Research Article

ROLE OF *VIRECHANA KARMA* IN THE MANAGEMENT OF *STHOULYA*

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ABSTRACT

Obesity is one of the most common, yet among the most neglected, public health problems in both developed and developing countries. In rich countries, obesity is more common among the less educated, but in poor countries, obesity is more common among the highly educated. Globally one in six adults is obese and nearly 2.8 million individuals die each year due to overweight or obesity. Recent studies using Indian specific criteria for overweight (BMI > 23), obesity (BMI $\geq$ 25), and abdominal obesity (WC $\geq$ 90 cm in men and $\geq$80 cm in women) have found the prevalence rates among Asian Indians exceeding those in the US population. The age-standardized prevalence of generalized obesity in South India was 46% (women: 47%; men: 43%) compared to 35% in the US. In classics *Sthoulya* (Obesity) mentioned under the *Santarpanajanya vikar* and in *Bahudoshavastha* condition. Different *Shodhan* modalities have been mentioned like *Vamana, Virechana, Basti* etc for *Sthoulya.* Hence here an attempt was made to assess the role of *Virechana Karma* in *Sthoulya*. It was an open randomized clinical study with Pre test and Post test designs, where minimum of 20 patients suffering from obesity were selected randomly. There were highly significant changes seen in parameters like BMI, Weight, Circumferences of chest, abdomen, waist, hip, & mid thigh, while significant changes seen in Mid Arm Circumferences.

KEYWORDS: Obesity, *Sthoulya, Virechanakarma.*

INTRODUCTION

Obesity is a complex condition, one with serious social and psychological dimensions, that affects virtually all age and socioeconomic groups and threatens to overwhelm both developed and developing countries. Obesity is result of complex variety of social, behavioral, cultural, environmental, physiological and genetic factors India is just behind US and China in this global hazard list of top 10 countries with highest number of obese people.[1] Obesity has reached epidemic proportions in India in the 21st century, with morbid obesity affecting 5% of the country's population.[2] Overweight and Obesity are defined as abnormal or excessive fat accumulation that may impair health[3], for an individual, obesity is usually the result of an imbalance between calories consumed and calories expanded. *Sthoulya* may be co-related with overweight as well as obesity according to different presentations of signs and symptoms. In classics it is mentioned under the *Santarpanajanya Vikar*[4] and in *Bahudoshavastha* condition.[5] Different *Shodhan* (Purification) modalities has been mentioned like *Vamana, Virechana, Basti* etc for *sthoulya.*[6] *Virechana karma* is one of them which is easy to administer and less complicated procedure to the patients**.** Hence present study was designed in terms of administration of *Virechana Karma in Sthoulya.*

Objective of the study

To evaluate the effect of *Virechana karma* in patients suffering from obesity clinically.

Patients & Methods

Source of Data

A minimum of 20 patients suffering from *Sthoulya* were taken from OPD & IPD section of Panchkarma Department, Vasantdada Patil Ayurvedic Medical college Hospital Sangli.

Method of collection of Data

It was open randomized clinical study where in, patients of either sex of *Sthoulya* were selected randomly.

Inclusion Criteria

- Patients with sign & symptoms of *Sthoulya*

- Patients of either sex of age group between 25 to 50 years

- Patients with BMI more than 25

Exclusion Criteria

- Obesity due to endocrinal abnormalities.

- Patient with systemic disorders including skin, cardio vascular and Cerebrovascular disease.

- Psychiatric illness.

- Pregnancy.

Investigations

- Hb, TC, DC, ESR

Study Design

It was an open randomized clinical study with Pre test and Post test designs. The patients were advised to come next day of *Sansarjan Krama*.

Table 1: Interventions

Karma	Medicine	Dose	Days
Poorvakarma			
Pachan & Deepan [7]	Trikatu choorna with sukhoshna jala	About 3-4 grams	Till getting Nirama Lakshanas
Abhyanter Snehapan	Varunadi Gritha [8]	Minimum 25 ml Maximum till Samyak Snehapan Lakshanas (150 ml Approx.)	Minimum 03 Days Maximum 07 Days
Sarwang Snehana (Abhyang)	Moorchita Tila Taila [9]	100 ml / Day Approx.	04 Days
Bashpasweda	Dashamoola Churna Kwath	Till Sweating	04 Days
Pradhankarma	Trivrita [10] Leha & Milk	Trivrita Leha 40 to 50 Grms, Milk – 300 ml	On 4th day of Sarwang Snehan and Bashpasweda
Paschatkarma	Sansarjana Krama [11] & assessment of Laingiki, Antiki and Vaigiki Lakshanas	-	3/5/7 Days Accordingly

Assessment Criteria

Symptoms of Samyak, Ayoga and Atiyoga Virechana Lakshanas.

Objective – Before & After Treatment

1. BMI (Body Mass Index)
2. Body Girth Measurements

BMI (Body Mass Index) [12]

Table No 2 - BMI

Category	BMI Range – Kg/m^2
Normal (Healthy Weight)	Up to 25
Overweight	25.1 - 30
Obese class I (Moderately obese)	30.1 – 35
Obese class II (Severely obese)	35.1 – 40
Obese class III (Very Severely obese)	Over 40.1

Body Girth Measurements

The unit of measurement here is in inches.

1. Chest circumference is measured in normal expansion at the level of nipple.
2. Waist circumference is the minimum circumference between the coastal margin and iliac crest, measurement in horizontal plane with the subject standing.
3. Abdominal circumference is observed at the level of umbilicus.
4. Hip circumference is the maximum circumference in the horizontal plane, at the level of highest point of distribution of buttocks.
5. Mid thigh measurement is taken at the point between pelvic and knee joint.
6. Mid arm measurement is tested at the point between shoulder joint and elbow joint.

OBSERVATIONS

Table No 03 Maximum and Minimum Values of each Parameter

| Sr No	Parameters	Before Treatment		After Treatment	
		Maximum	Minimum	Maximum	Minimum
01	BMI	44.4	27.6	43.03	26.6
02	Weight in Kg	108	62.2	105.4	60
03	Chest	46.5	36	45	35
04	Abdomen	50	36.2	47.2	33
05	Waist	48.5	36.6	48.5	33.5
06	Hip	51.5	39.5	48.8	39
07	Mid Arm Right	21	10.6	14.2	10.2
08	Mid Arm Left	21	10.2	14.5	10.2
09	Mid Thigh Right	32	19	23.5	17.3
10	Mid Thigh Left	31	19	31	17

RESULTS

Table 4: Details of Statistical Test of each parameter

Parameters		Mean			S.D. of diff.	D.F	Paired t statistic	P-value (one tailed)
		Before	After	Diff.				
BMI		33.687	32.527	1.160	0.600	19	8.638	< 0.001
Weight		83.218	80.450	2.767	1.049	19	11.795	< 0.001
Chest circumference		40.520	39.205	1.315	0.881	19	6.676	< 0.001
Abdominal circumference		41.985	40.240	1.745	0.963	19	8.102	< 0.001
Waist circumference		43.245	41.890	1.355	0.957	19	6.334	< 0.001
Hip circumference		45.255	43.895	1.360	0.969	19	6.279	< 0.001
Mid Arm circumference	(Right)	13.220	12.150	1.070	1.957	19	2.445	0.012
	(Left)	13.120	12.210	0.910	1.966	19	2.070	0.026
Mid Thigh circumference	(Right)	22.360	21.055	1.305	2.107	19	2.770	0.006
	(Left)	22.295	21.095	1.200	1.861	19	2.883	0.005

All the parameters were quantitative in nature; hence to test the significant reduction in mean value over the treatment period, paired t test was used. Parameters like BMI, Weight, Circumference of Chest, Abdomen, Waist, Hip and Mid Thigh were statistically highly significant, Whereas Mid Arm Circumference was statistically significant.

Graph No 01 Reveals Mean reduction in various parameters
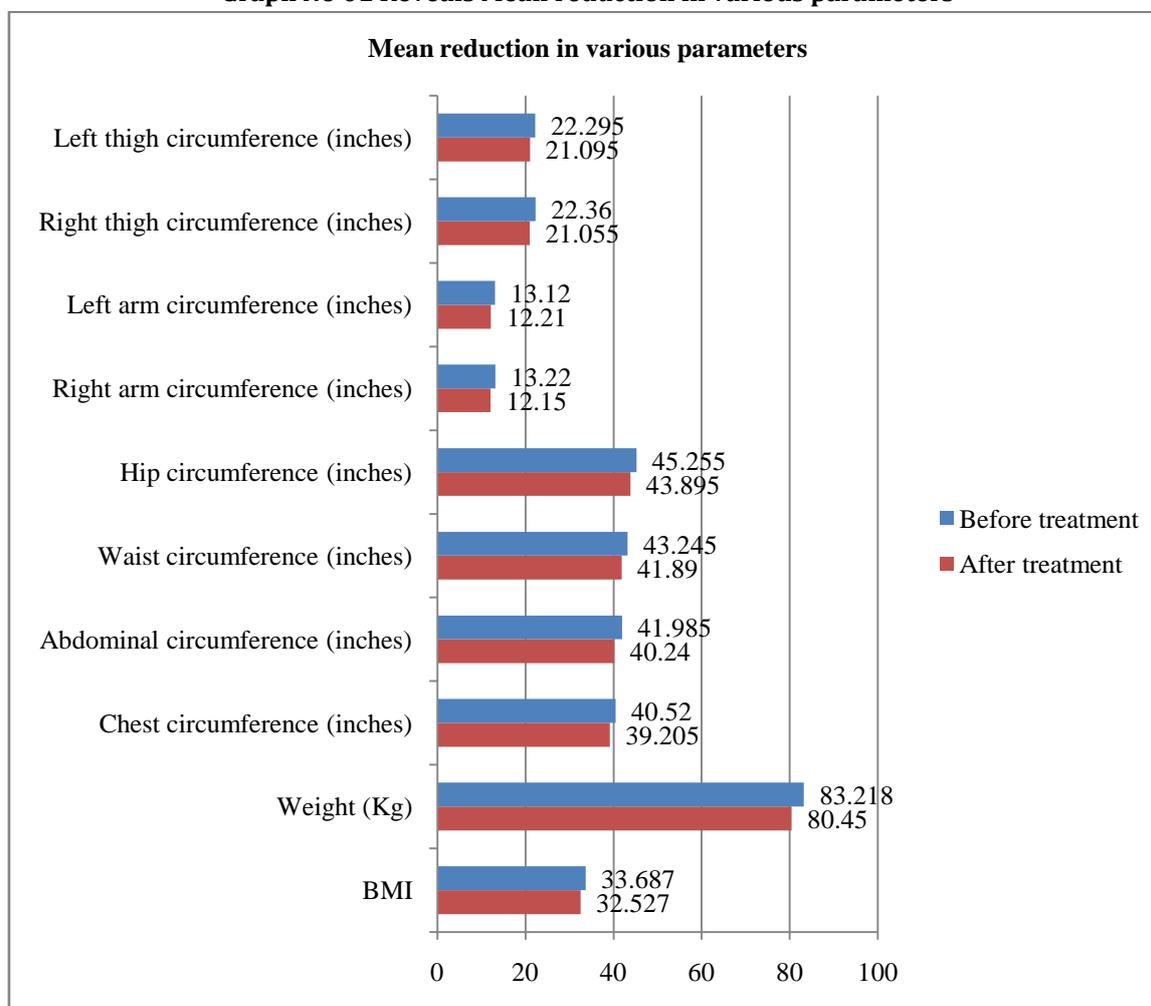
DISCUSSION

Among this study in terms of BMI, 04 patients were overweight, 09 patients were Obese class I (Moderately obese), 04 patients were Obese class II (Severely obese), and 02 patients were Obese class III (Very Severely obese). Maximum weight was 108 Kg and Minimum weight was 62.2 kg before treatment. After treatment maximum weight was 105.4, while minimum weight was 60 kg. In *Virechana* procedure, Maximum

Snehapana dose was 120 ml on 4th day. Maximum *Samyak snigdha lakshanas* were found on 4th day. Maximum *Trivruta Leha* dose was 50 gms, Maximium *Vega* of *Virechana* were 16. Maximum days were 05 in *Sansarjan krama*. All patients had *Samyak Virek Lakshanas*.

CONCLUSION

As mention in classics *Shodhan* procedures are effective in case of *Sthoulya*, this study of *Virechana* procedure reveals the same in all the parameters of obesity. BMI, Weight, Body Girth Measurements like Circumference of Chest, Abdomen, Waist, Hip and Mid Thigh parameters were statistically highly significant, Whereas Mid Arm Circumference was statistically significant. It means *Virechana karma* has multidimensional role and combine effect starting from *Deepan pachan* to *Sansarjan krama* in obesity. As *Sthoulya* is *Sntarpanothajanya vyadhi*, even after weight loss in *Virechana karma*, patient has to follow proper *Aahar* and *Vihar* to maintain the weight.

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