

A Clinical Evaluation Of *Navaka Guggulu* In The Management Of *Medo Roga* (Obesity)

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ABSTRACT

Background: *Medo Roga (Sthaulya)* is a metabolic disorder described in Ayurveda as excessive accumulation of *Meda Dhatu* resulting from *Kapha* aggravation and *Agni Mandya*. It is closely correlated with obesity, a major global health issue associated with lifestyle, dietary excess, and metabolic imbalance. *Navaka Guggulu*, a classical *Lekhana* and *Medohara* formulation, is mentioned for managing disorders caused by *Meda Dhatu Vriddhi*. **Aim:** To evaluate the clinical efficacy of *Navaka Guggulu* in the management of *Medo Roga* (obesity). **Materials and Methods:** An open clinical study was conducted on 23 patients diagnosed with *Medo Roga*. Patients were administered *Navaka Guggulu* 4 g/day in divided doses with lukewarm water for 60 days. *Shunthi Churna* and *Triphala Churna* were given initially for *Ama Pachana* and *Koshtha Shuddhi*. Assessment was based on subjective parameters (*Kshudha Atimatrata*, *Swedabadhata*, *Daurbalya*, etc.) and objective parameters (Body Weight, BMI, WHR, SFT, and lipid profile). Follow-ups were done every 15 days. **Results:** Significant reductions were observed in body weight (↓3.81 kg), BMI (↓5.4%), serum cholesterol (↓14.2%), triglycerides (↓21.8%), LDL (↓16.8%), and VLDL (↓24.1%), along with an increase in HDL (↑19.2%). Clinically, 53.3% of patients showed marked improvement, 40% moderate improvement, and 6.6% mild improvement. No adverse reactions were reported. **Conclusion:** *Navaka Guggulu* demonstrated significant efficacy in reducing body weight and correcting lipid metabolism. Its *Kapha-Medohara*, *Lekhana*, and *Srotoshodhaka* actions contribute to its beneficial role in obesity management. The formulation is safe, effective, and can be integrated with dietary and lifestyle modifications for sustainable outcomes.

Keywords: *Medo Roga*, *Navaka Guggulu*, *Sthaulya*, *Kapha-Medohara*, *Lipid Profile*, *Ayurvedic Formulation*

INTRODUCTION

Medo Roga, also known as *Sthaulya*, is one of the most common *Santarpanajanya Vyadhis* described in Ayurveda. It arises from the excessive intake of *Guru*, *Snigdha*, and *Madhura Ahara*, along with *Avyayama* (lack of exercise) and sedentary lifestyle. The condition leads to *Meda Dhatu Vriddhi* (increase of adipose tissue) and *Agni Mandya* (digestive impairment), resulting in accumulation of *Ama* and obstruction of *Srotas*. Acharya Charaka describes *Sthaulya* as a state where *Medas* and *Mamsa Dhatu* accumulate excessively, leading to *Chala Sphik-Udara-Stana*, *Kshudha Atimatrata*, and *Daurbalya*. This disorder affects both the body and mind, predisposing individuals to early aging and reduced longevity.¹ From a modern medical perspective, obesity is defined as an abnormal or excessive fat accumulation that impairs health. It is assessed through *Body Mass Index* (BMI), with values above 25 classified as overweight and above 30 as obese. Obesity has reached epidemic proportions globally and is associated with serious complications such as type-2 diabetes, hypertension, dyslipidemia, coronary heart disease, gallstones, arthritis, and certain cancers. Despite advances in pharmacotherapy and bariatric interventions, long-term success rates remain limited due to relapse, cost, and adverse effects, creating an urgent need for safer and sustainable approaches.²

Ayurveda offers a holistic framework for understanding and managing *Medo Roga*. The pathogenesis involves *Kapha-Prakopa*, *Agni Mandya*, and *Medovaha Srotodushti*, leading to *Apakva Meda Sanchaya*. Treatment aims to restore *Agni*, eliminate *Ama*, and promote *Lekhana* (scraping of excess fat). Acharyas have recommended *Langhana*, *Rukshana*, *Udvardana*, *Vamana*, and internal administration of *Lekhana Dravya* such as *Guggulu* and *Triphala*. Among these, *Navaka Guggulu*—a classical formulation containing *Guggulu*, *Triphala*, *Trikatu*, *Chitraka*, *Mustaka*, and *Vidanga*—is widely indicated in *Medoroga* for its *Kapha-Medohara* and *Srotoshodhaka* properties.³

In this context, the present clinical study was designed to evaluate the efficacy of *Navaka Guggulu* in the management of *Medo Roga* (obesity). By combining classical Ayurvedic rationale with modern assessment parameters such as BMI, WHR, SFT, and lipid profile, the study aims to establish evidence-based validation of this traditional formulation. The

findings are expected to bridge classical Ayurvedic wisdom and modern biomedical understanding for a safer and holistic management of obesity.⁴

Aim and Objectives

Aim

To evaluate the efficacy of *Navaka Guggulu* in the management of *Medo Roga* (Obesity).

Objectives

1. To study the *Aetiopathogenesis* of *Medo Roga* in context to obesity.
2. To evaluate the efficacy of *Navaka Guggulu* in the management of *Medo Roga*.
3. To evaluate the effect of *Navaka Guggulu* on laboratory parameters such as Serum Cholesterol, Serum Triglycerides, LDL, VLDL, and HDL

Conceptual Study

Ayurvedic Review

Medo Roga or *Sihaulya* is described as a *Santarpanajanya Vyadhi*, originating due to the consumption of *Guru*, *Snigdha*, *Madhura Ahara*, and indulgence in *Avyayama* and *Diwaswapna*. According to *Charaka Samhita* (Sutra Sthana 21/9), *Sihaulya* results from the excessive deposition of *Meda Dhatu* and *Mamsa Dhatu*, leading to disproportionate body structure and reduced vitality. The *Samprapti* (pathogenesis) involves *Kapha Prakopa*, *Agni Mandya*, and *Medo Dhatu Agnimandya*, producing *Apakva Meda* which causes *Medovaha Srotodushti* and *Srotosanga*. Eventually, this leads to accumulation of *Meda* in the *Sphik*, *Udara*, and *Stana Pradesha*, manifesting as *Chala Sphik-Udara-Stana*, *Daurbalya*, *Swedabadhata*, and *Kshudha Atimatrata*.⁵

The *Samprapti Ghataka* includes *Udabhavasthana* (Amashaya), *Adhisthana* (Vapavahana and *Medodhara Kala*), *Dosha* (predominantly *Kapha*), *Dushya* (*Rasa* and *Meda Dhatu*), *Agni* (*Jatharagni* and *Medo Dhatvagni*), and *Srotas* (*Medovaha Srotas*). The *Srotodushti* types involved are *Sanga* and *Vimargagamana*. Hence, *Medo Roga* is primarily a *Bahya Rogamarga* disease of *Chirakalin* (chronic) nature.⁶

Modern Review

In modern medicine, obesity is defined as excessive accumulation of body fat leading to health impairment. It is quantified through Body Mass Index (BMI), where BMI >25 is considered overweight and >30 is obese. The pathophysiology includes an imbalance between energy intake and expenditure, genetic predisposition, endocrine disorders, and sedentary lifestyle. Adipose tissue dysfunction contributes to metabolic abnormalities like insulin resistance, dyslipidemia, and chronic inflammation. Common complications include type-2 diabetes mellitus, hypertension, coronary artery disease, gall bladder stones, arthritis, and reproductive disorders.⁷

Assessment parameters include BMI, Waist-Hip Ratio (WHR), and Skin Fold Thickness (SFT). Classification of obesity is divided into grades: BMI 25–29.9 (overweight), 30–34.9 (obese class I), 35–39.9 (obese class II), and >40 (obese class III). Modern management focuses on calorie restriction, exercise, pharmacotherapy, and bariatric surgery, but these methods often lack long-term sustainability and have potential adverse effects, which highlight the need for Ayurvedic interventions with holistic action.⁸

Drug Review: *Navaka Guggulu*

Navaka Guggulu is a classical *Lekhana* and *Medohara* formulation described in *Bhaishajya Ratnavali*. It consists of ten ingredients—*Shunthi* (*Zingiber officinale*), *Pippali* (*Piper longum*), *Maricha* (*Piper nigrum*), *Chitraka* (*Plumbago zeylanica*), *Haritaki* (*Terminalia chebula*), *Vibhitaka* (*Terminalia bellirica*), *Amalaki* (*Emblica officinalis*), *Mustaka* (*Cyperus rotundus*), *Vidanga* (*Embelia ribes*), and *Guggulu* (*Commiphora mukul*)—in the ratio of 1 part each of the first nine ingredients and 9 parts of *Guggulu*

Pharmacological and Ayurvedic Properties

Drug	Guna	Rasa	Veerya	Vipaka	Doshaghna Karma
<i>Haritaki</i>	<i>Laghu</i> , <i>Ruksha</i>	<i>Panch Rasa</i> (except <i>Lavana</i>)	<i>Ushna</i>	<i>Madhura</i>	<i>Tridoshaghna</i>
<i>Vibhitaka</i>	<i>Laghu</i> , <i>Ruksha</i>	<i>Kashaya</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridoshaghna</i>
<i>Amalaki</i>	<i>Ruksha</i> , <i>Sheeta</i>	<i>Panch Rasa</i> (<i>Amalapradhana</i>)	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridoshaghna</i>
<i>Shunthi</i>	<i>Laghu</i> , <i>Snigdha</i>	<i>Katu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vata-Kaphaghna</i>
<i>Maricha</i>	<i>Laghu</i> , <i>Tikshna</i>	<i>Katu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vata-Kaphaghna</i>

Pippali	Laghu, Tikshna	Katu	Anushna	Madhura	Vata-Kaphaghna
Chitraka	Laghu, Ruksha, Tikshna	Katu	Ushna	Katu	Vata-Kaphaghna
Vidanga	Laghu, Tikshna, Ruksha	Katu, Kashaya	Ushna	Katu	Vata-Kaphaghna
Mustaka	Laghu, Ruksha	Tikta, Katu	Sheeta	Katu	Kapha-Pittaghna
Guggulu	Laghu, Ruksha, Tikshna, Sara, Sukshma	Katu, Tikta	Ushna	Katu	Vata-Kaphaghna 8c200780-ddd6-4663-aa7b-415a7af...

Probable Mode of Action

The synergistic effect of these drugs promotes *Agni Deepana* (enhancing digestion), *Amapachana* (detoxification), *Srotoshodhana* (channel cleansing), and *Lekhana* (scraping of excess Meda). *Guggulu* acts as a lipid-lowering agent by stimulating thyroid activity and enhancing lipolysis. *Triphala* and *Trikatu* regulate metabolism and improve digestion, while *Chitraka* and *Vidanga* enhance *Medo Dhatvagni*, preventing further fat accumulation. The combined action restores *Agni*, reduces *Kapha-Meda* dominance, and helps normalize lipid metabolism, leading to sustainable weight management without adverse effects.

MATERIALS AND METHODS

1. Study Design

An open clinical trial was conducted to evaluate the efficacy of *Navaka Guggulu* in the management of *Medo Roga* (Obesity). The study included patients fulfilling both subjective and objective criteria of *Medo Roga*.

2. Selection of Patients

Patients were selected from the Outpatient and Inpatient Department of *Kayachikitsa*, R.G.G.P.G. Ayurvedic College, Paprola.

- **Sample Size:** 23 patients.
- **Study Duration:** 60 days.
- **Follow-up:** Every 15 days.

3. Diagnostic Criteria

Subjective Criteria:

- *Chala Sphik-Udara-Stana* (Truncal obesity)
- *Kshudha Atimatrata* (Excessive hunger)
- *Pipasa Atiyoga* (Excessive thirst)
- *Sandhi Shoola* (Joint pain)
- *Kshudra Shwasa* (Dyspnoea)
- *Daurbalya* (Weakness)
- *Swedabadhata* (Excessive sweating)
- *Daurgandhya* (Body odour)
- *Javoparodha* (Sluggishness)

Objective Criteria:

- BMI > 25
- Raised body height–weight ratio
- Increased *Waist-Hip Ratio*
- Increased *Skin Fold Thickness*

Investigative Criteria:

- Serum Cholesterol > 200 mg/dl
 - Serum Triglycerides > 160 mg/dl
 - LDL > 160 mg/dl
 - VLDL > 30 mg/dl
 - HDL < 30 mg/dl
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4. Inclusion Criteria

- Patients fulfilling the above subjective and objective criteria.
- Age group between 18–60 years.
- Raised BMI (>25) and abnormal lipid profile.

5. Exclusion Criteria

- Patients unwilling to participate in the trial.

- Obesity due to endocrinal disorders or drug-induced causes.
- Patients with complications of obesity (e.g., CAD, Diabetes Mellitus, or severe hypertension).

6. Plan of Study

1. Informed consent was taken from all participants.
2. Detailed case history was recorded in a pre-designed proforma.
3. Patients were grouped and treated as per protocol.

7. Management

Pre-Treatment Procedures:

- *Ama Pachana – Shunthi Churna* 3 gm twice daily for 3 days with lukewarm water.
- *Koshtha Shuddhi – Triphala Churna* 3–6 gm at bedtime with lukewarm water.

Trial Drug:

- **Name:** *Navaka Guggulu*
- **Dose:** 4 gm/day in two divided doses with lukewarm water.
- **Duration:** 60 days.
- **Follow-up:** Every 15 days.

8. Instructions to Patients

Do's:

- Drink water before meals.
- Include *Yava, Moonga, Purana Shali, Takra, Madhu*, and green leafy vegetables.
- Daily morning walk for 30–40 minutes.

Don'ts:

- Avoid water immediately after meals.
- Avoid alcohol, fried food, non-vegetarian diet, sweets, and milk products.
- Avoid sedentary lifestyle

9. Criteria for Assessment

Subjective Criteria: Grading system adopted according to severity of symptoms.

Objective Criteria: Assessment based on changes in body weight, BMI, waist–hip ratio, and skin fold thickness.

Investigative Criteria: Assessment based on changes in lipid profile (S. Cholesterol, Triglycerides, LDL, VLDL, HDL).

10. Criteria for Evaluation of Results

• Markedly Improved:

- 60% improvement in subjective symptoms.
- Reduction of >4 kg body weight.
- Improvement in ≥ 2 grades of BMI and SFT.
- 30% reduction in ≥ 2 lipid parameters.

• Moderately Improved:

- 30–60% improvement in symptoms.
- Weight reduction of 2.1–4 kg.
- 15–30% reduction in lipid parameters.

• Mildly Improved:

- <30% improvement in subjective symptoms.
- Weight reduction up to 2 kg.
- <15% reduction in one lipid factor.

OBSERVATION AND RESULT

Observation and Results

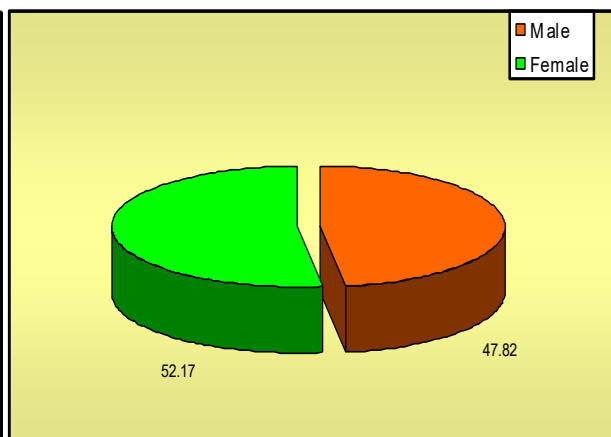
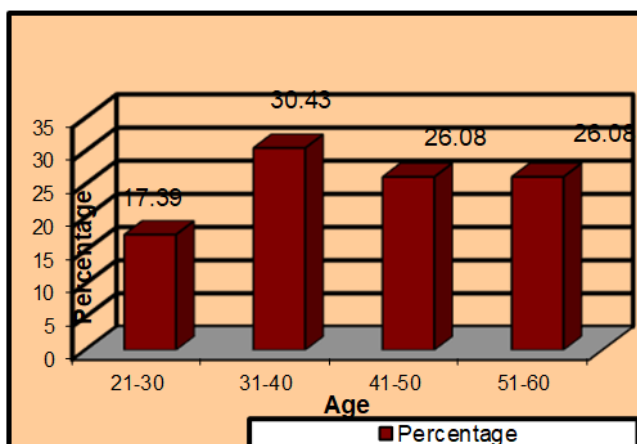
1. General Observations

A total of **23 patients** of *Medo Roga (Obesity)* were registered for the study. Out of them, all completed the trial successfully with good compliance. Observations were made on the basis of demographic features, subjective and objective parameters, and laboratory investigations.

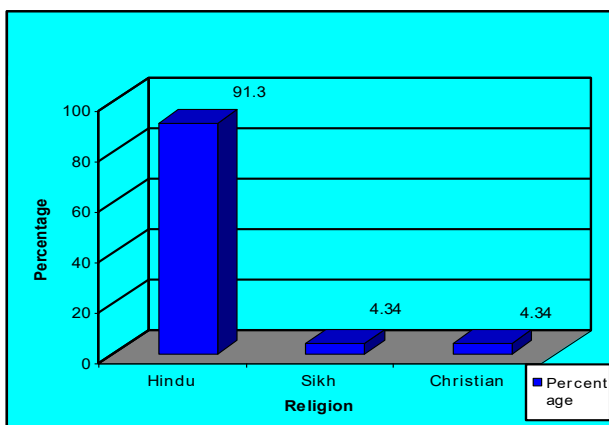
2. Demographic Data

Age Wise Distribution

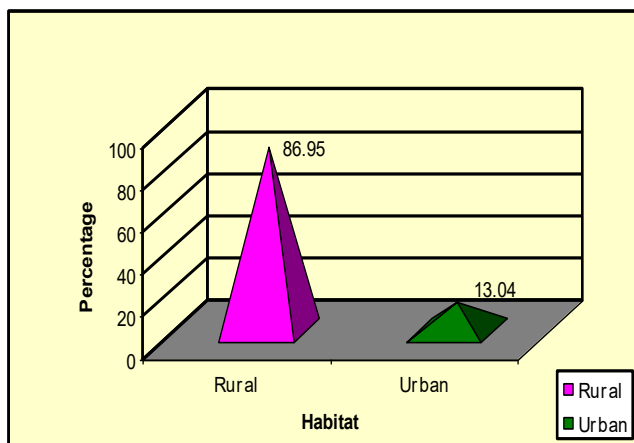
Sex Wise Distribution



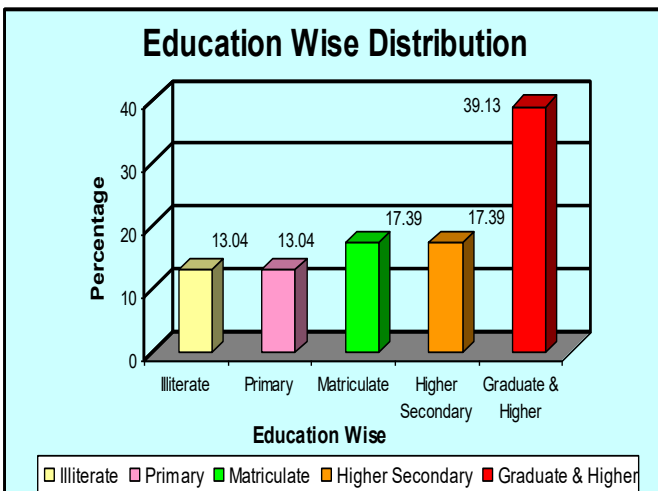
Religion Wise Distribution



Habitat Wise Distribution

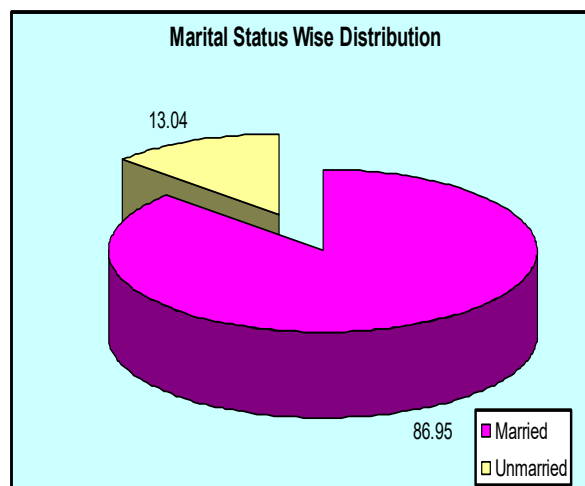


Education Wise Distribution

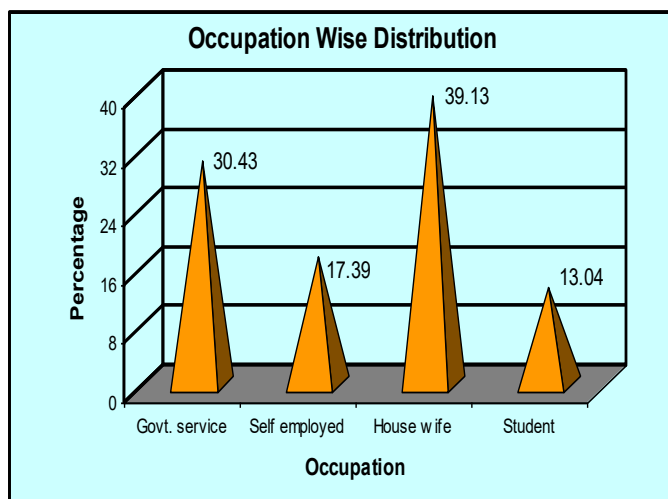


Marital Status Wise Distribution

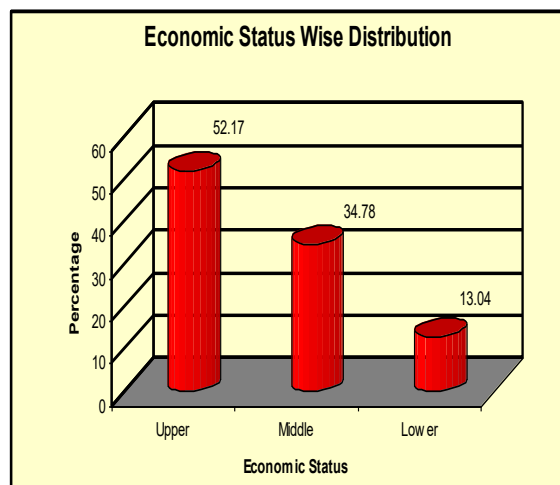
Marital Status Wise Distribution



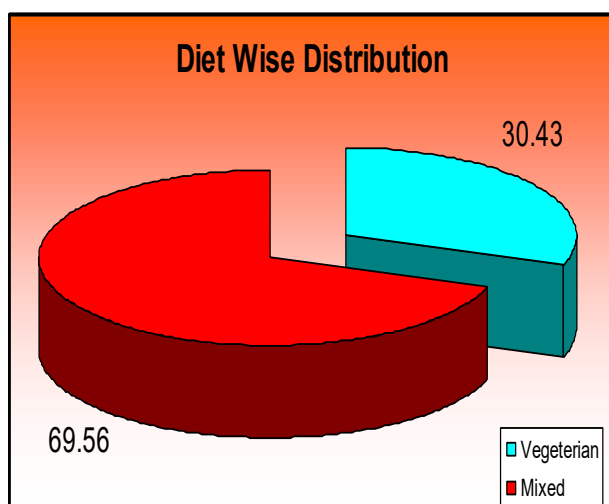
Education Status Wise Distribution



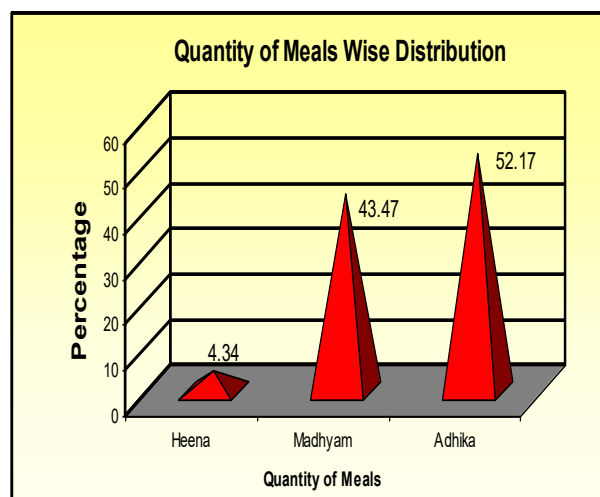
Economic Status Wise Distribution



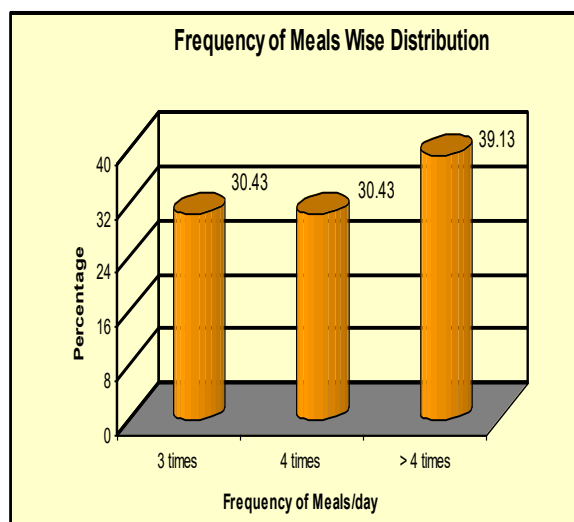
Occupation Wise Distribution



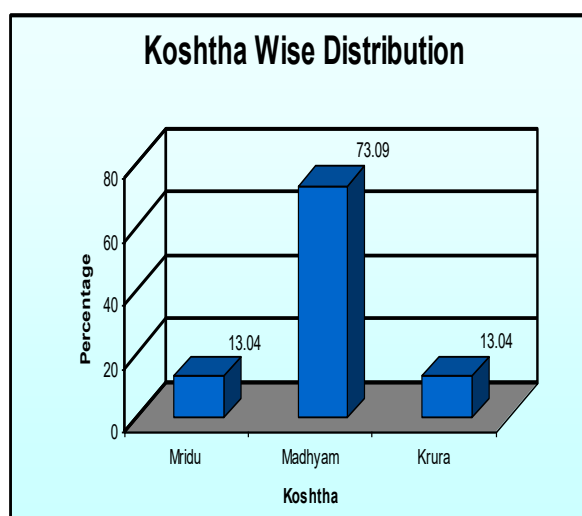
Diet Wise Distribution



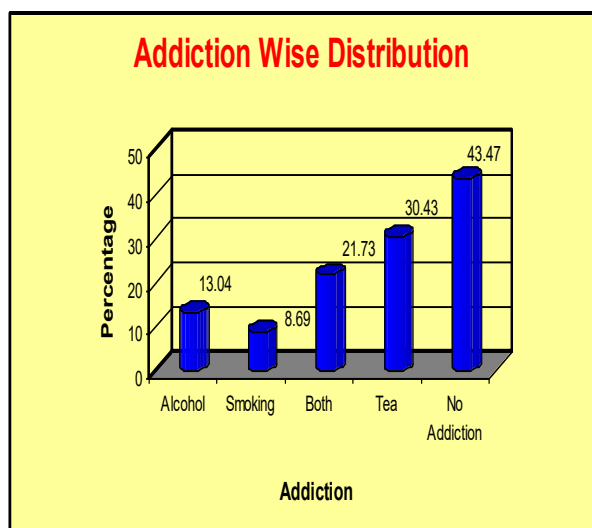
Quantity of Meal Wise



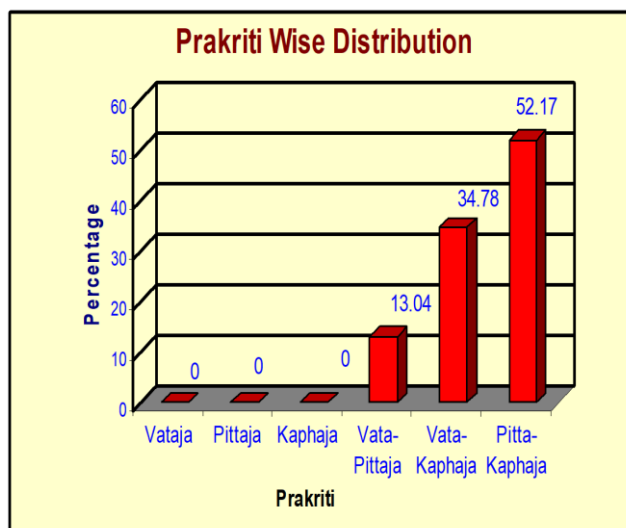
Distribution Frequency of Meal Wise Distribution



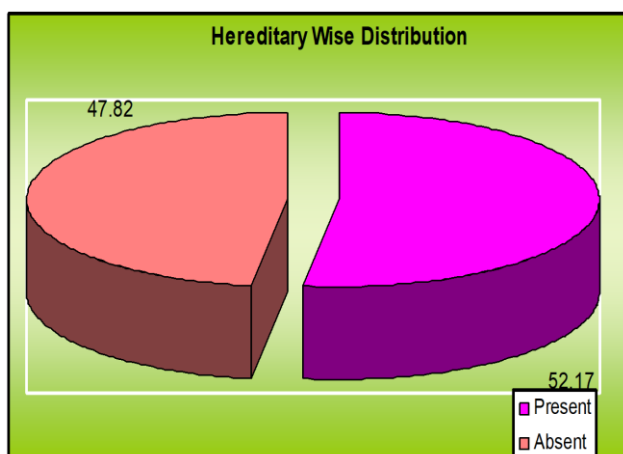
Koshtha wise Distribution



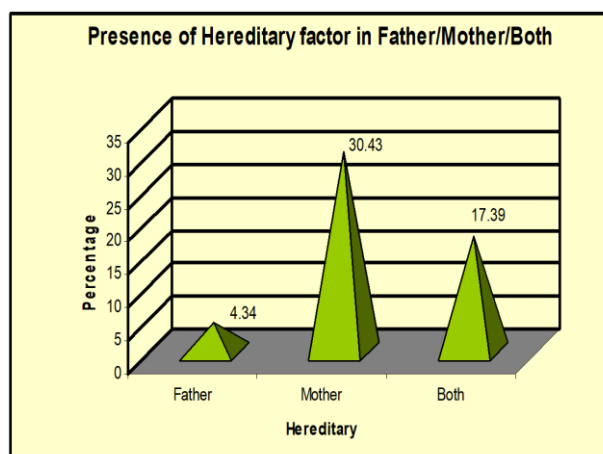
Addiction Wise Distribution



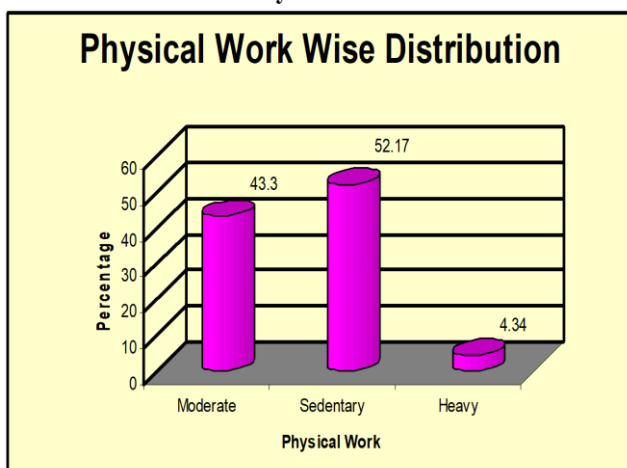
Prakriti Wise Distribution



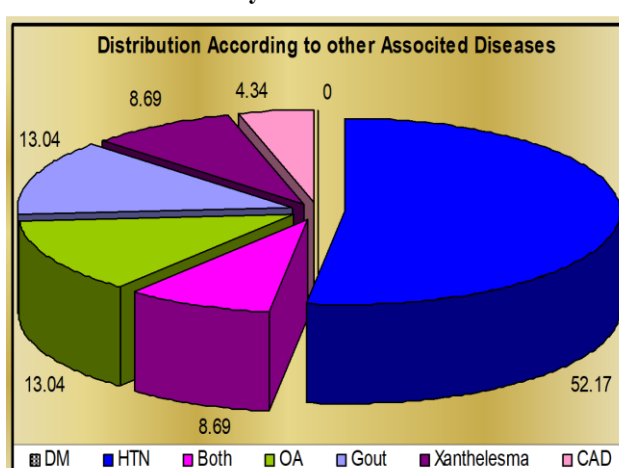
Hereditary Wise Distribution



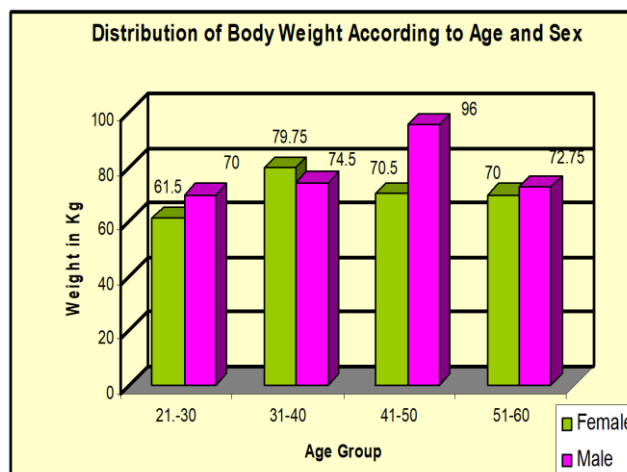
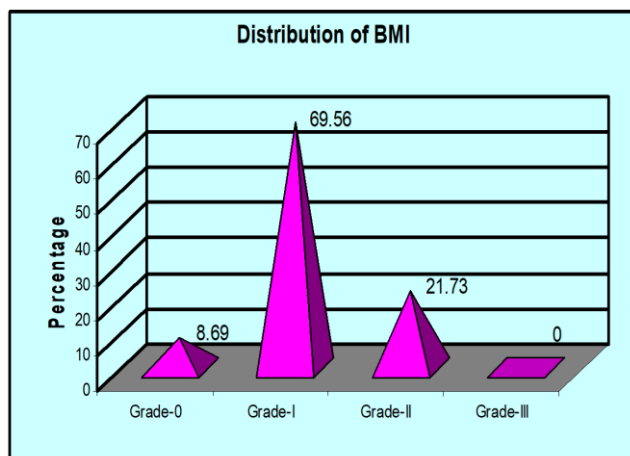
Presence of Hereditary Wise Distribution



Physical work wise Distribution

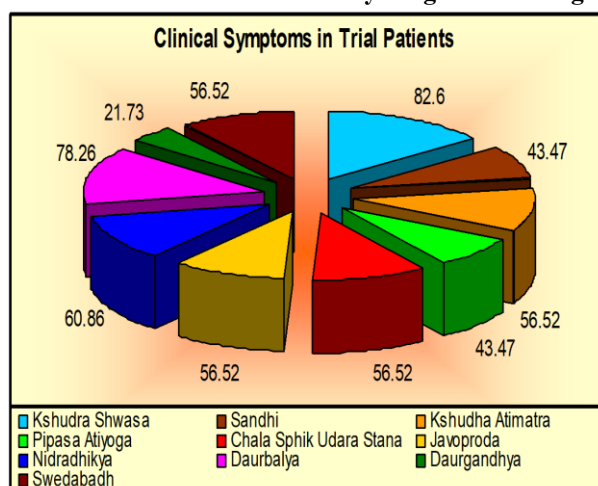


Distribution According to Associated Disease



Distribution of Body weight According to Age and Sex

Distribution of BMI



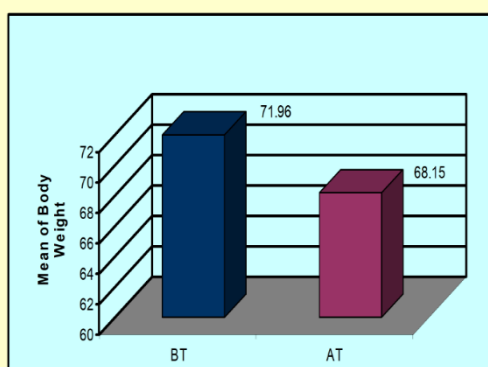
Clinical Symptoms in Trial Patients

Effect on Symptoms of Medo Roga in 15 Patient

Lakshan	n	Mean Value		%age	±S.D.	S.E.	t	p
		B.T.	A.T.	Relief				
Kshudra Shwasa	09	1.33	0.44	66.91	0.33	0.11	8	<0.0001
Sandhi Shool	07	1.14	0.28	37.43	0.37	0.14	6.07	<0.001
Kshudha Atimatra	13	1.23	0.76	38.21	0.51	0.14	3.28	<0.01
Pipasa Atiyoga	08	1.0	0.62	38	0.51	0.18	2.04	>0.05
Chala Sphik	11	1.54	0.90	41.55	0.50	0.15	4.18	<0.01
Udara Stana								
Javoparoda	10	1.5	0.6	60	0.31	0.1	9	<0.0001
Nidradhikya	14	1.28	0.85	33.59	0.51	0.13	3.14	<0.01
Daurbalya	13	1.38	0.76	34.92	0.50	0.13	4.42	<0.001
Daurgandhya	05	1.2	0.8	33.33	0.54	0.24	1.6	>0.05
Swedabadh	13	1.36	0.84	38.23	0.51	0.14	3.19	<0.01

Effect of Symptoms of Medo Roga

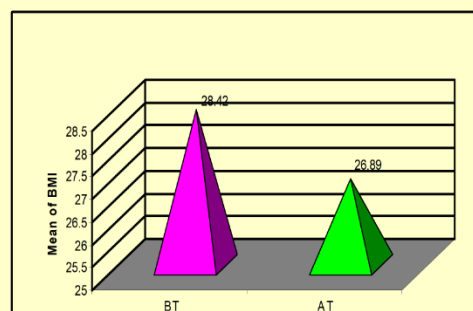
Effect on Body Weight in 13 Patients



Criteria	Mean Value		%age	+S.D.	S.E.	t	p
	BT	AT	relief				
Body Weight	71.96	68.15	5.29	4.29	1.19	3.19	<.001

Effect of Body Weight

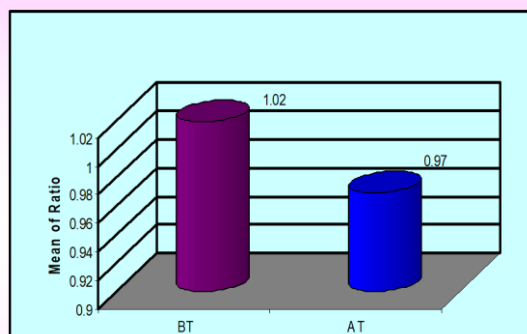
Effect of therapy on BMI in 13 Patients



Criteria	Mean Value	%age	±S.D.	S.E.	t	p
	BT	AT	relief			
BMI	28.42	26.89	5.23	0.77	0.21	7.28 <0.001

Effect of Therapy on BMI

Effect on Waist Hip Ratio in 13 Patients

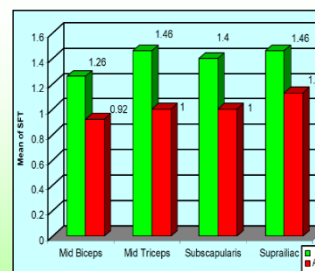


Criteria	Mean Value	%age	±S.D.	S.E.	t	p
Waist Hip Ratio	1.02	0.97	4.5	0.58	0.01	<0.05

Waist Hip Ratio 1.02 0.97 4.5 0.58 0.01 2.5 <0.05

Effect on Waist Hip Ration

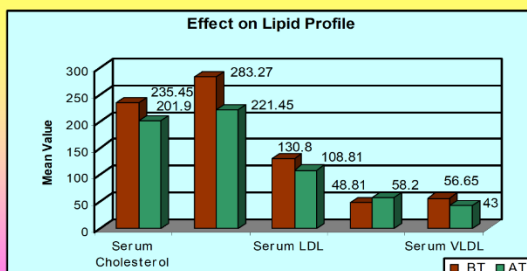
Effect on Skin Fold Thickness in 13 Patients



Skin Fold Thickness	Mean Value	%age	±S.D.	S.E.	t	p
Mid Biceps	1.26	0.92	26.98	0.48	0.12	<0.02
Mid Triceps	1.46	1.0	31.50	0.64	0.16	<0.02
Subscapularis	1.4	1.0	28.57	0.50	0.13	<0.02
Suprailiac	1.46	1.13	22.60	0.48	0.12	<0.02

Effect of Skin Fold Thickness

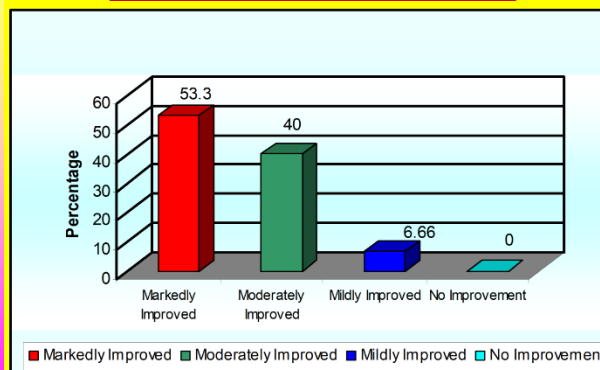
Effect on Lipid Profile in 11 Patients



Lipid Profile	Mean Value	%age	±S.D.	S.E.	t	p
S. Cholesterol	235.45	201.90	14.25	25.79	7.77	<0.01
S. Triglyceride	283.27	221.45	21.82	45.79	13.44	<0.01
S. LDL	130.80	108.81	16.81	23.37	7.04	<0.02
S. HDL	48.81	58.2	19.23	16.80	4.84	>0.05
S. VLDL	56.65	43.0	24.09	16.80	5.06	<0.01

Effect of Lipid Profile

Overall Effect of Therapy



Overall Effect of Therapy

Parameter	Category	Observation (%)
Gender	Female	52.17%
	Male	47.83%
Age Group (years)	31–50 years	Majority (65%)
Socio-Economic Status	Upper class	52.17%
Habitat	Urban	86.95%
Prakriti	Pitta-Kaphaja	47.82%
Obesity Grade	Grade I	69.56%
Agni Type	Vishamagni / Mandagni	73.91%
Bala (Strength)	Avara	78.26%

Demographic Data

Chief Symptoms Observed Before Treatment

Symptoms (Lakshana)	Percentage of Patients
Kshudha Atimatrata (Excessive hunger)	86.66%
Swedabadhata (Excessive sweating)	86.66%
Daurbalya (Weakness)	86.66%

<i>Chala Sphik-Udara-Stana</i> (Truncal obesity)	73.33%
<i>Kshudra Shwasa</i> (Shortness of breath)	66.66%
<i>Javoparodha</i> (Sluggishness)	60%
<i>Daurgandhya</i> (Body odor)	53.33%
<i>Ayushohrasa</i> (Decreased vitality)	46.66%

Effect of Therapy on Objective Parameters

Parameter	Before Treatment (BT)	After Treatment (AT)	Mean Difference	% Change
Body Weight (kg)	71.96	68.15	-3.81	↓5.29%
Body Mass Index (BMI)	28.42	26.89	-1.53	↓5.38%
Waist–Hip Ratio (WHR)	1.02	0.97	-0.05	Improved
Skin Fold Thickness (mm)	Decreased	—	—	Improved visibly

Effect of Therapy on Lipid Profile

Parameter (mg/dL)	BT	AT	Change (%)	Significance
Serum Cholesterol	235.45	201.90	↓14.2%	Significant
Serum Triglycerides	283.27	221.45	↓21.8%	Significant
Serum LDL	130.80	108.81	↓16.8%	Significant
Serum HDL	48.81	58.20	↑19.2%	Improved
Serum VLDL	56.65	43.00	↓24.1%	Significant

Overall Effect of Therapy

Response Category	No. of Patients	Percentage
Markedly Improved	8	53.33%
Moderately Improved	6	40.00%
Mildly Improved	1	6.66%
Unchanged	0	0%

Results and Findings

- In the pathogenesis of *Medo Roga*, the major responsible factors were identified as *Kapha Dosha*, *Ama*, *Srotorodha*, and *Medo Dhatu Agnimandya*.
- The *Medohara* effect of *Navaka Guggulu* was mainly due to its *Kapha Shamaka*, *Deepana*, *Pachana*, *Srotoshodhaka*, and *Lekhana* properties.
- All patients of *Sthaulya* were not dyslipidemic, and similarly, not all dyslipidemic patients were *Sthula*, indicating variable correlation between obesity and lipid imbalance.
- *Sthaulya* was found more prevalent among females, in the fourth decade of life, particularly among upper-middle-class patients and housewives.
- Maximum patients had *Madhyama Koshtha* and *Pitta-Kaphaja Prakriti*, suggesting predisposition due to sluggish metabolism and *Kapha-Pitta* dominance.
- The incidence of *Sthaulya* was higher in patients consuming a mixed diet, especially with increased frequency and quantity of meals.
- Most patients were diagnosed with Grade-I obesity, and the average weight was higher in males (78.31 kg) compared to females (70.43 kg).
- With the reduction in body weight and BMI, there was a corresponding decrease in lipid levels (S. Cholesterol, Triglycerides, LDL, VLDL), confirming metabolic improvement.
- *Navaka Guggulu* showed no significant adverse effects on hematological parameters, biochemical values, or urine examinations, establishing its safety profile.
- Overall, *Navaka Guggulu* was found to be effective, safe, and well-tolerated, providing significant improvement in both clinical and biochemical features of *Medo Roga (Obesity)*.

DISCUSSION

Age-wise Discussion

The majority of patients (65%) were in the **31–50 years** age group, indicating that *Medo Roga* predominantly affects individuals in middle age. This phase of life corresponds to the *Madhyama Avastha*, a *Kapha-dominant* stage as described in Ayurveda. The decline in physical activity, coupled with *Agni Mandya* and metabolic slowdown, promotes *Meda Dhatu Vriddhi*. Modern studies also correlate middle age with hormonal and metabolic changes that favor fat accumulation.

Gender-wise Discussion

In this study, females (52.17%) were slightly more affected than males (47.83%). This higher prevalence in females can be attributed to hormonal fluctuations, pregnancy-related weight gain, and sedentary habits, especially among housewives. In Ayurvedic terms, *Kapha Prakriti* and *Manda Agni* are more commonly seen in women, leading to *Meda Sanchaya* and manifestation of *Sthaulya*.

Socio-Economic Status-wise Discussion

More than half of the patients (52.17%) belonged to the upper socio-economic class. This reflects that individuals with higher economic status have easy access to rich, calorie-dense food and often lead sedentary lifestyles. This finding aligns with *Santarpanjanya Vyadhi* described by Acharya Charaka, where over-nourishment and indulgent habits result in diseases like *Sthaulya*.

Habitat-wise Discussion

The majority of patients (86.95%) belonged to urban areas, which indicates the role of urban lifestyle, mental stress, lack of exercise, and consumption of processed food in the causation of *Medo Roga*. However, the occurrence in a smaller rural group reflects that dietary excess and inactivity are now widespread, beyond urban settings.

Prakriti-wise Discussion

Most patients were of Pitta-Kaphaja Prakriti (47.82%), which suggests a natural predisposition toward *Medo Roga*. In such individuals, *Kapha Dosha* leads to excessive nourishment (*Medodhatu Vriddhi*), while *Pitta* contributes to strong appetite (*Kshudha Atimatrata*). The imbalance of these two doshas with *Agni Mandya* sets the stage for obesity.

Agni and Bala-wise Discussion

Vishamagni / Mandagni was found in 73.91% of patients, confirming that *Agni Dushti* plays a central role in *Medo Roga*. *Agni Mandya* leads to improper digestion and formation of *Ama*, which further obstructs *Srotas* and increases *Meda Dhatu*. Additionally, Avara Bala (78.26%) among patients reflects diminished strength due to improper *Dhatu Poshana*, as explained in *Charaka Samhita*.

Dietary Pattern Discussion

Most patients (69.56%) were taking a mixed diet, and more than half (52.17%) consumed meals in *adhika matra* (excess quantity). Increased frequency and quantity of food intake directly correspond to *Aharaja Nidana* mentioned in the classics, such as *Atimatra Bhojana* and *Snigdha Ahara Sevanam*. These dietary habits promote *Kapha* and *Meda* accumulation and reduce *Agni Bala*.

Discussion on Body Weight and BMI

The mean body weight reduced from 71.96 kg to 68.15 kg, and BMI decreased from 28.42 to 26.89, reflecting significant improvement. The reduction in both parameters indicates activation of *Medo Dhatvagni* and restoration of *Agni*. *Navaka Guggulu*'s *Deepana*, *Pachana*, and *Lekhana* properties facilitated weight loss by mobilizing stored *Meda Dhatu*.

Discussion on Waist–Hip Ratio and Skin Fold Thickness

The waist–hip ratio decreased from 1.02 to 0.97, showing reduced central obesity. Improvement in *Chala Sphik-Udara-Stana* suggests effective fat mobilization from the trunk region, a key Ayurvedic marker of *Sthaulya*. Decrease in skin fold thickness confirms subcutaneous fat reduction, validating *Lekhana* and *Rukshana* actions of *Guggulu* and *Trikatu*.

Discussion on Lipid Profile

Significant reduction was observed in Serum Cholesterol (↓14.2%), Triglycerides (↓21.8%), LDL (↓16.8%), and VLDL (↓24.1%), with a notable increase in HDL (↑19.2%). These results confirm the *Medohara* and *Srotoshodhaka* action of *Navaka Guggulu*. *Guggulu* enhances fat metabolism through its *Tikshna*, *Laghu*, *Ruksha*, and *Ushna Guna*, while *Triphala* and *Chitraka* improve liver function and lipid breakdown. This shows a direct link between improved *Agni* and normalized lipid metabolism.

Discussion on Clinical Symptoms

Major symptoms like *Kshudha Atimatrata*, *Swedabadhata*, *Daurbalya*, *Javoparodha*, and *Chala Sphik-Udara-Stana* improved significantly after therapy. The relief in these *Kapha-pradhana Lakshanas* indicates that *Navaka Guggulu* successfully restored *Agni*, cleared *Ama*, and normalized *Kapha-Meda* imbalance.

Overall Effect of Therapy Discussion

Out of 23 patients, 53.33% were markedly improved, 40% moderately improved, and 6.66% mildly improved, with no unchanged cases. This establishes that *Navaka Guggulu* is highly effective in both clinical and biochemical parameters of *Medo Roga*. Importantly, no adverse changes were noted in hematological or urinary investigations, confirming its safety for long-term administration.

CONCLUSION

It is concluded that *Navaka Guggulu* is an effective and safe formulation in the management of *Medo Roga (Obesity)*. The clinical trial demonstrated significant improvement in both subjective and objective parameters, including reduction in body weight, BMI, waist-hip ratio, and lipid profile (S. Cholesterol, Triglycerides, LDL, and VLDL), along with a rise in HDL levels. Relief in symptoms such as *Kshudha Atimatrata*, *Swedabadhata*, and *Daurbalya* indicates correction of *Agni* and normalization of *Kapha-Meda* balance. No adverse effects were observed on hematological or biochemical parameters, confirming its safety for prolonged use. The study establishes that *Navaka Guggulu*, through its *Kapha-Shamaka*, *Deepana*, *Pachana*, *Srotoshodhaka*, and *Lekhana* properties, effectively reduces *Meda Dhatu Vriddhi* and restores metabolic equilibrium, making it a beneficial and dependable remedy for long-term management of *Medo Roga*.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

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