ABSTRACT

Obesity always occurs with group of diseases that’s why this is the big burden in the society in today’s era. Both obese and emaciated children - are to be deprecated always. Of the two, emaciation is less harmful than Obesity even though both of them are equally in need of treatment. Obesity is most commonly caused by a combination of excessive food intake, lack of physical activity, day sleep and genetic susceptibility. Now a day over indulgence in the faulty dietary habits and unhealthy lifestyle leading to this major health problem among children, globally. So, need for lifestyle correction is prior requirement. In our Classics, Acharya Sushruta in Chiktsasthana and Acharya Vagbhatta in Sutrasthana mentioned Swasthwrittapalana or Dinacharya in which Brahmmamuhurta Utishthte (Waking up early 2 hours before sunrise), Vyayama (Physical Exercise), Udvartana (Massaging the body with coarse powder), Guru, Aptarpana Ahara given beneficial daily regimen for Obesity. By Exercise, Lightness of the body, ability to do work, enhances agni, depletion of excess fat, stable and proportionate the body parts. Udvartana mitigates kapha, liquifies the fat and produces stability.

Keywords: Obesity, Brahmmamuhurta Utishthte, Vyayama, Udvartana, Aptarpana Ahara

INTRODUCTION

Due to the faulty lifestyle and diet pattern the incidence of obesity is increasing day by day all over the world among children. A crude population measure of obesity is the body mass index (BMI) of children for which metric formula is weight÷(height×height) ×10,000. To calculate this, measure the child weight in kilogram and height in centimeters. The BMI above the 85th percentile to below the 95th percentile is considered overweight. BMI greater than or equal to the 95th percentile is considered obese by using BMI chart. The word Sthulal Sthaulya and Atissthaulya is described in different Ayurveda text. Here Sthaulya can be called as Overweight and Atisthaulya can be called as Obese. Acharya Charaka described Sthoulya in eight despicable. In the context of body, eight persons are despicable such as over-tall, over-short, over-hairy, hairless, over-black, over-fair, over-obese and over-lean. The person is called as Atisthaulya who, due to excessive increase of fat & muscles, has pendulous buttocks, abdomen and breasts & suffers from deficient metabolism and energy. Changes in diet pattern, life style and lack of physical exercise have increased the incidence of Obesity in the society. So, need for the lifestyle correction is prior requirement. From the past time, Ayurveda is known for serving the society. Prevention and cure of Ayurveda is exactly applicable in the Obesity. In Ayurveda, Dinacharya has
been prescribed as daily regimen from morning to evening for the maintenance of good health. In which Brahmma mohurta uttishthe, Vyayama, Udvarthana and Ahara are suitable for prevention as well as management of Obesity. We can combine this healthy lifestyle with safe and effective treatment of Ayurveda to prevent and manage Obesity.

Incidence

According to latest report by WHO, around 22 percent prevalence rate of obesity was reported in children and adolescents aged between 5-19 years over the last 5 years in India. Globally, the trend is high among children under 5 years of age with at least 41 million found to be obese in 2014.

AIMS & OBJECTIVE

- To prove the role of Dinacharya for prevention and management of obesity.
- To show the effect of Brahmmamuhurta, Vyayama, Udvartana & Ahara as preventive and curative measures in obesity.

### Table no 1. Etiology of Obesity (Sthoulya)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Diet related</th>
<th>Life style related</th>
<th>Other causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intake of heavy, sweet, cold and fatty diet Madhura, Sheeta Ahara.</td>
<td>Indulgence in day sleeping, exhilaration</td>
<td>Beeja Svabhava (Genetic Defect)</td>
</tr>
<tr>
<td>2</td>
<td>Over-saturation of food</td>
<td>lack of mental work</td>
<td></td>
</tr>
</tbody>
</table>

Pathogenesis of Obesity

The persons who are habituated to kaphavardhaka Ahara, intake of excessive food, lack of physical exercise and sleep during day time the food remains undigested and more sweet; this rasa dhatu circulating throughout the body produce Medas because of its great unctuousness, which finally results in Sthoulya.

### Table no. 2

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Symptoms</th>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ati Sveda (Excessive Sweating)</td>
<td>Prameha (Diabetes)</td>
</tr>
<tr>
<td>2</td>
<td>Daurgandhya (Foul odour of the body)</td>
<td>Pidka (Eruptions)</td>
</tr>
<tr>
<td>3</td>
<td>Dorbalyata (Debility)</td>
<td>Jwara (Fever)</td>
</tr>
<tr>
<td>4</td>
<td>Javoporadha (Hampering in movement)</td>
<td>Bhagandara (Fistula in Ano)</td>
</tr>
<tr>
<td>5</td>
<td>Alpa Ayu (Short life span)</td>
<td>Vidradhi (Abscess)</td>
</tr>
<tr>
<td>6</td>
<td>Kshudrashvasa (Mild dyspnea)</td>
<td>Vata vikara (Diseases of Vata origin)</td>
</tr>
<tr>
<td>7</td>
<td>Ati Nidra (Excessive sleep)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Pipasa (Severe thirst)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Gadgadatva (Unclear voice)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Kshudha Vriddhi (Excessive hunger)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Kratahan (Snoring)</td>
<td></td>
</tr>
</tbody>
</table>

**Brahmamuhurta uttishthe (Early Rising)**

The healthy person in order to protect his life, should get up during brahma mohurta, after considering the condition of digestion of food (of previous night) whether properly done or not.

**Importance of Brahmmamuhurta uttishthe:**

The morning is also sattvika, meaning it is the time for the mental temperament of sattva - the poised, mature temperament. It is the best time for study and obtain knowledge. Now a day, there is a lot of pollution in the environment. And in the morning hours it will be clean without pollution. Along with the clean air, the pleasant atmosphere, absence of noise, the morning rays of the rising sun is very
beneficial to the health. Sun is the God of health. Health is got from the sun. So, one should get up early in the morning before sunrise.

**VYAYAMA (Physical Exercise)**
Activities which produces tiredness to the body are known as Vyayama (Exercise). Lightness of the body, improves work capacity, enhance digestion power, depletion of body fat, part of the body become distinct and firm are the good effects of exercise resistance to discomfort and alleviation of doshas (especially Kapha).

**Importance of Vyayama**
There is no anti-obesity measure equal to Vyayama; one who performs vyayama regularly can’t be overcome by enemies. Disease do not move towards him, like trifling animals to lion, which sweats with vyayama. Vyayama makes a person charming. Even incompatible food, cooked or uncooked, is digested without any difficulty in persons performing vyayama daily.

**Vyayama Matra**
In every season, daily vyayama should be performed by persons desiring their wellbeing by balardha (half of strength) otherwise it harms. When prana vayu situated in heart comes out to mouth while performing exercise it is the sign of half of strength, thus to prevent over exertion, acharyas recommended to stop vyayama after getting these symptoms.

**Vyayama according to Vaya (Age), Kala (Season)**
Vyayama is not recommended for the persons who are below 16 years and who are above 70 years. Vyayama is advised in winter and spring seasons, in other seasons only mild vyayama should be done.

**Light Exercises feasible for Children**
Brisk walking, jogging in morning time, riding bicycle, Skipping, Yoga – Surya Namaskar

**Ativyayama Sevana Janya Vyadhi**
Excessive physical exercise leads to thirst, emaciation, Pratamaka (severe difficulty in breathing, paroxysmal respiration), bleeding (from the nose, throat, lungs etc.) exhaustion, tiredness (even without work), cough, fever and vomiting, fatigue, internal hemorrhage, darkness before eyes, and even excess practice of Vyayama causes Ura kshata, because of which blood, pus and mucus come out while coughing.

**Contraindications of Vyayama**
The persons who are much emaciated on account of singing, reading, drinking, weight carrying, travelling on foot and evacuative measures and are victims of anger, grief, fear and exertion, the children, the old and those having aggravated vata, those who speaks too much and loudly, who are hungry and thirsty should abstain from vyayama.

**UDVARTANA**
Udvartana (massaging the body with coarse powder) mitigates kapha, liquifies the fat, hence it is one of the therapy that used as anti-obesity treatment. Udvartana also brings stability to the body parts and excellence of the skin.

It is a procedure of massaging the whole body (below the neck region) with the powder of herbs in direction of foot to head (Pratiloma direction)

**Indication:** - Sthaulya (Obesity), Neuromuscular Disorders, Musculoskeletal Disorders.
Requirement: - Table for Udvaratana, coarse powder of Yava and Kulattha

Pravra Karma- Make Yava and Kulattha powder mild hot.

Pradhan Karma- Application of powder first in supine position in opposite direction with gentle pressure, same procedure has to be followed in prone position.

Pashchata Karma-Allow patient to take rest after wiping powder from whole body with cotton cloth.

Advice: -To take bath with the Luke warm water after 30 minutes.

Time Duration- 20 to 30 minutes.

Complication:- Constipation and Skin rashes.

Table no.3 DIET & LIFE STYLE MODIFICATIONS FOR OBESE CHILDREN

<table>
<thead>
<tr>
<th>PATHYA-APATHYA AHARA:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pathya Ahara</strong>&lt;sup&gt;23&lt;/sup&gt;</td>
</tr>
<tr>
<td>Purana Shali (1 yr. Old rice), Yava, Kodo, Munga (Green gram), Chana (Bengal gram), Bajara, Makka, Arhara, Masoora (Red gram), Kulathi (Horse gram), Parwal, Sahijana (Drum Sticks), Lauki (Bottle gourd), Karela (Bitter gourd), carrot, Ridge gourd, Cabbage, Leafy vegetables, Amalki, Watermelon, Takra (Buttermilk), Lukewarm Water, Drinking of water before meal</td>
</tr>
</tbody>
</table>

Table no.4 PATHYA-APATHYA VIHARA:

<table>
<thead>
<tr>
<th>PATHYA VIHARA</th>
<th>APATHYA VIHARA</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Physical exercise for minimum 1-2 hours like brisk walking, cycling, skipping, swimming, playing outdoor games etc.</td>
<td>• Avyayama (No/Less exercise)</td>
</tr>
<tr>
<td>• Practice Yoga, Asana, Pranayama daily</td>
<td>• Divasvapna (Day sleep)</td>
</tr>
<tr>
<td>• Walk after taking meal</td>
<td>• Excessive sleeping</td>
</tr>
<tr>
<td>• Drink a glass of Luke warm water after waking up in the morning.</td>
<td>• Sitting in one position and on foam seat</td>
</tr>
</tbody>
</table>

DISCUSSION: Obesity is one of the non-communicable diseases which become a very serious problem in the society. Faulty life style, diet pattern, sedentary life style and lack of exercise are the main reasons behind the increased incidence of Obesity. In Ayurvedic Classics, specific daily regimens described for the prevention as well as management of Obesity that are Brahmmamuhurta uttishthe, Vyayama, Udvaratana and Ahara. Wake up before 6 am, during these hours, the Vata element is dominant. As Vata governs movement in the body and the nervous system. By waking up during the time Vata energy is naturally dominant, body becomes in tune with nature. By doing Vyayama, Kapha Dosha kshaya occurs due to that Vata vriddhi occurs which stimulates Jatharagni which helps in Amapachana, remove obstruction of Srotas, and also metabolize the body fat. Udvaratana helps in removing Aama and vitiated Kapha dosha which open up the Srotas that finally resulting in reduction of deposited fat from
the body. *Pathya Ahara Vihara palana* is mandatory for obese children.

**CONCLUSION:** Obesity is one of the lifestyle disorders, so correction of faulty dietetic habits & lifestyle is mandatory among children. The ideal lifestyle for a day is daily regimen (*Dinacharya*), in which specifically *Brahmamuhurtatuttishtie, Vyayama, Udvartabha and Ahara* are proved to be effective measures in the management of obesity as both preventive as well as curative.

**REFERENCES**

Chaudhary Sonam et al.: Role of Dinacharya for Prevention and Management of obesity in Children


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Source of support: Nil
Conflict of interest: None
Declared

Cite this Article as: [Sonam Chaudhary et al.: Role of Dinacharya for Prevention and Management of obesity in Children] www.ijaar.in : IJAAR, VOLUME III ISSUE XI NOV–DEC 2018 Page No:1603-1608