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, Dinachryya 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 lifestyle. 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 lifestyle 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 disorders. Overweight and Obesity are the 5th leading risk of global deaths worldwide.

**Table 1: MAJOR LIFESTYLE ORIENTED DISEASE [6]**

<table>
<thead>
<tr>
<th>NAME OF DISEASE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity/Type II Diabetes:</td>
<td>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.</td>
</tr>
<tr>
<td>Stress/Hypertension</td>
<td>Hypertension results from a variety of reasons like stress, obesity, genetic factors, overuse of the salts in the diet and ageing.</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>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.</td>
</tr>
<tr>
<td>Stroke</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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 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 assess 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)

<table>
<thead>
<tr>
<th>Diet related</th>
<th>Life style related [8]</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Intake of excessive food.</td>
<td>1. Lack of exercise.</td>
</tr>
<tr>
<td>2. Excessive intake of Guru, Madhur,</td>
<td>2. Divaswapa</td>
</tr>
<tr>
<td>4. Excessive use of Maahesh Dudh and Ghrita etc.</td>
<td>4. Excessive happiness</td>
</tr>
<tr>
<td>5. Pesthaana sevan.</td>
<td>5. Sukhkarak Aasan.</td>
</tr>
</tbody>
</table>

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 Nidanas 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 Beejadosha (hereditary factor) which plays a major role for Medovriddhi.

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 Sthoulya. 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 Pipasaatiyoga. The cardinal or PratyatmaLakshana of Sthoulya has been enlisted by Charaka are: ChalaSphika, ChalaUdara, ChalaStana, Ayatha Upachaya and Anutsaha 4.

UPADRAVA (Complications): Acharya Charaka has reported that if Sthoulya 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 dhatvagamandhya, whereas Beeja Svabhava
Nidana directly leads to Medodhatvagnimandhya and this leads to Medovriddi (Amarupa). All these things together cause the Medovasrotodusti. Srotaavarodha of different Srotas is caused by increased Meda, which affects the Poshana of different Dhatus and it again leads to Medodhatuvriddhi. Due to the less Poshana (nutrition) of different Dhatus, Ashtadosha of Medoroga i.e. Ayushohrasa, Kshudraswaswa, Daurbalyaetc are produced. Again that Srotosanga caused the Margavarodha of Vayu.

**SAMPRAPTI**

Nidan Sevana

Jatharagni mandya

Saama anna rasa Utpatti

Predominance of Apa & Prithvi bhoota

Dhatu Vargni mandya

Medho Vaha Srotodusthi → Vata Prakopa

Sanchya of apachita meda in Sphik, Stana,Udara → Sanchaya of Vata in Kostha

Sthoulyak Lakshana ← Athi ahara Sevana

**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, Viharatmakaand Manasa Nidanas are responsible for Medorogashould 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 Udvaritana is the Bahya Shodhana indicated for the management of Sthaulya. ‘Snehana Karma is always restricted for the patients of Sthaulya, however on exigency usage of Taila is recommended.

3) **SAMSHAMANA**[9]

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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, TrishnaNigraha, 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 Sthaulya. Administration of Guru and Apatarpama articles which possess additional Vata, Shleshma and Meda Nasaka properties is considered as an ideal for Samshamana therapy.
Besides that Susruta has included regimonal 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 Sukhsha Guna are suggested for Sthaulya management as they possess Kaphanashaka and Sthaularya 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 Agnimanthra 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]**

<table>
<thead>
<tr>
<th>AharaVarga</th>
<th>Pathya</th>
<th>Apathya</th>
</tr>
</thead>
<tbody>
<tr>
<td>ShukaDhanya</td>
<td>Yava, Venuyava, Kodrava, Nivara</td>
<td>Godhuma, Navanna, Shali</td>
</tr>
<tr>
<td>ShakaVarga</td>
<td>Vruntaka, Patrashaka, Patola</td>
<td>Madhurshaka, Kanda</td>
</tr>
<tr>
<td>Phala</td>
<td>Kapitha, Jamuna, Amalaka</td>
<td>Madhuraphala</td>
</tr>
<tr>
<td>Mansa</td>
<td>RohitaMatsya</td>
<td>Anupa, Audaka, Gramya</td>
</tr>
</tbody>
</table>

**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]**

<table>
<thead>
<tr>
<th>Asanas</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhanurasana, Chakrasana</td>
<td>Reduces abdominal fat and help in Slimming Whole body</td>
</tr>
<tr>
<td>Aṛdhakatichakrasana, Padahastasana</td>
<td>Reduces abdominal fat and abdominal muscles get strengthened and toned up.</td>
</tr>
<tr>
<td>Mayurasana, Padmasana</td>
<td>Reduces fat in waist region and improve liver function.</td>
</tr>
<tr>
<td>Bhujangasana</td>
<td>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.</td>
</tr>
</tbody>
</table>

**DISCUSSION**

Charaka has given detail description of causative factors, Etiopathogenesis, sign and Symptoms of Obesity. Acharya Susruta has added the complications of the disease & given importance to avoid causative factors of the disease. The term ‘Sthula’ (Obese) itself indicates the deposition of Prithvi and Apa Mahabhuata dominant factors in the body.
adays, Nidanas of Sthaulya are changing e.g. previously Manasonivratti and Harsanityatva 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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