AYURVEDIC CONCEPT OF STHOULYA AND ITS MANAGEMENT

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ABSTRACT

Sthoulya (i.e. Obesity) is a burgeoning global problem. Due to change in life style, faulty diet pattern and decrease interest in the exercise, the incidence of obesity increases day by day in our society. Worldwide, at least 2.8 million people die each year as a result of being overweight or obese, and an estimated 35.8 million(2.3%) of global DALYs are caused by overweight or obesity. It is also a complex multifactorial disease which invites several serious pathological complication like hypertension, diabetes mellitus, atherosclerosis, endocrinal abnormalities, trauma to weight bearing joints and possibly immunologic impairement as well as it hampers the cosmetic value of the victim. In Ayurvedic texts, there are many more drugs, medicinal plants, pathya apathy and diverse techniques of yoga which have bestest preventive and curative effect on Sthoulya. Entire world is expecting a fruitful control and prevention of Sthoulya from Ayurveda.

KEYWORDS: Sthoulya, Pathophysiology, Management.

INTRODUCTION

The prevalence of Sthoulya(obesity) is increasing worldwide in all age group. Maharshi Charaka opined healthy state as proportionate musculature, compactness of the body, proper sensory & motor function. It indicates, in ancient era also, structural fitness was considered as the symbol of health. Hence obesity which is the state of excess adipose tissue mass or grossly fat & also sthoulya refers to “Sthulya bhava” being bulkiness i.e. abnormal increase
in medo dhatu & mamsa dhatu breaks the harmony of fitness or health. Obesity has the deleterious effect both on body and mind. Obesity is the condition of abnormal excessive fat accumulation in adipose tissue which impaired health, abnormal growth of adipose tissue either due to enlargement of fat cell size or increase in number of fat cells or combination of both leading to increase in body weight beyond the limitation of the body requirement.\[1\]

In the context of body, eight persons are despicable such as over-tall, over-short, over-hairy, hairless, over-black, over-fair, over-obese, over-lean.

Amongst them, The over obese aned the over-lean have other despicable features too.\[2\]

**The over-obese has eight defects**

1. Shortening of life span
2. Dearanged movement
3. Difficulty in sexual intercourse,
4. General Debility,
5. Foul smell from the body
6. Excessive sweating
7. Excessive hunger
8. Excessive thirst

**Causes**

1. Over-saturation or excessive intake of food.
2. Intake of heavy, sweet, cold and fatty diet
3. Lack of physical exercise
4. Abstinence from sexual intercourse
5. Indulgence in day sleeping
6. Exhilaration or excessive cheerfulness
7. Lack of mental work
8. Genetic defect or hereditary one\[3\]

The one having balanced proportion of muscles, compactness, firmness in organs, they do not fall prey to prowess of a disorder. The person having balanced musculature has got tolerance for hunger, thirst, the sun, cold and exercise, balanced agni(edigestion) and normal metabolism.\[4\]
Pathogenesis of eight fold dosas of Sthula person

1. Ayuso Hrasah-Except meda dhatu other dhatus do not grow uniformly, as a result of which longevity diminishes.
2. Javoparodhah-Dearanged movement-Sluggish or dearanged movement is due to looseness, tenderness and heaviness of Meda.
3. Kricchh-Vyavayata(Difficulty in sexual intercourse)-Difficulty in sexual intercourse is due to inadequate semen along with obstruction to its normal path by meda.
4. Daurbalya(General Debility)-General debility is due to inadequate dhatus.
5. Daurgandhya(Foul smell from the body)-Due to inherent defect in medas and general nature of meda followed by excessive salivation.
6. S wedabadhah(Excessive sweating)-When meda is associated with Kapha, which is fluid, multitudinous and heavy and it can not withstand physical exercise leading to excessive sweating.
7. & 8. Kshuda atimatram and Pipasa atiyoga(Excessive appetite and thirst)-Due to enhanced digestive fire along with excess presence of Vata in Koshta.[5]

Pathophysiology of obesity (sthoulya) –Due to excessive accumulation of meda in the body Vata gets obstruction to its normal movement as a result Vata is specially confined to Koshta leading to stimulation of digestive power and obsorption of the food. Digestion of consumed food become very fast due to enhanced Agni, that’s person eats more and more amount of food. In case of delay in taking food he is afflicted with some serious disorders because it digest the dhatus. The Agni and Vata are the two most trouble some and complicating and burns the obese individual like the forest fire burning forest. In the event of excessive increase of fat, Vata etc which may lead to development of severe disorders and destroy the life of an individual instantaneously.[6]

Sthaulya Laxanas- Person can be diagnosed as Sthaulya when his buttocks, abdomen and breasts begin to show movement due to excess accumulation of Meda in these areas. Contrary to his age there is a disproportionate in relation to build and enthusiasm.[7]

When Meda dhatu becomes greatly increased, then Vatadi Dosas give rise to many dreadful diseases and destroy the life of the individual.
Due to excess enhancement of Meda and Mamsa leading to pendulous movement of buttocks, abdomen and breast, disproportionate increase of body parts & lack of enthusiasm to work is known as Atisthula.\textsuperscript{[8]}

When dosas located in medas, the despicable ones and the premonitory symptoms of prameha may start appear.\textsuperscript{[9]}

**Premonitory symptoms of prameha**-Such as, Matting of hairs, sweetness in mouth, numbness and burning sensation in hands and feet, dryness in mouth, palate and throat, thirst, lassitude, dirt in the body, sweating in body orifices, burning sensation and numbness in body parts, crawling of bees and ants on the body and urine, morbidities in urine, fleshy smell in the body, frequent sleep and drowsiness.\textsuperscript{[10]}

**Medovaha srotas**-Channels which carries the substances which nourishes Meda is called Medovaha Srotasa.

**Moola**-According to Acharya Charaka, Medovaha srotas have their root in Vrikka and Vapavahana.\textsuperscript{[11]}

According to Acharya Sushruta, Medovaha srotasa is of two types and originates from Kati and Vrikka.\textsuperscript{[12]}

According to Vagbhata, Medovaha srotasa have their root in Vrikka and Mamsa.\textsuperscript{[13]}

**Causes of vitiation of medovaha srotasa**

**General cause**-Improper dietetics which aggravates Vatad Dosas i.e. person who is not following the rules and regulation of eight fold diet principles. Erratic behavior or activities related to speech, body and mind aggravates the Vatadi Dosas.\textsuperscript{[14]}

**Specific cause** -Lack of physical exercises, day sleep, excess intake of fatty foods, excess drinking of Varuni(a kind of wine), injury.\textsuperscript{[15]}

**Medovaha Srotas Dushti Laxanas**-Due to vitiation in Medavaha srotasa folloeing symptoms develops, Asta ninditta purusha, prameha etc. described in detail under Sama meda.\textsuperscript{[16]}
Medovaha Srotas Viddha laxanas-Injury to Medovaha srotasa leads to excessive perspiration, unctuousness or sliminess of body, dryness in Talu, marked swelling and severe thirst.[17]

Diseases of Medovaha srotasa-Prameha, Medoraga, Svitra, Jvara, Visamajvara, Medodhatugata Jvara, Kushtha, Vatarakta, Masurika, Shotha, Slipada, Udara roga.

Measurement of obesity
It is very easy to label a person as an obese, because in most of the cases it can be detected by visual inspection. However number of factors are needed to be considered to arrive at the conclusion, it can be assessed in several ways which are mentioned as follows: Weight and Height ratio.
1. Measurement of skin-fold thickness
2. BMI
3. Circumference ratio (Waist/Hip ratio)
4. Density – Immersion – Plethysmograph
5. Potassium isotops
6. Conductivity
7. Bio-electrical impedance
8. Fat soluble gas
9. Ultra sound
10. Computed tomography etc.[18]

Body fat distribution
Gynoid distribution-Fat distribution is around hips and thighs. This give pear shape and more common in women.

Android –Fat distribution is around abdomen. This gives apple shape and common in both sexes.

Abdominal obesity more disease prone and can be measured by waist hip ratio i.e. waist circumference in centimeter divided by Hip circumference in centimeter.[19]

Body Mass Index(BMI)- The body mass index or Quetelet index is a value derived from the mass(weight) and height of an individual. The BMI is defined as the body mass derived by the square of the body height, and is universally expressed in units of kg/m², resulting from
mass in kilograms and height in metres. The BMI is an attempt to quantify the amount of tissue mass (muscle, fat and bone) in an individual and then categorize the person as underweight, normal weight, overweight or obese. The international classification of overweight and obesity according to BMI as per WHO.[20]

<table>
<thead>
<tr>
<th>BMI (kg/m²)</th>
<th>CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5–24.9</td>
<td>normal weight</td>
</tr>
<tr>
<td>25.0–29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0–34.9</td>
<td>class I obesity</td>
</tr>
<tr>
<td>35.0–39.9</td>
<td>class II obesity</td>
</tr>
<tr>
<td>≥ 40.0</td>
<td>class III obesity</td>
</tr>
</tbody>
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Complications of obesity:
1. Type II diabetes Mellitus,
2. Hypertension,
3. Stroke,
4. Hyperlipidaemia,
5. Coronary Heart Disease,
7. Gall Stones
8. Arthritis of Hip, Knee and Food
9. Varicose veins
10. Breathlessness
11. Infertility
12. Hirsutism
13. Stress Incontinence and Abdominal Hernias
14. Psychological Depression
15. Social-Reduced Employment Prospects.[21]

Management
For reducing the bulk of the obese, heavy and non-saturating while for promoting the bulk of the lean, light and saturating therapy is prescribed.

Food and drinks alleviating vata and reducing Kapha and fat, rough, hot and sharp enema, rough anointing, use of Guduchi, Devadaru, Musta, Triphala, Takrarishta and honey is recommended for removing the over obesity. Vidanga, Shunthi, Yavakshara and ash powder of black iron mixed with honey and also the powder of barley and Amalaka is an excellent formulation for the same. Similarly, Bilvadi Panchmula mixed with honey and use of Shilajatu along with the juice of Agnimantha is recommended.
In diet Prasatika, Kangu, Shyamaka, Yavaka, Yava, Jurna, Kodrava, Green gram, Kulattha, Makustha, Adhaki along with Patola and Amalaki fruits are to be used. After meals, honey water and Arishta alleviating Medas, Mamsa and Kapha should be taken as drink.

One desirous of giving up obesity should gradually increase vigils, sexual intercourse, physical exercise and mental work.[22]

**Sanshaman therapy**

Rasa/Bhasma- Parad Bhasma, Trimurti rasa, Vadavaagni rasa
Churna-Triphala churna. Trikatu churna, Vacha churna, Puskarmula churna, Vidangadi churna.
Vati-Kutki vati, Bhidani vati, Arogya vardhini vati
Kwath/Asava-Musthaadi kwath, Phalatrikadi kwath, Agnimantha kwath, Lohasava, Loharista, Vidangaasava.
Guggulu Yoga-Navak Guggulu, Medohara Guggulu, Amaritadi guggulu, Trayodashanga Guggulu
Ekal Drugs-Guggulu, Vacha, Haritaki, Gomutra, Aamlaki, Shunthi, Patola, Apamarga, Guduchi, Gomutra, Bilwa.
Kshara yoga- Yava Kshara, Apamarga Kshar, Eranda Kshar.
Sattu yoga-Chavyadi sattu, Vyosahdhya sattu, Trayushadhya sattu.

**Yoga Asana**

Suryanamaskar, Pawanmuktasana, Halasana, Mayurasana, Shirhasana, Utthanpadasana, Dvichakrik asan, Naukasana, Pranayama and Meditation.

**Exercise**-It is very useful to treat obesity. Extra calories should be burnt with exercise unless there is medical contraindication.

**Diet**-Long term results are best where patients are well motivated and educated, follow a clear programme designed to provide 800 to 1600 k.calory daily.

Use of appetite suppressants.
Reduction in dietary fat absorption
Use of bulk agents.[23]
Useful tips
1. Maintain a regular daily routine. Wake up before 6.00am
2. Take 2 teaspoon of honey and 2 tea spoon of lemon juice with 1 glass of warm water
3. Exercise at morning at least 40 min/day -4days/week
4. East light nourishing breakfast –cooked apple, toast cooked barley or oatmeal20
5. Use spices and herbs that are suitable for you while cooking
6. Boil water with fresh ginger and drink frequently throughout the day
7. Make Lunch as a main meal. Dinner should be as light as possible.
8. For dinner, eat light one-dish meals, or vegetable or lentil soups.
9. Do not sleep during day
10. Avoid eating late at night
11. Eat only after digestion of previous meal.
12. Eat only when you are hungry. Find out correct quantity for you.
13. Keep the regular timings of meal. Eat mindfully.
14. Concentrate on your food, what you are eating. Don’t divide your attention by reading, working or watching TV while you are eating.
15. Take a walk after meal.[24]

CONCLUSION
Sthoulya is a result of over saturation, intake of heavy, sweet, cold things, day sleep and less physical activity which explains high energy intake and low energy expenditure. It is a Santarpana Janya Vyadhi with involvement of mainly Kapha Dosha and Medo Dhatu. The basic line of treatment of Sthoulya is Nidana Parivarjana and Apatarpana. In Ayurveda, Acharya have described Dincharya, Ritucharya, Ahara, Vihara and Yoga, which have many more positive effects to prevent and to cure the Sthoulya.

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