

CLINICAL EVALUATION OF MEDOHAR GUGGUL & TRIPHALA GUGGUL IN THE MANAGEMENT OF OBESITY

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Abstract

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Obesity is Life – threatening diseases. Obese people are more likely than others to develop dangerous conditions such as cardiovascular disease, gallbladder disease and certain cancer. According to *Ayurveda* obesity (*atishaula*) can be defined as excessive deposition of *medodhatu* in the body. *Atishaula* is considered as one of the eight despicable condition as describe in *charak samhita*. In the management of obesity *Bhutangi* & *Dhatuwagni* plays an important role so in *Ayurveda* there is wide scope of research to find out safest remedy for the obesity.

For clinical study 60 clinically diagnosed patients of obesity were selected from the OPD of *Kayachikitsa* and *Panchakarma* of JAMC Nagpur. Selected patients were randomly divided into the groups each of 30 patients group. Group A- was given *medohar guggul* 500 mg TDS for 60 days. Group B- was given *Triphala guggul* 500 mg TDS for 60 days. Although satisfactory result obtained on various parameters with *Tripala guggul* but *medohar guggul* is more significant.

Introduction

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. Obesity is a life threatening diseases. Obese people are more likely than others to develop dangerous conditions such as cardiovascular disease, gallbladder disease and certain cancer. They are also at greater risk if they undergo surgery, people are considered obese when their body mass index exceeds 30 kg/ m².

In *Ayurvedic* text *Acharya Charka* has described eight *nindniya prakruties* according to the body constitution & obesity is one of them. In *Ayurveda* Obesity (*Atishaulya*) is described as “*medoroga*”.

Atishaulya (Obesity) is considered as one of the eight despicable condition as described in *charak samhita*. A person in whom there is excessive accumulation of *Meda* (adipose tissue) and *Mansa* leading to flabbiness of hips, abdomen and breast has been categorized as *Atisthulya*². Increased *meda* is accountable for several serious consequences like *Ayuhrasa* (decrease of life span), *Javoparodha* (decrease in enthusiasm and activity) *krichavya vayata* (difficulty in sexual act), *Dourbalya* (decrease of strength), *Dourgandhya* (bad odor), *swedabadh* (excess perspiration) and *Kshut pipasadhikya* (excessive hunger and thirst, *Mandotsaham* (less activity) referring to sedentary life style³. *Atisingdham* (excessive intake of fatty substances) and *Kshuda Vriddi* (excessive eating) constitute for causation of *prameha* and these etiological factors may also initiate Dyslipidemia.

Being an alarming problem, obesity needs effective & safe treatment. In the management of obesity *Bhutangi & Dhatuwagni* plays an important role so in Ayurveda there is wide scope of research to find out safest remedy for the management of obesity. An effective management can be done other than only diet control.

In present work a comparative study has been made to see the effect of *Medohar guggule & Triphala guggul* in the management of obesity.

Aims & objective

1. To find out safe and effective treatment for obesity.
2. To assess the effect of *Medohar guggul & Triphala guggul* in the management of obesity.

Materials and methods

Inclusion Criteria:

1. Patients between the Age group of 25 years of 55 year.
2. Patients suffering from *Ashakti* (inability to work), *Kshudra swas* (Dyspnoea on exertion), *Trashna* (thirst), *Ati nidra* (sleepiness), *Angshathilyata* (Dulness of organs) *Swedadhikya* (excessive sweating), *Alpa pran shakti* (low immunity) *Udar Vridhi* (fatty abdomen), *utsaha hani* (loss of Alertness), *Vubukha Vridhi* (increase appetite) *Vikrit Sharir Gathan* (irregular body structure), *sharir Bhar Vridhi* (increase body weight) were selected irrespective of sex, education, socio-economic status & religion.

Exclusion criteria

Patients suffering from acute illness such as severe hypertension, malignancy, diabetes mellitus, heart disease, bronchial asthma & hypothyroidism.

Selection of cases

For the clinical study 60 clinically diagnosed cases of obesity were selected from OPD of *Kayachikitsa* & OPD of *Panchakarma* of J.A.M.C. Nagpur. This work was done after the permission of Ethical Committee of J.A.M.C. Nagpur. For the subjective assessment of result symptoms were observed before the treatment and after the treatment. Details history & clinical examination of cases was done in every 15 days in 60 days of trial.

Grouping

Selected patients were randomly divided into two groups each of 30 patients.

Group A- was given *Medohargugul* – 500 mg. (2 cap) TDS with lukewarm water.

Group B- was gives *Triphala guggul* 500 mg (2 cap) TDS with luke warm water.

Duration of trial

Clinical trial was done for 60 days. In both group patients were advised mental rest & Physical exercise like walking 3 km daily, diet restriction like avoidance of excess oily, spicy food, excess sweets.

Criteria of assessment

Subjective symptoms were taken in to consideration for the assessment of results. Following symptoms were observed before treatment followed by every 15 days and after completion of trial. Intensity of symptoms was indicated by Grade 0 – Normal, Grade 1 – Mild, Grade 2 – Moderate & Grade 3 – Severe.

Observation

Table 1:
The Table shows the distribution of patients according to their age

Age Group	No. of Patients	Percentage (%)
25 – 35 years	13	21.66
35 – 45 years	28	46.67
45 – 55 years	19	31.67
Total	60	100

Table 2
This table shows the distribution of patients according to their sex

Sex	No. of Patients	Percentage (%)
Male	26	56.67
Female	34	43.33
Total	60	100

Table 3
This table shows the distribution of patients according to their socio- economic status

Income status	No. of Patients	Percentage (%)
Upper class	28	46.67
Middle class	20	33.33
Lower middle class	12	20
Total	60	100

Table 4
This table shows the distribution of patients according to their Dehaprakruti

Dehaprakruti	No. of Patients	Percentage (%)
Kaphaj	38	63.33
Pittaj	17	28.33
Vataj	5	8.33
Total	60	100

Table 5
This table shows the distribution of patients according to their Koshtaparikshan

Koshtha	No. of Patients	Percentage (%)
Mradu	10	16.67
Madhyam	20	33.33
Krura	30	50
Total	60	100

Table 6
This table shows the distribution of patients according to the Diet

Diet	No. of Patients	Percentage (%)
Veg.	18	30.00
Non-Veg & Veg.	42	70.00

Table No. 1
The Table Showing Percent of Relief of Therapy in Group – A

Sr. No.	Parameter	N	Score		Mean		% of Relief
			BT	AT	BT	AT	
1	Ashakti	26	39	10	1.5	0.38	74.66
2	Kshudra swas	30	42	11	1.4	0.36	74.28
3	Trashna	26	37	11	1.42	0.42	70.42
4	Ati nidra	27	39	10	1.44	0.37	74.30
5	Ang shaithilyata	25	36	10	1.44	0.4	72.22
6	Swedadhikya	30	42	10	1.4	0.33	76.42
7	Alpa pran shakti	25	32	10	1.28	0.4	68.75
8	Udar vridhi	30	56	12	1.86	0.4	78.49
9	Utshahahani	22	32	9	1.45	0.40	72.41
10	Vibuksha vridhi	27	50	14	1.85	0.51	72.43
11	Vikrit sharer gathan	30	60	15	2	0.5	75
12	Sharir bhar vriddhi	30	58	12	1.93	0.4	79.27
13	BMI	30	53	12	1.76	0.4	77.27

The Bar Diagram Showing Percent of Relief of Therapy in Group – A

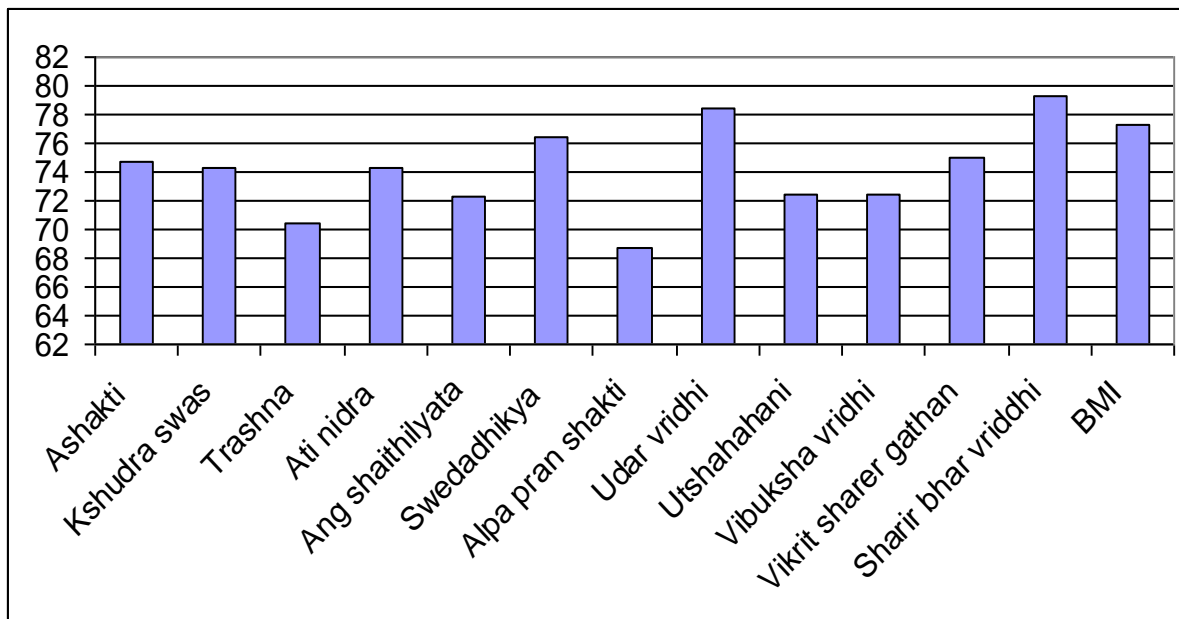
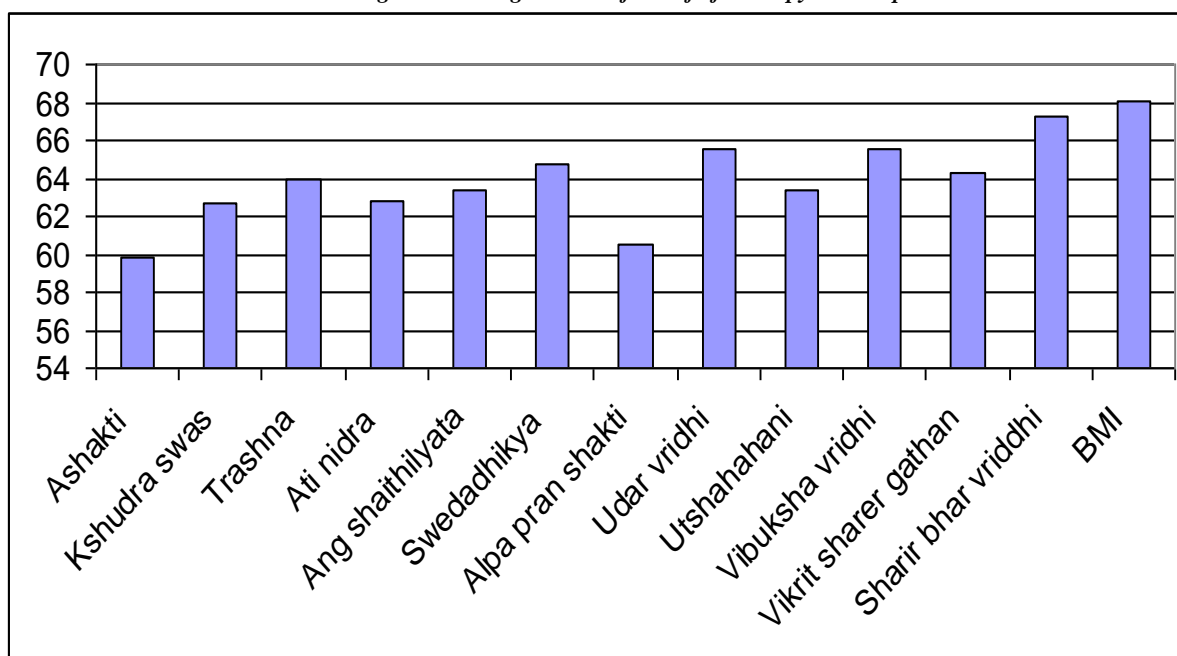


Table No. 2
The Table Showing Percent of Relief of Therapy in Group – B

Sr. No.	Parameter	N	Score		Mean		% of Relief
			BT	AT	BT	AT	
1	Ashakti	28	40	16	1.42	0.57	59.85
2	Kshudra swas	26	40	15	1.53	0.57	62.74
3	Trashna	24	36	13	1.5	0.54	64
4	Ati nidra	27	37	14	1.37	0.51	62.77
5	Ang shaithilyata	29	38	14	1.31	0.48	63.35
6	Swedadhikya	28	40	14	1.42	0.5	64.78
7	Alpa pran shakti	27	35	14	1.29	0.51	60.46
8	Udar vridhi	29	55	19	1.89	0.65	65.60
9	Utshahahani	21	30	11	1.42	0.52	63.38
10	Vibuksha vridhi	30	55	19	1.83	0.63	65.57
11	Vikrit sharer gathan	27	53	19	1.96	0.70	64.28
12	Sharir bhar vridhhi	30	55	18	1.83	0.6	67.21
13	BMI	30	50	16	1.66	0.53	68.07

The Bar Diagram Showing Percent of Relief of Therapy in Group – B



Ingredients of Medohar guggul (Navak guggul) & Triphala guggul.

1. Sunthi:

The botanical name of *sunthi* is *Zingiber officinale*.

Sunthi is one of the ingredients of oftenly used preparation by Ayurvedic practitioners, called *trikatu*- meaning three pungents viz. *sunthi*, *maricha* and *pippali*. The mixture of these, in equal parts, in powder form works well when given with honey in colds rheumatic conditions, obesity and tumours. *Ginger* contains 1 - 2% volatile oil and 5 – 8% resinous matter. Starch and mucilage *sunthi* alleviates *vata* and *kapha dosas* and controls the vitiation of *pitta dosa*.

2. Maricha:

The botanical name of *maricha* is *pipernigrum*. The fruit contains Volatile oil and the crystalline alkaloids piperine, piperidine and piperettine along with resin. It augments the appetites chiefly *Kapha* disease, obesity, colds rheumatic diseases and Tumours.

3. Pippali:

It is one of the herbs mentioned in all ancient scriptures of *Ayurveda*. The botanical name of *pippali* is *piper longum*. The fruit contain 1% volatile oil, resin, a waxy alkaloid a terpenoid substance and alkaloids piperine and piperlongumine. It is an appetizer, digestant rejuvenative, febari funge and a brain tonic (medhya) and alleviates all the threedosa. *Pippali* is the best drug recommended in the disorders of spleen. It is a powerful stimulant for the digestive and respiratory system. It is strongly heating and removes cold, congestion and *ama*: *Trikatu* is the most popular formulation used to miligate the diseases due to *kapha* dosa, to digest *ama*.

4. Citraka:

The botanical name of *citraka* is *plumbago zeylanica*. Binaphthaquin one ehitrone together with zeylinone isozeylinone, elliptinone and droserone isolated from roots, *citraka* is pungent and bitter in taste. It allviates *kapha* and *vata dosas*. *Citraka* digests the *ama*, augments the appetite and reduces the *sotha*.

5. Nagarmotha: Cyperus rotandus

The botanical name of Nagarmota is *cyperus rotandus*. The plant contains at least 27 components comprising sesquiterpene hydrocarbons, epoxides, ketones, monoterpene and aliphatic alcohols and some unidentified constituents. It is one of the best herbs useful in digestive disorders it is a keen stimulant for appetitie, digestion, digestion of *ama*⁵.

6. Amalaki:

Amalaki is called Dhatrior nurse as it resembles a nurse or mother in its healing and soothing properties. *Amalaki* is an all- round tonic and rejuvenator. The botanical name of *Amalaki* is *phyllanthus emblica*. The fruit is a rich source of vitamin C, triagalloyglucose, terchebin, corilangin, ellagic acid from fruit. Two growth inhibitors R1 and R2 also detected in the fruit. It alleviates all the three *dosas*. It has attracted the attention of the entire world due to its properties of enhancing the longevity and preserving the youth.

7. Haritaki:

The botanical name of *haritaki* is *Terminaliya Chebula* a Tannin, terchebin is isolated from fruits (Ann. Chem. 1967 706, 169) from fruit Kernels palmitic, stearic, oleic, linoleic, arachidic and behenic acids are isolated. The fruits contain about 30% astringent substances chebulinic acid tannic acid, gallic acid and chebulagic acid etc.

Hasitaki is sweet, sour, pungent, bitter and astringent in test. By the combination of sweet & sour tastes it alleviates *vata- dosa*, pungent and bitter taste it atteviates *kaphadosa* and astringent and sweet, alleviates the *pitta dosa*. It has special potency (prabhav) to alleviate all the three *dosas*. In obesity, its decotion with honey, reduces the excessive body fats.

8. Bibhitaka:

In Sanskrit “*Bibhitak* literally means the one that keeps you away from the diseases”. The botanical name of *bibhitaka* is *Terminalia beleria*. The fruit pulp contains a non- nitrogenous crystalline substance. A new cardiac glycoside bellericannin- isolated which yielded glucose and galactose, B- sitosterol, gallic acid ellagic acid, ethyl gallate, galloyl glucose and chebulagic acid isolated form fruits. It possess a special potency (prabhava) as a laxative, it alleviates all the three dosa sespecially *kapha* and *pitta*.

9. Vidanga: Embelia ribes

The botanical name of *vidanga* is *Embelia ribes*, Embelin quercitol, tannin and an alkaloid christembine are isolated from the fruits. The new derivatives of embelin iodoembelin and bromoembelin are also isolated. It alleviates *vata* and *kapha* but aggravates the *pitta dosa* it is potent anthelmintic, digestant and is usefull in gastro intestinal disorders.

10. *Guggulu: Commiphora Mukul*⁶.

Botanical name of *Guggulu* is *commiphora mukul*. Being *tikta kashaya* it is *Kaphagna* and because of *ushnaveerya* it is *vataghna*. It aggravates *pitta*, it is *deepan* and *pachana*, *guggulu* eliminates aggravated *kapha* and sluggishness of activity of these organs. Thus it cause *agnideepam*. *Guggulu* has a specific action on Aggravated *meda*. It scrapes accumulated *meda* by its *rooksha* and *vishad gunas* and by removing obstruction of *meda* it facilitates movement of *Vayu*. Since it eliminates *Kleda* from *dhatu*s, onward movement of nutrients to subsequent *dhatu* is facilitated. It contains resin, gum sisamin, cholesterol and a volatile oil. The oil contains steroidal ketone alcohol and aliphatic triol. Steroids contain guggulosterols sterols. It is a potent hypocholsteremic hypolipidemic and antiathero sclerotic agent.

Conclusion

The clinical trial highlights the following points.

1. Obesity is a most common world wide disorders affecting some what moreless in both sexes. It is well known for its recurrence &.
2. Faulty dietary habits and sedentary lifestyle in day to day life are the main factors in pathogenesis of obesity.
3. In the management of obesity *Bhutangi* & *Dhatuwagni* plays an important role. So only diet control is not a complete a solution.
4. Overall result with *Medohar guggul* in group A was comparatively better than group B.
5. In group A patients reported much better control on *symptom vabuksha* as compare to group B.
6. In group A patients reported much better mental & physical fitness after the treatment.
7. Result obtained after the study were highly encouraging and free from adverse effect.
8. *Medohar guggulu* therapy shows moderate improvement in the subjective symptoms of obesity and significant results in weight and BMI reduction.

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