



A RANDOMISED COMPARATIVE CLINICAL STUDY IN STHOULYA BY UTSADANA USING KULATHA CHURNA AND TRIPHALA CHURNA W.S.R TO OVERWEIGHT

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ABSTRACT

In Ayurveda, Sthoulya is considered under Santarpanjanya vyadhi. Basic causative factors for Medoroga are Agnivaishamya and Vatadushti. Utsadana is one such procedure that pacifies Vata and Kapha. The procedure includes the use of Ruksha, Medohara, and Lekhana dravyas. Being overweight is one of the alarming signs of obesity and early management could prevent complications. Even though Overweight and Obesity are non-communicable diseases a number of co-morbidities are tagged to this. It includes insulin resistance, glucose intolerance, diabetes mellitus, hypertension, dyslipidemia, sleep apnea, arthritis, hyperuricemia, gall bladder disease, and various types of cancers. Our body has two kinds of fat that are Subcutaneous fat (which is under the skin) and Visceral fat (which is around the organs). The amount of subcutaneous fat you develop depends on genetic as well as lifestyle factors. Subcutaneous fat stores energy protects from hits and falls, a passageway between skin and muscles, acts as an insulator. Even though it is an important part of our body, if its storage increases, there is always a high risk of developing all the above diseases and altering the physical outlook. The commonest way of measuring is a calculation of Body Mass Index. Cellulitis describes a normal age-related skin dimpling over the

thighs, buttocks, and abdomen due to weak connective tissue around fat lobules. It is more obvious in obese patients. Ayurveda is one such branch that can effectively manage lifestyle disorders. As Udwartana is reported to have a better result in Sthoulya current study is undertaken to see the effect of two different drugs i.e., Triphala Churna and Kulatha Churna Utsadana mixed with tila taila in the management of Sthoulya w.s.r to Overweight.

Aims and Objectives of the study:

- To evaluate the efficacy of Triphala churna Utsadana in Sthoulya.
- To evaluate the efficacy of Kulatha churna Utsadana in Sthoulya.
- To compare the effect of Triphala choorna Utsadana and Kulatha churna Utsadana in Sthoulya.

Method: 40 Patients fulfilling the inclusion criteria belonging to either sex were randomly selected and allocated to Group A and Group B. **Procedure: Group A:** Utsadana with Triphala Churna + Tila taila for 7 days. **Group B:** Utsadana with Kulatha Churna + Tila taila for 7 days. Patients were assessed on the 0th-day 7th day and 15th day.

Results and interpretation: When both the groups were compared clinically for Kshudrashwasa, Sweda Daurgandhya, Ati Sweda, Gatra Gaurava, Mid Arm Circumference, Mid-thigh circumference, Waist circumference, Hip Circumference, Waist-Hip ratio, BMI, and weight it was observed that both the groups were equally efficacious.

On applying the Wilcoxon rank sum test and Mann-Whitney U test for qualitative data it was observed that both the groups were equally efficacious. **Conclusion:** The patients have shown improvement in all the criteria of assessment in Sthoulya. It was seen that both the drugs were equally effective when used for Utsadana.

Keywords: Sthoulya, Overweight, Utsadana, Triphala Churna, Kulatha Churna.

INTRODUCTION

Since ancient times, India is well-known worldwide for its culture and its own system of medicine. Ayurveda is now being increasingly accepted by the world at large for its facilities and adoptability even in modern times. Also, Ayurveda has shown its wonderful effect on lifestyle disorders. The Ayurveda system of medicine is giving much importance to Shadvidha upakrama namely Langhana, Brumhana, Rukshana, Snehana, Swedana, and Stambhana; in alleviating disease and maintaining good health. Sthoulya develops in a person due to the excessive accumulation of muscles and fat in the body. And also, with altered energy levels. This is because, many among the Indian population have started to rely upon processed foods that contain a huge percentage of trans-fat, sugars, and other unhealthy and artificial ingredients. In 2008, according to WHO, the prevalence of obesity is ranked one among the 10 selected health risks¹. Currently, twenty million Indians are obese and by 2025 the expected number to be 68 million². In Ayurveda, Sthoulya is considered under Santarpana

Vikara³ and one among Ashta Maha Gada. Among all the chikitsa mentioned Udwartana is mostly practiced. Utsadana and Udgharshana are its subtypes according to Acharya Sushruta. This study has been undertaken to see the effect of two different drugs Triphala Churna and Kulatha Churna are used for Utsadana (where a paste of drugs is used for the procedure). As Utsadana is believed to address both Vayu and Kapha Dosha. By considering all the above points, A randomised comparative clinical study in Sthoulya by Utsadana using Kulatha Churna and Triphala Churna w.s.r to Overweight is taken to see a better result without any complication and cost-effective.

MATERIALS AND METHODS

Sthoulya is a metabolic disorder that needs immediate and effective treatment to prevent its further secondary complications. As it is a Santarpanjanya and Medo pradoshaja Vyadhi drugs and procedures which can address this condition need to be selected. Taking

all these points in view study was planned with the following aims.

- To evaluate the efficacy of Triphala churna Utsadana in Sthoulya.
- To evaluate the efficacy of Kulatha churna Utsadana in Sthoulya.
- To compare the effect of Triphala choorna Utsadana and Kulatha churna Utsadana in Sthoulya.

Source of Data

a) Literary Source

All the Ayurvedic texts and contemporary books and literatures and internet sources about the disease, drugs, and procedure were reviewed and documented for the study.

b) Drug Source

The drugs were selected from the market after proper identification and choorna were prepared. Organoleptic characters of the Triphala Churna and Kulatha Churna were tested at Central research laboratory SSRAMCH and Particle size was found to be moderately coarse and passed through the sieve size 22

c) Sample Source

40 patients fulfilling criteria of either sex irrespective of age group between 18 – 65 years, socio-economic status, and caste was selected for the

clinical study. Patients were selected randomly from OPD and IPD of SSRAMCH Inchal, camps, and referrals and assigned to groups A and B (Simple Random Sampling)

Method of collection of Data

Inclusion Criteria:

1. Clinically diagnosed cases of Overweight will be taken for the study
2. Patients irrespective of sex, religion, and economic status.
3. Patients of both sexes in between the age group of 18 to 65 years.
4. Patient suitable for Utsadana.

Diagnostic criteria:

1. BMI >25
2. Lipid Profile - Total cholesterol > 200 mg /dL
Triglycerides >150 mg/ dL
LDL > 60 mg/ Dl

Exclusion criteria:

5. Patients with Diabetes with secondary complications which interfere with the course of treatment.
6. k/c/o Cardiac ailments
7. k/c/o Kidney disorders
8. Patients unfit for Utsadana.
9. k/c/o Hypo / Hyperthyroidism.
10. k/c/o Hypertension

PROCEDURE:

Table 1: Procedure of Utsadana

Procedure	Group A	Group B
Poorva Karma	Preparation of the medicine: Triphala Choorna is mixed with Tila taila and paste is prepared. Preparation of the patient: The patient is asked to undress and lie down in a supine position	Preparation of the medicine: Kulatha Choorna is mixed with Tila taila and paste is prepared. Preparation of the patient: The patient is asked to undress and lie down in a supine position
Pradhana Karma	Utsadana is done in Pratiloma gati with moderate pressure The procedure was done in all seven postures for a duration of about 30 minutes	Utsadana is done in Pratiloma gati with moderate pressure The procedure was done in all seven postures for a duration of about 30 minutes
Paschat Karma	Choorna was removed from the body using a dry towel and asked to take a warm water bath	Choorna was removed from the body using a dry towel and asked to take a warm water bath

Clinical Screening and Follow-up:

Clinical features are recorded before the Treatment which is on zero-day.

The total duration of the procedure: 7 days

Follow up: 7th day and 15th day

Table 2: Subjective and Objective assessment criteria

		0 th DAY (BT)	7 th DAY (AT)	15 th DAY (AF)
Kshudrashwasa				
Absent	Grade 0			
Minimum Activity	Grade 1			
Moderate Activity	Grade 2			
Strenuous Activity	Grade 3			
Sweda Daurgandhya				
Absent	Grade 0			
With no Activity	Grade 1			
With moderate Activity	Grade 2			
Only with Strenuous Activity	Grade 3			
Ati Sweda				
Absent	Grade 0			
Only during the day with Activity	Grade 1			
Both during day and night with or without Activity	Grade 2			
Gatra gaurava				
Absent	Grade 0			
Gatra Gaurava after food with no Activity	Grade 1			
Gatra Gaurava throughout the day with or without Activity	Grade 2			
Mid arm Circumference	-			
Mid-thigh Circumference	-			
Weight	-			
Waist Circumference	-			
Hip Circumference	-			
Waist – Hip Ratio	-			
BMI	-			

ASSESSMENT OF TOTAL EFFECT OF THERAPY

Table 3: Overall Result of Group A

EFFECT OF TREATMENT IN GROUP A			
CLASS	GRADING	NO OF PATIENTS	%
0-25 %	No Improvement	8	40
26-50 %	Mild Improvement	5	25
51-75 %	Moderate Improvement	5	25
76-100 %	Marked Improvement	2	10

Graph 1: Overall effect of Group A

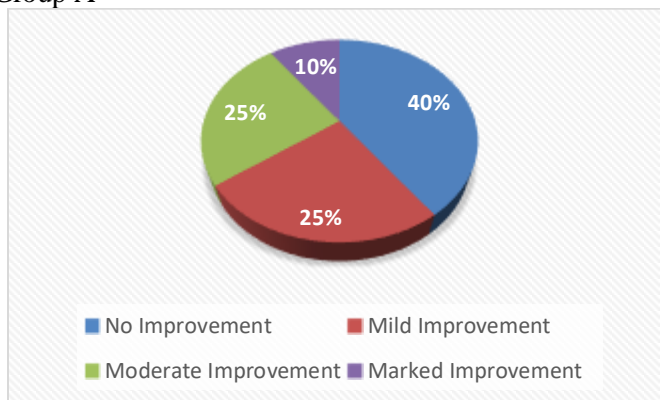
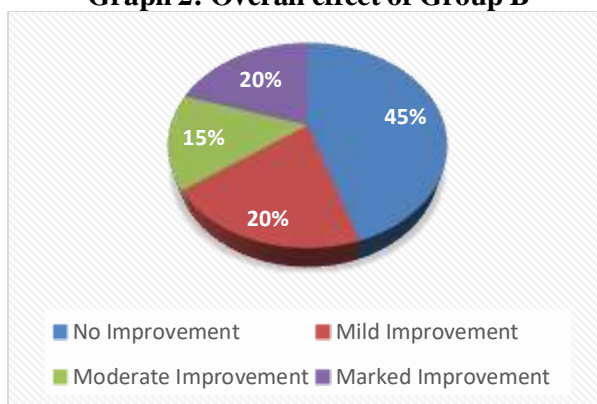


Table 4: Results of Group B

EFFECT OF TREATMENT IN GROUP B			
CLASS	GRADING	NO OF PATIENTS	%
0-25 %	No Improvement	9	45
26-50 %	Mild Improvement	4	20
51-75 %	Moderate Improvement	3	15
76-100 %	Marked Improvement	4	20

Graph 2: Overall effect of Group B



DISCUSSION

While comparing both the groups, clinically better relief was observed in patients of Kulatha Choorna Utsadana on criteria when compared to the Utsadana with Triphala Choorna. A statistically insignificant difference was observed in all the criteria while comparing both groups, which highlights the efficacy of both the drugs in Utsadana.

Mode of action of Triphala Churna^{4, 5, 6}: The ingredients of Triphala Churna possess Kashaya, Katu, Tikta Rasa, Laghu, Rooksha Guna, and Ushna Veerya. The combination has Kaphavatahara and

Medohara action. Moreover, Vibhitaki is Kapha Medohara.

Mode of action of Kulatha Churna⁷: Kulatha Churna possesses Kashaya Rasa, Laghu, Rooksha guna, Ushna veerya, and Katu Vipaka. It is Vata Kaphahara, Medohara, Vidahi.

Probable mode of action of Utsadana⁸: As Utsadana is a type of Udwartana, all the properties which are mentioned under the heading of Udwartana will work here. Utsadana is indicated in Sthoulya owing to its Kapha-Medo Vilayana Guna. Due to Ushna and Teekshna Guna of Dravya and forceful massage effect on Romakupa, the Veerya of the drugs enter into the body through the openings of Siramukha,

thereby making Paka of Kapha and Meda. Udwartana also stimulates the Twakgata Agni/brajaka Pitta. As it is mixed with taila it acts as Srotoshodhana which normalizes the path of Vata which helps to overcome Avarana pathology.

Additional benefits of Utsadana observed during the procedure:

90 % of the patients observed a very good skin complexion (94). This can be attributed to the Varna Prasadakaram action of the procedure. Moreover, it can be assumed that by performing Utsadana, the amount of blood circulation beneath the skin increased due to friction. Due to this change, cells are supplied with more oxygen there by changing the colour. Along with this most of the patients observed a relaxed feeling in their minds. This might also be due to the clearance of rasavaha srotus which in turn nourishes manas. Body ache (mostly muscular / due to varicosity of veins) of the patients were completely relived. This is due to Vatahara guna of taila and ushnatwa produced during the procedure of Utsadana. Also due to increased blood circulation. The result of this study indicates that Utsadana alone which is only a Bahya Chikitsa may not be sufficient in giving marked relief in the management of Sthoulya. Vitiated Shleshma and Medas are important in the etiopathogenesis of Sthoulya. The Utsadana clears the channels, which are obstructed by Shleshma and Medas. It breaks the nexus of Doshas and removes the Avarana. Utsadana is a modified form of Udwartana in which oily substances are used along with Churna. This also benefits in targeting subcutaneous fat, dimpling of the skin, sagging, and in turn reducing cellulitis. In specific Sneha reduces Vata and this procedure causes fewer abrasions on the skin and prevents allergic reactions due to forceful rubbing. In Obesity cutaneous circulation is affected. Where Utsadana helps to restore it. Definitely Utsadana, with Shodhana and other therapies mentioned under Panchakarma and Shamana Chikitsa along with restricted diet and exercise, will provide a holistic approach in Sthoulya.

CONCLUSION

In this clinical study “A randomised comparative clinical study in Sthoulya by Utsadana using Kulatha Churna and Triphala Churna w.s.r to Overweight” the following conclusions were drawn from observation and results. Sthoulya is considered as Santarpanjanya Medo pradoshaja vyadhi and Kapha pradhana vikara. The incidence of Sthoulya is increasing day by day, this is because of a sedentary lifestyle and improper food habits, and stressful leaving. So Overweight is an alarming sign where the community should be educated regarding the prevention of disease and its complication. As per the observations of this study 50 % were between the age group of 34-49. 55 % were females and 40 % of them were housewives, and 70 % were of the middle class. A maximum of them were from Sadharana desha (62.5 %), and 42.5% were having a family history of obesity. 47.5 % were under a mixed diet. 77.5 % of people were on a mixed diet. Only 25% of people had nidana of Divaswapna. A maximum of 47.5 % were of Kapha – Pitta Prakruthi. And very important point is that 82.5 % of people were under the BMI range of Overweight which is between 25-29.9. Body weight was between 61-70 for 47.5 % of people. **Effect of treatment with Triphala Churna Utsadana** –Under Objective criteria- treatment has given a significant result in Mid arm Circumference- 3.402 %, Mid-Thigh Circumference – 2.61%, Weight – 1.115 %, Waist Circumference -1.334 %, Hip Circumference – 2.997 %, Waist – Hip Ratio – 0.732 %, BMI – 1.362 %. Under Subjective Criteria – statistically significant relief is observed under Kshudrashwasa – 4.116 %, Sweda Daurgandhya – 37.20 %, Ati Sweda – 5.88 %, Gatra Gaurava – 57.14 %. In this group 8 patient has shown no improvement after treatment, 5 of them have shown mild changes, 5 have moderate improvement and 2 patients have shown marked improvement. **Effect of treatment with Kulatha Churna Utsadana** –Under Objective criteria- treatment has given a significant result in Mid arm Circumference- 2.236 %, Mid-Thigh Circumference – 2.61 %, Weight – 1.30 %, Waist Circumference -3.20 %, Hip Circumference – 3.569 %, Waist – Hip Ratio

– 0.459 %, BMI – 1.449 %. Under Subjective Criteria – statistically significant relief is observed under Kshudrashwasa – 15.90 %, Sweda Daurgandhya – 46.93 %, Ati Sweda – 20 %, Gatra Gaurava – 80 %. In this group 9 patient has shown no improvement after treatment, 4 of them have shown mild changes, 3 have moderate improvement and 4 patients have shown marked improvement.

Comparison of study: When statistically analysed, when both the groups are compared, it shows that both the drugs are equally effective in the case of Utsadana for Sthoulya. Compared to general weight loss, Utsadana shows good progress in reducing thigh and arm circumference. Hence it helps in having toned legs and arms preventing complications like cellulitis, which is not achieved in other methods of weight loss therapy. Marked reduction in Kshudrashwasa shows respiratory restoration and this eases daily activities and workouts in overweight. Reduction in the feeling of deha gaurava boosts enthusiasm in overweight people. This helps in their physical and mental health. Reduction in Deha Daurgandhya makes them feel fresh also reduces low self-esteem about themselves due to body odour. Utsadana can also be used to tone the body after weight loss in combination with other Shodhana therapies. Also, when compared to Udgharshana, Utsadana has got lesser complications of abrasion and rashes. This work is presented with the hope that the observations and results widen the scope for further studies.

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