

PREVENTIVE AND CURATIVE ASPECT OF *STHOULYA* IN CHILDREN THROUGH AYURVEDA

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ABSTRACT

Almost half of the world population is considered to be overweight and obese. So it is one of the greatest public health challenges of the 21st century. Childhood obesity is a condition where excess body fat negatively affects a child's health or well-being. Due to the rising prevalence of obesity in children and its many adverse health effects it is being recognized as a serious public health concern. The most frightening aspect of obesity is that shorten the lifespan. Apart from that it reduces the quality of life and cause to heart disease, diabetes, sexual disability, hypertension, arteriosclerosis, gallstone, strokes, and various physical and mental disorder. Obesity is caused by number of

factor including more intake of food, sedentary lifestyle, less physical and mental work and sometimes heredity. Obesity has been described by the term *Sthoulya* and *Medoroga* in ayurvedic texts. Also *Atisthoulya* is included in *Asta Nindita Purusha*. Acharya Charak mentioned *Atisthoulya* as disease of *kapha dosha*. *Kapha dosha*, *Agni dusti* and vitiated *Medo dhatus* are leading factor in pathogenesis of *Atisthoulya*. The treatment of *Sthoulya* describes in our classics can be done in following way i.e. *Nidana Parivarjarna*, *Guru Atarpana chikitsa*, *Statata karshana*, *Santarpanotha vikara chikitsa*, *Langhana chikitsa* [*Shodhana & Shaman rupi chikitsa*] and *Pathyapthya*. *Pathyas* are mentioned in three different form i.e. *Aharaja Pathya* like *Purana Shali*, *Kulattha*, *takra*, *madhu*, etc.; *Viharaja Pathyas* like *Vyayams Adhwagamana* etc. and finally *Manasika Pathyas* like *Chinta*, *Shoka* etc. when *Pathya* is following along with the treatment procedures it gives better result.

KEYWORDS: *Sthoulya*, Obesity, *Agnidusti*.

INTRODUCTION

Childhood obesity is a condition where excess body fat negatively affects a child's health or well-being. Due to the rising prevalence of obesity in children and its many adverse health effects it is being recognized as a serious public health concern. Obesity has become the most widespread non communicable disease in children and adolescents. The etiology is multifactorial with the factors involved being genetic, physiological, behavioral, environmental, financial and political. Childhood obesity is considered by the World Health Organization (WHO) as a new epidemic, it has been characterized as the number one health problem worldwide and it is considered as one of the 21st century's most important public health challenges.^{[1],[2],[3]} According to the estimates of the WHO, the number of overweight or obese children will exceed 54 million in 2015.^[4]

Childhood obesity can harm seriously children's health^[5] and it is a potential cause for some social and psychological problems.^[6] It could also generate high direct or indirect economic burden for the family.^[7] Therefore, there is an urgent need to overcome this problem from the roots with effective prevention and treatment approaches. Behavior intervention, medication and surgery are the common treatments approaches for childhood obesity.^[8]

Rapidly changing dietary practices and a sedentary lifestyle have led to increasing prevalence of childhood obesity (5–19 yr.) in developing countries i.e. 22% in India.^[9] The incidence of obesity has been felt most dramatically in urban areas and gradually acquires its place in semi-urban and rural areas. The most frightening aspect of obesity is that shorten the lifespan. Apart from that it reduces the quality of life and cause to heart disease, diabetes, sexual disability, hypertension, arteriosclerosis, gallstone, strokes, and various physical and mental disorder. Obesity is caused by number of factor including more intake of food, sedentary lifestyle, less physical and mental work and sometimes heredity. Obesity is a leading preventable cause of death worldwide, with increasing prevalence in adults and children, and authorities view it as one of the most serious public health problems of the 21st century.^[10] Obesity is now well recognized as a disease which is largely preventable through changes in life style especially, diet. A number of factors influence body fat including age, sex, race, socio-economic class etc. Obesity has been described by the term *Sthoulya* and *Medoroga* in ayurvedic texts. Also *Atisthoulya* is included in *Asta Nindita Purusha*.

Definition of Obesity

- Excess deposition of adipose tissue-fat depot in the body is known as obesity.^[11]
- Obesity exists when body weight is 20% above ideal body weight.
- Overweight – 25 – 29.9 Kg/m²
- Obesity (class-I) 30 – 34.9 Kg/m²
- Obesity (class-II) 35 – 39.9 Kg/m²
- Obesity (class-III) > 40 kg/m²
- Park defined obesity as an abnormal growth of adipose tissue due to an enlargement of fat cell or an increase in number of fat cell or a combination of both.

Definition of *Sthaulya*

A person in which excessive and abnormal increase of *Medodhatu* along with *Mamsadhatu* is found, it will result into pendulous appearance of buttocks, belly and breasts and whose increase bulk is not matched by a corresponding increase in energy.^[12]

Classification

There is no such clear classification is found in our classics but different *Acharyas* have thrown little light regarding classification of *Sthaulya* as mentioned below.

Charaka^[13]: 1. *Sthula* 2. *Atisthula*

Sushruta^[14]: 1. *Sthaulya* 2. *Medoroga*

Vagbhata^[15]: 1. *Adhik* 2. *Madhya* 3. *Hina*

Sharangadhara^[16]: 1. *Medodosh*

Nidana of *Sthaulya*

Acharya Charaka has described in *Nidana Sthana* that One causative factor may lead to many disease conditions. Again a single causative factor may lead to a single disease. Many causative factors may bring only one disease. Again causative factors may lead to many diseases.^[17]

The etiology factors described in the *Ayurvedic* text can be classified into 4 groups –

1. *Aharaja nidana*
2. *Viharaja nidana*
3. *Mansika nidana*
4. *Anyanidana*

Except these factors, the components which may vitiate *Meda* and *Shlesma* could be considered as causative factors of *sthaulya*. Endogenous type of causes had mentioned by

Acharya Shushruta and *Maharshi Vagbhat*. Defective intercellular metabolism had been considered as main cause besides other components in aetiopathology at *Sthaulya* by *Vagbhat*.^[18] Only *Charaka* has defined *Bija dosha* as one of the cause besides other, other texts have humbly followed the *Brihatrayis's* description regarding etiological factors of *sthaulya*.

In context with *Sthaulya*, exogenous causes are *Meda* potentiating diet and regimens where as *Dosha*, *Dhatu*, *Mala*, *Srotas* etc. come under the endogenous factors.

Role of Ahara

Ahararasa plays a major role for increasing *Meda dhatu* in *Sthaulya*. So, *Acharya Sushruta* has mentioned. Means, *Sthaulya* and *Karshya* depends upon the quality and quantity of *Ahararasa*. On the basis of *Samanya Vishesh Siddhant*^[19], the excessive intake of foods of similar substance (*Dravya Samanya*), similar quality (*Guna Samanya*), similar in action (*Karma Samanya*) helps in the over production of *Dhatu*. In the same way, the growth of *Meda dhatu* is observed by excessive intake of fatty substances. Due to *Dravyasamanya siddhant*, *Ahara* having specific *Rasa*, *Guna*, *Virya*, *Vipaka*, *Karma* and *Panchabhautik* composition causes over production and accumulation of *Dhatu*s.

Aharatmaka Nidana (Dietary Causes)

Sr.No.	Aharatmaka Nidana	Ch. ^[2]	Su. ^[3]	A.S. ^[4]	A.H. ^[5]	M.N. ^[6]	B.P. ^[7]
1	Ati Sampurana	+	-	+	-	-	-
2	Santarpana	+	-	+	+	-	-
3	Adhyashana	-	+	-	-	-	-
4	Guru Aharasevana	+	-	-	-	-	-
5	Madhura Aharasevana	+	-	+	+	-	+
6	Sheeta Aharasevana	+	-	-	-	-	-
7	Snigdha Aharasevana	+	-	+	+	-	+
8	Shleshmala Aharasevana	+	+	-	-	+	+
9	Navanna sevana	+	-	-	-	-	-
10	Nava Madyasevana	+	-	-	-	-	-
11	Gramya Rasasevana	+	-	-	-	-	-
12	Audak Rasasevana	+	-	-	-	-	-
13	Mamsa Sevana	+	-	+	+	-	-
14	Paya Vikara Sevana	+	-	+	+	-	-
15	Dadhi Sevana	+	-	-	-	-	-
16	Sarpi Sevana	+	-	-	+	-	-
17	Ikshu Vikara Sevana	+	-	-	+	-	-
18	Guda Vikara Sevana	+	-	-	-	-	-
19	Shali Sevana	+	-	-	-	-	-
20	Godhuma Sevana	+	-	-	-	-	-

21	Masha Sevana	+	-	-	-	-	-
22	Rasayana Sevana	+	-	-	-	-	-
23	Vrushya Sevana	+	-	-	-	-	-
24	Bhojanotara Jalapana	-	-	+	-	-	+

Dietary Composition that leads to *sthaulya*.

Rasa	Guna	Veerya	Vipaka	Karma	Panchbhautika composition
Madhura	Guru, Sheeta, Manda, Sthira, Shlakshna, Sthula, Pichchila, Snigdha, Sandra	Sheeta	Madhura	Brimhana, Santarpana, Vrishya, Rasayana, Abhishyandi	Prithvi, Jala

Viahratmaka Nidana (Life style related factors)

Sr. No.	Viharatmaka Nidana	Ch. ^[20]	Su. ^[21]	A.S. ^[22]	A.H. ^[23]	M.N. ^[24]	B.P. ^[25]
1	Avyayama (lack of physical exercise)	+	+	+	-	+	+
2	Avyavaya (lack of sexual life)	+	-	+	-	-	-
3	Diwaswaap (day time sleep)	+	+	+	-	+	+
4	Swapnaprasangat (excessive sleep)	+	-	+	+	-	-
5	Asana Sukh (excessive sitting)	+	-	+	+	-	-
6	Gandhamalyanusevana (using perfumes, garlands)	+	-	-	-	-	-
7	Bhijnottara nidra (sleeping after meal)	-	-	-	-	-	+
8	Bhojanottar snaana (bathing after taking the meal)	+	-	-	-	-	-
9	Bhojanottar aushadha (Drugs after meal)	-	-	+	-	-	-

Manasika Nidana (Psychological factors)

Sr.No.	Manasika Nidana	Ch. ^[20]	Su. ^[21]	A.S. ^[22]	A.H. ^[23]	M.N. ^[24]	B.P. ^[25]
1	Harshnityatvata (uninterrupted cheerfulness)	+	-	+	+	-	-
2	Achintanat (lack of Tension)	+	-	+	+	-	-
3	Manasonivritti (mental relaxation)	+	-	+	+	-	-
4	Priyadarshana (watching of beloved)	+	-	-	-	-	-
5	Saukhyena (complete happiness)	-	-	-	+	-	-

Anya Nidana (other causative factors)

Sr.No.	Nidana	Ch. ^[20]	Su. ^[21]	A.S. ^[22]	A.H. ^[23]	M.N. ^[24]	B.P. ^[25]
1	<i>Bijadoshaswabhabha</i> (hereditary)	+	-	-	-	-	-
2	<i>Amarasa</i>		+	-	-	-	+
3	<i>Snigdha Madhur Basti</i> <i>Sevana</i>	+	-	+	+	-	-
4	<i>Tailabhyanga</i> (oil massage)	+	-	+	+	-	-
5	<i>Snigdha Udvartana</i> (unctuous unction)	+	-	-	-	-	-

Another classification of the causative factors of *Sthaulya* can be done on the basis of *Samanya-Vishesh siddhanta*^[19] advocated by *Acharya Charaka*, according to which the *Dhatu* increase or decrease based on the quality & quantity of nutrition provided to them. Excessive consumption of substances similar to *Meda* (*Guna Samanya*) & the action that have similar action of *Meda* (*Karma Samanya*) leads to an increment of *Meda* in the body. Thus based on this concept, the *Nidanas* of *Sthaulya* can be classified as:

- **Dravya Samanya:** Consumption of animal & vegetable fats (*Ghee, Taila, Vasa, Majja*)
- **Guna Samanya:** Consumption of food with *Snigdha, Guru guna* e.g. milk, *Masha, Sheeta Veerya Dravya*, substances with *Madhura Rasa & Vipaka*.
- **Karma Samanya:** *Divaswapna, Avyayama, Avyavaya, Sukhasana, Taila Abhyanga, Snigdha Udvartana*, etc.

Eight disabilities (*Ashtavidha Dosha*) of *Sthaulya* are^[20]

1. *Ayusohrasa* (Diminution of lifespan)
2. *Javoparodha* (Lack of enthusiasm)
3. *Kriccha Vyavaya* (Difficulty in sexual act)
4. *Daurbalya* (Debility)
5. *Daurgandhya* (Foul smelling of body)
6. *Swedabadha* (Distressful sweating)
7. *Kshudhatimatrata* (Excessive hunger)
8. *Pipasatatiyoga* (Excessive thirst)

THREE STAGES OF STHAULYA REGARDING SIGNS AND SYMPTOMS

From the above references it may be conjectured that all the sign & symptoms of *Sthaulya* do not manifest at a time in an individual; rather they are seen in different stages of the *Sthaulya*.

[A] INITIAL STAGE

The symptom of this stage indicates the possibility of development of the *Sthaulya*.

1. Gauravta

The term *Guruta* connects the heaviness. Obese person generally feels the heaviness in the body. This is due to gradual increase in their body weight & is supposed to be related to the *Mahabhuta* constitution & possess mainly the *Prithvii* & *Jala Mahabhuta*. These two predominantly possess the *Guruta*.

2. Snigdhangata

In obese person oily skin is more than normal one and it can be felt by touching the skin. Oiliness occurs due to excess quantity of *Meda* which is *Snigdha* in nature. The biochemical investigation of serum, show the elevated value of serum cholesterol & lipids that indicates the increased *Snigdha*.

3. Javoparodha

At the beginning of the disease the patient feels the laziness & is unable to bear the physical exertion. In the subsequent stage the patient exhibits the showiness in the initiation of any work & shows disinterest. This *Utsahahani* is also referred to by *Javoparodha*. This *Utsahahani* occurs due to the *Guruta* of the body initiated by *Prithvi* & *Jala*.

4. Daurbalya

The loss of power to do physical exercise is known as weakness (*Daurbalya*). Continuously weight gain & uncontinuousness leads to the weakness of muscles & that accounts for the inability of an individual to bear the physical exercise.

5. Kshudra Shwasa (Dyspnoea on exertion)

In the initial stage of this disease, subsequently to the above symptoms *Kshudra Swasa* is manifested in patients. The vitiated *Vata* in the *Kostha*, due to the exertion & uncontinuousness of the body, and the increased *Kapha* leads to the manifestation of *Kshudra Swasa*. *Swasa* is *Kapha-Vatatamaka* disease. The abnormally increased *Vata* & *Kapha Dosha* causes *Kshudra swasa*. In *sthaulya* vitiation of *Vata* occurs due to the obstruction of *Srotas* & aggravation of *Kapha* is due to *Nidana Sevan* and *Ashrayashraee Bhava* of *Meda* & *Kapha*. So the patients feel breathlessness on exertion.

[B] INTERMEDIATE STAGE**1. *Swedadhikya***

Sweda is a *Mala* of *Meda Dhatu*, therefore due to the over production of *Meda*, excessive sweating occurs.

2. *Angagandha*

Because of excess of *Medo Vridhhi*, over production of *Sweda* occurs and if it is not cleaned properly will putrefy & produce foul smell.

3. *Kshudhadhikya*

In *Sthula Purusha*, excessively accumulated *Meda* obstructs the *Srotas*. Due to that the bodily aggravated *Vayu* confines into the *Kostha* & stimulates the *Agni* rapidly, as a result the patient feels hungry & takes more food. This process continuously goes on in a vicious circle.

4. *Pipasadhikya*

This is due to obstruction of the *Srotas*, which causes *Prakopa* of *Vata* as well as *Pitta*. These *Prakupita Dosha* confines at *Talu* and *Jivha* and brings about the dryness of them and the patient develops a desire of taking water to keep these parts moist which is exhibited through a symptoms “*Trishna*”. Again excessive perspiration is a feature of *Medo Vridhhi* and it leads to the dehydration of the body, to rehydrate the body, the patient exhibits symptoms of *Trishnadhikya*.

5. *Nidradhikya*

It is a causative factor as well as symptoms of this disease. It is caused by the abnormally increased *Kapha Dosha* and *Tamo guna*. Since *sthaulya* is caused by the excessive intake of *Kaphakara Ahara* that possess the *Prithvi* and *Jala Mahabhuta*, but both these are the constituents of *Kapha Dosha* and possess the *Tamo Guna*. *Kapha* and *Tamo Guna* both are said to be responsible in bringing the sleep and if they are increased, naturally the sleep also would be more. From this it is quite obvious that the excessive increase of *Tamo Guna* and *Kapha Dosha* accounts for the excessive sleep in these patients and also because of weakness and laziness the patient become tired and as compensation they are likely to go into sleep.

6. Others

Over production of *Meda* obstructs the *Srotas* consequently. Other *Dhatu* don't get the nourishment properly. Therefore they become weak and lose their compactness, lead to the

weakness of the body and thereby more susceptible to infectious disease due to low immunity (*Alpaprana*). Even mentally the patient becomes weak and suffer from *Moha* (Delusion).

[C] LATER STAGE

The cardinal signs & symptoms are fully manifested in this stage.

1. *Chala Sphika, Udara, Stana*

In case of *Sthula Purusha* due to *Guruta* (heaviness) of *Meda Dhatu* and loss of compactness of other *Dhatu* along with the unequal distribution these regions become flabby and moves freely. This flabby and pendulous mass moves while movement of the body.

2. *Udara Vriddhi*

Udara Vriddhi (Distension of abdomen) may occur due to many causes like *Vata*, *Purisha* or *Meda*. Here excessive accumulation of *Meda* in the abdominal and pelvic cavity is taken as *Vriddhi*. The main site of the distribution of the *Medo Dhatu* is abdominal wall where it accumulates more, than it is accumulated at buttocks, breast and neck region. In case of *Sthaulya* fat accelerates first in this region, that's why the abdomen as well as the susceptible regions is protuberant more than the other regions.

SAMPRAPTI

According to *Charaka*: Due to obstruction of *Srotas* by *Meda*, the *Vata* moving mainly into stomach, whips up the *Agni* and absorbs the food. The corpulent man digests food speedily and craves for food exceedingly. Excessive eating produces more production of *Rasa* which causes over growth of *Meda Dhatu* leading to *Sthaulya*.^[26]

According to *Sushruta*: *Ama Rasa* is produced due to *Kaphavardhaka Ahara*, *Adhyashana*, *Avyayama*, *Divaswapa*. The *Madhura Bhava Ama Rasa* moves with in the body, *Snigdamsha* of this *Anna Rasa* causes *sthaulya* which produces excessive stoutness.^[21]

According to *Vagbhata*: Over indulgence in *Kapha & Meda Sadharmi Amarasa* containing etiological factors leads to *Kapha Bhuishtha Dosha vruddhi* in the body, which due to its very nature, produces *Agni vikriti* causing the production of *Ama*. This *Ama* goes directly to *Meda Dhatu* & lead to increase and accumulation of *Meda* by creating *Medodhatwagni-mandya*. Vitiated *Kapha & Meda* causes *Medovaha Sroto Sanga*, leading to *Margavrodha* of *Vata*. This vitiated *Vata* circulates in whole body especially in the *Koshta*, later on causing *Jathragni Sandhukshana* which results in *Kshudhaadhikya & Shighra Jarana* of *Ahara*.

Medodhatwagni Mandhya takes place due to which the capacity to digest *Medamasa* by the *Medodhatwagni* is hampered, leading to the formation of *Apakwa Meda* which is incapable of nourishing the *Utter Dhatu*. The *Ama Meda* gets accumulated in *Sarvanga* especially in the *Sphig-Udar-Stana* regions resulting in *Sthaulya*.^[18]

CHIKITSA (Treatment) The process that balances the disturbed *Dhatu*s of the body is called *Chikitsa*.^[27] General Principle of management of any disorder in *Ayurveda* is thus in any disorder management is divided into three parts.^[28]

- 1) *Nidan Parivarjan*.
- 2) *Sanahodhan*.
- 3) *Sansaman*

1) *Nidan Parivarjan*

Nidana parivarjana is first the line of treatment.^[29] In *Nidana* of particular disease avoided at proper time, may help in arresting the pathogenesis of the disease. So, the first step to be taken by the *Sthulapurusha* is to forsake *Nidana* i.e. *Atisampurana*, *Madhura*, *Sheeta*, *Snigdha*, *Guru Aahara*, *Adhyashana*. Not only should these but *Viharatmaka Nidana* be avoided.

2) *Sodhana*

In this therapy, evacuation of aggravated *Doshas* is the chief aim. It can be divided into two—

(a) *Bahya Shodhana*

(b) *Abhyantara Shodhana*

Ruksha Udvardana is one type of *Bahya Shodhana*.^[30] *Vaman*, *Virechana*, *Ruksha Asthapana* *basti Raktamokshana* are *Abhyantara Shodhana*. These all are highly recommended for *Sthaulya* also.

3) *Shamana*

Shamana therapy means, the disease is eradicated by suppressing the vitiated *Dosha*, without disturbing the other *Dhatu*s. This type of treatment is very effective in primary stage of disease.

Among *Shada Upakrama* described, *Langhana* and *Rukshana* can be performed for *Samshamana* purpose in *sthaulya*.^{[31],[32]} *Shamana Chikitsa* can be implemented through seven different ways.^[33]

- | | | |
|------------|------------------------------|-------------------|
| 1) Deepana | 4) Marutsevana | 7) Trusha Nigraha |
| 2) Pachana | 5) Atapaseva | |
| 3) Vyayama | 6) Kshudha Nigraha (Upavasa) | |

These all can be included under the *Langhana (Apatarpana)*. *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*.

DRUGS USED IN STHAULYA

Some *Samsamana Yoga* like *Guduchi*, *Bhadramusta*, *Triphala*, *Takrarista*, *Makshika*, *Vidangadi Lauha*, *Bilvadipanchmula* and *Shilajatu* with *Agnimantha Svarasa* are advised for prolonged period.^[34] Also, treatment of *Sthaulya* is mentioned at different places in *Charaka Samhita*. Drugs and preparations like *Karshana Yavagu* of *Gavedhuka* (Su. 2/25), *Lekhaniya Mahakashaya* (Su. 4/3(3)), *Bibhitaka* (Su. 27/148), *Venuyava* (Su. 27/20) and *Madhudaka* (Su. 27/323) are advocated as *Medonasaka* and *Lekhana*.

Akasha and *Vayavya Mahabhuta* dominant *Dravyas* are attributed to have *Laghavakara* action (Su. 26/11), so *Akasha* and *Vayavya Mahabhuta* dominant articles can be used for management of *Sthaulya*.

Katu and *Kashaya Rasa* are having *Karshana*, *Upchayahara* properties, while *Tikta Rasa* is having *Lekhana* and *Medoupshoshana Karma* (Su. 26/43), hence, *Katu*, *Tikta* & *Kashaya Rasa* dominant drugs can be used for treatment of *Sthaulya*.

In *Sushruta Samhita*, administration of *Virukshana* and *Chhedaniya Dravya* especially *Shilajatu*, *Guggulu*, *Gomutra*, *Triphala*, *Loha Raja*, *Rasanjana* & *Madhu* in proper dose and duration are advised (Su. 15/38). Here, *Dalhana* has explained that *Virukshana* property helps to reduce *Meda* and *Chhedaniya* property helps to remove obstruction from body channel, particularly from *Medovaha Srotas* by its *Srotovishodhana* property.

In 38th chapter of *Sushruta Sutrasthana* various groups of drugs like *Varunadi Gana*, *Salasaradi Gana*, *Rodhradi Gana*, *Arkadi Gana*, *Muskadi Gana*, *Trayusnadi Gana* etc. are mentioned as *Medonasaka*. *Haritaki* is advised for the treatment of *Santarpanajanya roga* (Su. 44/69) and *Amalaki* is mentioned as *Medopaham* (Su. 44/70). So, *Haritaki* and *Amalaki* can be used for treatment of *Sthaulya*.

PATHYAPATHYA

Charaka has mentioned a special type of diet, which is *Guru* and *Apatarpana*. It acts in two ways.

One is the neutralization of *Vayu* and *Agni* by heaviness of the food, another is non-nourishment of the *Medas* rather it prevents the further formation of fat. Regarding these properties following diet can be used.

The ancient *Acharyas* have listed numerous *Pathya* and *Apathyas* for *Sthula* person. These are as follows:^{[35],[36]}

Pathya -Apathya Ahara

No.	Ahara Varga	Pathya	Apathya
1.	<i>Shuka dhanya</i>	<i>Yava, Venuyava, Kodrava, Nivar, Jurna,</i>	<i>Godhuma, navanna shali</i>
2.	<i>Shami dhanya</i>	<i>Mudga, Rajmasha, Kulattha, Chanak, Masur, Adhaki</i>	<i>Masha, Tila</i>
3.	<i>Shaka varga</i>	<i>Alaboo, Patrashaka, Patola</i>	<i>Madhurashaka, Kanda</i>
4.	<i>Phala</i>	<i>Amalaka</i>	<i>Madhurphala</i>
5.	<i>Dravya</i>	<i>Takra, Madhuu, Ushnodaka, Til tail, Sarshap tail, Arishtha Asava, Jirnamandya</i>	<i>Dugdha, Ikshu, Navnit, Ghrita, Dadhi</i>
6.	<i>Mamsa</i>	<i>Rohit Matsya, ajamamsa</i>	<i>Anupa, Audaka, Gramya,</i>

Pathya-Apathya Vihara

Pathya	Apathya
<i>Jagarana, Vyayam, Vyavaya</i>	<i>Diwaswaapa, Avyavaya, Avyayama, Ati Ashana, Sukha Shayya</i>

Pathya-Apathy Vihara (Mental regimen)

Pathya	Apathya
<i>Chinta, Shoka, Krodha</i>	<i>Nitya Harsha, Achintana, MansoNivrutti</i>

Yoga for Obesity prevention^[37]

The disease is supposed to be a gift of modern lifestyle and it's a breeding ground for so many diseases. Yoga poses like *Asanas*, *Pranayama*, meditation and relaxation techniques are helpful for weight loss, lessening of body fat and weight management. Shedding of excess fat and attaining ideal body can be achieved by practicing yoga. Yogic exercises or therapy is highly effective in the control and management of it. The different yogic practices and yoga tips for treatments of the disorder are:

- *Sarvangasana* (Shoulder stand pose) improves the efficiency of the thyroid glands, which is responsible for correcting body weight and normalize the endocrine system that too control the condition.

- *Padahasthasana* (Forward bending asana) improves metabolic process of the body by acting on thyroid and pituitary gland, thus control it.
- *Dhanurasana* (Bow pose) helps to burn excessive fat in the body.
- *Paschimottanasana* (Back stretching pose) helps to remove excess fat in the abdominal region tones all the abdominal organs.
- *Ardha-Matsyendrasana* (Half spinal twist pose) treat ailments like diabetes, indigestion, overweight and constipation.
- *Bhujangasana* (Cobra pose) massages the abdominal organs, increases the flexibility of back and also regulated the thyroid gland. Good for childhood overweight.
- *Pavan Muktasana* (Wind releasing pose) reduces abdominal fat.
- *Viparita Karni* relieves the disorders related with thyroid and parathyroids glands.
- Practices like *Kunjral* and *Shankha Prakshalana* are quite effective in treating of fat related problems.
- Regular practice of, *Kati Chakrasana*, *Halasana*, *Matsyasana* and *Ushtrasana* along with *Surya Namaskara* is highly beneficial for such patients.
- *Suryabhedhi* and *Bhastrika* Pranayama are also found useful in weight reduction.
- Such patients should start their daily routine early morning with brisk walk.

CONCLUSION

Due to modern civilization people especially Children of pre-school and school age get obese due to faulty lifestyle, wrong eating and mistaken standard of living. So our goal is to first modify the faulty life style and wrong eating habits of obese individuals. One can achieve this by following different *Pathyas* like *Aharaja Pathyas*, *Viharaja Pathyas* and *Manasika Pathyas* along with herbal medications and also *Yoga* poses like *Asanas*, *Pranayama*, meditation and relaxation techniques are helpful for weight loss, lessening of body fat and weight management. The weight loss is expected to be gradual, long term and lasting due to integral care rather than drastic weight loss advocated by crash dieting.

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