

CONCEPTUAL STUDY ON PREVENTION AND MANAGEMENT OF OBESITY

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ABSTRACT

Multi-dimensional diseases like the Lifestyle diseases and disorders are generally complex to cure; and the conventional medical system with its structural approach is still struggling to keep the check as one disease condition leads to another. The global burden of diseases is altering from infectious diseases to the non-communicable diseases, and now becoming the chief cause of the death in all over the world. There are many non-communicable diseases among of them obesity (*Sthoulya*) are tremendously increasing in our society due to the change in the diet pattern, life style, and environmental conditions. Sedentary habits and lack of exercise are also the main reasons behind the increased incidence of Obesity. Obesity can leads to many diseases like Diabetes, Cardiovascular disease and Arthritis. Obesity reduces the average life span and decreases the quality of life. *Pathya Apathya*, *Dinachrya* and diverse techniques of *Yoga* which have wonderful preventive and curative effect on obesity.

Keywords: *Sthoulya*, Obesity, *Pathya- Apathya*, *Yoga*.

INTRODUCTION

Lifestyle disorder is an umbrella term given to all the diseases which arise because of unhealthy life-style. The most common Lifestyle Diseases- are Diabetes, Hypertension, Arthritis, Obesity, Insomnia etc which are the major cause of mortality in today's world. *Ayurveda* is the most ancient science of life, Practiced in India for thousands of years based on its own unique fundamental principles such as promotion of health, prevention of diseases, promotion of longevity etc. The main aim of *Ayurveda* is "Swasthasya Swasthya rakshanam" which means to maintain the health of the healthy person and "Aturasya vikara prashamanam cha" means to cure the diseases of the diseased person. *Ahara* (diet),

Nidra (Rest-sleep) and *Brahmacarya* (celibacy) are *Trayahupastambhah* (like as pillars which support a building) in *Ayurveda*, which support the life. Among *Trayaupastambha*, *Ahara* (diet) has been has been considered as the first one which shows its importance. Life style disorders are due to Poor life-style which includes, poor diet, lack of exercise, smoking, excess alcohol, poor sleep, stress due to heavy workload. Several factors are resulting in the increasing burden of lifestyle disease which includes longer average life span, rising income, increasing tobacco consumption, decreasing physical activity and increased consumption of unhealthy food. In India, rapid urbanization and globalization mainly

contribute towards increased number of people suffering from lifestyle disorders¹⁴.

Overweight and Obesity are the 5th leading risk of global deaths worldwide.

Table 1: MAJOR LIFESTYLE ORIENTED DISEASE [6]

NAME OF DISEASE	COMMENTS
Obesity/Type II Diabetes:	Unhealthy eating habits (excess intake of sugar and its products, saturated and trans fats etc.), supersizing meals and reduced physical exercise all translate to obesity. Obesity becomes the cause of other health problems such as Type II Diabetes which is the non insulin dependent form and generally develops in adults
Stress/Hypertension	Hypertension results from a variety of reasons like stress, obesity, genetic factors, overuse of the salts in the diet and ageing.
Heart Disease	Any of several abnormalities that affect the heart muscle or the blood vessels of the heart. Heart disease to be single greatest killer in India by 2015 (WHO). One third of the heart attacks worldwide may be attributable to diets high in fats, salts, eggs and meats according to groundbreaking new study published in the journal Circulation
Stroke	Stroke is linked to advanced age, high blood pressure, previous attacks of poor circulation, cigarette smoking, heart disorders, embolism, family history of strokes, use of birth-control pills, diabetes mellitus, lack of exercise, overweight, high cholesterol etc

Definition of *Atisthaulya* (Obesity)[2]

A person who due to extensive growth of fat and flesh is unable to work and disfigured with pendulous buttocks, belly and breasts is called *Atisthaulya* and condition is termed as *Atisthaulya*. The term obesity is defined as an excess storage of energy in the body in the form of fat. Obesity is an increase in bodyweight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat.

TYPES OF OBESITY:

I. Android

Male type of obesity where excess fats marked in upper half of the body. The lower portions of the

- These organs may have effect on heart.

III. *Neither Androidor Gynoid*

Whole body affected. The fat tissues in their body hinder the movement of all the internal organs and consequently affect their functioning.

NEED OF THE STUDY [6] World Health Organization estimated that, the worldwide prevalence of obesity more than doubled between 1980 and 2014. Overall, about 13% of the world's adult population (11% of men and 15% of women) was obese in

body are thinner beyond proportion and comparison with upper part. It is common in female too:

- Undergone hormone treatment.
- Around menopause due to thyroid glands disturbance vital organs affected – Heart, Liver, Kidney & Lungs Major risk factor for heart diseases.

II. *Gynoid*

Common in both sexes but females more affected. Excess fat deposition is in lower part of body. Spine is never erect due to heavy hips and thighs.

- Vital organs affect: Kidneys, uterus, intestines, and bladder.

2014. Obesity provides the platform for so many hazards like: cardiovascular diseases, which were the leading cause of death in 2012; diabetes; musculoskeletal disorders (especially osteoarthritis).

AIM AND OBJECTIVE:

- To assessment the role of *Ayurveda* in Obesity.
- To assessment the *Ayurvedic* literature in useful life style disorder.

- To assessment *Ahara, Vihara, Dincharya, Ritucharya, Yoga*, good role in prevention & cure the Obesity.

MATERIAL AND METHODS:

Different *Ayurvedic* classical book, research paper and journals were referred to fulfill this part, its comprise of subsection dealing with prevention and management of Obesity from *Ayurveda, Yoga*.

Table 2: Etiology of Obesity (*Sthoulya*)

Diet related	Life style related [8]
1. Intake of excessive food.	1. Lack of exercise.
2. Excessive intake of <i>Guru, Madhur,</i>	2. <i>Divaswapna</i>
3. <i>Sheeta, Shanghta Ahar.</i>	3. Excessive sleeping.
4. Excessive use of <i>Maahesh Dudh and Ghrita</i> etc.	4. Excessive happiness
5. <i>Pesthaana sevan.</i>	5. <i>Sukhkarak Aasan.</i>

Causative factors for Obesity [3]:

All the causative factors described in *Ayurvedic* classics can be classified into four broad categories:

1. *AharatmakaNidana*
2. *ViharatmakaNidana*
3. *ManasNidana*
4. *Anya Nidana*

1. Aharatmaka Nidana: *Aharatmaka Nadanas* like *Guru, Madhura, Sheeta, Snigdha* dominant diet, *Navanna* and excessive intake of food etc. are responsible factors for *Medoroga*. *Ahararasa* plays a major role for increasing *Medadhatu* in *Medoroga*.

4. Anya Nidana: *Acharya Charaka* has mentioned a specific *Nidana Beejadosh* (hereditary factor) which plays a major role for *Medovridhi*.

PURVARUPA (Premonitory symptoms):

Purvarupa of *Medoroga* has not been mentioned in our classics. According to *Acharya Charaka*, the *Medovahav Srotodusti Lakshanas* which are also mentioned as *Purvarupa* of *Prameha* can be considered as *Purvarupa* of *Sthaulya*. Keeping the views of *Acharya Charaka* in mind, *Lakshana* of *Kaphavridhi* like *Alasya, Angashaithilya, Madhurasyata, Atinidra, Atipipasa* etc. may be considered as *purvarupa*.

RUPA (Symptoms): *Acharya charaka* has described 8 specific *Rupas* which are as follows – *Ayusohrasa, Javoparodha, Kriccha Vyavaya, Daurbalya, Daurgandhya, Svedabadha, Kshudhatimatrata* and

So, *Acharya Sushruta* has mentioned *Sthaulya* and *Karshya* depend upon the quality and quantity of *Ahararasa*.

2. ViharatmakaNidana: *Viharatmaka Nidanas* like *Divaswapna* (day sleep), *Avyayam* (lack of exercise) and *Avyavaya* (lack of intercourse) etc. are responsible factors. Decreased physical activity increase *Kapha* and deposition of *Meda* excessively.

3. Manas (psychological) Nidana: *Acharya Charaka* mentioned *Harshanitya* (Uninterrupted cheerfulness) and *Achintana* (Lack of anxiety) etc. is responsible for *Medovridhi Pipasaatiyoga*. The cardinal or *PratyatmaLakshana* of *Sthaulya* has been enlisted by *Charaka* are: *ChalaSphika, ChalaUdara, ChalaStana, Ayatha Upachaya* and *Anutsaha* 4.

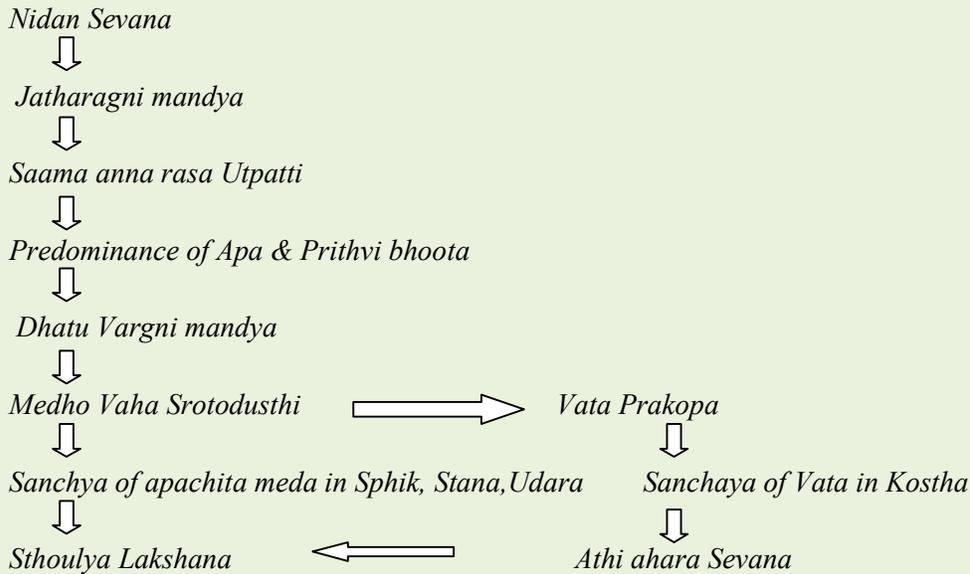
UPADRAVA (Complications): *Acharya Charaka* has reported that if *Sthaulya* is left untreated, *Pramehapidika, Jvara, Bhagandara, Vidradhi, Vatavikara* may be arisen out.

SAMPRAPTI (Pathogenesis): In the pathogenesis of *Sthoulya*, all the three *Doshas* are vitiated, especially *Kledaka Kapha, Pachaka Pitta, Samana* and *Vyana Vayu*. Due to the various *Aharatmaka, Viharatmaka, Manasika Nidana Sevana*, leads to *Kaphavridhi* and produces *Jatharagnimandhya*. *Jatharagnimandhya* results in production of *Ama*, which leads to *Sanga* in *Medovaha Srotas* and then *Medo dhatvagnimandhya*, whereas *Beeja Svabhava*

Nidana directly leads to *Medodhatvagnimandhya* and this leads to *Medovridhhi (Amarupa)*. All these things together cause the *Medovahasrotodusti*. *Srotaavarodha* of different *Srotasa* is caused by increased *Meda*, which affects the *Poshana* of differ-

ent *Dhatus* and it again leads to *Medodhatuvridhhi*. Due to the less *Poshana* (nutrition) of different *Dhatus*, *Ashtadosha* of *Medoroga* i.e. *Ayushohrasa*, *Kshudraswasa*, *Daurbalya* etc are produced. Again that *Srotosanga* caused the *Margavarodha* of *Vayu*.

SAMPRAPTI



CHIKITSA SIDDHANTA (Management):

Management of Obesity in *Ayurveda* is divided into three parts: –

1) NIDANA PARIVARJANA

This is the first line of management of *Medoroga*. *Aharatmaka*, *Viharatmaka* and *Manasa Nidan* are responsible for *Medoroga* should be avoided.

2) SAMSHODHANA [7]

Shodhana means *Apakarsana* of *Dosha*. *Atisthul* a patients with *Adhika Dosha* and *Adhika Bala* should be treated with *Samshodhana* therapy, including *Vamana*, *Virechana*, *Ruksha Niruha*, *Raktamokshana* and *Sirovirechana*. *Ruksha*, *Ushna* & *Tikshnavasti* are also suggested by *Charaka*. *Ruksha Udvartana* is the *Bahya Shodhana* indicated for the management of *Sthoulya*. ‘*Snehana Karma* is always restricted for the patients of *Sthoulya*, however on exigency usage of *Taila* is recommended.

3) SAMSHAMANA [9]

- 1) *Nidana Parivarjana*
- 2) *Samshodhana*
- 3) *Samshamana*

The therapy which could not excrete the *Dosha* from the body and also not disturb the equation of balanced *Dosha* in the body but, it brings equilibrium to imbalance of *Dosha* is called *Samshamana* and is of seven types i.e., *Pachana*, *Deepana*, *Kshudha Nigraha*, *Trishna Nigraha*, *Vyayama*, *Atapa Sevana* and *Maruta Sevana*. Among the *Sad Upakramas*, *Langhana* and *Rukshana* can be administered for *Samshamana* purpose having *Ruksha Guna* dominance in them. Alleviation of *Vata*, *Pitta* and *Kapha* especially *Samana Vayu*, *Pachaka Pitta* and *Kledaka Kapha* along with depletion of *Medodhatu* by increasing *Medodhatvagni* is main goal of treatment in *Sthoulya*. Administration of *Guru* and *Apatarpana* articles which possess additional *Vata*, *Shleshma* and *Meda Nasaka* properties is considered as an ideal for *Samshamana* therapy.

Besides that *Susruta* has included *regimomial* treatment and narrated *Paschima Maruta* i.e., winds from western direction as *Meda Vishosana* due to its *Ruksha* property. In *AshtangaSangraha* usage of *Laghu, Ushna, Ruksha, Tikshna, Sara, Kathina, Vishada, Khara* and *Sukshma Guna* are suggested for *Sthaulya* management as they possess *Kaphanashaka* and *Sthaulyahara* actions. *Acharya Charaka* has mentioned *Lekhaniya Dasemani Dravyas* and in *Susruta Samhita* various groups of drugs like *Varunadi Gana, SalaSaradiGana, Rodhradi Gana, ArkadiGana* Some *Samshamana Yoga* mentioned in *Charaka Samhita* like *Guduchi,*

Bhadra Musta, Triphala, Takrarista, Makshika, Vidangadi Lauha, BilvadiPanchmula with *Madhu* and *Shilajatu* with *Agnimantha Svarasa* are advised to practice for prolonged period. *Rasanjana* is mentioned as the best for the treatment of *Sthaulya*, while *Guggulu* is mentioned as the best for the disorder of *Vata* and *Meda*. In *Ashtanga Hridaya, Gomutra Haritaki, Rodhrasava, Navakaguggulu, Amrutaguggulu, Vardhamana Bhallataka Rasayana* etc. are the remedies added for the management of *Sthaulya*. *Madhu* has *Guru* and *Ruksha* properties; hence it is ideal one for management of *Sthaulya*.

Table 3: PATHYA–APATHYA AHARA [8]

AharaVarga	Pathya	Apathya
ShukaDhanya	Yava, Venuyava, Kodrava, Nivara	Godhuma, Navanna, Shali
ShakaVarga	Vruntaka, Patrashaka, Patola	Madhurshaka, Kanda
Phala	Kapitha, Jamuna, Amalaka	Madhuraphala
Mansa	RohitaMatsya	Anupa, Audaka, Gramya

Yoga [10]

Yoga has an important role to play in the treatment of obesity. *Yoga* techniques affect body, internal organs, Endocrine glands, Brain, Mind and Other factors concerning Body-Mind complex. Various *Yoga* techniques can be practiced effectively to reduce the weight and achieve a normal healthy condition of Body and Mind. *Asanas* or body posture which provide stability and strength to the body, and many benefits like,

- *Yoga* are especially useful to reduce the fats in various parts, especially forward bending, twisting and backward bending *Asanas* help to reduce the fats near abdomen, hips and other areas.
- Practice of *Asanas* improves functioning of internal organs, strengthening Heart, Lungs, Kidneys, Excretory and Reproductive organs.
- Regular practice builds strength in Muscles.
- Good results are achieved by doing the *Asanas* for a shorter duration with an increase in number.

Table 4: List of Asanas for Obesity [11]

Asanas	Benefits
Dhanurasana, Chakrasana	Reduces abdominal fat and help in Slimming Whole body
Ardhakatichakrasana, Padahastasana	Reduces abdominal fat and abdominal muscles get strengthened and toned up.
Mayurasana, Padmasana	Reduces fat in waist region and improve liver function.
Bhujangasana	Tones up abdomen, reduces fat on tummy, strengthens the fore arm, wrist and elbows, vitalizes the endocrine in the abdomen and very good for obesity.

DISCUSSION

Charaka has given detail description of causative factors, Etiopathogenesis, sign and Symptoms of Obesity. *Acharya Susruta* has added the complica-

tions of the disease & given importance to avoid causative factors of the disease. The term '*Sthula*' (Obese) itself indicates the deposition of *Prithvi* and *Apa Mahabhuta* dominant factors in the body. Now-

adays, *Nidanas* of *Sthaulya* are changing e.g. previously *Manasonivrtti* and *Harsaniryatva* were said to be the *Nidanas* of *Sthaulya* but these are now changing to increasing stress which causes episodes of binge eating leading to Obesity. Hereditary factor is also coming up as the prominent cause for Obesity. Inclusion of food items like whole grains, garlic, onion, bitter gourd in the diet, avoiding food stuffs like, Pineapple, Grapes, Mangos etc. from diet and involving light exercise like walking, jogging, cycling in day to day lifestyle reduce the chances of Obesity. The prolonged use of the above treatment procedure will not only generate the person free from Obesity but protect to live a long Life.

CONCLUSION

Our lifestyle is indicative of the behavioral patterns we adopt to live our lives. This translates to the way we eat, drink, and exercise and are predisposed to taking care of our health. Unhealthy habits will show up in the form of lifestyle diseases in the long run. Since these habits are acquired over a long period of time. There is no specific treatment for obesity, only diet and exercise can play important role in management of obesity. By adopting *Ayurveda and Yoga*, we can manage the healthy weight, quality of life and prevent the complications due to Obesity.

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