A CLINICAL STUDY ON EFFECT OF UDAVARTANA KARMA IN CENTRAL OBESITY

Mayura Kanoongo¹, Prachi (Dalvi) Kawthekar²

¹PG Scholar, Department of PanchaKarma, Shubhdeep Ayurved Medical College, Indore, Madhya Pradesh, India
²Ayurveda Specialist at Ashtang Ayurveda College, Indore, Madhya Pradesh, India

Email: kanungo.mayura89@gmail.com

ABSTRACT

Obesity can be android/ apple shaped (central obesity) or gynoid/ pear shaped based on Fat distribution. The WHO states that abdominal obesity is defined as a waist–hip ratio (WHR) above 0.90 for males and above 0.85 for females. According to NIDDK report, person with WHR more than 1.0, are at increased risk of hypertension, CHD and diabetes because of their fat distribution. In Ayurveda classics, Udvaratana Karma is mentioned as medas pravilapanam, so it may help to reduce such fat deposition. The aim of the study was to evaluate the effect of Udvaratana Karma in central obesity over abdominal area. Many obese as well as normal persons require inches loss over abdominal area due to medical and cosmetic purposes. Udvaratana seems a treatment of choice in such individuals.

Keywords: Udavatana, Central Obesity.

INTRODUCTION

Obesity has become an increasing health concern globally. The prevalence of obesity is rising worldwide at an alarming rate affecting developed and developing countries. In low-income countries, obesity is more common in middle-aged women, people of higher socioeconomic status and those living in urban communities. Obesity is generally classified as generalized obesity and central obesity. It can be android/ apple shaped (central obesity) or gynoid/ pear shaped based on Fat distribution. Obesity is defined as excess deposition of body fat that poses a health risk. The WHO states that abdominal obesity is defined as a waist–hip ratio (WHR) above 0.90 for males and above 0.85 for females. According to NIDDK report, person with WHR more than 1.0, are at increased risk of hypertension, CHD and diabetes because of their fat distribution. The risk for these disorders increases mainly in persons having body mass index (BMI) more than 25 kg/m².

Obesity can be correlated with Sthaulya from Ayurveda perspective. Sthaulya is a condition of excess deposition of vitiated Medodhatu in the body. Clinical features of Sthaulya as mentioned in the classics like Chala Sphik, Udara, Stana and Ayathopachaya, Utsaha. In Ayurveda many shodhana and shaman treatments are mentioned for Sthaulya, amongst them Udvaratana Karma is mentioned as Medas Pravilapanam, so it may help to reduce such fat deposition.
Reinforced rubbing of the body by Churna is called as Udavartana. Benefits of Udavartana are mentioned as follows.

“Udavartanam kaphaharam medasah pravilayanam. sthirikaranamanganam twakprasadkaram param”

**Aim & Objectives:**

- The aim of the study was to evaluate the effect of Udvaratana Karma in central obesity over abdominal area.

**Material & Methods:**

60 subjects were selected from OPD & IPD of SAMC&H, Indore (M.P.) and were divided into 2 groups. Udvaratana was done with Triphala churna + Lodhra churna +Bengal Gram flour in one group and Medohara Guggulu in a dose of 2 BD with warm water was used as a control drug in both groups for 14 days. Thereafter, necessary statistical tools were applied to the study and assessment of results was done on subjective and objective parameters.

**METHODS**

- **Selection criteria** –
  - 60 subjects were selected from OPD & IPD of Shubhdeep Ayurveda Medical College & Hospital, Indore (M.P.) and divided into 2 groups.
  - Group A - Udvaratana + Medohara Guggulu
  - Group B - Medohara Guggulu (control group)

**INCLUSION CRITERIA & DIAGNOSTIC MEASURES**

**OBSERVATIONS**

**Table 1: Showing percentage relief in Sthaulya symptoms after treatment in group A & B**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>No. of patients</th>
<th>Total % of relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Udarachalatva</td>
<td>Group A -30</td>
<td>Group A -63.3%</td>
</tr>
<tr>
<td></td>
<td>Group B-30</td>
<td>Group B-20%</td>
</tr>
<tr>
<td>2. Shwaskrucchata</td>
<td>Group A -30</td>
<td>Group A -66.6%</td>
</tr>
<tr>
<td></td>
<td>Group B-30</td>
<td>Group B- 30%</td>
</tr>
<tr>
<td>3. weight</td>
<td>Group A -30</td>
<td>Group A -73.3%</td>
</tr>
<tr>
<td></td>
<td>Group B-30</td>
<td>Group B-33.3%</td>
</tr>
<tr>
<td>4. BMI</td>
<td>Group A -30</td>
<td>Group A -73.3%</td>
</tr>
<tr>
<td></td>
<td>Group B-30</td>
<td>Group B-26.6%</td>
</tr>
<tr>
<td>5. Inches loss</td>
<td>Group A -30</td>
<td>Group A -73.3%</td>
</tr>
<tr>
<td></td>
<td>Group B-30</td>
<td>Group B-13.3%</td>
</tr>
</tbody>
</table>
Table 2: Showing Overall effect in group A

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Mean difference</th>
<th>Total percentage relief</th>
<th>t - value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Udara chalatva</td>
<td>2</td>
<td>0.63</td>
<td>1.37</td>
<td>63.3%</td>
<td>9.78</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2. Shwas krucchata</td>
<td>2</td>
<td>0.57</td>
<td>1.43</td>
<td>66.6%</td>
<td>10.78</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>3. weight</td>
<td>2.16</td>
<td>0.53</td>
<td>1.63</td>
<td>73.3%</td>
<td>11.06</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>4. BMI</td>
<td>2.16</td>
<td>0.53</td>
<td>1.63</td>
<td>73.3%</td>
<td>11.06</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>5. Inches loss</td>
<td>2.17</td>
<td>0.50</td>
<td>1.67</td>
<td>73.3%</td>
<td>11.37</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Table 3: Showing overall effect in group B

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean Bt</th>
<th>Mean AT</th>
<th>Mean difference</th>
<th>Total percentage relief</th>
<th>t - value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Udara chalatva</td>
<td>2</td>
<td>1.23</td>
<td>0.77</td>
<td>38.5%</td>
<td>8.33</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2. Shwas krucchata</td>
<td>2</td>
<td>1.1</td>
<td>0.9</td>
<td>45%</td>
<td>12.2</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>3. weight</td>
<td>2.2</td>
<td>1.46</td>
<td>0.74</td>
<td>33.8%</td>
<td>3.33</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>4. BMI</td>
<td>2.2</td>
<td>1.46</td>
<td>0.74</td>
<td>33.6%</td>
<td>3.18</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>5. Inches loss</td>
<td>2.1</td>
<td>1.63</td>
<td>0.47</td>
<td>22.4%</td>
<td>5.03</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

RESULT & DISCUSSION

- In group A among 30 patients 22 patients had complete relief i.e. 73.3% showed highly significant results (p<0.001) in abdominal inch loss.
- 7 patients had mild relief i.e. 26.6% showed highly significant results (p<0.001) in abdominal inch loss.
- In group B among 30 patients 10 patients had complete relief i.e 34.8% showed highly significant results (p<0.001) in weight loss.
- The effect of Udavartana and Medohara Guggulu were very encouraging in inches loss and weight loss.
- In Udavartana, due to increased friction to all parts of the body, the increased meda is depleted thus shows effect on fat deposition in particular areas.
- Medohara Guggulu shows significant effect on weight loss.
- Udavartana when given along with Medohara Guggulu shows reduction in fat deposition and results were quite encouraging in central obesity.

Figure 1: Symptom wise relief in both groups
Effect of Udavartana in Obese person (Sthaulya)  
- Kaphaharam – Destroys morbid Kapha
- Vataharam – Destroys morbid Vata
- MedasahaPravilaapanam – Liquefies and mobilizes the stagnant morbid meda (fat / adipose tissue)
- Shireekaranaamangaanam – Provides stability to body parts
- Twakprasadakaramparam – Rejuvenates the skin and brings freshness in it
- Dourgandhya haram – Alleviates foul smell
- Gourava haram – Alleviates heaviness of the body
- Tandra haram – Removes drowsiness, brings freshness
- Mala haram – Removes dirt and dust
- Sweda haram – Removes sweat
- Beebhatas haram – Removes awkward look, gives glamour
- Sira mukhaviviktatvam – Opens up the blocked channels, blood vessels and transport systems of the body and enables free circulation of nutrients and essentials in the body
- Twaktha Agni samyakaram – Stabilizes and normalizes the Agni (Bhrajaka Agni or Bhrajaka Pitta in the skin which is responsible for skin immunity, to provide good colour and complexion)
- Kantikaram – Provides good shine and complexion
- ShariraParimarjanam – Cleanses the body

Modern view
Rubbing in the therapy of Udavartana aids in the absorption of effusions, infringement of blood stasis and carrying away the morbid products in the system. Deep pressure during the massage facilitates the interchange of tissue fluids by increasing the circulation in the superficial vein and lymphatics. Important qualities of rubbing are –
- Rubbing gives mechanical stimulation to muscles causing them to contract.
- It increases circulation and the alternate pressure and relaxation brings fresh blood to the part.
- It improves the nutrition of the particular area and influences metabolism.
- It raises temperature locally.
- It increases elimination of waste products.
- It increases secretion and absorption.
- It stimulates the cutaneous nerve endings and in turn improves the condition of the nervous system.
- It also helps in breaking down thickening and adhesions in sub acute and chronic conditions. Also helps in the re-absorption of inflammatory products and absorption of fat in fatty tissues.

Mode of Action of Udavartana
- In Ruksha Udavartana mainly Katu, Tikta, Kashaya Rasa Dravyas having Laghu, Teeksha, Ruksha Guna & UshnaVirya were used. The drugs possessing Katu, Tikta, Kashaya Rasa acts as Kaphahara. Ushna Virya produces Srotoshuddhi. Ruksha Guna has predominance of Agni & Vayu Mahabhuta pacifies Snigdha & Pichila Guna of Kapha & subsequently decreases Kledatwa.
- The drugs applied & rubbed over skin were digested by Bhrajakapitta/Twachagni (local temperature increases) which is present in the skin, its Ushna-Virya enter Rasadhatus remove the obstruction in the Rasa & Swedavaha Srotasa, its Gunas &Vipak, Veerya spreads all over the body & does there action then produce systemic effect and resolve the Dosha-Dushya Sammurchana, Twacha is Upadhatu of Mamsa, All Upadhatus having its own Bhootagnis, by doing Udavartana the increased TwakgataAgni/Bhrajakapitta will increases Uttarottara Dhatwagni functions, by increased Medodhatwagni, the Dhatupaka process increases, thus excessive accumulated Vikruta MedoDhatu decreases.
- When the vitiated Medo Dhatu gets dissolved, formation of excessive Sweda, diminishes
thus cures Kandu, daurgandhyata (Sweda being a Mala of Medo Dhatu excessive sweating results into bad smell of the body), thus normalizes Dosha Dhatu Poshana Kriya. And the process of Udvaratana slowly reduces the Lakshanas of Sthaulya over abdominal area (central obesity).

Medohara Guggulu: It contains drugs having Katurasa, Laghu- Ruksha Guna, Ushnavirya, Katupivaka, Kapha Shamak properties which aids in disintegrating Samprapti of Sthaulya. It helps in scrapping excessive Meda and Kapha due to its Kleda- Medo Shoshka and Srotovishodhaka property.

CONCLUSION
The study revealed that Udavartana significantly causes inches loss over abdominal area without any adverse effects. Many obese as well as normal persons require inches loss over abdominal area due to medical and cosmetic purposes. Udvaratana seems a treatment of choice in such individuals. In the present study the results obtained are statistically highly significant at p <0.001 i.e. In group A among 30 patients 22 patients had complete relief i.e 73.3% & 7 patients had mild relief i.e. 26.6% in abdominal inch loss. In group B among 30 patients 10 patients had complete relief i.e. 34.8% in weight loss.

By this it can be said that Medohara Guggulu was also significant in losing weight in both groups. But for the treatment of central obesity, Udavartana is proved best option for inches loss.

REFERENCES
1. https://en.m.wikipedia.org/wiki/obesity
4. Agnivesha, Charak Samhita elaborated by Vidhyotini Hindi commentary by Kashinath Shashtri, Chaukambha Bharati Academy, reprinted in 2009,

Charak samhita, Sutrasthana, chapter-21, verse 9 – pp- 411.

Source of Support: Nil
Conflict Of Interest: None Declared