A CLINICAL STUDY ON EFFICACY OF TRIPHALA CHURNA WITH MADHU IN STHOULYA

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Abstract:

In the present era Sthoulya (obesity) is considered as a risk factor for the diseases like diabetes mellitus, cardio vascular diseases, stroke, gall stone etc. Acharya Charaka has considered sthoulya is one among the eight types of despicable person in relation to their bodies. Obesity developed in a person due to his/her own carelessness¹. The person feels handicapped and all his activities even the daily routine functions get restricted. Such type of people donot perform physical work and exercise but just keep on eating. The stomach acts as reservoir for things which keep on putting inside and it goes on increasing in size. Because of above reasons, sthoulya become a challenging one. Hence the study was selected to provide a alternative, more effective, safe, simple and economic medicine for reducing weight and morbid conditions. In the present study Thriphalachurna was administered along with madhu which was mentioned as sthouyanashaka yoga by Acharya Vagbhatta². It is described as medovinashini in kaidevanighantu.

Key words: Sthoulya, Triphalachurna, Madhu.

Introduction:

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have negative effect on health, leading to reduced life expectancy and increased health problems. People are considered obese when their body mass index (BMI), a measurement obtained by dividing a person’s weight by the square of the persons height, exceeds 30 kg/m², with the range 25-30 kg/m² defined as overweight.

Obesity increases the likelihood of various diseases, particularly heart disease, type 2 diabetes, certain types of cancer and osteoarthritis etc.
Obesity most commonly caused by a combination of excessive food energy intake, lack of physical activities and genetic susceptibility. Some cases are caused primarily by genes, endocrinology disorders, medications and psychiatric illness. Obese people have a greater energy expenditure than their thin counter parts due to the energy required to maintain an increased body mass.\(^3\)

Charaka has described sthoulya under ashtanindateeyaadhyaaya. In this chapter Charaka described 8 types of despicable person in relation to their bodies and he explained causative factors for sthoulya as excessive intake of Guru, Madhura, Sheeta and Snigdaahara, Avyayama, Avyavaya, Divaswapna, Nithyaharsha, Achintha and Beejaswabhava.

According to acharyasushruta the jataragni will be in hyperfunctioning state which digest all snigda and atimadhuraaharaetcand produce amaroopiaharaarasa, which is having the properties similar to medodhatu and kaphadosha. It circulates all over the body and converted into medodhatu. Other dhatus remain undernourished. The increased medodhatu get accumulate in spik, udara, stana etc and leads to sthoulya. The increased meda causes obstruction to srothas which in turn aggravates vata leading to hyperfunctioning of jataragni. So that person feels kshudha and indulging in atibhojana which further leads to sthoulya.\(^4\)

Sthoulya leads to manifestation of symptoms like kshudrashwasa (feeling breathlessness even after slight exertion), atipipasa, atikshudha, atiswapna, gatradourgandhya, gatrasada, alpavyavaya etc.

Different principles involved in sthoulyachikitsa including nidanaparivarjana, shodhana, guru and apatarpakaaharasevana etc. And many shamanoushadhi are also described. Triphalachurnawith madhu is one among them, These two are considered as virukshana and chedaneeyadravyas by charaka and sushruta. Hence in the present study these drugs are taken because of their efficacy, easy availability and economic reasons.

**Objectives:**
To study the efficacy of Triphalachurna with Madhu in sthoulya.

**Material and Methods:**
**Collection of drugs:**
The drugs selected for the study were Triphala (Haritaki, Bibhitaki, and
Amalaki) churna in equal quantity and madhu as anupana. Triphala were purchased from sriDhanvantriayurvedicstore, Hospet and puranamadhu was purchased from shrishivanandayurvedicstore, Hospet. The drugs were made into powder form by using mortar and pestle and filtered through linen.

Collection of instruments:
Weighing machine with a capacity of 150kg and gradation of 0.5kg was taken from Dr. B.N.M.E trusts ayurvedic hospital, Bijapur. Butterfly brand measuring tape was purchased from market. Besto made screw gauges size of 0-25mm and 25-50mm, both with an accuracy of 0.01mm were purchased from Joshi and Joshi surgical instrumental stores, Bijapur.

Study design:
15 Patients who were diagnosed as sthoulya in OPD of B.N.M.E ayurvedic medical college, Bijapur were selected. Triphalachurna 3gms with madhu twice a day was administered for 60 days. weight reducing diet (approximately 200kcal/day) and morning walk for 6kms was advised along with the Triphalachurna.

Clinical features of sthoulya-
Measurements of dakshinabahu, vaksha, udara and spik, bodyweight, BMI 30 or above, skin fold thickness over triceps above 20mm in men and 28mm in women are taken as parameters. All patients were treated as out patients, follow up was made for every 15th day during study period and one month after the treatment.

Observations and results:
The clinical observations and finding of the patients are calculated as mentioned below. The data from the patients related to age, sex, religion, prakrut etc. are specified.

Age: Out of 15 patients 3 were found in age group between 20-27 years, 8 patients between 28 – 36 years and 4 patients were between 37 – 45 years. The observation shows that more number of patients were in the group of 28 – 36 years.

Among 15 patients 3 patients were male and 12 patients were female which shows that female patients were more suffering from Sthoulya

Religion: Among 15 patients, 14 patients belong to hindu religion and 1 patient belongs to muslim.

Habitat: Out of 15 patients, 12 were from urban area and 3 from rural area.

Marital status: Among 15 patients 12 were married and 3 were unmarried.
Occupation: Out of 15 patients 10 were housewives, 3 were doing business and 2 were students.

Socioeconomic status: Out of 15 patients low income – 0, middle income patients were 5 and high income patients were 10.

Prakruti: kaphaja – 10, kapha – vataja - 1 ,kapha- pittaja - 4

Nidra: Among 15 patients, patient having alpanidra was one, adhikanidra

Table no.1 showing analysis of mean weight loss before and after the treatment at different intervals:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E</th>
<th>t</th>
<th>p</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>15\textsuperscript{th} day</td>
<td>1.233</td>
<td>0.8423</td>
<td>0.2175</td>
<td>3.70</td>
<td>0.0009</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>30\textsuperscript{th} day</td>
<td>2.6330</td>
<td>1.598</td>
<td>0.4125</td>
<td>4.62</td>
<td>0.0001</td>
<td>P&lt;0.001, H.S</td>
</tr>
<tr>
<td>45\textsuperscript{th} day</td>
<td>3.867</td>
<td>2.401</td>
<td>0.6200</td>
<td>4.49</td>
<td>0.0001</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>60\textsuperscript{th} day</td>
<td>4.900</td>
<td>2.627</td>
<td>0.6782</td>
<td>4.83</td>
<td>0.0000</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>F.U</td>
<td>4.833</td>
<td>2.717</td>
<td>0.7015</td>
<td>4.93</td>
<td>0.0000</td>
<td>P&lt;0.001,H.S</td>
</tr>
</tbody>
</table>

H.S.=Highly significant, The statistical assessment done after every interval of 15 days, showed the fall in P value to <0.001, which was highly significant.

Table. No.2 showing statistical analysis of mean SFT(skin fold thickness) before and after the treatment at different intervals.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E</th>
<th>t</th>
<th>p</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>15\textsuperscript{th} day</td>
<td>0.7767</td>
<td>0.5007</td>
<td>0.1293</td>
<td>3.50</td>
<td>0.0016</td>
<td>P&lt;0.005,S</td>
</tr>
<tr>
<td>30\textsuperscript{th} day</td>
<td>1.703</td>
<td>0.955</td>
<td>0.2465</td>
<td>3.93</td>
<td>0.0005</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>45\textsuperscript{th} day</td>
<td>2.480</td>
<td>1.315</td>
<td>0.3396</td>
<td>4.17</td>
<td>0.0003</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>60\textsuperscript{th} day</td>
<td>3.270</td>
<td>1.468</td>
<td>0.3792</td>
<td>4.61</td>
<td>0.0001</td>
<td>P&lt;0.001,H.S</td>
</tr>
<tr>
<td>F.U</td>
<td>3.217</td>
<td>1.561</td>
<td>0.4029</td>
<td>4.66</td>
<td>0.0001</td>
<td>P&lt;0.001,H.S</td>
</tr>
</tbody>
</table>

S=Significant, H.S=Highly significant,

Table no: 3 showing statistical analysis of measurements of Dakshinabahu, vaksha, udara and spik before and after the treatment:

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Mean</th>
<th>S.D</th>
<th>S.E</th>
<th>t</th>
<th>p</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dakshinabahu</td>
<td>0.2167</td>
<td>0.4518</td>
<td>0.1167</td>
<td>0.93</td>
<td>0.3624</td>
<td>P&gt;0.005,NS</td>
</tr>
<tr>
<td>Vaksha</td>
<td>0.4400</td>
<td>0.4080</td>
<td>0.1054</td>
<td>2.82</td>
<td>0.0088</td>
<td>P&gt;0.005 NS</td>
</tr>
<tr>
<td>Udara</td>
<td>0.6500</td>
<td>0.4610</td>
<td>0.1190</td>
<td>3.59</td>
<td>0.0012</td>
<td>P&lt;0.005, S</td>
</tr>
<tr>
<td>Spik</td>
<td>0.7500</td>
<td>0.4725</td>
<td>0.1220</td>
<td>4.04</td>
<td>0.0004</td>
<td>P&lt;0.001 HS</td>
</tr>
</tbody>
</table>

N= Not Significant, S=Significant, H.S=Highly significant,
Discussion: The work under taken is a clinical study, to know the efficacy of Triphaluchurna with madhu. Triphala was selected for the study as it is one of the effective medicine in Sthoulya and also available easily. It is given in the form of churna as it is more economic and can be prepared easily. The powder dissolves more rapidly in the body fluids than other solid dosage form. The rapid dissolution increases the blood concentration in a shorter time there by action produced in lesser time.

The diagnostic criteria of the obesity are body weight, SFT, measurement of dakshinabahu, vaksha, udara and spik. These were assessed for every 15 days because of the fear about the dropouts and it is done to ensure that the patients are following the advices and are not having any complications by treatment. Measurement of dakshinabahu, vaksha, udara and spik were selected because in women, the fat is distributed characteristically in the mammary glands and pelvic region and in men it is around the abdominal area.

The anatomical sites of measurement of dakshinabahu, vaksha, udara and spik are

1. Dakshinabahu: Measurement half way between the acromion and olecranon process.
2. Vaksha: Measurement at nipple line in man and at the largest circumference above the breast in women.
3. Udara: The largest circumference in abdominal area.
4. Spik: The largest circumference below the umbilicus.

The maximum number of patients were found in females and in the age group of 28-36 year, this may be due to sedentary life in females, which begins at the age of +28yrs. In the present research work maximum patients were married, because after marriage due to change in physical activity, stress and strain people gain the weight. Housewives were the major sufferers compared to others, this can be due to lack of exercise. The classification of the patients based on the socioeconomic strata showed that highest number of patients belonged to the high-income group. This may be due to intake of high calorie food. Highest incidence of obesity among kaphaja constitution can be compared with classical documentation.
Classification of patients on nidra was done on the basis of CCRAS New-delhi 2002. In the present study maximum number of patients had adhikanidra which act as one of the important factor for developing sthoulya.

Clinical study: The statistical assessment done after every interval of 15 days, after administering Triphala with Madhu. In the parameter of weight loss, the statistical analysis showed p<0.001 which is highly significant at different interval. Which indicates the drug Triphala with Madhu showed good effect in reducing weight. The SFT after treatment, at 15th day P<0.005 which was significant but at later intervals of 15 days P<0.001 showed highly significant result.

Among measurements of dakshinabahu, vaksha, udara and spik, the statistical analysis of measurement of spik showed P<0.001 which was highly significant. For udarapradesha P<0.005, showed significant result where as for Dakshinabahu and vaksha P>0.005 not significant. This indicates the drug is effective in reducing accumulated fat in different areas of body, specially udara and spik where more fat get deposited than dakshinabahu and vaksha which may require longer duration of administration of medicine.

**Conclusion:**

- Obesity is one of the burning problem throughout the world which increases with age in both the sexes.
- Drug, diet and exercises are three basic modalities necessary for effective treatment in obesity.
- In the clinical observations, Triphalachurna with madhu shows highly significant results in the treatment of sthoulya.
- SFT and other measurements were statistically assessed by student “t” test, the p value found to be highly significant except D.bahu and Vaksha measurements.
- Triphalachurna and madhu were found cheap and easily available, it can be used in day today practice effectively.
- As the efficacy of Triphalachurna with madhu has got definite action on sthoulya, further studies may be carried out in a large number of patients to confirm preliminary study.

**References:**

2. Vagbhata: Astangahridaya, Dwividhop akramaneeya adhyaya, choukambasans krit sansthan, varanasi. P.No. 191-198

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