggulu*<sup>(10)</sup> *Lo-haaristha*<sup>(11)</sup>, *vidangadhlauha*,*Tyushnadhlauha* ,*Vidangadichurna*,*Trimurtirasa*, *Tri-phlaguggulu* ,*Medoharguggulu* etc can be used in *samanachikitsa*.

**Shodhanchikitsa:***Shodhan chikitsa* in the form of *lekhanbasti*( Enema therapy ) has been used for the management of obesity (*Sthaulya*). *Lekhanbasti*<sup>(12)</sup>is described in *Sushruta Samhita*..Other *Shodhanchikitsa* in the form of *Vaman* (medicated vomiting) ,*Virechan*( medicated purgation ) ,*Udavartan*(herbal powder massage ) have been used for the management of obesity .

**Ayurvedic lifestyle in Obesity (Sthaulya):**

- Exercise “stop dieting and start moving”, walking,swimming, running or rowing aerobic exercise, stationary cycling/ bicycling.
- *YogaSana:-Suryanamskar* , *pawanmuktasaan* , *utthanpadaasan* , *naukasan* , bicycling.

- *Praanayam:-*breathing exercise and meditation.

**Ayurvedic diet in Obesity (Sthaulya)** :*Bitter* , pungent astringent taste , dry , hot, sharp , scaring qualities , Vegetables like carrot , cabbage , cauliflower ,Pulses or dried beans – lentils , mungdaal, Fruits – apples , pears pineapple ,lemon water with honey , Whole grains , whole oats .

**Avoid diet in Obesity (Sthaulya)**Avoid sweet, sour, salty and oily food, Rice,wheat,pasta and sweet milk products.Pizza, hot dog,burgers,Cakes , Cookies , pastries , chocolates etc .

## CONCLUSION

Obesity is the one and only disease, which is gaining more and more attention of scientists at global level. Obesity is a disease of middle & upper middle class due to their ignorance towards health in reference to faulty diet pattern and sedentary life-style .Ayurvedic classics give sufficient focus on obesity (*Sthaulya*). *Sthaulya* is a disorder of *Santarpananidana* with the involvement of mainly *medhodathu* and *kapha -pardhanatridosha* .Excessive indulgence in oily and fatty food, sedentary life style, *mansika* factors along with genetic pre-disposition play a major role in aetiogenesis of *Sthaulya*. *Medo* as *dushya* ,*Kapha&AvruttaVataas dosha* and *Medo-dhatvagnimandhya* are main responsible factors in pathogenesis of *Sthaulya* . So that type of drug/therapy should be recommended which pacify these factors and it can be accomplished by combination of *Tiktarasa*(bitter) *pradhana* .There is no specific treatment for obesity ,only diet & exercise can play important part. The main line of treatment of *Sthaulya*.is *Nidhan -parivarjana& Apatarpana*.. *Apatarpana* consists of dietary regimens ,treatment modalities which decrease the fat from the body

## REFERENCE

1. KavirajAtridevaguptaVagbhata 'As-tangsamgraha with Hindi Commentary Vol -1 ,Published By ChaukhambhaKrishnadas Academy ,Varanasi 2005 ,Page -183-184,A.S.sutra
2. Sri SatyaNarayanaSastriCharakaSamhita of Agnivesa ,Vidyotin Hindi Commentary ,Published By ChaukhambhaBharati academy Varanasi 2009 ,Page -72 ,ch.sutra
3. KavirajaAmbikaduttaShastri-Susrutasamhita of Maharsi –susruta Ayurveda ,Tattva-Sandinpika Hindi Commentary,Pulishedby-Chaukhambha Sanskrit Sansthan Varanasi 2010,Page -183 ,Su.Sutra
4. Balichouhan1 ,Ramesh Chandra kumawat 1 ,Mitakotecha 2 Review artical ..TRIPHLA : A COMPREHENSIVE AYURVEDIC REVIEW -2013
5. Rina ghosh1,Sukumarhosh 1,Laxminarayanmaitya 2...artical ..THERAPEUTIC EFFICACY OF AGNIMANTHA(Premnaobtusifolia R.Br)2009
6. Prof.P.V.SharmaDravyagunaVigyanaV ol -2 ,Published By – ChaukhambhaBharati Academy ,Varanasi 2006 ,Page 196-197
7. Prof.P.V.SharmaDravyagunaVigyanaV ol -2 ,Published By – ChaukhambhaBharati Academy ,Varanasi 2006 ,Page 112-113
8. Prof.P.V.SharmaDravyagunaVigyanaV ol -2 ,Published By – ChaukhambhaBharati Academy ,Varanasi 2006 ,Page 681
9. Prof.P.V.SharmaDravyagunaVigyanaV ol -2 ,Published By – ChaukhambhaBharati Academy ,Varanasi 2006 ,Page 467-468
10. Dr.IndradevaTripathiChakradatta of Sri Chakrapanidatta,Vaidayaprabha Hindi commentary ,Published By – Chaukhambha Sanskrit Sansthan ,Varanasi 2002 ,Page222
11. Prof.SiddhiNandan Mishra BhaisajyaRatnavali of KavirajGovind das Sen,Siddhiprada Hindi Commentary ,Published By- ChaukhambaSurbharatiPrakashan Varanasi 2011 ,Page -728
12. KavirajaAmbikaduttaShastri-Susrutasamhita of Maharsi –susruta Ayurveda ,Tattva-Sandinpika Hindi Commentary,Pulishedby-Chaukhambha Sanskrit Sansthan Varanasi 2010,Page -214 ,Su.chikitsa

### Dr. Payal Gupta

M.D Scholar

PG Dept. of kaya Chikitsa,

University College of Ayurved,

Dr. S. R. Rajasthan Ayurveda University  
Jodhpur Rajasthan

Email: - drpayalgupta786@gmail.com

Address-78-A shiv Nagar ist ,Kedia palace  
Road ,Murlipura ,Jaipur -302039

*Source of support: Nil*

*Conflict of interest: None Declared*