

A Comparative Study to Evaluate the Efficacy of Amrutadya Guggulu With Sthoulyahari Peya in The Management of Sthaulya

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Abstract-

Sthaulya (obesity) is the most common nutritional disorder in affluent societies. Sthaulya (obesity) is discouraged by the society for social as well as medical reason. The incidence of Diabetes mellitus, hypertension, angina pectoris, and myocardial infarction etc. is higher among obese individuals. Acharya Charaka has quoted a Sthaulya under the eight varieties of impediments which designated as Astha-Nindita Purusha, Ati-sthauya comprises one of them (Ch. Su. 21/2). This prospective study has been made to evaluate the efficacy of amrutadya guggulu and sthoulyahari peya in the management of sthauya. In this study all the 40 patients were taken from OPD of DR BNM Rural Ayurvedic college, Vijaypur by lottery method and divided in two groups. Group A was treated with amrutadya Guggulu (500mg) and Group B was treated with Sthoulyahari peya. Each drug was given for 45 days. Observations were carried out before and after completion of treatment and during each follow up Wilcoxon signed rank test, Mann-Whitney U test was applied. In this study subjective and objective parameters were assessed for group A (Amrutadya Guggulu) and group B (Sthoulyahari peya). Both groups shows significant results in sthauya. For Atitrushna, Atikshudha & daurbalya, sthoulyahari peya shows better results than Amrutadya Guggulu while for Body weight, WHR, BMI group A that is amrutadya guggulu shows better result than sthoulyahari peya. We can conclude that by dietary substitute, sthoulyahari peya shows better result in inches loss for body, while on other hand, actual body weight, BMI is reduced by the medicine use that is amrutadya guggulu.

Key words: Sthaulya, BMI, WHR, Amrutadya Guggulu.

Introduction:

In modern era, obesity is one of the major diseases, causes may include continuous changing life style, environment, changed diet habits. Also it occurs as a result of less physical activity with increase intake of unwholesome food. Obesity is one of the risk factor in the development of many chronic diseases such as cardiac and respiratory diseases, diabetes, hypertension & endocrine disorders. Sthaulya is a typical obesity involving the Medovridhi with which this study deals with typical obesity, not with the reasonal adiposity, which is a reflection of endocrine imbalance. The term Medasvi is suggestive of nutritional status of the individuals indicating a well nourished disposition rather than disease. Many therapies and medicine are proposed in modern medicine for obesity but the result has not been satisfactory. Obesity is multi dimensional to treat.

The medicine have been observed to have some side effect of treatment as well. Also modern science suggests surgical treatment (liposuction) for obesity but often not guaranteed. As against this, ayurveda have many therapies like panchakarma and medicine to treat Sthaulya. Acharya charaka has mentioned factors which can lead to Sthaulya, Meda, Kapha, Vata are mainly responsible in the pathogenesis of sthauya. Therefore Medaghna, Kaphaghna, Vataghna properties of drug will be used for the treatment of Sthaulya. Medicines like amrutadya guggulu, Sthoulyahari peya as mentioned in the bhaishjya ratnavali for the treatment of Sthaulya.

Rationale behind the study :

- The well known yoga amrutadya guggulu quoted by Bhaishajya Ratnavali having a Medoher, Lekhan, Krimighana property that's why this yoga selected for present study.
- Sthoulyahari peya is best dietary supplement for obese patients.

Comparative study is design to evaluate role of both, medicine & dietary supplement.

Aims And Objectives:

- Study of sthaulya in detail and to evaluate the efficacy of amrutadya guggulu and sthoulyahari peya in the managment of sthaulya.

Materials And Methods:

Material: **Group A-** Treated with Amrutadya Guggulu and **Group B-** Treated with Sthoulyahari peyya.

Methods:

Total number of 40 patients of Sthaulya were selected in OPD basis irrespective of their gender and divided into two groups. Allocation of therapy was done by lottery method. Informed written and valid consent of the patient taken prior to commencement of clinical trials. Group A was treated with amrutadya Guggulu, Group B was treated with Sthoulyahari peyya. Each drug was given for 45 days.Both group drug were standardized from laboratory before starting the clinical trials. Observations were carried out before and after completion of treatment and during each follow up. After observation, data was collected and presented in the form of graphs, charts and tables. Wilcoxon signed rank test, Mann-Whitney U test was applied.Conclusion was drawn from the data available.

Selection criteria:-

Inclusion criteria:

- Patient suffering from clinical signs and symptoms of sthaulya.
- Age: 20-60 years patients irrespective of gender will be selected.
- BMI ≥ 30

Exclusion criteria:

- Systematic diseases like renal disorder,IHD ,endocrine disorder will be excluded.
- The Patient who are on long term steroid treatment.
- Pregnant and lactating females.

Assessment parameter:

Subjective Parameter: Kshudrashwasa, Atitrushna, Angasadana, Atikshudha, Daourabalya, Svedavbandha.

Objective parameter: Body weight, Anthropometric parameters - girth measurment of chest, abdomen, hip, mid-thigh, mid arm, Waist hip ratio (WHR), Body Mass Index (BMI/outlet’s index), Skin fold test.

Results And Discussion:

In Group A ,3 patients belongs to age group 21-30 years, 7 patients belongs to age group 31-40 years, 5 patients belongs to age group 41-50 years, 5 patients belongs to age 51-60 years. In Group B,4 patients belongs to age group 21-30 years , 7 patients belongs to age group 31-40 years,8 patients belongs to age group 41-50 years,1 patient belongs to age 51-60 years. Age distribution of both groups reveals that, does not reflect on any treatment related factors.

In group A, 9 patients were male and 11 were females. In group B, 7 patient were male and 13 females.From this data we can reveal that, females are more prone for the Sthaulya.

In Group A, 15 patients were married and 5 patients were unmarried. In Group B, 14 patients were married and 6 patients were unmarried. So, in these study maximum patients i.e. 15 & 14 in group A & Group B were recorded as Married. Moreover, Married female found obese in comparison to Unmarried, owing to hormonal imbalance occurring after marriage, in pregnancy.

In Group A ,14 patients were having mix diet and 6 patients were having veg diet. In Group B

Therapy	Group A	Group B
Number of patients	20	20
Kala	Twice a day before meal	Twice a day before meal
Route of administration	Oral	Oral
Drug for therapy	Amrutadi guggulu	Sthoulyahari peyya
Dose	500 mg	As per agnibala
Follow up	15, 30, 45 & 60 days	15, 30, 45 & 60 days

,14 patients were having mix diet and 6 patients were having veg diet. The patients consumed diet enriched with extra oil, butter, Ghrita, Payas Vikara causes production of extra fat which leads to conditions like Sthaulya. From this study it cannot be concluded that Sthaulya is prevalent in vegetarians.

In Group A, 14 patients were having no any addiction, 2 patients were alcohol addict & 4 has smoking addict. In Group B, 14 patients were having no any addiction, 3 patients were alcohol addict & 3 has smoking addict.

In A, group 6 Patients having KP Prakuti, 5 subjects has Kaphaj prakuti, 9 patients having VK prakuti. In B, group 6 Patients having KP Prakuti, 4 subjects has Kaphaja prakuti, 10 patients having VK prakuti. Thus, 100% patient's Prakriti was Kapha dominant either associated with Vata or Pitta and also. This indicates that Kapha is the predominant factor for Sthaulya and it is also included by Charaka in Nanatmaja Vyadhi of Kapha dosha.

For Angasadna and Swedabandha, effects observed in group A and group B are not significant. Percentage wise group B shows better results for atitrushna, atikshudha and daurbalya. For Body weight, WHR, BMI criteria, group A that is amrutadya guggulu shows better result than sthoulyahari peyya. We can conclude that by dietary substitute, sthoulyahari peyya shows better result in inches loss for body, while on other hand, actual body weight, BMI is reduced by the medicine use that is amrutadya guggulu.

	Total	4						
		0						
ATIKSHUDHA	Grou p A	2	19.6	393.	183.50	0.64		
		0	8	50				
	Grou p B	2	21.3	426.				
		0	3	50				
	Total	4						
		0						
DAOURABALY A	Grou p A	2	18.7	375.	165.50	0.32		
		0	8	50				
	Grou p B	2	22.2	444.				
		0	3	50				
	Total	4						
		0						
SVEDAVBAND HA	Grou p A	2	20.0	400.	190.00	0.77		
		0	0	00				
	Grou p B	2	21.0	420.				
		0	0	00				
	Total	4						
		0						

Comparison between both groups for objective parameters

Parameter	Group	N	Mean	SD	SE	t-Value	P-Value
BODY WEIGHT	Grou p A	2	5.89	1.6	0.3	7.843	0.00
		0		4	7		
	Grou p B	2	2.92	0.4	0.1		
		0		3	0		
GIRTH MEASUREMENT OF CHEST	Grou p A	2	1.76	0.5	0.1	-	0.00
		0		4	2		
	Grou p B	2	2.80	0.7	0.1		
		0		3	6		
ABDOMEN	Grou p A	2	1.83	0.6	0.1	-	0.00
		0		4	4		
	Grou p B	2	3.17	0.7	0.1		
		0		2	6		
HIP	Grou p A	2	1.45	0.5	0.1	-	0.00
		0		2	2		
	Grou p B	2	4.00	0.7	0.1		
		0		6	7		
MID THIGH	Grou p A	2	1.73	0.7	0.1	-	0.00
		0		1	6		
	Grou p B	2	2.60	0.6	0.1		
		0		5	5		
MID ARM	Grou p A	2	1.47	0.6	0.1	-	0.00
		0		2	4		
	Grou p B	2	2.69	0.6	0.1		
		0		4	4		
WHR	Grou p A	2	0.02	0.0	0.0	2.129	0.04
		0		1	0		
	Grou p B	2	0.02	0.0	0.0		
		0		1	0		
BMI	Grou p A	2	2.36	0.7	0.1	7.474	0.00
		0		0	6		

	Group	N	Mean Rank	Sum of Ranks	Mann-Whitney U	P-Value		
KSHUDRASHW ASA	Grou p A	2	18.8	377.	167.50	0.35		
		0	8	50				
	Grou p B	2	22.1	442.				
		0	3	50				
	Total	4						
		0						
ATITRUSHNA	Grou p A	2	21.4	428.	182.00	0.61		
		0	0	00				
	Grou p B	2	19.6	392.				
		0	0	00				
	Total	4						
		0						
ANGASADANA	Grou p A	2	19.9	399.	189.00	0.74		
		0	5	00				
	Grou p B	2	21.0	421.				
		0	5	00				

	Grou p B	2 0	1.17	0.1 6	0.0 4		
SKIN FOLD TEST	Grou p A	2 0	1.23	0.2 9	0.0 7	-	0.00 0
	Grou p B	2 0	2.90	1.2 4	0.2 8		

Conclusion:

Many P.G. and Ph.D. thesis have already been submitted on Sthaulya or its allied areas, still there is enough scope to work in the area of its etiopathology. The term ‘Sthula’ itself indicates the deposition of Prithvi and Jala Mahabhuta dominant factors in the body. Nidana of Sthaulya is divided in 4 categories Aharatmaka, Viharatmaka, Manasa and Anya. Besides these Nidanas, nowadays it can be seen that food with maximum percentages of carbohydrates & high-tech machineries which makes a person less active & prone to Sthaulya. Acharya Charaka had mentioned the Bija dosha as an important etiological factor. Most of the symptoms of Sthaulya occur due to excessive accumulation of Meda in fat depots leading to Chalatra of the various organs, Kshudra shwasa, Anga gauravata and other various signs and symptoms.

Amrutadya guggulu is the drug indicated for the sthauya in Bhaishajya Ratnavali.

Content for amrutadya guggulu having the property of Medohara, Kaphaghna, rasayana which is responsible for the weight loss. Sthoulyahari peya is the rice gruel which is diet substitute according to the agni. Badara patra is responsible for weight loss & kanji is maintain the weakness.

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