THE CONCEPTUAL STUDY OF STHAULYATA W.S.R. TO OBESITY

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ABSTRACT

Ayurveda is one of the most ancient medical sciences of the world. It conceives and describes the basic and applied aspects of life process, health, disease and its management in terms of its own principles and approaches. In Ayurveda, Sthaulya has been described since very early days in various Samhitas, Sangraha Granthas etc. Acharya Charaka has described Sthaulya among the eight most unwanted diseases (Nindita Purusha) and Samtarpanajanita Roga.

The term Medasvi is suggestive of nutritional status of the individuals indicating a well nourished disposition rather than disease. Sthaulya is involving the Medovriddhi which deals with study of typical obesity that is a reflection of endocrine imbalance, not with the reasonal adiposity. Obesity is the most common nutritional (metabolic) disorder in wealthy societies. Sthaulya (obesity) is discouraged by the society for social as well as medical reason. Commonly obesity is due to excessive eating and lack of adequate exercise. Three main causes have been described in modern literature viz. 1) Dietetic, 2) Genetic, 3) Hormonal.

Dalhana seems to be more explicit while commenting on a Medo Roga specified that Agni which is involved in pathogenesis of the disease viz. Dhatvagnimandya. In pathogenesis of Sthaulya, Kleedaka Kapha, Samana & Vyana Vayu, Meda (fat /lipid) and Medodhatvagni Mandyata are main responsible factors. So that type of therapy should be selected, this can effect on all these factors. We all are accepting the concept ‘prevention is better than cure’.

So after looking the vital importance of obesity (Sthaulya), it is selected for the present conceptual study.

KEYWORDS: Medodhatu, Obesity, Sthaulyata, Sthaulya Chikitsa.

INTRODUCTION

The 21st century, every person is running after life’s goal. Hence, does not have time to think and act for the healthy life and does not able to follow the proper Dinacharya (daily routine), Ritucharya (Seasonal regimens), dietetic rules & regulations. Because of this artificial living life-style, person has gotten so many disorders for himself. Sthaulya (obesity) is one of them. Sthaulya is one of the most effective disease which affect someone social, physical and mental features. Acharya Charaka listed eight defects underlying- Sthaulya Purusha, Ayuhrasa, Javopradha, Alpa-vyavayita, Daurbalya, Daurgandhya, Swedabadha, Atitisha, Ati-kshudha. Hence the management of this disease is merely insufficient in other systems of medicine and patients are continuously looking with a hope towards Ayurveda to overcome this challenge.

The World Health Report of W.H.O. listed obesity under the 10 top selected risks to the health. The incidence of Diabetes mellitus, hypertension, angina pectoris, and myocardial infection is higher among obese individuals. It is frequently blamed on ingestion of heavy and over food, endocrine factors, body built or heredity etc. BMI (Body Mass Index) more than 27 indicate increasing risk of health. Treatment of obesity is difficult without the cooperation of patient. Patients need motivation for this. Still appropriate
remedy is awaited, which defeat the obesity without any adverse effect on body.

Here, I tried to highlight how can body physiological entities turn in pathological state & responsible for disease (Sthaulya) and how can bring this abnormal entities back to its normal state by applying our traditional Ayurved therapy.

**Definition of Sthaulya**

A person having pendulous appearance of Sphika (Hip), Udara (Abdomen) and Stana (Chest) due to excess deposition of Meda (Fat) along with Mamsadhatu and also having unequal an abnormal distribution of Meda with reduced enthusiasm towards life is called Atisthula [1]. Obesity is an increase in body weight beyond the limitation of skeletal and physical requirements as the result of excessive accumulation of body fat [2].

**Classification**

Vagbhata have been mentioned three types of Sthaulya i.e. Adhika, Madhyama and Hina with management point of view [3].

1. **Hina Sthaulya**: (B.M.I. 25-30 kg/m² – Over Weight)-Mild degree of overweight, without any complication or secondary disease, with less than four undesirable symptoms and with duration of less than 1 year – can be considered as Hina Sthaulya.

2. **Madhyam Sthaulya**: (B.M.I. 30-40 kg./m² - Obese)- Moderate degree, with least complications without secondary disease, with less than 8 undesirable symptoms and duration of 1 to 5 years can be considered as Madhyam Sthaulya.

3. **Adhika Sthaulya**: (B.M.I. > 40 kg./m² – Very Obese)-Excessive degree, with complication and secondary disease with all 8 undesirable symptoms and duration of more than 5 years can be considered as Adhika Sthaulya.

**Nidana (Etiological factors)**

All the etiological factors can be classified into four groups: Atisampuranat: Excessive indulgence in various diet articles; Avayamat: Less physical activities; Manasaja: Psychological; Beejadoshaj: Genetic / Hereditary defect.

**Role of Aharatmaka Nidana**

Ahararasa plays a major role for increasing Medadhatu in Sthaulya. So, Acharya Sushruta has mentioned, Sthaulya and Karshya depends upon the quality and quantity of Ahararasad [4]. On the basis of Samanya Vishesh Siddhanta and Ashraya-ashrayi Sambandha the excessive consumption Kapha Vridhikara Ahara causes the over production of Rasadhatu with further over production of Medodhatu.

**Role of Viharatmaka Nidana**

All the Aharatmaka Nidana ultimately decreases physical activity, which aggravates Kapha and leads to Meda deposition. Viharatmaka Nindana like Divaswapa having Abhishyandi property leads to blockage of the micro channels of the body, specifically in Medovaha srotas. Moreover, reduced metabolic rate during sleep is an important factor for genesis of excess fat.

**Role of Manas Vyapara**

Due to adaptation of modern lifestyle, a person has reduced his physical activity and instead of that, the mental work is increased. Sthaulya is also considered under the group of psychosomatic diseases. Harshanitya (Excessive pleasure) and Achintana (jolliness) are two psychological factors mentioned by Acharya Charaka, which are responsible for Kapha aggravation and lead to Meda vridh. With this type of psychological well being and jolliness that person indulges more in worldly pleasure and excess energy stored in the form of Meda.

**Role of Beejadosha**

Acharya Charaka has mentioned that Beejadosha plays a major role for Medovrdhi. Defect of Beejabhagavavyaya i.e. part of Beeja, which resembles with Genes, may lead to defective development of that organ. Also, Bhavamishra has mentioned that increased proportionate of Meda and decreased proportion of Shukra in Beeja at the time of conception predisposes towards development of fleshy but weak body. Moreover, over nutrition particularly with Madhura Rasa during pregnancy is mentioned as a causative factor for birth of obese child, which indicate role of hereditary factor in genesis of Sthaulya.

**Samprapti (Pathogenesis)**

Vitiation of few basic component of body is required for the manifestations of any disease which are as follows:

1. **Dosha**: In pathogenesis of Sthaulya, all three Doshas are vitiated.

   a) **Kapha**: Sthaulya is described by most of Ayurvedic classical text as Shlesma Nimitaja Vyadhi. So Kapha is main Dosha in pathogenesis of the disease. Excessive consumption of Ahara like Guru, Snigdha, Madhura, Sheeta, Picchila; Vihara like Awyayama, Divaswapna etc. and Manasika Nidana like Achinta, Nitya Harsha etc.; leads to vitiation of Kapha. Most of symptoms of Sthaulya come under the category of Kapha Vriddi (Prakopa). i.e. Alasaya, Gatrasada, Angagaurava, Nidradhikya etc. Usually the Sthaulya Rogi belongs to Kapha Prakriti so they may have slow and lethargic physical activity with Sthula Anga by nature and also they have more pleasure and less tension - anxiety, so Kapha Prakriti persons are more prone to become obese (Sthula).

   b) **Pitta**: In obese persons, Pitta is also remains in higher sight because the symptoms of Sthaulya like Ati Kshudha, Ati Pipasa, Swedadhihya, Daurvandhya have also been mentioned in the Pitta Vriddh. Mainly the Pachaka pitta is involved in the aetiopathogenesis of the disease.

   c) **Vatta**: In this disease, Vata has been mentioned in the state of Avrita in koshtha, which makes the Agnivaishamya, ultimately increases the Abhyavahirana Shakti or demand of food. The process of circulation, digestion and proper distribution of Dhatus are controlled by Samana and Vyana Vayu. Hence, involvement of Samana Vayu can be clearly postulated with the evidence of Agni Sandhukshana and improper distribution of fat in the body proves the involvement of Vyana Vayu.

2. **Dushya**

   Acharya Sushruta has mentioned Sthaulya as a Dusya dominant disease and in this disease the excessive production of abnormal Medadhatu is clearly visualized. Kapha is seated in Meda along with other Dhatus. So, on the basis of Ashray-ashrayi bhava vitiation of Kapha also lead to vitiation of that Dhatu in which Kapha seated. Moreover, excessive consumption of such Guna dominant diet forms that specific Guna dominant Poshaka Annarasa. This specific Dhatu poshakansha in excessive a quality and quantity increased the particular Dhatu. In disease Sthaulya excessive intake of Guru Snigdha, Madhuradi Guna dominant diet, increase accumulation of Medodhata.

3. **Srotasa**

   In the disease, involvement of Medovaha Srotasa is the main factor along with the involvement of other Srotasa. According to Acharya Charaka, Ayayama, Divaswapna excessive intake of Medur dravyas and Varuni, are the Nidana of Medovaha strutodushti. It indicates clear involvement of Medovaha srotasa along with Rasavaha srotasa. Atisveda and Daurvandhya indicate the involvement of Medavaha srotasa. Presence of Atipipasa indicates the involvement of Udakavaha srotasa. In the pathogenesis of Sthaulya, increase fat deposition inside the muscle (Vasa) indicates the involvement of Mamsavaha srotasa.

4. **Agni and Ama**

   According to Vagbhata, Mandagni at Jatharagni and Dhatvakri level is considered as root cause of all disease. Due to Mandagni, formation of Ama occurs. Some disorders like Ajirna, Alasaka, Vishuchika emerge as a result of derangement of Jatharagni, while disorders like Sthaulya results from derangement of Dhatvagni.

   In Sthaulya, due to vitiation of Vata by obstruction of Meda, Tikshnagni is a prominent feature. Here, a question arise, how Ama formation can take place instead of Tikshnagni. Commentators Chakrapani and Dalhana have tried to clarify this controversy by giving explanation, that in the stage of Tikshnagni, person go for Adhyaashana, Kalavayutta aharah sevana again and again, which leads to disturbance in Agni and subsequently formation of Ama may take place. It has been further explained by Dalhana that in the Sthaulya, formation of Ama is more due to increase of Medodhatvagni than Jatharagni.

   According to ‘Dhatu Parinama concept’, (at Dhatvagni level) Vriddh of previous Dhatu and Kshaya of further Dhatu are take place [5]. In cases of Sthaulya, excessive consumption of Guru, Madhura, Snigdha guna dominant diet produces excessive and inferiority Medodhata Poshaka Annarasa, this makes...
Obesity can be characterized predominantly by adipose cell hypertrophy with minimum size but hyperplasia remains fixed. Adult onset obesity is characterized predominantly by adipose cell hypertrophy with minimum hyperplasia. There are three main factors in the pathogenesis of obesity:

- Excessive lipid deposition
- Diminished lipid mobilization and
- Diminished lipid utilization

**Assessment of obesity**

**According to Ayurved**: Diagnostic method describes in Ayurved text are subjective as well as objective type. According to Astavidha Pariksha, Sthaulya can be diagnosed by Akriti Pariksha, Ayurvedic Pramana Pariksha and Samhanana Pariksha can be correlated with objective criteria of diagnosis like measurement of height, weight, various girth measurements and skin-fold-thickness. Acharya Charaka has been mentioned anthropometry of body, under the caption of Dashavidha Pariksha. It may provide a relative measurement and objective criteria for patient of Sthaulya.

**According to modern**: Obesity can be assessed by following tools[6]:

- Body Mass Index
- Waist circumference
- Waist / Hip ratio
- Relative Weight (Rw)
- Skin fold thickness

**Body mass index**: The B.M.I. is the actual body weight divided by the height squared (kg/m2). This index provides a satisfactory measure of obesity in people who are not hypertrophied athletes. The classification of obesity:

<table>
<thead>
<tr>
<th>Category</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under weight</td>
<td>&lt;18.5 kg/m2</td>
</tr>
<tr>
<td>Normal weight</td>
<td>18.5 - 24.9 kg/m2</td>
</tr>
<tr>
<td>Over weight</td>
<td>25 - 29.9 kg/m2</td>
</tr>
<tr>
<td>Obesity (Class-I)</td>
<td>30 - 34.9 kg/m2</td>
</tr>
<tr>
<td>Obesity (Class-II)</td>
<td>35 - 39.9 kg/m2</td>
</tr>
<tr>
<td>Morbid Obesity (Class-III)</td>
<td>&gt; 40 kg/m2</td>
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</tbody>
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**Chikitsa of Sthaulya**

Acharya Vagbhatta mentioned that Karshya is better than Sthaulya; because there is no perfect remedy for the Sthaulya [7]. In the Samprapti two factors are of prime importance, Tikshna Jatharagni and Medodhatvagnimandya. Irrationality between two levels of Agni makes the disease Krichha Shadhya, but Panchkarma therapy can give better solution for this problem. In Ayurvedic texts different Shodhna procedure i.e. Vamana, Virechana, Lekhana, Raktamoksha are mentioned for the treatment of Sthaulya.

“Lekhana Vasti with Varaadi kwatha” produced statistically significant improvement in the disease obesity. Lekhana Vasti with Varaadi Kwatha’ by virtue of its ingredients have Katu, Tikta, Kashaya rasa, Laghu, Ruksha, Tikshna Guna, Ushna virya, Katu vipaka, Lekhana, Kapha-vata hara, Deepana-pachana & Sroto-shodhaka properties[8].

Shamana Chikitsa can be implemented through seven different ways. Deepana, Marutsevana, Kshudha Nigraha, Pachana, Atapasevana, Trusha Nigraha, Vyayama. Langhana is advisable in Samtarpanajanya Vyadhi, in Amashyotha Vikara, in Shleshmika Vikara, in Rasaja Vikara and it is the best remedy for the Sama condition of disease. So, all seven types of Langhana can be applied for the patients of Sthaulya according to Rogi-Roga Bala. i.e. Administration of Guru and Apatarpaka articles which possess additional Vata, Shleshmaghna and Medonashaka properties is considered as an ideal for Samshaman therapy.
**Medicinal Treatment**

<table>
<thead>
<tr>
<th>Single drug</th>
<th>Anupan</th>
<th>Reference</th>
<th>Compound preparation</th>
<th>Anupan</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rasanjana</td>
<td></td>
<td>Vagbhat</td>
<td>Rasasindura</td>
<td>Madhu</td>
<td>Rasa Tarigini</td>
</tr>
<tr>
<td>Guggula</td>
<td></td>
<td>Ashtang</td>
<td>Trikandura</td>
<td>Madhu</td>
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<td>Guduchi</td>
<td>Madhu</td>
<td>Vagbhat</td>
<td>Lohrasava</td>
<td>hot water</td>
<td>Ashatang Hrudaya</td>
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<tr>
<td>Triphala</td>
<td>Madhu</td>
<td>Vagbhat</td>
<td>Navaka Guggulu</td>
<td>hot water</td>
<td>Chakradatta</td>
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<tr>
<td>Haritaki</td>
<td>Madhu</td>
<td>Vagbhat</td>
<td>Amrutasindura</td>
<td>hot water</td>
<td>Chakradatta</td>
</tr>
<tr>
<td>Musta</td>
<td>Madhu</td>
<td>Vagbhat</td>
<td>Arogyavardhini Vati</td>
<td>hot water</td>
<td>-</td>
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<tr>
<td>Shilajit</td>
<td>Agyanath a Swaras</td>
<td>Vagbhat</td>
<td>Triphala Guggulu</td>
<td>hot water</td>
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*Nidana Parivarjana* is most important measure for *Sthaulya*. In *Sthaulya*, the factors which are responsible causes of the disease should be avoided to stop further progress of the disease.

According to modern science, First aim of therapy is to reduce weight; second aim of the therapy is prevention of further weight gain. The strategy for treatment of obesity includes phases as:

- Patient counseling
- Dietary management
- Exercise therapy
- Pharmacotherapy
- Weight loss surgery

**CONCLUSION**

*Sthaulya* is a Dushya dominant Vyadhi. Etiological factor mainly Vitiate Vata Kapha Meda. This increases gravity of the disease and make the *Sthaulya* Kritchhsadhyaya. Vyana Vayu could not transport nutrient to other Dhatu due to obstruction by Meda; so Medadhatu is increased and Uttardhatu decreased. *Sthaulya* is a predominant metabolic disorder, which is described by Charaka in Ashtaaninidita Purusha. Sedentary life, lack of exercise, faulty food habits, urbanization, psychological factors like Harshanitya, Manasonivrita etc. along with genetic predisposition play a major role in aetiopathogenesis of *Sthaulya*. Acharya Charaka has illustrated that Krishata is better than *Sthaulya* because when *Sthula purusha* affected by disease suffers more due to it as compare to Karshya. Kapha Prakriti persons are more prone to become obese (*Sthula*).

Obesity occurs more in female than male and specially increases after marriage, light nature of work, use of IUCD, contraceptive pills, after delivery and in menopausal period etc. In the Samprapti of *Sthaulya* Medodhatvagnimandya, Ama Rasa, Kapha-Vata pradhana Tridosh play important role. Hence, Treatment modality should be planned considering vitiated Meda,Kapha and Vata. Lekhana Basti and Virechana Karma are amongst them. Basti provided better result because it eliminates Doshas from the body and simultaneously absorbed drug perform their action of Samprapti Vighatana at cellular level. Some herbal drugs like Musta, Triphala, Guggulu possesses Kapha-Medohar & Vataghna.

**REFERENCES**


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