Fat or Fit - It’s Your Choice: A Case Study on Obesity

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Abstract

Obesity is one among most prevalent diseases which is extending rapidly in most of the industrialized world. Children and adolescents also are becoming more Obese, indicating that the current trends will accelerate over time. Its association with Hypertension, Type 2 Diabetes, Dyslipidaemia, Degenerative Joint Disease and multiple health problems is well established. Thus, it is important for physicians to identify, evaluate, and treat patients for Obesity and associated co-morbid conditions. Sthoulya mentioned in Ayurvedic literature can be best analyzed through Obesity. The treatment principles which are mainly adopted now days are Udvartana and Snehapana followed by Virechana are showing good results. Hereby, presenting a case study of a male patient, aged about 34 years, weighing 138 kg with a BMI of 50. After 10days of management during hospitalization, patient had reduced 13 kg of weight.

Keywords: Obesity, Sthoulya, Udvartana, Virechana

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INTRODUCTION

Nature has taught man how to be healthy for that science has discovered the laws of health. But, it is an irony of the fate that on this earth on one hand, Millions do not get enough food and roam in a skeletal form, mean time there are many more who, besides over consumption lead an inactive life to march towards an unfortunate death. Thus second categories of individuals are more prone to manifold serious disorders. Obesity is one such disease where sedentary life style and high calorie diet plays a great role leading to multiple disorders.

Obesity:

Obesity is a condition of an extra adipose tissue accumulation. It is often viewed as equivalent to increased body weight but this need not be the same case—lean but very muscular persons may be overweight by numerical standards devoid of having increased adiposity. Distribution of body weight is continuously done in populations, so that choice of a medically meaningful peculiarity between lean and obese is quite skewed. Thus Obesity is efficiently defined by assessing its association with morbidity or mortality\(^1\).

Although not a direct measure of adiposity, the most widely used method to estimate Obesity is the Body Mass Index (BMI), which is equivalent to Weight/Height\(^2\) (in kg/m\(^2\)) Other methods to measure Obesity includes Anthropometry (Skin fold Thickness), Densitometry (Underwater Weighing), CT or MRI, and Electrical Impedance\(^2\).

WHO classification of overweight:

Table 1 Obesity Classification\(^3\)

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI (kg/m(^2))</th>
<th>Associated health risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
<td>Low (but risk of other clinical problems increased)</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5-24.9</td>
<td>Average</td>
</tr>
<tr>
<td>Over weight</td>
<td>≥25</td>
<td></td>
</tr>
<tr>
<td>Pre obese</td>
<td>25-29.9</td>
<td>Increased</td>
</tr>
<tr>
<td>Obese class I</td>
<td>30-34.9</td>
<td>Moderately increased</td>
</tr>
<tr>
<td>Obese class II</td>
<td>35-39.9</td>
<td>Severely increased</td>
</tr>
<tr>
<td>Obese class III</td>
<td>≥40</td>
<td>Very severely increased</td>
</tr>
</tbody>
</table>

Aetiology of Obesity

Accumulation of fat results from an incongruity between energy consumption and expenditure over and above that which can be remunerated for by hypothalamic regulation of basal metabolic rate (BMR). A small daily excess consumption of only 0.2-0.8 MJ (50-200 kcal; < 10% of intake) is capable of 2-20 kg of weight gain over a
time of 4-10 years. With the cumulative effects of subtle power in excess, body fat content shows ‘tracking’ with age, in a way that individuals are likely to uphold their level in the age-adjusted population distribution throughout their lives. Thus obese children are very likely to become obese adults. Weight tends to increase throughout adult life, as BMR and physical activity decrease.

**Environmental causes**

High energy diets- increased consumption of energy dense foods. Less regular eating patterns, shorter meals and increased snacking also contribute along with physical inactivity.

**Other causes**

1. **Endocrine disease- Hypothyroidisim, Cushing’s Syndrome etc.**
2. **Drugs**
   - Anticonvulsant- Phenytoin
   - β blockers- Atenolol
   - Corticosteroids- Dexamethasone
   - Insulin- all formulations.

**Types of body fat distribution:**

**I. Pear type (Gynoid distribution):**

Fat accumulates mainly around hips and thighs, characteristic of females

**II. Apple type (Android distribution):**

Fat storage mainly in the abdomen, found in both sexes.

**Morbid effects of obesity:**

These mainly includes conditions like type 2 Diabetes Mellitus, Dyslipidaemia, Hypertension, Coronary Heart Disease, Cerebrovascular Accident, Osteoarthritis, Gall Stones, Amenorroeoa, Irregular menses, Infertility.

**CASE STUDY**

A male patient, Benjamin Azee, 34 years old with OPD number OP-288606 got admitted in SDM Hospital of Ayurveda Udupi Karnataka, India on 12/07/2016 for the complaint of overweight and anxious for weight reduction. On examination his weight was 138kg and height 1.65m with BMI 50. Following treatment modalities had been planned along with daily monitoring of weight and abdominal girth.

**Day 1 to day 3:**

1. **Nitya Virechana with Gandharva Hastadi Eranda Taila 20ml + Triphala Kwath 200ml + Saindhava Lavana 2 pinch was given at 6am.**
2. **Kolakulatthadi Udvartana afternoon.**
On 3rd day Tablet Agnitudi Vati 1/BD and Tab Chitrakadi Vati 1/BD was administered for Deepana and Pachana.

Day 4 to day 7:
1. Snehapana with Guggulu Tiktaka Ghrita in Aarohana Krama was followed i.e., 50ml, 100ml, 150ml, 150ml on day 4, 5, 6, 7 respectively at 6am.
2. Barley Ganji diet.

Day 8 to day 9:
1. Sarvanga Abhyanga with Mahanarayana Taila followed by Bashpasweda was done for 2 days.
2. Diet: Morning- NeerDosa, Afternoon- Barley Ganji, Night- Khichdi

Day 10:
1. Sarvanga Abhyanga with Mahanarayana Taila followed by Bashpasweda.
2. Virechana Karma with Trivrut Leha 60gm + Draksha Kashaya 250ml was given at 9.30am.
3. 20 Virechana Vegas were observed.

OBSERVATION

Table 2: Weight reduction in 10 days

<table>
<thead>
<tr>
<th>Sl No</th>
<th>Day</th>
<th>Weight in Kg</th>
<th>Abdominal girth in cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>138</td>
<td>132</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>137</td>
<td>132</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>137</td>
<td>131</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>134</td>
<td>129</td>
</tr>
</tbody>
</table>

Total 13kg of weight reduction was observed in 10 days.

DISCUSSION

As per present scenario is concerned Obesity is well known to cause multiple health hazards. Hence care must be taken to reduce weight and to prevent from future systemic illness like Hypertension, Diabetes Mellitus etc.

The treatment protocol which had been planned is one of the best, easiest, cost effective and most convenient to the patients as it needs only 10 days of hospitalization.

Analysis of mode of action of Nitya Virechana, Udvartana and classical Virechana needs to be discussed. Stholuya is one of the Rasa Pradoshaja Vikara as mentioned by Acharya Sushruta4 and Medaja Vikara according to Acharya Charaka5. Agnimandya at the level of Dhatu i.e., Rasa and Medas should be corrected. The concept of Udvartana as mentioned by Acharya Vagbhata is said to be Kaphahara and MedaPravilayana6 holds good in mobilisation of fat which is excreted.
out through *Nityavirechana*. By these two procedures and internal medicines *Deepana* and *Pachana* can be attained at both *Jatharagni* and *Dhatwagni* level. *Snehapana* is helpful in dissolving *Medo Dhatu* which can be further eliminated through *Virechana Karma*.

**CONCLUSION**

In patients of Obesity *Udvartana* and *Virechana* are more beneficial in weight reduction within short duration. Thus serves the purpose.
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