



Research Article

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COMPARATIVE CLINICAL STUDY ON THE MURCHITA TAILA IN FIXED AND INCREASING DOSE WITH SPECIAL REFERENCE TO SAMYAK SNIGDHA LAKSHANA

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ABSTRACT

Shodhananga Snehapana (purificatory oleation) is the most important Purvakarma (preparatory procedure) for Vamana (emesis) and Virechana (Purgation) Different Sneha (lipid) are being used for Snehapana (internally oleation) prior to Shodhana karma (purificatory therapy). A Comparative Interventional Clinical Study design was planned. 30 patients registered were randomly grouped into two each comprising of 15 patients. The patients were assigned into two groups Fixed dose group (50 ml) and increasing dose (30 ml) group who were subjected to Shodhananga Snehapana (purificatory oleation) and followed by Virechana (Purgation). The Samyak Snigdha Lakshana's (proper oleation symptoms) started early in fixed dose group with murchita taila i.e. on 3rd day and 4th day for increasing dose group. Fixed dose was found more effective than Increasing dose on Lipid Profile. In the parameter of Sthaulya (obesity) both fixed dose group and increasing showed significant results $p < 0.001$. The present study was found statistically significant in all subjective and objective parameters of Sthaulya (obesity). Fixed dose is effective like increasing dose in attainment of Samyak Snigdha (proper oleation) and Virikta Lakshana's (purgative symptoms) well as relieving in Sthaulya (Obesity). Fixed dose was found more effective than Increasing dose on Lipid Profile. Fixed Dose and Increasing Dose (Both Group) was found to have significant effect in reduction of objective parameters like weight, BMI, body circumferences. Shodhananga Snehapana (purificatory oleation) with Murchita Tila taila has a role in Sthaulya (Obesity) by reducing the Weight and BMI.

Keyword: Shodhananga Snehapana, Samyak Snigdha Lakshana, Virechana karma, Sthaulya.

INTRODUCTION

Snehana (oleation) is a procedure mentioned under Shad Upakrama¹ (Six type of treatment) which is being used independently for the promotion of health, cure of many diseases as well as a part of Shodhana (purification) as its Purvakarma (preparatory procedure). Snehana (oleation) is an important preoperative procedure that has to be done before Shodhana (purification). Proper Snehana (oleation) is essential for attainment of Samyak Shuddhi. Sneha (lipid) is the important Karma (action) that decides the whole outcome of Shodhana² (purification). The Shodhananga Snehana (Purificatory oleation) effect can be achieved by following one of the available methods of administration of Sneha (lipid) such as, Matranusara (according to dose) Snehana (oleation), Arohana matra Snehana (increasing dose oleation), Sadyo Snehana (immediate oleation) and Pravicharna Snehana (Sneha along with various Kalpana). Currently in this study trial group has been taken in which irrespective of Agni (digestion) the Snehapana (internally oleation) was given in multiple of fixed dose (50 ml) till Samyak Snigdha Lakshana (proper oleation symptoms) appeared. Arohana Sneha Matra (increasing dose oleation) is done by increasing the dosage of Snehapana (internally oleation) based on Agni (digestion) and Kosta (digestive tract). So in this study a new approach was done by increasing Snehapana (internally oleation) on basis of Agni Deepana (increase appetite) attained on that particular day of Snehapana (internally oleation). Acharya Sushruta has advised to administer a dose that gets digested in 9 hours in Bahu Doshaja Ragas for Snehapana (internally oleation)³. This seemed to be a very practical dose. Taila (oil) is used for

Shodhananga Snehana (purificatory oleation) in Kapha medaja conditions like Sthaulya (obesity) then it may be more beneficial than Ghrita (ghee) in attaining Samyak Shuddhi Lakshana's (proper oleation symptoms). Sthaulya (obesity) was taken as the disease in this study as an example as it is a Bahu Doshaja Vyadhi.

Sthaulya (Obesity) is one among the major diseases of Modern era. In Modern era with continuous changing life styles and environment, changed diet habits, man has become the victim of many disease caused by unwholesome dietary habits and Obesity is one of them.

Overweight and obesity can be compared with Sthaulya (obesity). Which is one of the Santarpanottha vyadhi⁴ and line of treatment for it is Apatarpana (non nourishment) and Langhana⁵ (fasting) which can be done by Shodhana (purification) and Shamana (palliative treatment).

Aims & objectives

- To evaluate the effect of Murchita taila as fixed dose as Shodhananga Snehapana in achieving Samyak snidhna Lakshana's in Sthaulya.
- To evaluate the effect of Murchita taila as increasing dose as Shodhananga Snehapana in achieving Samyak snidhna Lakshana's in Sthaulya.
- To evaluate the effect of Murchita taila as Shodhananga Snehapana in the management of Sthaulya.

MATERIALS AND METHODS

Source of Data

30 patients of Sthaulya (Obesity) from the I.P.D of S.D.M College of Ayurveda and Hospital, Hassan were selected irrespective of their age, sex, religion etc. They were examined clinically in detail according to the special Proforma prepared for it.

Ethical clearance number: SDM/IEC/74/2014-2015

Diagnostic criteria

- Signs and symptoms of Sthaulya (Obesity)⁶
- BMI (kg/m²) above 25-35⁷

Inclusion Criteria

- Patients diagnosed as Sthaulya.
- Age: 16 – 60years.

Exclusion Criteria

- Contraindicated for Virechana(purgation)
- Subjects who are suffering from endocrinal diseases
- Subjects who are suffering from psychiatric illness
- Pregnancy
- Subjects with other primary systemic diseases- Hypertension, diabetes mellitus

Assessment criteria

Subjective

- Samyak Snigdha Lakshana⁸
- Laingiki features in the form of Samyak Shuddhi of Virechana(purgation)⁹

Objective

- Weight (kg)
- BMI (Kg/m²)
- Measurements taken at various levels viz
 - Chest.
 - waist
 - Hip
- Lipid profile

Design of group and management

Study is divided into 3 main parts i.e.

- Purvakarma(preparatory measure)
- Pradhana karma (main procedure)
- Pashchat karma(post operative)

Purvakarma (Preparatory measure)

Deepana-Pachana: Panchakola Phanta¹⁰ 50 ml thrice a day before food was given till the attainment of Niram Lakshana was given.

Pradhana Karma (Main operative measure)

Fixed dose group - In this group, each patient in the group were given Snehapana (internally oleation) with murchita taila in 50

ml till Samyak Snigdha Lakshana's (proper oleation symptoms) are observed or maximum 7 days whichever is earlier.

Increasing dose group - In this group, after Niram Lakshana's are seen on the first day Hrisisyasi Matra (test dose) i.e. 30ml of Sneha(lipid) was given and dose of Sneha(lipid) was increased in multiples of Hrisisyasi Matra (test dose) daily till the appearance of Samyak Snigdha Lakshana's (proper oleation symptoms) or maximum 7 days whichever was earlier. For the next day the dose was calculated using the following formula.

Next day dose = P.D D. X 9 ÷ Time for digestion of previous day dose

P.D.D. = Previous day dose

9 = is a constant Time required for digestion of digestion of Sneha in Bahudoshaja Vyadhi.

Both groups were given Abhyanga(massage) with Murchita taila followed by Ushna jala snana (hot water bath) during 3 days of Vishrama Kala. The next day Virechana karma (Purgation therapy) with Trivrut avaleha 70gm and Triphala kashaya 100ml was given as Virechana (Purgation) Yoga (Purgation medicine). Ushna Jala (hot water) was given as Anupana. After Virechana karma (Purgation therapy) the patients were kept on Samsarjana Krama (diet regimen) according to the type of Shuddhi achieved.

Snehapana (internally oleation) was continued till the appearance of Samyak Snigdha Lakshana's (proper oleation symptoms) or maximum 7 days, whichever was earlier. The next day dose was always dependent on dose of the previous day, which was calculated using the formula mentioned above. Thus the increase is not fixed and the dose schedule was varying from person to person. After attainment of Samyak Snigdha Lakshana (proper oleation symptoms), Abhyanga (massage) with Murchita Taila followed by Ushna jala Snana (hot water bath) was given for three consecutive days. During this period, light diet was given.

Pashchat karma (post operative measure):

The next day After Virechana (Purgation) the patient was kept on Samsarjana Krama (diet regimen) according to the type of Shuddhi achieved¹¹.

Statistical Analysis

Statistical analysis to assess individual and comparative effects of the groups was done using Repeated measure ANOVAs test was applied on objective parameter was analyzed by using Repeated measure ANOVAs test and Paired t test was applied for analyzing the significance of the change. Analysis was considered by SPSS for windows (Statistical presentation system software) version 23 developed by SPSS, New York (2016).

Table 1: Day wise attainment of samyak snigdha lakshanas in both groups

Day wise attainment Samyak Snigdha Lakshana	Group – Fixed Dose	%	Group – Increasing Dose	%
Day 3	4	26.66%	1	6.66 %
Day 4	6	40%	11	73.33%
Day 5	5	33.33%	3	20%

Table 2: Effect of fixed dose group on biochemical values

Parameter	FIXED DOSE GROUP ON LIPID PROFILE (mg/dl)		% Relief	SD	SE	t Value	p Value	Interpretation
	Mean Score							
	BT	AT						
Serum cholesterol	229.06	195.25	17.31 %	25.69	6.63	5.09	<0.001	HS
HDL	53.48	44.50	16.79%	4.55	1.176	7.63	<0.001	HS
LDL	131.22	121.94	7.07%	6.09	1.17	5.89	<0.001	HS
Triglyceride	204.40	164.40	19.56%	42.45	1.57	3.64	<.003	S
VLDL	39.78	35.30	11.26%	8.81	10.96	1.96	<.069	NS

BT: Before Treatment, AT: After Treatment

Table 3: Effect of increasing dose group on biochemical values

Parameter	INCREASING DOSE GROUP ON LIPID PROFILE (mg/dl)		% Relief	SD	SE	t Value	p Value	Interpretation
	Mean Score							
	BT	AT						
Serum cholesterol	204.68	187.60	8.34%	19.51	5.03	3.38	.004	S
HDL	49.78	45.33	8.93 %	3.97	1.02	4.33	<0.001	HS
LDL	121.40	112.06	7.69%	12.31	3.18	2.93	<.011	NS
Triglyceride	166.70	155.20	6.89 %	12.78	3.30	3.48	<.004	S
VLDL	34.60	30.56	2%	1.63	.421	9.56	<0.001	HS

BT: Before Treatment, AT: After Treatment

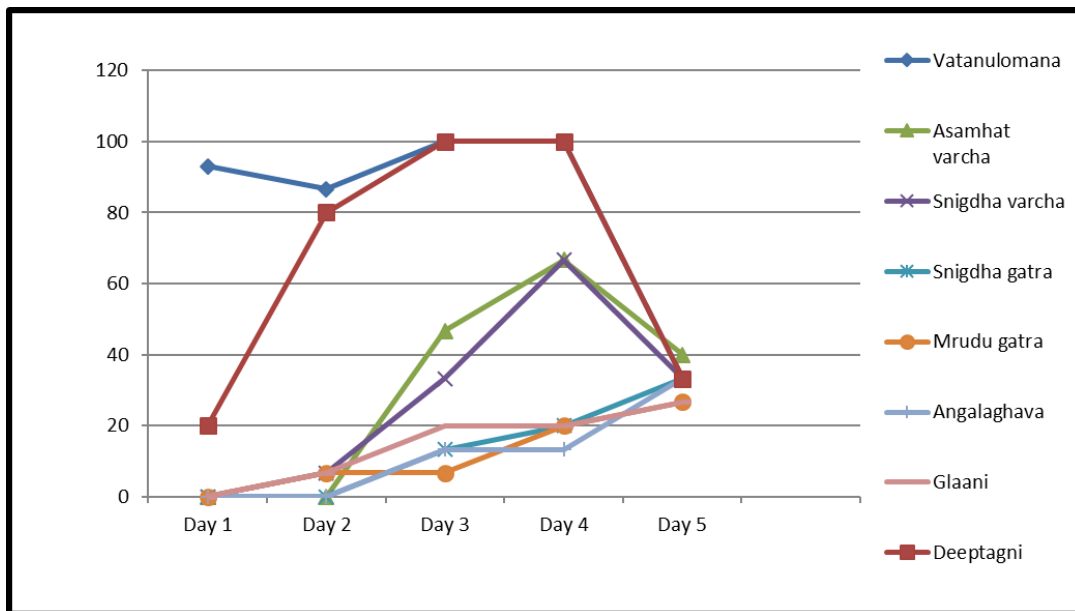


Figure 1: Samyak snehana (oleation) lakshanas day wise in fixed dose group

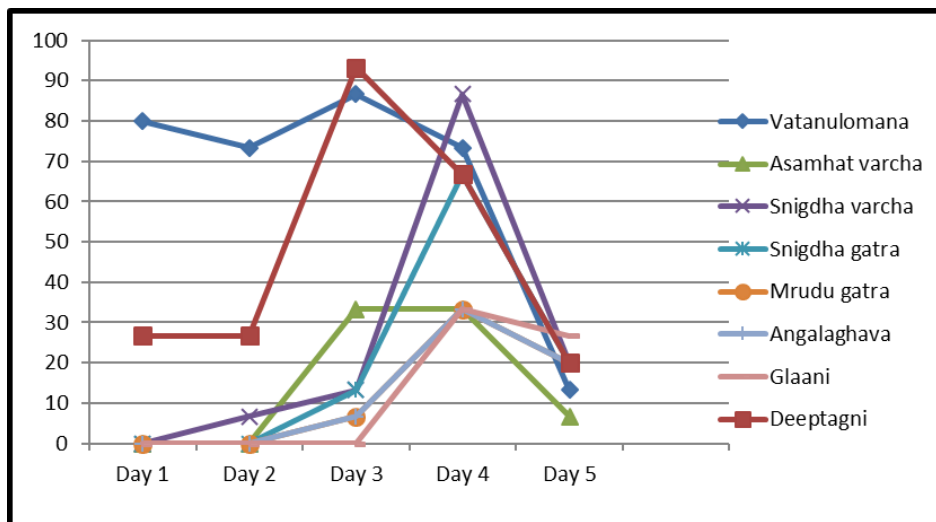
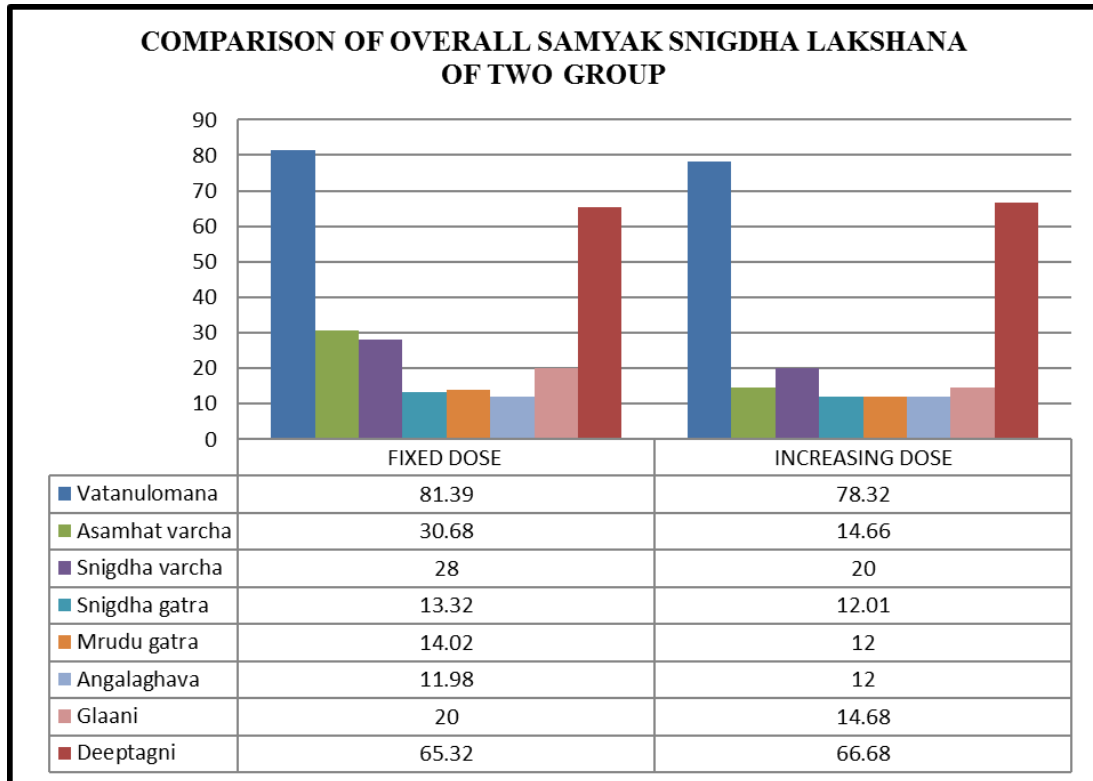
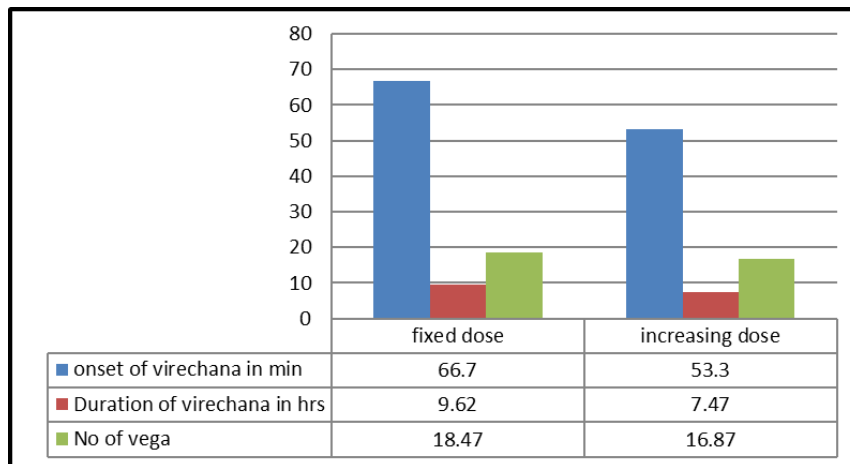


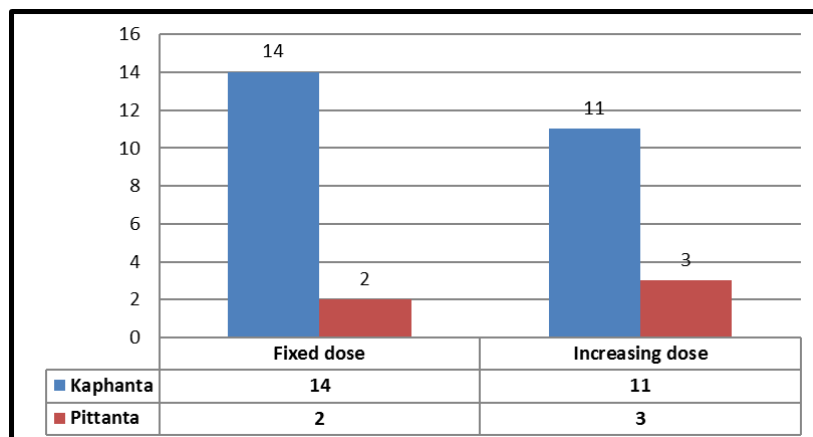
Figure 2: Samyak snehana (oleation) lakshanas day wise in increasing dose group



Graph 1: Comparison of overall samyak snigdha lakshan as of two groups



Graph 2: Onsets and duration of virechanain fixed and increasing dose



Graph 3: Antiki shuddhi in fixed dose group and increasing dose group

RESULTS AND DISCUSSION

Out of 9 Samyak Snigdha Lakshana ((proper oleation symptoms)), day wise increase in Samyak Snigdha Lakshana (proper oleation symptoms) percentage was observed Viz, day 1 (12.63%), day 2 (20.75%), day 3 (37.03%), day 4 (45.18%), day 5 (62.16%). This shows gradual appearance of Samyak Snigdha Lakshana (proper oleation symptoms). (Figure 1)

Out of 9 Samyak Snigdha Lakshana (proper oleation symptoms), day wise increase in Samyak Snigdha Lakshana (proper oleation symptoms) percentage was observed Viz, day 1 (11.85%), day 2 (14.65%), day 3 (28.14%), day 4 (47.4%), day 5 (60%). (Figure 2)

When the percentage of Samyak Snigdha Lakshana (proper oleation symptoms) was plotted we can see that the lines of both group co-inside almost. Hence it can be said that in the attainment of Samyak Snigdha Lakshana (proper oleation symptoms) there is no much difference between both the groups. (Graph 1)

In Fixed dose group 66.66 % of the patients attained Samyak Snigdha Lakshana's (proper oleation symptoms) within 3- 4 days of administration of Snehapana (internally oleation) and in increasing dose group 80 % of the patients attained Samyak Snigdha (proper oleation symptoms) within 3-4 days. This reaffirms that Madhyama Kosta subjects require only 3-4 days for Samyak Snehana (proper oleation) (Table 1)

When comparing fixed dose group and increasing dose group onset time, duration and number of Vegas (urges) of Virechana (Purgation) is almost same. This shows that there is no major difference of type of Ghrita (ghee) on these parameters of Virechana (Purgation). (Graph 2)

Fixed dose group patients got maximum of Kaphanta Lakshana's 14 against 11 in increasing dose group. This shows fixed dose group patients got better Antiki Lakshana's. (Graph 3)

To know the effect of treatment on parameters of Lipid profile, paired t-test was applied. It is evident from the above table that there was significant change Serum cholesterol, HDL, LDL and Triglyceride at all the levels of the treatment with $p < 0.001$, but non-significant in VLDL at the all levels of the treatment with $p = 0.69$. (Table 2)

To know the effect of treatment on parameters of Lipid profile, paired t-test was applied. It is evident from the above table that there was significant change Serum cholesterol, HDL, VLDL and Triglyceride at all the levels of the treatment with $p < 0.001$, but non-significant in LDL at the all levels of the treatment with $p = 0.11$. (Table 3)

Effect on weight (Kg)

Fixed dose group: It is seen in the present study that, the improvement in the Weight score on before Snehapana (internally oleation) with Mean value was 83.42 and after Snehapana (internally oleation) Mean value was 79.91 after Virechana (Purgation) Mean value was 77.08 after Samsarjana karma (diet regimen) mean value was 76.11. [**Total weight reduced 8.76%**]. This change is statistically significant ($P < 0.001$).

Increasing dose group: It is seen in the present study that, the improvement in the weight on before Snehapana (internally

oleation) Mean value was 81.93 after Snehapana (internally oleation) Mean value was 79.25 after Virechana (Purgation) was 76.54 after Samsarjana karma (diet regimen) was 76.56. [**Total weight reduced 6 %**]. This change is statistically significant ($P < 0.001$).

Effect on BMI (Kg/m²)

Fixed dose group: It is seen in the present study that, the improvement in the BMI score on before Snehapana (internally oleation) Mean value was 32.06 after Snehapana (internally oleation) Mean value was 30.16 after Virechana (Purgation therapy) Mean value was 29.46 after Samsarjana karma (diet regimen) mean value was 28.74. [**Total BMI reduced 10.35%**]. This change is statistically significant ($P < 0.001$).

Increasing dose group: It is seen in the present study that, the improvement in the BMI score on before Snehapana (internally oleation) Mean value was 31.61 after Snehapana (internally oleation) Mean value was 30.31 after Virechana (Purgation) Mean value was 29.26 after Samsarjana karma (diet regimen) Mean value was 29.28 . [**Total BMI reduced 7.3 %**]. This change is statistically significant ($P < 0.001$).

Effect on waist circumference (Cm)

Fixed dose group: It is seen in the present study that, the improvement in the Waist circumference on before Snehapana (internally oleation) Mean value was 99.46 and after Snehapana (internally oleation) Mean value was 97.86 after Virechana (Purgation) Mean value was 96.20 after Samsarjana karma (diet regimen) mean value was 95.93. [**Total Waist circumference reduced 3.54 %**]. This change is statistically significant ($P < 0.001$).

Increasing dose group: It is seen in the present study that, the improvement in the Waist circumference on before Snehapana (internally oleation) Mean value was 99.00 after Snehapana (internally oleation) Mean value was 97.00 after Virechana (Purgation) was 96.41 after Samsarjana karma (diet regimen) was 96.53. [**Total Waist circumference reduced 2%**]. This change is statistically significant ($P < 0.001$).

Effect on hip circumference (Cm)

Fixed dose group: It is seen in the present study that, the improvement in the Hip circumference on before Snehapana (internally oleation) with Mean value was 106.60 and after Snehapana (internally oleation) Mean value was 105.33 after Virechana (Purgation) Mean value was 103.86 after Samsarjana karma (diet regimen) mean value was 103.66. [**Total Hip circumference reduced 2.94%**]. This change is statistically significant ($P < 0.005$).

Increasing dose group: It is seen in the present study that, the improvement in the Hip circumference on before Snehapana (internally oleation) with Mean value was 102.26 after Snehapana (internally oleation) Mean value was 101.26 after Virechana (Purgation) was 100.20 after Samsarjana karma (diet regimen) was 100.06. [**Total Hip circumference reduced 2%**]. This change is statistically insignificant ($P < .041$).

Effect on chest circumference (Cm)

Fixed dose group: It is seen in the present study that, the improvement in the Chest circumference on before Snehapana (internally oleation) Mean value was 99.86 and after Snehapana (internally oleation) Mean value was 98.066 after Virechana

(Purgation therapy) Mean value was 95.800 after Samsarjana karma (diet regimen) mean value was 95.800. **[Total Chest circumference reduced 4.06%]** This change is statistically significant ($P < 0.001$).

Increasing dose group: It is seen in the present study that, the improvement in the Chest circumference on before Snehapana (internally oleation) Mean value was 97.80 after Snehapana (internally oleation) Mean value was 96.40 after Virechana (Purgation) was 95.33 after Samsarjana karma (diet regimen) was 94.86. **[Total Chest circumference reduced 2.94%]** This change is statistically significant ($P < 0.001$).

Probable mode of action of shodhananga snehapana (internally oleation)

Snehapana (internally oleation) is the major preparatory procedures performed before Shodhana Karma (purification therapy) is known as Shodhananga Snehapana (purificatory oleation).

Acharya Charaka defines Snehana (oleation) as in Snehanam Sneha Vishyandam Mardava Kledakarakam'. The procedure by which Snigdha (To Bring about Lubrication), Vishyandana (To enhance Diffusion), Mardavata (To soften) and Kledana (To produce Moisture) are produced in the body. The four therapeutics goals for performing Snehana (oleation) as follow a tool for assessment of Snehapana (internally oleation). In which Sneha (lipid) is to be assessed by the unctuousness of the body, stool and skin viz. Gātra, Pureesha and Twak Snigdha. Vishyandana is observed by act of excretion of Sneha (lipid) with stool or without stool, viz. Snigdha mala and Adhastat snehadarsana. Mardavata is assessed by Gātra mardava. Kledana is assessed by consistency of stool i.e., Asamhata varchas. The Properties of Sneha Dravyas are like Sukshma (minuteness), Sara (mobility), Snigdha (unctuous), Drava (liquid), Picchila (unstable), Guru (heaviness), Shita (cold), Manda (mild) and Mridu (Soft).

Dosha Utklehsana (the Doshas are greatly imbalanced and moving from place to place) is brought only by Shodhananga Snehapana (purificatory oleation). It can be assessed by observing Samyak Snigdha Lakshana's (proper oleation symptoms).

Among Samyak Snigdha Lakshana (proper oleation symptoms), Vatanulomana (Downward movement of Vata), Deepagni (keen digestive activity) were present from initial days of Snehapana (internally oleation) which may be because of Snigdha Guna (unctuous quality), of Sneha (lipid).

Asamhata varchas and Snigdha varchas: These Lakshana's may be due to Drava (liquid), Sara (mobility), Snigdha (unctuous), and Mridu (Soft) of Sneha (lipid). Purisha becomes Drava (liquid), and Snigdha (unctuous), and person may possess Asamhata and snigdhavarchas. This will indicate for stopping the continuation of Snehapana (internally oleation) which is consider as one of the prime Samyak Snigdha Lakshana (proper oleation symptoms).

Twak Snigdha: Twak Snigdha suggests that Sneha (lipid) has reached up to Rasa (plasma), Rakta (blood), Mamsa (muscle) and also Majja Dhatu (bone-marrow).

Gatra Laghavata: Snehapana (internally oleation) (internally) removes obstruction in the gati (movement) of vata which makes Vatanulomana (downward movement of vata). Due to

this person passes Asamhata varchas. Hence person may feel Gatra Laghavata.

Snehodwega: Due to large quantity of Sneha (lipid) in the body will reach optimum.

The importance of Snehana (oleation) as Purvakarma (preoperative procedure) for Shodhana (purification) is well known. The Effect of Virechana karma (Purgation therapy) was also dependent upon Snehana (oleation) process. The features produced after Snehana (oleation) suggest that there is loosening of morbid Doshas which were adherent to the walls of transforming channels and which in turn will help in the Shodhana Karma (purification therapy), performed afterwards. When Snehana (oleation) was done by increasing dose schedule where increase of dose per day was decided according to Agni (digestion), Kosta (digestive tract), Bala (strength) Avastha (stages of the diseases), etc. the Snehana (oleation) occurred in its full fledged form.

CONCLUSION

Shodhananga Snehapana (purificatory oleation) plays a major role as Purvakarma (preoperative procedure) to Shodhana procedures (purification therapy). The purpose of Shodhananga Snehapana (purificatory oleation) is to attain the Vata nigraha and utklehsana of doshas by which they come from Shakha (tissue) to Kosta (digestive tract) there by facilitating the removal of Doshas from the body through Shodhana (purification). Shodhananga Snehapana (purificatory oleation) with Murchita Tila taila has a role in Sthaulya (obesity) by reducing the Serum Triglyceride and Serum Cholesterol and in controlling the Obesity. Sthaulya (obesity) is a metabolic disorder, described by Charaka in Astaunditiya Adhyay. Habit of junk food, sedentary life style, Achintanata (lack of thinking), Diwaswapna (day sleep) etc. along with genetic predisposition play a major role in etiopathogenesis of Sthaulya (obesity). Sthaulya (obesity) is a Dushya dominant disease. The present study was found statistically significant in all subjective and objective parameters of Sthaulya (obesity). Fixed dose group has shown similar effect like that of increasing dose in inducing Samyak Snigdha (proper oleation symptoms), Virikta Lakshana (purgative symptoms) in the management of Sthaulya (Obesity). Fixed dose group has shown similar effect like that of increasing dose in relieving the signs and symptoms of Sthaulya (Obesity). Fixed dose was found more effective than Increasing dose on Lipid Profile. Fixed Dose and Increasing Dose (Both Group) was found to have significant effect in reduction of objective parameters like weight, BMI, body circumferences. Shodhananga Snehapana (purificatory oleation) with Murchita Tila taila has a role in Sthaulya (obesity) by reducing the Weight and BMI. Fixed dose is effective like increasing dose in attainment of Samyak Snigdha (proper oleation symptoms), and Virikta Lakshana's (purgative symptoms) well as relieving signs and symptoms of Sthaulya (Obesity).

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