



Research Article

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A COMPARATIVE STUDY OF LEKHANIYA GANA DRAVYAS AS BASTI KARMA AND ORAL MEDICINE IN THE MANAGEMENT OF STHOULYA

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ABSTRACT

Ayurveda emphasizes that it is easy to treat emaciated person but it is very difficult to treat the obese. Hence there is a need to establish an effective treatment against sthoulya which is caused due to dysfunction of medodhatu (Disturbed fat metabolism). Nearly 10-14% of world's population is affected by Obesity. A comparative clinical trial was conducted in NKJA Medical College and PG Centre, Bidar, Karnataka during 2006-08 wherein a total of 20 cases of Sthoulya (Obesity) were selected by random sampling procedure. Group I received Lekhaniyaganadravya basti (Group of drugs with scarifying action) in kala basti prakara (Procedure of giving 15 enemas) followed by lekhaniyaganadravya 5g TID orally with Gomutra (Cow's urine) for 45 days, whereas group II was treated only with oral medication. Among group I, 40% of the patients had moderate improvement, 50% showed mild improvement, 10% showed no improvement. Where as in group II, 20% showed moderate improvement, 60% showed mild improvement and 20% showed no improvement. The study evidenced that Shodhana i.e., Lekhaniyabasti with oral medicine was more beneficial than oral medication alone. No adverse effects were observed during the entire study.

Keywords: Basti, Lekhaniya gana, Obesity, Shodhana, Sthoulya

INTRODUCTION

In Ayurvedic language sthoola is considered more dangerous than krisha¹. Sthoulya i.e. obesity invites number of diseases such as impotency, joint pains, high blood pressure, cardiac ailments and Diabetes mellitus etc. Acharya Charaka elaborates that the healthy state of an individual must possess proportionate musculature and compactness of the body² which partially simulates with Darwin's theory of evolution and survival of the fittest. This challenging world which is being fuelled by sedentary life style, junk food habits with lack of exercise welcomes obesity such that it affects 10-14% of the population worldwide. Ayurvedic science counted these people among 'ninditapurusha' and also those are criticised by inappropriate body parameters. This condition also poses deleterious effect on both body and mind. WHO declared obesity as global epidemic and highlighted the graveness of the obese state³.

Hence there is a need to restrict this disease. Sthoulya is one of the Santarpanajanya vyadhi (Disease caused due to over nourishment)⁴. It is caused due to medodhatuagni mandya⁶ (Distorted fat metabolism) which can be controlled by Aparpana chikitsa (Treatment inducing catabolism) i.e., Shodhana (Evacuative therapy). Among all shodhana modalities basti karma (Enema therapy) covers more than half of the treatment of all the diseases. Ayurveda emphasizes on Shodhana chikitsa as it can provide better and permanent relief than shamana chikitsa (Palliative therapy). So to validate this concept, an attempt has been taken to compare the efficacy of lekhaneya gana basti followed by lekhaneya gana dravya oral medication in the management of Sthoulya. Both the group followed restricted balanced diet along with physical exercise throughout the trail period.

MATERIALS AND METHODS

The study was conducted at N K J Ayurvedic medical college and P G centre Bidar, Karnataka. The study was carried out as per ICH GCP guidelines.

Ethical clearance was obtained from Institutional ethical committee (Ref No: NKJ AMC/No 45/Dt. 27.09.2004). The drugs used for the trial were a combination of 10 drugs mentioned under Lekhaniya gana⁵. The drugs Musta (*Cyperus rotundus* L.), Kusta (*Saussurea lappa* DC), Haridra (*Curcuma longa* L.), Daruharidra (*Berberis aristata*), Vacha (*Acorus calamus* L.), Atasi (*Linum usitatissimum* L.), Katuki (*Picrorrhiza kurroa* Royle ex Benth.), Chitrakamoola (*Plumbago zeylanica* L), Chirabilva (*Holoptelea integrifolia*), Haimavathi (*Iris germanica* L.) were powdered and mixed in equal quantity. This Churna (Powder) was given 5g thrice a day with Gomutra (Cow's Urine) as the oral medication in both groups.

The decoction prepared from the above drugs was used for basti therapy (240 mL) along with Gomutra (120 mL), Madhu (Honey-120 mL), Tila talia (Sesame oil – 40 mL) and Yavakshara (Alkali prepared from Barley-5g). The therapy was given according to Kala basti prakara (Procedure where 15 enemas are given in a particular format which includes 6 bastis with decoction called Niruha basti and the rest with Oil termed Anuvasana basti).

Niruha with Lekhaniyaganadravyabasti (approximately 550ml) and Anuvasanabasti with Tilataila with a pinch of salt-Saindhavalavana (approximately 100ml) were administered to the patients of Group I.

Patients fulfilling the criteria of sthoulya based on signs and symptoms aged between 18 years to 55 years without any serious complications were selected for the study by randomised sampling procedure.⁹ Obesity associated with IHD and with other systemic disorders and pregnant ladies were excluded from the study.

The assessment was done for the following parameters. Classical signs and symptoms such as chalasphik, udara and stana (Flaccidity of gluteum, abdomen and breasts), Ati pipasa (Polydipsia), Ati kshudha (Excessive hunger), Dourgandhya (Body odour), Ati nidra (Hypersomnia) and Shrama (Fatigue)⁸ were assessed along with certain objective parameters like Body weight, BMI and Waist circumference.¹¹

OBSERVATION AND RESULTS

In this study 26 patients were registered of which 20 patients completed the treatment. Among the patients registered, 60% were female and 40% were male. 60% patients belonged to middle socio-economic status whereas 30% were from High income group and 10% from lower economic group. 80% of the patients were from the urban areas and others from rural regions. 12 patients were vegetarians and 8 patients practiced mixed diet. Figure 1 shows the distribution of patients among the Prakriti compositions. Figure 2 explains regarding the BMI of the subjects and Figure 3 shows the condition of serum Lipids.¹¹

The basic parameters and the statistical calculations are shown in Table 1. The observations in Objective parameters are shown in Table 2. The percentage of improvement is shown in the Table 3.

Table 1: Assessment on the basis of classical signs and symptoms

| Sl no | Lakshanas | Group 1 | | | | Group 2 | | | | Comparative in Both groups | | |
|-------|--------------------------|---------|---------|-------|--------------------|---------|---------|------|-----------------|----------------------------|---------|-----------------|
| | | t value | p value | % | Remarks | t value | p value | % | Remarks | t value | p value | Remarks |
| 1 | Chala sphik udara sthana | 9.0 | 0.001 | 45.5 | Highly significant | 1.964 | 0.081 | 11.5 | Non significant | 1.861 | 0.096 | Non significant |
| 2 | Ati kshuda | 3.873 | 0.004 | 43.5 | Significant | 3.28 | 0.01 | 35 | Significant | 0.0 | 1.0 | Non significant |
| 3 | Ati pipasa | 4.743 | 0.001 | 47.6 | Highly Significant | 3.0 | 0.015 | 23.8 | Significant | 1.246 | 0.244 | Non significant |
| 4 | Daurgandhya | 3.0 | 0.015 | 33.33 | Significant | 3.0 | 0.015 | 27.8 | Significant | 0.896 | 0.394 | Non significant |
| 5 | Ati nidra | 3.0 | 0.015 | 37.5 | Significant | 2.44 | 0.037 | 28.6 | Significant | 0.287 | 0.78 | Non significant |
| 6 | Shrama | 3.0 | 0.015 | 58.3 | Significant | 3.0 | 0.015 | 25 | Significant | 1.633 | 1.37 | Non significant |

Table 2: Assessment on the basis of objective parameters

| Sn | Lakshanas | Group 1 | | | | Group 2 | | | | Comparative in Both groups | | |
|----|---------------------|---------|---------|------|--------------------|---------|---------|-------|--------------------|----------------------------|---------|-----------------|
| | | t value | p value | % | Remarks | t value | p value | % | Remarks | t value | p value | Remarks |
| 1 | Weight | 14.08 | 0.001 | 26 | Highly Significant | 8.135 | 0.001 | 14 | Highly Significant | 0.947 | 0.368 | Non Significant |
| 2 | BMI | 8.524 | 0.001 | 29.5 | Highly Significant | 18.18 | 0.001 | 15.13 | Highly Significant | 0.761 | 0.466 | Non Significant |
| 3 | Waist circumference | 9.652 | 0.001 | 3.17 | Highly Significant | 6.517 | 0.001 | 2 | Highly Significant | 2.168 | 0.058 | Non Significant |

Table 3: Clinical assessment of result on the basis of percentage

| | Group 1 | | Group 2 | |
|---|----------------|------------|----------------|------------|
| | No of Patients | Percentage | No of Patients | Percentage |
| Marked improvement (>75% relief) | | | | |
| Moderate improvement (51% - 75% relief) | 4 | 40 | 2 | 20 |
| Mild improvement (26% - 50% relief) | 5 | 50 | 6 | 60 |
| No response (<25% relief) | 1 | 10 | 2 | 20 |

DISCUSSION

Sthoulya comes under ashtanindita purusha (Eight types of undesirable body types) have very close resemblance with obesity of modern medicine. The un-desirability is found to be on both therapeutic and cosmetic fronts. Sthoulya also has many complications like Jwara, Bhagandara, Vata vyadhi, etc. It poses a crucial challenge for any system of medicine for its remedy. So versatile treatment should be tried to counteract this hazard. Hence an effort was made to find out a solution for this problem. As Apatarpana is the most important line of treatment of Sthoulya and Lekhaniyaganadravya basti which can control vata, kapha and medadhatu along with lekhaniyaganadravya

orally which helps in vataanulomana and Lekhana karma were compared with the effect of lekhaniyaganadravya oral medicine in this study based on various scientific parameters for the medohara effect in subjects suffering from sthoulya.

The incidence of sthoulya was found to be higher in females which may be due to menstrual disturbances, pregnancy, post-natal care and contraceptive pills etc. Urban population is more affected due to sedentary life style and consumption of high fatty diet. Classical symptoms described in the text like chalasphik, chalaudara, chalastana, ati pipasa, ati sweda, dourgandhya, shrama, ati nidra⁷ were found in almost all patients.

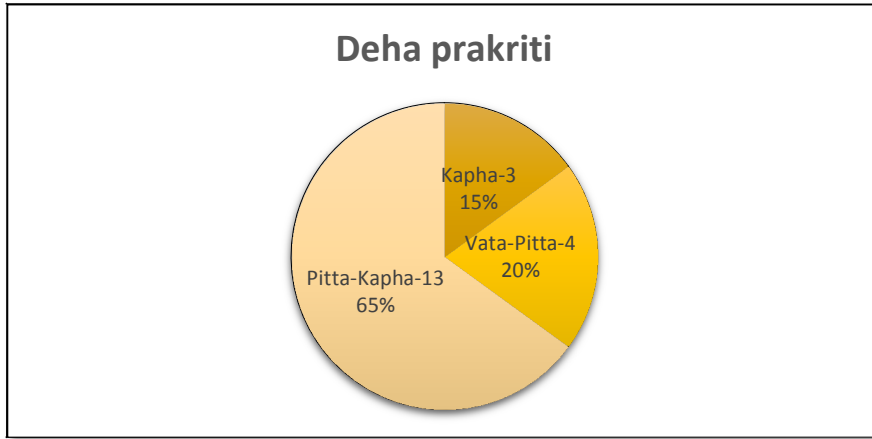


Figure 1: Incidence of Deha Prakriti of patients

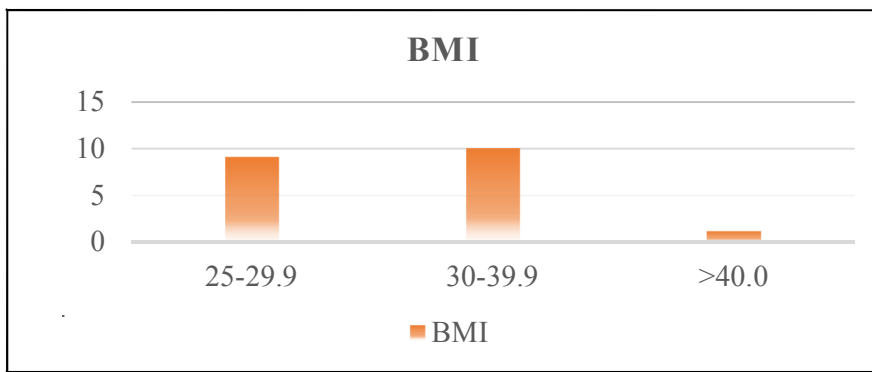


Figure 2: Incidence of B M I of patients

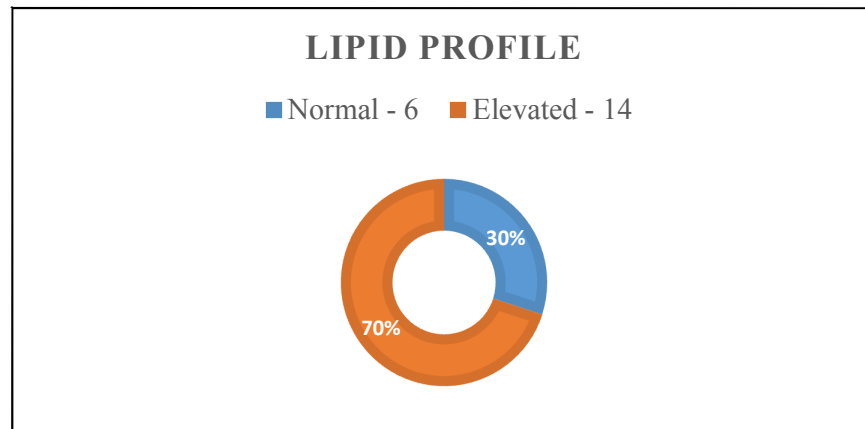


Figure 3: Lipid profile in patients

The pathogenesis of sthoulya as explained can be understood as consumption of high fat, carbohydrate rich food, which includes sweets etc (madhura) leads to medodhatu vrudhi (Increased fat tissue). This leads to obstruction of srotas (channels) and hence vayusandhushana (vitiated vayu). This vayu further improves agni and causes excessive hunger. The consumption of food increases due to this and further leads to more medovrudhi thus causing obesity.¹⁰ Hence the primary aim of treatment has to be relieving the srotas of its obstruction which can be done by drugs which have a Lekhana (Scarifying) action. The drugs of lekhaniyaganadravya basti possess katu tikta rasa (Pungent and

bitter taste), katu vipaka (Pungent post digestively), ushna veerya (Catabolic in nature), ruksha guna (Causes dryness) and have vayu and akasha mahabhoota pradhanya (Dominant of Air and Ether mahabhutas) which counter act the action of prithvi and jala mahabhoota (Earth and water) and also causes the lekhana of mamsa and medadhatu (Scarifying muscular and fatty tissue) which are responsible for causing the pathogenesis of the disease. Tikta rasa (Bitter) possess amapachana (Digestive), lekhana (Scarifying) and trishna shamana (Anti-dyspeptic) effect. Ushna guna (Hot potency) possess sroto vivarana (Dilatation of channels) properties which counter act

the pathogenesis. Because basti karma showed excellent result against 'vata sandhushana' which is the prime cause of this disease. Hence Lekhaniyaganadravya in the form of Basti along with Lekhaniyagana dravya oral medications showed more effective result than only oral medication.

The present study evidenced that both the groups helped in reducing the disease. But group 1 is more effective than group 2 in reducing subjective parameters. But in objective parameters both the groups showed equal improvement. Group 1 showed more beneficial effect in chalasphik, udara and stana, ati trishna and ati nidra.

CONCLUSION

Lekhaniya gana dravya basti is hence a very effective modality of treatment in obesity. All the ingredients possess opposite properties of meda. Hence, they cause Lekhana of meda and Basti controls vayu and its avarana. A further study on a larger sample would be beneficial in validating this and bringing it into mainstream practice.

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