

ROLE OF AMRUTADHYA GUGGULU AND LEKHAN BASTI IN MEDODUSHTI WITH SPECIAL REFERENCE TO DYSLIPIDAEMIA

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ABSTRACT

Cardiovascular diseases (CVD) are the major cause of morbidity and mortality in our society with Dyslipidaemia contributing significantly to atherosclerosis. All components of Dyslipidaemia get the most attention because of the link between plasma lipids and CVD, as it is major risk factor for fatal diseases such as Coronary Artery Disease (CAD). As described in *Ayurveda*, *Medodushtijanya* Sign and Symptoms shows strikingly resemblance with Dyslipidaemia explained in modern text. Thus while treating the *Medodushti*, selection of *Dravya* should have criteria that help to *Lekhana* of excessive *Meda-Kapha* without *Vayu-prakopa* and normalising the *Agni* both at the level of *Jatharagni* and *Dhatwagni*. Thus to assess the efficacy of *Lekhana Basti* and *Amrutadhya Guggulu*, present study was planned and carried out on 30 clinically diagnosed and investigated individuals of Dyslipidaemia. Patients were selected from OPD and IPD of *Arogyashala*, NIA, Jaipur. Patients were administered *Amrutadhya Guggulu* in dose of 3g/day with 15 *Lekhana Basti*. The results were highly significant in both Subjective as well as Objective parameters. Thus, this study gave very effective, safe, and easily manageable management of Dyslipidaemia in cheaper rate.

Keywords: *Medodushti*, Dyslipidaemia, *Amrutadhya Guggulu*, *Lekhana Basti*

INTRODUCTION

During last centuries, life style alteration has been characterised by increased calories, fat intake and reduction in physical activities along with a dramatic increase in metabolic syndrome related disorder such as Diabetes, Dyslipidaemia, HTN, obesity, and so on. Cardiovascular diseases (CVD) are the major cause of morbidity and mortality in our society with Dyslipidaemia contributing significantly to atherosclerosis. Dyslipidaemia alone currently affects approximately 10% of global population. The term Dyslipidaemia is used to describe disordered lipid metabolism. All component of Dyslipidaemia get the most attention

because of the link between cholesterol and CVD as it is major risk factor for fatal diseases such as Coronary Artery Disease.

According to WHO survey done in 2002 almost 1/5th (80%) of global stroke events and about 56% of global heart disease are attributed to Dyslipidaemia. This is responsible for about 4.4 million death (7.9% of the total) and 2.8% of global disease burden. According to National Commission on Macroeconomics and Health (NCMH), government of India undertaking, there would be around 62 million patients with Coronary Artery Disease (CAD) by 2015 in India and of this 23 million would be patients younger than 40 years of Age.

AIMS AND OBJECTIVES

To evaluate clinically the combined effect of *Amrutadhya Guggulu* and *Lekhan Basti* in management of Dyslipidaemia using various scientific parameters.

MATERIALS AND METHODS

A) Selection of Patients:

The study was conducted on 30 clinically diagnosed patients of *Medodushti* and Dyslipidaemia on the basis of subjective and objective parameters. Patients were randomly selected from OPD and IPD of Aarogyashala, P.G. Department of

Diagnostic Criteria:

Kaychikitsa NIA, Jaipur. A regular record of assessment of all patients was maintained according to proforma prepared for the purpose.

B) Inclusion criteria:

- a) Diagnosed and Confirmed cases of Dyslipidaemia and *Medodushti* on the basis of investigations
- b) Patients of either sex between the age group of 20 to 60 years
- c) Patients willing to sign the consent form
- d) Patients willing to undergo the process of *Basti* therapy

Table 1: Lipid profile used as diagnostic criteria

Serum Lipoproteins	Fasting values (mg/dl)	Interpretation
Total cholesterol	< 200	Desirable
	200 -239	Borderline High
	> or = 240	High
LDL cholesterol	< 100	Optimal
	100-129	Near optimal
	130-159	Borderline high
	160-189	High
	> or = 190	Very High
HDL cholesterol	< 40	Low
	>40	High
Triglycerides	< 150	Desirable
	150-199	Borderline high
	200-499	High
	>or =500	Very high

C) Exclusion criteria:

- i. Patients below 20 and above 60 years
- ii. Patients suffering from diseases like Nephrotic syndrome, Hypothyroidism, IDDM, Jaundice, Hepatitis, Chronic infections and other serious diseases.
- iii. Patients contraindicated for *Basti* as mentioned in *Samhitas*.
- iv. Patients not willing for consent and *Basti*

D) Grouping and Administration of Drug:

30 clinically diagnosed patients were administered *Amrutadhya Guggul* (3g/day) in three divided doses for 30 days with lukewarm water and 15 *Lekhan Basti*. *Anuvasan Basti* with *Dashmool Taila* was given on 1st day and on every 4th day of *Lekhan Basti* i.e. 1 *Anuvasan* at starting day and then after 3 consecutive *Lekhan*

Basti, one Anuvasan Basti was administered. Thus, total 15 Lekhana Basti and 6 Anuwasana Basti were administered.

Study design: Randomized, Control, Open Clinical study

Criteria for assessment:

Both subjective and objective parameters were employed for assessment of the impact of the treatment.

All these symptoms assessment was done by using Symptom Rating Scale as following:

a) Subjective Criteria:

- 1) Kshudhadhikya
- 2) Pipasadhikya
- 3) Kshudrashwasa
- 4) Sweadadhikya
- 5) Atinidra
- 6) Daurbalya
- 7) Gaurava
- 8) Daurgandhya

Table 2: Gradation of Subjective parameters

Gradation of Subjective parameters	
Absence of symptoms	0
Mild degree of symptoms	1
Moderate degree of symptoms	2
Severe degree of symptoms	3
Very severe degree of Symptoms	4

The details of score adopted for the main signs and symptoms.

b) Objective Criteria:

1) Anthropometric Assessment:

- Weight of the Patient (in Kg)
- B.M.I.(24-34kg/m²)
- Chest Circumference
- Hip Circumference
- Waist Circumference
- Waist - Hip Ratio

2) Biochemical parameters:

- Routine Blood Investigation i.e. Hb%, TLC, DLC, ESR
- Total Lipid profile
- Fasting Blood sugar

patients were dominantly having *Adhyashana* in their Dietary Habits, followed by 45% patients with *Vishmashana*. Higher incidence of various *Nidanas* like 28% patients with *Gurvati Seven*, 47% patients with *Madhurati seven*, 50% had history of *Snigdhati seven*, 50% patients with *Kshiraati seven*, 43% with *Adhyashana*, 50% *Shaiyya sukha*, 37% *Swapnasukha*, 63% with *Avyayama*, 47% with *Diwaswapa* and 50% with *Achinta* etc are found to be etiological factors in *Medoroga*. About 58.33%.patients, in the study showed associated history of Diabetes mellitus, 35% were having history of CAD and Osteoarthritis each, 45% patients having the history of Hypertension associated with Dyslipidaemia.

OBSERVATIONS AND RESULTS

Study shows overall 88.33% patients belonged to 3rd to 6th decade of life. Max. 43.33% Patients were *Vata-Kaphaj Prakriti*. 55% were found to have *Madhuara Rasa* dominant. 51.66%

Table 3: showing effect of therapy in Subjective Parameters
(Wilcoxon matched paired single ranked test)

Variable	Mean		Mean Diff	% Relief	SD±	SE±	p	S
	BT	AT						
Kshudhadhikya	0.40	0.06	0.33	83.33%	0.54	0.09	<0.001	HS
Pipasadhikya	0.73	0.26	0.46	63.63%	0.77	0.14	<0.001	HS
Daurbalya	2	0.43	1.56	78.33%	1.10	0.20	<0.001	HS
Swedadhikya	0.56	0.26	0.30	52.94%	0.53	0.09	<0.001	HS
Atinidra	0.63	0.23	0.40	63.15%	0.62	0.11	<0.001	HS
Kshudrashwasa	1.86	0.60	1.26	67.85%	0.69	0.12	<0.001	HS
Gaurav	1.86	0.63	1.23	66.07%	0.72	0.13	<0.001	HS
Krucchvyavayata	1.66	0.10	0.06	40%	0.25	0.04	>0.05	NS
Daurgandhya	0.4	0.26	0.13	33.33%	0.34	0.06	>0.05	NS

(HS: Highly Significant S: Significant NS: Non Significant)

Table 4: showing effect of therapy in Anthropometric Parameters

Parameters	Mean		Diff.	% Relief	SD±	SE±	T	P	S
	BT	AT							
Body Weight (kg)	75.01	71.4	3.61	4.82	0.99	0.18	18.6	<0.001	HS
B.M.I. (kg/m ²)	31.36	29.78	1.57	5.02	0.53	0.09	16.1	<0.001	HS
Chest Circumference (cm)	100.9	99.28	1.7	1.68	0.94	0.17	9.87	<0.001	HS
Waist Circumference (cm)	110.2	106.1	4.15	3.76	2.89	0.52	7.85	<0.001	HS
Hip Circumference (cm)	116.1	107.6	8.43	7.26	7.54	1.37	6.12	<0.001	HS
Waist :Hip Ratio	0.91	0.90	0.0011	1.23	0.01	0.003	3.19	<0.001	HS

(HS: Highly Significant S: Significant NS: Non Significant)

Table 5: showing effect of therapy on Lipid Profile

Variable	Mean		Mean Diff.	% Relief	SD±	SE±	T	p	S
	BT	AT							
Sr.TC (mg/dl)	229.2	202.7	26.52	11.56	13.5	2.47	10.6	<0.001	HS
Sr.TG (mg/dl)	212.6	191.7	20.86	9.81	11.7	2.14	9.70	<0.001	HS
Sr.LDL (mg/dl)	113.5	104.8	8.64	7.617	7.01	1.28	6.75	<0.001	HS
Sr.VLDL (%)	47.80	45.15	2.65	5.55	5.07	0.92	2.86	<0.01	HS
Sr.HDL (mg/dl)	66.86	67.5	0.63	0.94	1.84	0.33	1.87	>0.05	NS
FBS (mg%)	92.13	91.66	0.46	0.50	10.2	1.86	0.25	>0.05	NS

(Sr. TC-Serum Total Cholesterol; Sr.TG-Serum Triglycerides; Sr.LDL-Serum Low Density Lipoproteins; Sr.VLDL- Serum Very Low Density Lipoproteins; Sr.HDL-Serum High Density Lipoproteins FBS-Fasting Blood Sugar)

DISCUSSION

Probable mode of action of *amrutadhya guggulu*:

Contents of the *Amrutadhya Guggulu* are *Guduchi* (*Tinospora cordifolia*), *Ela* (*Elettaria cardamomum*), *Vidanga* (*Embellica ribes*), *Kutaja* (*Halorrhena antidysentrica*), *Vibhitaki* (*Terminalia bellerica*), *Haritaki* (*Terminalia chebula*), *Aamlaki* (*Embellica officinalis*), *Guggulu* (*Commiphora mukul*) in the proportion of 1:2:3:4:5:6:7:8 i.e. having highest concentration of *Guggulu* in the combination. *Guggulu* which is having *Pravabha* of *Medo-Vatahara*. Out of 8 *Dravyas*, there are 5 *Dravyas* having dominant *Tikta Rasa*, 6 *Dravyas* having dominancy of *Kashaya* and *Katu Rasa*. *Katu*, *Tikta* and *Kashaya Rasa* are having potential to pacify the *Kapha Dosh*. Among these three, *Katu Rasa* has potential to enlighten the potential of *Agni* and to scrap out the excess *Mansa* and *Meda*, *Tikta Rasa* is also having properties of *Deepana* (enlighten the *Agni*), *Paachana* (enhances digestive power), *Kleda-Meda Shoshaka* (scrap out excessive *Meda* and *Kapha*), *Srotovishodhaka* (open the micro channels) and potent in *Lekhana* property, *Kashaya Rasa* also has property of *Sharir-Kleda Shoshana*. So, by all these properties it also helps in scrapping of excessive *Meda* and *Kapha*. All these dominant *Rasa* in this formulation thus helps in breakage of pathogenesis of Disease. Besides this, there is dominancy of *Laghu*, *Ruksha* and *Tikshna Gunas* in the *Amrutadhya Guggulu* which also helps in *Kaphamedashamaka* property and *Kledamedashoshana*. With all these properties, along with *Sukshma* property of *Guggulu*, helps in *Bhedana* of *Avarana* of *Samana*

Vayu and *Vatanulomana-Vataharanam* property of Some *Dravyas* help to normalise the *Apana vayu* thus, controlling the *Apana vata* other *Vata Doshas* also can be normalised in their functions by virtue of all properties of various *Dravyas* in the Formulation. Many of them have been proved to be Hypolipidemic.

Probable mode of action of *lekhana basti*:

Basti is very important therapy to manage *Vata Dosh*, and is called as *Ardhachikitsa* (half) or *Purnachikitsa* (whole treatment plan) in any sort of diseases, as mentioned in *Charak Siddhisthaan* 1/35. Also, *Lekhan Basti* has all its contents with *Ruksha*, *Tikshna*, *Laghu Gunas* dominant, *Ushna Virya*, *Katu Vipaka* dominant and *Kapha-Vatahar* properties. With the *Samyaka* introduction of *Basti*, there is *Srotovishodhana* along with *Deepana* and *Pachana* i.e. normalisation of *Agni* at the level of *Jatharagni* and *Dhatwagni*. Thus it helps in breakage of Pathogenesis of Disease. All the properties of contents of *Lekhan Basti* administered in this trial, helps in *Kapha-Medaharan*, *Karshana* of excess *Medas* from the body and *Vatanulomana*, normalising the *Apana Vayu* functions, thus controlling the functioning of rest *Vata Doshas*, so helps to break pathogenesis of *Medoroga*.

CONCLUSION

- Dyslipidaemia is very prevalent in today's society and the risk factor for cardiovascular disorders mostly seen associated with diabetes mellitus and Hypertension.
- In this clinical study, effects are highly significant in both subjective as well as objective parameters, this shows that

Medoroga which is considered as *Krich-chasadhya* by *Acharyas* should be treated with the help of *Shodhana* therapy.

• Thus, it can be concluded that from the present clinical trial both the *Amrutadhya Guggulu* and *Lekhana Basti* are highly effective in management of the *Dyslipidaemia*.

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