



EXPLORATORY STUDY OF STHAULYA UPADRAVAS W.S.R.TO BRIHATRAYS.

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ABSTRACT In the present era of modernization, the use of latest technology by human in every lifestyle has brought about drastic changes in dietary habits and various regimens of life, which results in various lifestyle disorders. Among this *Sthaulya vyadhi* is one of the important metabolic and life style disorder. *Sthaulya vyadhi* is associated with an increased risk of major and minor Complications. Therefore, Ayurveda has given importance to *Sthaulya vyadhi*. Acharya Charaka has mentioned *Atisthaulya* in *Ashtanindita Purusha* (eight undesirable constitutions) and stated *Ashtadoshas* of *Atisthula Purusha*. Understanding the effect of pathology and their intensity on various systems of body in *Sthaulya vyadhi* acharya Sushruta and acharya Vagbhata also mentioned *Sthaulya vyadhi* with its root cause and complications. The origin of *Upadras* (Complications) is either due to improper management of disease or uninterrupted consumption of *Vyadhi nidanas*. Therefore management of complications is having at most significance in Ayurveda. Giving importance to the above reference, this study is carried out to understand the basic pathological changes in *Sthaulya vyadhi* and various factors responsible for them. An effort is also taken to understand the opinions by different *Acharyas* in *brihatrayi* in mentioning the complications of *Sthaulya vyadhi*

KEYWORDS : *Sthaulya vyadhi*, Obesity, *Upadras*, *Ashtadoshas*.

INTRODUCTION:-

Ayurveda is a science of life and its main aim is to maintain healthy living being i.e., prevention of disease and its treatment. WHO defines good health as, A state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity¹. As per acharya Sushruta, healthy body is an essential medium to achieve the ultimate goal of *Chaturvedh Purushartha*². In the present era of modernization, the use of latest technologies by human in every lifestyle has brought about some drastic changes in dietary habits, modes of lifestyles and various regimens of life, which has resulted in increased number of lifestyle disorders. Among this *Sthaulya* is one of the important life style and metabolic disorder which is normally caused by a Sedentary lifestyle, lack of physical activity, irregular diet and sleep patterns etc. So, it is wisely said that 'Longer is the belt Shorter is the life.' According to WHO, Obesity is more prevalent in women compared to men. Also, the WHO estimation in 2016, more than 1.9 billion adults among 11% Men and 15% Women were overweight. 12.6% women and 9.6% men in India are obese³. *Sthaulya* is one of the diseases which is associated with an increased risk of major and minor complications. Therefore, Ayurveda has significant attention on this disease. Acharya Charaka has included *Atisthaulya* among *Ashtanindita*⁴, because of its unpleasant appearance and unmanageable health conditions mentioned in *Ashtadoshas*. Because of the increased percentage of *Sthaulya vyadhi*, acharya Sushruta and acharya Vagbhata also described the *Sthaulya vyadhi* with its *Upadras* (Complications).

As *Sthaulya Vyadhi* is associated with many *updravas* as mentioned in *Brihatrayi*, it has the risk of mortality at any age. The origin of *upadras* is either due to improper management of disease or in continuation with *vyadhi nidanas*. Hence the management of *upadras* is having at most significance in Ayurveda. Therefore, an attempt is made to analyse and understand the complications of *Sthaulya vyadhi* in this study.

MATERIALS AND METHODS:-

Available literature on *Sthaulya vyadhi* has been compiled from Ayurvedic texts viz. Charaka Samhita, Sushruta Samhita, Ashtang hridaya Samhita and their commentaries Chakrapani, Dalhana, Arundatta, Hemadri. Available contemporary literature in different online databases along with research articles have also been used to make the article more informative and insightful.

OBSERVATION AND RESULT:

Acharya Charaka has described *Sthaulya vyadhi* as excessive and abnormal increase of *Medodhatu* along with *Mamsadhatu* resulting in Pendulous appearance of *Sphika* (Hip), *Stana* (Chest), *Udara* (Abdomen)⁵. Acharya Charaka instead described the *updravas* separately and he has reported that if *Sthaulya* is left untreated many

diseases may be arisen out which he termed as '*Ashtadoshas*' of *Sthaulya Vyadhi*⁶. These *Ashtadoshas* are as follow-

- 1) *Aayushya rhasa*- Decreased life span.
- 2) *Java uparodha*- Decrease in enthusiasm and activity.
- 3) *Kriccha vyavayata*- Difficulty in sexual act.
- 4) *Daurbalya*- General debility.
- 5) *Sweda abadha*- Excessive perspiration.
- 6) *Daurgandhya*- Bad odour of the body.
- 7) *Kshuda atimatra*- Increase in hunger.
- 8) *Pipasa atiyoga*- Increase in thirst.

Acharya Sushruta and Acharya Vagbhata mentioned the following complications of *Sthaulya*^{7,8}.

Complications (Upadras)	Sushruta	Ashtang Hridaya	Ashtang Sangraha
<i>Prameha</i>		+	+
<i>Pramehapidika</i>	+		+
<i>Jwara</i>	+		+
<i>Bhagandara</i>	+		+
<i>Vichradhi</i>	+		
<i>Vatavikara</i>	+		
<i>Udararoga</i>		+	+
<i>Ajirna</i>		+	
<i>Kaas</i>		+	
<i>Mrutrakriccha</i>		+	
<i>Apachi</i>		+	
<i>Kushtha</i>		+	
<i>Urustambh</i>			+
<i>Shwasa</i>			+

DISCUSSION:

Sthaulya vyadhi is explained in *Santarpanotha Vyadhi* in Ayurveda and *Atisthula Purusha* has been considered as one of the *Ashtanindita purusha* by acharya Charaka. *Ashtadoshas* of *Sthaulya vyadhi* explained by acharya Charaka, denote morbid conditions which indicate the severity of the disease.

1) *Ayushohrasa*: According to acharya Charaka, the life span of an individual is maintained by *agni*, which shows importance of *agni* as *Ayu* (longevity)⁹. *Koshthagini* (digestive fire) digest the food and convert it into *Poshak ahararasa* (nutritional energy). With the help of this *Ahararasa*, *Dhatvagni* (tissue cellular metabolism) performs synthesis and nourishment of *Dhatu* (tissue). In *Sthaulya vyadhi* disturbance in digestive fire results in formation of *ama* (undigested nutritional energy). This *ama* disturbs the metabolic process of *dhatvagni*, which leads to over production of *meda dhatu*. *Ama*

obstructs the channels of all body tissue and vitiates *vata dosha*. This vitiated *vata dosha*, obstructs the formation of furthermost tissue such as *Asthi*, *Majja* and *Shukra* and this *dhatu* cannot be nourished properly. Therefore, over production of *meda dhatu* at expense of other *dhatu*s decreases the life expectancy.

2) *Javoparodha*- It is nothing but the person is slow to initiate the work. In obese person, there is excess production of vitiated *meda dhatu*. As per acharya Sushruta, *Medosara purusha* (an individual having excessive *meda dhatu*) are incapable of doing physical labour¹⁰. This vitiated *meda dhatu* brings heaviness in the body and does not offer strength to physical movements. Therefore *Shaithilya* (flabbiness), *Sukumarata* (delicacy), *Gurutva* (heaviness) of this vitiated *meda dhatu* hampers the body movements.

3) *Kricchaavyavayata*- Sexual dysfunction in obesity results from obstruction to the channels of *shukra* by vitiated *meda dhatu*. In *Sthaulya vyadhi*, there will be *meda dhatvagni mandya* (impaired lipid metabolism) resulting in excess production of *meda dhatu* which is *abaddha* (free) in nature. This *abaddha meda dhatu* obstructs different *strotas* (channels) of body including *shukravaha strotas*. The obstruction to the channels may also aggravate *Vata dosha* particularly *Apana vayu* which is situated in *shroni* (pelvis) and reproductive organs. *Shukranishkramankriya* (ejaculation of semen) which is one of the functions of *Apana vayu* gets affected due to obstruction resulting in sexual dysfunction.

4) *Daurbalya*- *Sthaulya vyadhi* is a disorder of *meda dhatu* metabolism. It is fourth *dhatu* of the body, which is derived from *mamsa dhatu*. The equilibrium state of all *dhatu*s depends upon *Jatharagni* (digestive fire), *Bhutagni* (hepatic metabolism), *Dhatvagni* (tissue cellular metabolism). In *Sthaulya vyadhi*, *mandagni* is considered as a main etiological factor for *medodhatu dushti*. Due to *mandagni* there is formation of *ama rasa* and results into excess formation of *meda dhatu* and malnourishment of other *dhatu*s. This aggravated *meda dhatu* leads to tiredness and exertion even in minor physical activities.

5) *Daurgandhya*- On account of the admixture of *kapha dosha* with vitiated *meda dhatu* *Vishyandi*, *Bahutva* (excess), *Guru* (heavy) properties of *meda* and its inability to bear the strain of exercise results in excess sweating. Due to this excess sweating, innate quality and morbid nature of vitiated *meda dhatu* there is bad odour seen in *sthaulya vyadhi*.

6) *Swedabadha*- *Sweda* is *mala* (excretory product) of the *meda dhatu*. Therefore, vitiated *meda dhatu* may affect the production of *sweda*. Also, *swedavaha strotas* is situated in *meda dhatu*¹¹. In *Sthaulya vyadhi samprapti*, *Agni sandhuction* (Increased digestive fire) is observed which may increase *Ushna* (hot) *guna* of *Pitta dosha* which gives rise to body temperature. This raised body temperature results in excess sweating.

7) *Kshudhatimatra*- In *Sthula Purusha*, excessively accumulated *Meda* obstructs the *Strotas*. Due to that the bodily aggravated *Vayu* confines into the *Koshtha* and stimulates the *Agni* rapidly. As a result, the patient feels hungry and takes more food. This process continuously goes on and leads to excess appetite.

8) *Pipasatiyoga*- This is due to obstruction of the *strotas* (channels), which vitiates *Vata* and *Pitta doshas*. *Ushna* (hot) *guna* of *Pitta dosha* and *Ruksha* (dry) *guna* of *Vata dosha* results in *Abadhatu kshaya* (low water content) in the body. Also, excessive perspiration due to *Medovridhi* which leads to dehydration of the body. Therefore, to overcome this symptoms patient develops desire of taking more water. Acharya Sushruta explained following *sthaulya upadhravas*:

1) *Pramehapidika*: Due to long persisting *dosha* imbalance, the body gets deteriorated owing to vitiated *meda dhatu* and *kleda*. Ultimately aggravated *doshas* exhibit their symptoms on the surface of the skin which is known as *pramehapidika*². *Hetusevana* such as *Shita* (cold), *Snigdha* (oily), *Madhur* (sweet), *kaphavardhak ahara*, *divaswapa*, *Ayayama* by the obese person vitiates *kapha dosha*. This vitiated *kapha dosha* causes *shaithilya* in body. This vitiated *Kapha dosha* and *meda dhatu* further vitiates *Mamsa dhatu* and get mixed with the muscle tissue results into *Pramehapidika*.

2) *Jwara*: Generation of *Aam* is the root cause of *sthaulya* and *Jwara vyadhi*. *Sthaulya vyadhi* begins with the intake of incorrect food or acceptance of improper dietary habits and unhealthy life styles. This causes vitiation of *Tridoshas* and leads to the *Agnimandya*, which in

turn produces *Aama dosha*. This *Aama dosha* blocks the channels of all body tissue (*Strotodha*). This causes obstruction to the flow of *Pachak pitta* which then circulates in all body with its *Ushna* and *Tiksha gunas* along with *Aam*¹³. In obese person due to *medovahastrotodushiti*, this vitiated *Tridoshas sthansanshraya* (localised) in *medovahastrotas* and results in *Tritiyaka jwara* (*vishamjwara*)¹⁴.

3) *Bhagandara*: Acharya Bhavpraksha mentioned *Sthaulya vyadhi* is one of the causes of *Bhagandara vyadhi*. In *Sthaulya vyadhi*, there is *meda dhatvagni mandya* with results in the formation of vitiated *meda dhatu*. This vitiated *meda dhatu* further vitiates *mamsa* and *rakta dhatu* by *Pratiloma gati*. Therefore, when a person is indulged in *Mithya Aahar - Vihara* (Un salutary lifestyle & food habits), *Vata dosha* in his body get aggravated and localised in anal canal. This vitiated *Vata dosha* along with vitiated *Mamsa*, *Rakta*, and *Meda dhatu* gives rise to *Pitika*. And if this condition is not treated in time, this *pitika* suppurate and burst resulting in a discharging tract which is known as *Bhagandara*¹⁵.

4) *Vidradhi*: As per definition of *Sthula* person by the acharya Charaka, there is abnormal increase in *Stana* having *meda dhatu dushti*. Acharya Charak also mentioned *Adhyashana*, *Vishamashana*, *Divaswapa* and *Ayayama* as the *hetus* of both *Sthaulya* and *Vidradhi vyadhi*¹⁶. Due to continuation of *Aaharatmaka* and *Viharatmaka hetus* there is vitiation of *Tridoshas* along with vitiation of *Twak*, *Rasa*, *Rakta* and *Mamsa dhatu* takes place which results in formation of *Vidradhi*.

5) *Vatavikara*: In *sthaulya vyadhi*, Due to *Shita*, *Snigdha* and *Abhishyandi ahara sevana* there is vitiation of *Kapha dosha*, and formation of *Aama* which increases *Kleda* in body. As per acharya Charaka, this increased *kleda* and *ama dosha* obstructs the channels (*strotodha*) which results in *Vimargaganman* (deviation) of *Vata dosha*. This deviated *Vata dosha* circulates in the body and results in various *Vatavikara*¹⁷.

Similarly, according to acharya Vagbhata, following are the *Sthaulya Upadhravas*:

1) *Prameha*: According to WHO, more than 90% of patients with type 2 diabetes are obese⁸. From the etiopathology to the state of complications of *Sthaulya vyadhi* has much common to share with *Prameha* and other metabolic disorders. This is because, there is involvement of *Kapha*, *Vata dosha*, *Meda dhatu*, *Kleda* and *Agni*. In *sthaulya vyadhi*, the path of *vata dosha* is obstructed by vitiated *Meda dhatu* and hence *Vata dosha* aggravated easily. This aggravated *Vata dosha* stimulates the digestive fire and there is consequently absorption of food. Hence the food digest quickly and individual becomes voracious eater. Similarly vitiated *meda dhatu* along with *Kledak kapha*, increases *kleda* in body. *Dhatvagni mandya* and vitiation of *kledaka kapha*, *Samana vata* and *Pachak pitta* in obese person results in *Dhatushaithilya*, which further leads to *Prameha*¹⁹.

2) *Udararoga*: Presence of *Ama* is the main cause of *Udaravyadhi* as it is responsible for obstruction of *Swedavaha* and *Ambuvaha Strotas*. Due to continuation of *Adhyashana*, *Vishamashana*, *Ayayama* by the obese person there is obstruction of *Swedavaha* and *Ambuvaha strotas* which leads to excess accumulation of *Mala*. As per definition of *sthula* person by acharya Charaka, there is abnormal accumulation of *Meda dhatu* in *Udara*. Due to this there is vitiation of *Prana*, *Agni*, and *Apana vayu* which are located in *Udara*. This leads to accumulation of *Mala* in peritoneal space by *Upasnehan nyaya* which results in *Udaravyadhi*²⁰.

3) *Ajirna*: If an obese person is afflicted with an etiological factor such as *Vishamasana* (Taking food either in large or small quantity and at unusual time), *Atyambupana* (drinking large quantity of water), *Sandharana* (Suppression of natural urges), *Swapnaviparyaya* (Sleeping during day), *Agni* becomes greatly vitiated and fails to complete the process of digestion in sequence leading to formation of *Apachita Aahararasa* causes *sourness*. On other hand, *Ushna* and *Tiksha gunas* of *Pitta dosha* stimulates *Agni* which results in increase in appetite. But because of *Apachita Aahararasa* and sourness in *Aamashaya*, individual does not digest the food even though consumed at proper time, quantity, wholesome diet, which leads to *Ajirna*.

4) *Kaasa*: Acharya Sushruta has mentioned that *Guru*, *Snigdha*, *Madhura*, *Abhishyandi ahara*, *Adhyashana*, *Aamdosha*, *Vishamasana* and *Divaswapa* are the *hetus* for *Kaasa* as well as *Sthaulya Vyadhi*²¹. In obese person there is vitiation of *Meda dhatu* and *Kapha dosha*. Due to above mentioned *hetus* there is increase in *Snigdha*, *Shita*, *Mrtsna*

gunas of *kapha dosha* which results in increase in secretions. These secretions increase resistance in *Pranavaha strotas*. Therefore, body tries to release this resistance by coughing reflex, which results in *Kaasa Vyadhi*²².

5) *Mutrakriccha*: If obese person continues with *Hetusevan* such as *Adhyashana*, *Madyapana*, *Aanupmamsa sevan* will lead to *Mutrakriccha*. *Adhyashana* (over eating) and *Jeernabhojana* (digested food) leads to reduced state of *Agni* which results in formation of ama and there by aggravates the *Tridoshas*. This causative factor acts as *Viprakristha Nidana* (Distant remote cause) in producing the disease. *Ushna*, *Tikshna*, *Ruksha*, and *Aashukari gunas* (Fast acting) of *Madya* causes vitiation of *Vata* and *Pitta dosha*. Hence intake of alcoholic beverages changes the urine pH, in turn makes the bladder susceptible for infection. Excessive intake of *Anupamamsa* (Meat from Marshy places) vitiates *Kapha dosha* and *Matsya* (Fish) acts as a *Mahaabhishtyandi* (Obstruction to channels). This increases *Kledva* in *Dhatu*, *Mala*, and *Strotas* especially in *Mutravahastrotas*. This Vitiated *Kapha*, *Kleda* along with Vitiated *Meda Dhatu* obstruct the *Mutramarga* which further leads to *Mutrakriccha*²³.

6) *Apachi*: According to acharya Sushruta, vitiated *Meda dhatu* is more prone to formation of *Apachi vyadhi*. Due to *Apathya Ahara sevan*, *Kapha dhatu* gets aggravated which further vitiates *Vata* and *Pitta dosha*. Therefore, this aggravated *tridoshas* along with vitiated *Meda dhatu* gives rise to *Apachi*²⁴.

7) *Kushtha*: According to acharya Charaka, in obese person there is admixture of vitiated *Kapha dosha* with *Meda dhatu*. Which further vitiates *Vata* and *Pitta doshas*. This *Tridoshas* circulates in all over body. Due to this, there is *Shaitihilyata* in body which vitiates *Twaka*, *Rakta*, *Mamsa* and *Lasika*²⁵. *Vishyandi*, *Bahutva* and *Guru* properties of *Meda dhatu* and its inability to bear strain of exercise results into *Swedabadha*. Excessive sweating increases *Kleda* in body. If this pathology continues for long time, may lead to *Kushtha*.

8) *Urustambha*: It is defined as a *Kapha dosha* associated with vitiated *meda dhatu* influences *Vata* and *Pitta* to cause spasm. *Hetus* such as *Snigdha*, *Drava aahara*, *Adhyashana*, *Vegvidharana* produces *Ama dosha*. This *ama* located in gastrointestinal tract in association with vitiated *Medodhatu* obstructs the flow of *vata dosha*. Because of heaviness, it descends to the thighs through the downward moving vessels. Being provoked by the *Medovaha strotodushti*, these *Doshas* *Sthansanshraya* (accumulation) in lower limbs and calf muscles, which gives rise to *Urustambha*²⁶.

9) *Shwasa*: *Shwasa* seen in *sthaulya* patients is due to *hetusevana* such as *Shitambusevana*, *Abhishtyandi aahara*, *Vishamasana*, *Amotpatti* which increases *Snigdha*, *Shita*, *Mrutsna gunas* of *Kapha Dosh*. Because of this vitiated *Kapha dosha*, there is increase in secretions of *Pranavaha Strotas* resulting in disturbance in normal functioning of *Prana-Udana Vayu*. So that person may cause dyspnoea after minimum work, resulting in *Shwasa*²⁷. According to modern medicine, obese person developed respiratory problems shortness of breath which is known as hypoventilation syndrome.

CONCLUSION:

There is drastic increase in incidence of obesity around the globe. *Sthaulya vyadhi* is a serious and highly prevalent disease associated with increased morbidity and mortality. The major bodily constituents which take part in pathogenesis of complications of *sthaulya vyadhi* are *Kledaka kapha*, *Vyana vayu*, *Samana vayu*, and *Pachaka pitta*. Various systems disturbed in complications of *Sthaulya vyadhi* are mainly *Medovaha strotasa*, *Annavaaha Strotas*, *Raktavaha Strotas*, *Asthivaha Strotas*, *Majjavaha Strotas* with *Rasa dhatu*, *Rakta dhatu*, *Mamsa dhatu*, *Asthi dhatu*, *Majja dhatu*, where *Meda dhatu* dominates the pathology. The major pathological events observed in *Sthaulya vyadhi* are disturbed functions of digestive system and digestive power, obstruction in channels, disturbed tissue level metabolism and deviation of *Vata dosha*. Therefore, it is the demand of the hour to treat the person with positive multidimensional approach. So that expectancy of life can be increased and patient can be prevented from further dreadful complications.

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