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A CLINICAL STUDY OF LEKHANA KARMA OF VARUNADI KASHAYA IN COMPARISON WITH MEDOHARA GUGGUL IN THE MANAGEMENT OF STHOULYA (OBESITY)

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ABSTRACT

The aim of present study was to evaluate & compare the efficacy of *Varunadi kashay* and *Medohara guggul* in the management of *Sthaulya*(Obesity). As *Staulaya*(Obesity) is the disease of modern era, it has become a epidemic now. The present study of 30 patients was selected for each group according to inclusion criteria. Group A was given *Varunadi kashay* for 8 weeks. And Group B was given *Medohara guggul*   for 8 weaks. Follow up was taken after 2th, 4th, 6th and 8th weeks. Statistical analysis was done which lead to conclusion that efficacy of group A (*Varunadi kashay*) were remarkably better than that of group A (*Medohar Guggul*).

Key words: *Sthaulaya*, Obesity, *Varunadi kashay,Medohara guggul.*

INTRODUCTION

Sthaulya (obesity) is a state of increased Medodhatu (fat).[1] An excess accumulation of energy in the form of body fat >25% in males and >30% in females is considered as obesity which is becoming a global health problem.[2]

In 21st century, with its continuous changing life styles,environment and dietary habits have made man the victim of many diseases. Sthaulya is one of them. Sthaulya is one of the most effective disease which affect someone social, physical and mental features. Obesity is a global problem; affecting estimated 300 million people worldwide its prevalence is increasing in both developed and developing countries throughout the world.[3] Following the trend of other developing countries that are steadily

becoming more obese, obesity has reached epidemic proportions in India in the 21st century, with morbid obesity affecting 5% of the country's population.[4] Obesity has increased at an alarming rate in recent years and has become one of the major health hazards globally.[5] As per modern view, it is a precursor to coronary heart disease, high blood pressure, diabetes mellitus and osteoarthritis which have been recognized as the leading killer diseases of the millennium. All these disorders are an indication of the failing systems, their inability to provide optimum performance to upkeep the physiological clock ticking. Sthaulya is included under eight undesirable conditions (Ashtau Nindita)[6]

In Ayurveda, Sthaulya has been described by Acharya Charaka as one of the eight des-

picable persons (Ashtanindita) in the context of the body.

According to W.H.O. the world wide latest report of prevalence of obesity is as follows :

- 250 million cases of obesity reported.

- 7% are of adults of total population.

- Total health care expenditure for obesity patients is 2-8%.

Keeping in view, this burning problem of the present era and its associated devastating disease, it has been decided to do research on Sthaulya with certain Ayurvedic Classical remedies.

In Ayurveda, the management of Sthaulya has been described through various aspects. One of them is Varunadi kashay and medohar guggul. Hence, for the present study it was decided to select the *Varunadi Kashay* and *Medohar guggul* for comparative study.

AIMS & OBJECTIVE

1. To evaluate the efficacy of *Varunadi Kashay* in the management of *Sthaulya*(Obesity)

2. To evaluate the efficacy of *Medohar guggul* in the management of *Sthaulya*(Obesity).

3. To compare the efficacy of *Varunadi Kashay* and *Medohar Guggul* in the management *of Sthaulya*(Obesity).

The study was Open Comparative Study exclusively based on clinical trials. 30 patients were taken selected in each group after subjecting with including & excluding criteria from the O.P.D and I.P.D of the Smt.K.G Mittal Ayurved Hospital *Kayachikitsa dept*, after Ethical committees approval.

Inclusive Criteria:

1. Patients of age limit between 18- 70 years, irrespective of sex and socio-economic status.

2. Patients presenting classical features of *Sthaulya(*obesity)/*Medoroga* described in *shastra*.

3. BMI- Between 25.0 to 40.0.

4. WHR (waist & hip ratio) - WHR >0.95 in males & WHR >0.8 in female.

5. Patients willing to give informed written consent.

4. Exclusive Criteria:

1. Age below 18 and above 70 years.

2. Patient having major cardiac disorder, diabetes mellitus.

3. Patients suffering from infectious diseases, pregnant women or taking steroids.

4. Patients contraindicated for Basti treatment as per classical texts of *Ayurveda.*

GROUPS & Choice of Drug

*GROUP A-Varunadi kashay***:** Acharya *Vagbhata*,& *Sushruta* mentioned that *Varunadi Gana* has *Kaphaghna and medoghna* properties. So it is most appropriate to select this *Varunadi Kashaya* for doing *lekhana karma* in *Sthoulya*.It also follows *Samanya-Vishes Siddhanta* which is basic principle of ayurveda.[8] for 8weeks (3 tsp-3tsp twice before meals).

GROUP-B -Medohar Guggula: All drugs were identified and authentified by respected guide. Guggul shodhan was done in Trifala kwath. Guggul paaka was done in Trifala kwath and the churna dravyas were added as per Bhavprakash's reference[7]. 250 mg vatis were made and were stored in bottles after drying them in shade.[7] Medohar Guggul for 8 weeks (2-2 tab. after food).

Criteria for clinical assessment: The group of Lakshanas described below, being the cardinal manifestations were selected for assessment. The gradations given as per the severity serve as a quantitative data in the

form of scores from 0 to 3. The shifting of gradation from higher to lower is considered as good prognosis. This data is further pro-cessed and analyzed using Parametric and Non parametric Statistical test to obtain re-sult and discussed in successive chapters.

Table no. [1] Gradation and criteria for clinical assesment

Sr. No	Symptoms	GRADE	Lakshana
1	*Javoparodha*	0	Normal enthusiasm in starting work
		1	Less enthusiasm in starting work at specific time of day
		2	Less enthusiasm in every work at all time of day
		3	No enthusiasm towards any work
2	*Daurbalya*	0	Can do routine work
		1	Can do moderate exercise without difficulties
		2	Can do exercise with very difficulties
		3	Cannot do even mild exercise
3	*Daurgandhya*	0	Absence of bad smell
		1	Occasional bad smell in body
		2	Persistent bad smell felt from long distance is not suppressed with deodorant
		3	Persistent bad smell felt from long distance even intolerance to patient himself.
4	*Angagaurav*	0	No fatigue
		1	Little fatigue in doing routine work
		2	Excessive fatigue in doing routine work
		3	Excessive fatigue in doing little work
Sr. No	Symptoms	GRADE	Lakshana
5	*Swedadhikya (At normal temp. and normal condition)*	0	Sweating after heavy work and fast movement or in hot season
		1	Sweating after moderate work and movement
		2	Sweating after little work and movement
		3	Sweating even at rest and in cold season
6	*Kshudhadhikya*	0	Patient can fast
		1	Diet with Lunch and Dinner
		2	Diet with Breakfast, lunch and Dinner
		3	Supplementary food required even with Breakfast, Lunch and Dinner
7	*Nidradhikya*	0	6 – 7 hours per day
		1	8 hours per day with Jrimbha
		2	10 hours per day with Tandra
		3	More than 10 hours with tandra and klam
8	*Trishnadhikya*	0	1 – 2 Liters per day
		1	2 – 3 Liters per day

		2	3 – 4 Liters per day
		3	More than 4 Liters per day
9	*Krathan*	0	No snoring
		1	Snoring intermittent
		2	Disturbing sleep of person next to him
		3	Disturbing sleep of all person in room
Sr. No	*Symptoms*	**GRADE**	**Lakshana**
10	*Gadgadtawam*	0	No heavy words
		1	Heaviness in specific kanthya words
		2	Heaviness in words but other person can understand what he is talking
		3	Heaviness in words but other person can't understand what he is talking
11	*Kshudrashwas*	0	No dyspnea even after heavy work
		1	Dyspnea after little work but upto tolerance
		2	Dyspnea after little work but beyond tolerance
		3	Dyspnea in resting also
12	BMI (Body mass index) BMI = weights (Kg) / (Height in meter)2	< 18.5	Underweight
		18.5 – 24.9	Normal weight
		25 – 29	Overweight
		30 – 39.9	Obese
		> 40	Severe obese
13	WHR (Waist and Hip ratio in cm)	In Male	Less than 0.95
		In Female	Less than 0.8

OBSERVATION & RESULTS

Paired 't' test : Assessment of subjective parameters before and after treatment within Group A and within Group B is a quantitative data and sample size of both the groups is less than 30 so paired 't' test is applicable to compare within the group.

Table no. [2] Observation of Subjective Parameters of Group A

Symptoms	Mean	SD	SE	't'value	'p'value	significance
Javoprodha	1.4	0.5982	0.1338	10.466	<0.0001	E.S
Daurbalya	1.250	0.5501	0.1230	10.162	<0.0001	E.S
Dourgandhya	0.85	0.5871	0.1313	6.474	<0.0001	E.S
Angagaurav	1.350	0.5871	0.1313	10.283	<0.0001	E.S
Swedadhikya	1.3	0.4702	0.1051	12.365	<0.0001	E.S
Kshudhadhikya	1.2	0.4104	0.09177	13.077	<0.0001	E.S
Trishnadhikya	0.95	0.5104	0.1141	8.324	<0.0001	E.S
Nidradhikya	1.250	0.6387	0.1428	8.753	<0.0001	E.S

Krathana	0.35	0.4894	0.1094	3.199	0.0047	V.S
Gadgadatva	0.3	0.5712	0.1277	2.349	0.0298	S
Kshudrashwas	1.5	0.5130	0.1147	13.077	<0.0001	E.S

Table no. [3] Observation of Subjective Parameters of Group B

Symptoms	Mean	SD	SE	't'value	'p'value	significance
Javoprodha	0.85	0.3663	0.08192	10.376	<0.0001	E.S
Daurbalya	0.8	0.6959	0.1556	5.141	<0.0001	E.S
Dourgandhya	0.55	0.6048	0.1352	4.067	<0.0001	E.S
Angagaurav	0.85	0.4894	0.1094	7.768	<0.0001	E.S
Swedadhikya	0.9	0.5525	0.1235	7.285	<0.0001	E.S
Kshudhadhikya	0.9	0.3078	0.06882	13.077	<0.0001	E.S
Trishnadhikya	0.7	0.5712	0.1277	5.480	<0.0001	E.S
Nidradhikya	1	0.3244	0.07255	13.784	<0.0001	E.S
Krathana	0.5	0.5130	0.1147	4.359	0.0003	E.S
Gadgadatva	0.15	0.3663	0.08192	1.831	0.0828	N.Q.S
Kshudrashwas	0.85	0.3663	0.08192	10.376	<0.0001	E.S

Paired 't' test : Assessment of subjective parameters before and after treatment within Group A and within Group B is a quantitative data and sample size of both the groups is less than 30 so paired 't' test is applicable to compare within the group.

Table no. [4] Observation of Objective Parameters of Group A

Symptoms	Mean	SD	SE	't'value	'p'value	significance
Weight	1.950	1.423	0.3181	6.130	<0.0001	E.S
BMI	0.3200	0.6641	0.1485	2.155	0.0442	S.
WHR	0.0055	0.01317	0.002945	1.868	0.0773	NQS

Table no. [5] Observation of Objective Parameters of Group B

Symptoms	Mean	SD	SE	't'value	'p'value	significance
Weight	0.2900	1.031	0.2304	1.258	0.2235	N.S
BMI	0.3200	0.6641	0.1485	2.155	0.0442	E.S
WHR	0.01450	0.03017	0.006746	2.149	0.9047	N.S

DISCUSSION

Open randomized comparative study was done. Patient was enrolled randomly in two groups. Patient of group A were treated with varunadi kashay whereas patient of group B were treated with *medohara guggul*. Sample size for both the groups was fixes to be of 30 patients [considering academic duration & minimum requirement of sample size to make data valid for statistical analysis]. During statistical analysis of data available, it was observed that average percent relief obtained in group A=64.56% whereas that in group B is =44.85%. Difference between both (19.83%) makes it clear that efficacy of group A [*Varunadi kwath* were remarkably better than that of group B [*medohar guggul]*. In group A excellent[70-100%] result were found in symptoms like *kshUdraswash;* Good[60-75%] result were found in symptoms like *Daurbalya,angagaurava Swedadhikya,, Nidradhikya, Trishnadhikya,*

Gadgadtvam. Whereas group A Average [25-50%] result were found in all symptoms of sthaulya(obesity). However in objective parameters group B shows better result than group A in BMI, WHR Whereas group A shows better result than that of group B in weight.

CONCLUSION

During study, no patient showed deterioration in symptoms after commencement of treatment. During statistical analysis of data available, it was observed that average percent relief obtained in group A=64.56% whereas that in group B is =44.85 % .Difference between both (19.83%) makes it clear that efficacy of group A [*Varunadi kashay*] were remarkably better than that of group B [Medohar Guggula].

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