

COMPARATIVE STUDY ON VIDANGADI CHURNA AND AGNIMANTHA KWATHA IN THE MANAGEMENT OF STHAULYA [OBESITY]

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ABSTRACT

Obesity is one among the major diseases of modern era, increasing in prevalence. The World Health Report of W.H.O. listed obesity under the 10 top selected risks to the health. *Sthaulya [OBESITY]* is well recognized from the *Samhita* period and is included under eight undesirable Conditions [*AsthaNindita*], *ShleshmaNanatmaja*, *SamtarpanaNimitaja*, *Atinindita*, *BahuDoshaJanitaVikara*. In spite of advanced technology & researches, the modern medicine is failing to give the best due to its multifactorial nature. So patients are continuously looking with a hope towards *Ayurveda* to overcome this challenge. For this purpose 30 patients were registered for comparative study on *vidangadichurna* and *agnimanthakwatha* in the management of *sthaulya*. They were randomly divided into three groups. The patients were assessed on different parameters for obtaining the effect of the drugs. All clinical signs and symptoms were assessed on the basis of scoring given to them. Before the medication, thorough laboratory investigations were done. Duration of clinical trial was of three months and all the patients were regularly followed up after one month to evaluate the therapeutic effect of the trial drugs.

Key Words: *Sthaulya*, Obesity, *VidangadiChurna*, *AgnimanthaKwatha*

INTRODUCTION

Ayurveda is one among oldest systems of health care in the world, which uniquely perceived an intimate relationship between life style of an individual to its health and disease. The cause of illness fundamentally lies in the environment and life style of an individual and hence the promotion of health and prevention of disease too should lie upon their correction and management.

In this era of modernization and fast moving life each and every individual is habituated to sophisticated and comfortable lifestyle, there is marked reduction in the trend of physical activities. This results in precipitation of various metabolic diseases such as diabetes, hypertension and obesity etc. A person who due to extensive growth of fat and flesh is unable to work and disfigured with pendulous buttocks, belly and breasts

is called *atisthula* and condition is termed as *atisthaulya*.

Obesity (*Sthaulya*) may be defined as an “excess of subcutaneous fat in proportion to lean body mass”. This may result in the hypertrophy and hyperplasia of adipose tissue. It occurs when a person’s weight is at least 10% in excess of the normal or required weight. It is also said to be as body content greater than 25% of the total body weight for male and greater than 30% for females. Body mass index (BMI) greater than 30 kg/m denotes obesity.

AIMS AND OBJECTIVES; Study on the efficacy of *Vidangadichurna* as well as *AgnimanthaKwatha* in the management of *Sthaulya*.

MATERIALS AND METHODS; Patient were selected from JIAR.

Inclusion:

1. According to classical texts the sign and symptoms of *Sthaulya* will be included.
2. Patients of both the sexes between the age group of 20-50yr will be included.
3. Standards height- weight chart also considered.
4. B.M.I criteria also follow for the selection of patient.

Exclusion criteria :

1. *Sthaulya* with complications and with secondary causes like endocrinal i.e. Hypothyroidism, Cushing syndrome, hypothalamic tumor or injury
2. Patients with long term steroid treatment.
3. Pregnant and lactating women.

CLINICAL ASSESMENT: SUBJECTIVE PARAMETERS

Sphiga, udara, sthanachalatwa. Gaurava. Atiksudha, Atitrisa and nidra. Daurbalayata. Alasya and angasada. Daurgandhata. Swedadhikya. Kricchavyavayata.

OBJECTIVES PARAMETERS:

1. Body weight.
2. Body Mass Index (BMI). International criteria of B.M.I. have been calculated

by following formula. **BMI =Weight (kg) /Height (in m²)**

3. Skin fold thickness by Vernier Calipers
In case of all circumference measurements, the mean values were taken before and after treatment. The body wt. was also taken before and after treatment.

LABORATORY INVESTIGATION:

Hb (g %), ESR, FBS, Lipid profile was carried out in all patients before and after treatment.

MATERIALS: Materials (Drugs) used in the research work are:

- *Vidangadi Churna*¹
Vayavidanga, Shunthi, Yavakshara, kalalauhahasma, javaksaktu, Amalaki : 1Part each.
- *Agnimantha Kwatha*²
Agnimanthakwatha, shilajeet

Table no. 1

GROUPING: The patients were selected randomly and divided into three groups.

S.No.	GROUP	DRUG	DOSE	ANUPANA
1	A	<i>VidangadiChurna</i>	1 gm BD (Orally)	Honey
2	B	<i>AgnimanthaKwatha</i>	40 ml BD (Orally)	<i>Shilajeet</i>
3	C	<i>VidangadiChurnaand AgnimanthaKwatha</i>	1 gm BD And 40 ml BD(Orally)	Honey & <i>Shilajeet</i>

OBSERVATIONS AND RESULTS

Table no. 2 GROUP – A EFFECT OF VIDANGADI CHURNA ON SYMPTOMS

SYMPTOMS	Mean		Mean Diff.	Mean %	N	S.D.	S.E.	t value	p value	df
	B.T.	A.T.								
<i>Daurgandhata</i>	1.3	1.1	0.2	15.38	10	0.42	0.13	1.5	-----	9
<i>Alpavyavaya</i>	0.4	0.2	0.2	33.33	10	0.41	0.16	1.28	-----	9
<i>Atipipasa</i>	1.6	2.0	-0.4	-25	10	0.69	0.22	1.8	-----	9
<i>Atikshudha</i>	1.4	1.2	0.2	15.38	10	0.42	0.13	1.5	-----	9
<i>Nidradhikya</i>	2.8	2.7	0.1	14.28	10	0.51	0.16	2.44	<0.05	9
<i>Swedadhikya</i>	0.8	0.4	0.4	50	10	0.51	0.16	2.44	<0.05	9

Table no. 3 EFFECT OF VIDANGADI CHURNA ON BIOCHEMICAL PARAMETERS

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. cholesterol	179.93	174.4	5.53	3.08	14.57	3.76	1.47	---	9
S. Triglyceride	129.6	116.13	13.47	10.39	40.77	10.53	1.28	---	9
HDL	40.87	41.13	-0.27	0.65	6.66	1.72	0.16	---	9

Table no. 4 EFFECT OF VIDANGADI CHURNA ON WEIGHT

WEIGHT	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Weight (kg)	74.56	72.23	2.33	3.13	0.57	0.18	12.91	<0.001	9

Table no. 5 EFFECT OF VIDANGADI CHURNA ON B.M.I.

WEIGHT	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
B.M.I	28.76	27.81	0.94	3.28	0.34	0.10	8.61	<0.001	9

Table no. 6 EFFECT OF VIDANGADI CHURNA ON SKIN FOLD THICKNESS

SKIN FOLD THICKNESS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Biceps	2.72	2.39	0.32	12.04	0.17	0.05	5.90	<0.001	9
Triceps	2.89	2.75	0.14	4.91	0.63	0.02	6.87	<0.001	9

Table no. 7 GROUP – B EFFECT OF AGNIMANTHA KWATHA ON SYMPTOMS

SYMPTOMS	Mean		Mean Diff.	Mean %	N	S.D.	S.E.	t value	p value	df
	B.T.	A.T.								
Alpavyavaya	0.3	0.1	0.2	66.67	10	0.42	0.13	1.5	-----	9
Atipipasa	1.1	0.8	0.3	27.27	10	0.48	0.15	1.96	-----	9
Atikshudha	3.3	3.0	0.3	9.09	10	1.15	0.36	0.81	-----	9
Nidradhikya	1.5	1.2	0.3	20	10	0.48	0.15	1.96	<0.05	9
Utsahahani	0.7	0.5	0.2	28.57	10	0.42	0.13	1.5	-----	9

Table no. 8 EFFECT OF AGNIMANTHA KWATHA ON BIOCHEMICAL PARAMETERS

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. cholesterol	173.12	162.88	10.23	5.91	16.57	5.52	1.85	---	9
S. Triglyceride	135.72	102.19	33.53	24.70	53.13	17.71	1.89	---	9
HDL	35.02	41.71	-6.68	-19.09	8.47	2.82	-2.38	---	9

Table no. 9 EFFECT OF AGNIMANTHA KWATHA ON WEIGHT

WEIGHT	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Weight(kg)	71.29	69.40	1.88	2.63	0.14	0.04	4.22	<0.01	9

Table no. 10 EFFECT OF AGNIMANTHA KWATHA ON B.M.I.

B.M.I	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
B.M.I (Kg/ m ²)	30.01	29.31	0.70	2.34	0.59	0.18	3.75	<0.01	9

Table no. 11 EFFECT OF AGNIMANTHA KWATHA ON SKIN FOLD THICKNESS

SKIN FOLD THICKNESS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Biceps	1.14	1.04	0.09	8.07	0.10	0.03	3.30	<0.01	9
Triceps	1.44	1.31	0.13	9.10	0.01	0.03	4.04	<0.01	9

Table no. 12 GROUP - C

EFFECT OF VIDANGADI CHURNA AND AGNIMANTHA KWATHA ON SYMPTOM

SYMPTOMS	Mean		Mean Diff.	Mean %	N	S.D.	S.E.	t value	p value	df
	B.T.	A.T.								
Alpavyavaya	0.3	0.1	0.2	66.67	10	0.42	0.13	1.5	-----	9
Atipipasa	1.2	0.9	0.3	25	10	0.48	0.15	1.96	<0.05	9
Atikshudha	2.6	2.4	0.2	7.69	10	0.42	0.13	1.50	-----	9

Nidradhikya	1.2	0.8	0.4	33.33	10	0.51	0.16	2.44	<0.05	9
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Table no. 13 EFFECT OF VIDANGADI CHURNA AND AGNIMANTHA KWATHA ON BIOCHEMICAL PARAMETERS OF 10 PATIENTS.

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. cholesterol	171.01	161.52	9.48	5.54	9.92	3.13	3.02	---	9
S. Triglyceride	138.40	132.56	5.83	4.21	8.70	2.75	2.12	---	9
HDL	35.02	41.71	-6.68	-19.09	8.47	2.82	-2.36	---	9

Table no. 14 EFFECT OF VIDANGADI CHURNA AND AGNIMANTHA KWATHA ON WEIGHT

WEIGHT	Mean		Mean Diff.	Mean%	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
Weight (kg)	72.95	65.05	7.89	10.82	0.79	0.24	31.61	<0.001	9

Table no. 15 EFFECT OF VIDANGADI CHURNA AND AGNIMANTHA KWATHA ON B.M.I.

B.M.I	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
B.M.I (Kg/ m ²)	32.67	30.44	2.22	6.82	0.81	0.25	8.61	<0.001	9

Table no. 16 EFFECT OF VIDANGADI CHURNA AND AGNIMANTHA KWATHA ON SKIN FOLD THICKNESS

SKIN FOLD THICKNESS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	P value	df
	B.T.	A.T.							
Biceps	2.61	2.08	0.52	20.24	0.19	0.06	8.60	<0.001	9
Triceps	2.76	2.40	0.36	13.26	0.13	0.04	8.67	<0.001	9

Table no. 17 COMPARATIVE ANALYSIS BETWEEN THREE GROUPS EFFECT ON BIOCHEMICAL PARAMETERS

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. cholesterol									
GROUP A	179.93	174.4	5.53	3.08	14.57	3.76	1.47	---	9
GROUP B	173.12	162.88	10.23	5.91	16.57	5.52	1.85	---	9
GROUP C	171.01	161.52	9.48	5.54	9.92	3.13	3.02	---	9

Table no. 18

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
S. Triglyceride									
GROUP A	129.6	116.13	13.47	10.39	40.77	10.53	1.28	---	9
GROUP B	135.72	102.19	33.53	24.70	53.13	17.71	1.89	---	9
GROUP C	138.40	132.56	5.83	4.21	8.70	2.75	2.12	---	9

Table no. 19

BIOCHEMICAL PARAMETERS	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
HDL									
GROUP A	40.87	41.13	-0.27	0.65	6.66	1.72	0.16	---	9

GROUP B	35.02	41.71	-6.68	-19.09	8.47	2.82	-2.38	---	9
GROUP C	35.02	41.71	-6.68	-19.09	8.47	2.82	-2.36	---	9

Table no. 20

EFFECT ON WEIGHT

WEIGHT	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	df
	B.T.	A.T.							
GROUP A	74.56	72.23	2.33	3.13	0.57	0.18	12.91	<0.001	9
GROUP B	71.29	69.40	1.88	2.63	0.14	0.04	4.22	<0.01	9
GROUP C	72.95	65.05	7.89	10.82	0.79	0.24	31.61	<0.001	9

Table no. 21 EFFECT ON B.M.I.

B.M.I (Kg/m ²)	Mean		Mean Diff.	Mean %	S.D.	S.E.	t value	p value	Df
	B.T.	A.T.							
GROUP A	28.76	27.81	0.94	3.28	0.34	0.10	8.61	<0.001	9
GROUP B	30.01	29.31	0.70	2.34	0.59	0.18	3.75	<0.01	9
GROUP C	32.67	30.44	2.22	6.82	0.81	0.25	8.61	<0.001	9

PROBABLE MODE OF ACTION OF DRUGS: VIDANGADI CHURNA

In *VidangadiChurna* maximum ingredient have *Katu Rasa, Laghu, RukshaGuna, UshnaVirya* and *KatuVipaka, Vatakaphashamaka, Karshana, Lekhaniya, Amapachana, Dhatushoshana* properties. Due to these properties, it breaks the *Samprapti* of *Sthaulya*. which normalize the state of Agni. Doing the function of *Stroto- Vibandhanasana* and acts *against Kapha, Kleda and Meda*.

Effect on Dosha, agni and srotas –

Vidangadichurna encounters *Vatakapha* Dosha by virtue of its *Katu rasa* dominance & *UshnaVirya*. By the dint of its *Laghu, Ruksha, Ushna, Tikshnagunas* it causes *medodhatvagnideepan* at the same time it removes *avarana* of *meda* on *vata* dosha hence bring *jatharagni* to its normalcy. By virtue of aforesaid *gunas* it removes *abhisyanda* from *srotas* & absorbs excessive *kleda*.

AGNIMANTHA KWATHA

Shilajatu and *Agnimantha* are the main ingredients in this *Yoga* and hence the name *AgnimanthaKwatha* which is *laghu, ruksha* and *ushnavirya, katuvipaka, vatakaphashamak*. *Shilajeet* having *Tikta rasa, katuvipaka, and ushnavirya* and *shoshaka and cheda-*

ka properties, reduces the *kapha* which normalizes the *mandagni*. Thus, the regulated *jatharagni* checks the *upachaya* of *medodhatu* thereby resulting into *lakhanau-pashamana* of the disease *medoroga*.

CONCLUSION

At the end of the study, following conclusion can be drawn

- In *VidangadiChurna*(A) group, however significant results were not obtained in biochemical parameters. Reason behind this can be given as if the treatment duration would have kept long period would have shown better results.
- In group B (*AgnimanthaKwatha*) were having slight improvement in symptoms which suggests the disease is a psychosomatic in nature. It is just the psychology of the patient which has given slight relief in symptoms.
- Administration of both *VidangadiChurna* and *AgnimanthaKwatha* together in the patients of *Sthaulya* Roga produced a good feeling of general well-being and marked improvement in most of the Subjective and Objective parameters.

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