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“ROLE OF MEDODHATVAGNI IN OBESITY AND DYSLIPIDEMIA – AN AYURVEDIC CLINICAL EVALUATION”**Dr. Suraj Prakash Rathod¹, Dr. Disha Ade², Dr. Jayant Gulhane³**

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ABSTRACT:

Background: Obesity and dyslipidemia are major lifestyle-related metabolic disorders with an increasing global prevalence. Ayurveda describes obesity (Sthaulya/Medoroga) as a disorder primarily involving *Medodhatu* and its metabolic fire, *Medodhatvagni*. Impairment of *Medodhatvagni* leads to abnormal accumulation and qualitative derangement of *Meda*, which may be correlated with altered lipid metabolism.

Aim: To evaluate the role of *Medodhatvagni* in the pathogenesis of obesity and dyslipidemia and to assess the effect of Ayurvedic interventions aimed at improving *Medodhatvagni* on clinical and biochemical parameters.

Materials and Methods: A prospective, open-label clinical study was conducted on patients diagnosed with obesity and dyslipidemia. Assessment was carried out using Ayurvedic parameters of *Medodhatvagni* and modern parameters such as body mass index (BMI), waist circumference, and lipid profile. Patients were treated with *Medodhatvagni-deepana* and *Medohara* Ayurvedic interventions for a defined period. Pre- and post-treatment data were statistically analyzed.

Results: Significant improvement was observed in subjective symptoms of *Medodushti*, along with statistically significant reductions in BMI, waist circumference, serum cholesterol, triglycerides, and LDL levels, as well as an improvement in HDL levels.

Conclusion: *Medodhatvagni* plays a pivotal role in the pathogenesis of obesity and dyslipidemia. Ayurvedic interventions targeting *Medodhatvagni* show promising results in the management of these metabolic disorders.

KEY WORDS:- Medodhatvagni, Medoroga, Sthaulya, Obesity, Dyslipidemia, Ayurveda

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INTRODUCTION

Obesity and dyslipidemia have emerged as significant global public health concerns and are recognized as major risk factors for cardiovascular diseases, diabetes mellitus, and metabolic syndrome. In Ayurveda, obesity is described as *Sthaulya* or *Medoroga*, a *Santarpanajanya Vyadhi* characterized by excessive accumulation and qualitative derangement of *Medodhatu*.

Ayurvedic physiology places central importance on *Agni* in maintaining metabolic balance. Among the various forms of *Agni*, *Medodhatvagni* governs the formation, transformation, and metabolism of *Medodhatu*. Impairment of *Medodhatvagni* leads to *Medodushti*, resulting in abnormal fat deposition and disturbed lipid metabolism. This pathological process may be correlated with dyslipidemia as understood in modern medical science.

Although integrative and traditional approaches to obesity management are gaining attention, there remains a lack of systematic clinical studies evaluating the role of *Medodhatvagni* in obesity and dyslipidemia. The present study seeks to address this gap by assessing *Medodhatvagni* dysfunction and examining its clinical relevance in these metabolic disorders.

Review of Literature

Ayurvedic Perspective

Classical Ayurvedic treatises such as the *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya* describe *Medoroga* as a condition arising from excessive consumption of *Guru*, *Snigdha*, and *Madhura Ahara*, along with sedentary habits (*Avyayama*), daytime sleep (*Divaswapna*), and lack of physical activity. *Acharya Charaka* emphasizes that impairment of *Medodhatvagni* results in excessive production of *Meda*, leading to obstruction of bodily channels (*Srotorodha*), which in turn further hampers *Agni* function and perpetuates the disease process.

Modern Perspective

Dyslipidemia is defined by elevated levels of total cholesterol, triglycerides, and low-density lipoprotein (LDL), and/or reduced levels of high-density lipoprotein (HDL). It is closely associated with obesity and insulin resistance. Excessive caloric intake coupled with reduced energy expenditure leads to disturbances in lipid metabolism, a phenomenon that can be conceptually compared to *Medodhatvagni Vaishamya* described in Ayurveda.

AIM & OBJECTIVE:**AIM**

To evaluate the role of *Medodhatvagni* in obesity and dyslipidemia and assess the efficacy of Ayurvedic intervention targeting *Medodhatvagni*.

OBJECTIVE

1. To assess *Medodhatvagni* status in patients of obesity with dyslipidemia.
2. To evaluate changes in clinical parameters such as BMI and waist circumference.
3. To assess changes in lipid profile following Ayurvedic intervention.
4. To establish a correlation between *Medodhatvagni* assessment and lipid profile changes.

MATERIAL AND METHOD :**Study Design**

Prospective, single-arm, open-label clinical study.

Sample Size

30 patients diagnosed with obesity and dyslipidemia.

Inclusion Criteria

- Patients aged 25–60 years
- BMI ≥ 25 kg/m²
- Diagnosed cases of dyslipidemia
- Willingness to participate and provide informed consent

Exclusion Criteria

- Secondary obesity due to endocrine disorders
- Severe systemic illness
- Pregnant or lactating women

Assessment Criteria**Ayurvedic Parameters**

- *Medodhatvagni* status (based on appetite, digestion, *Medodushti lakshanas*)
- Symptoms such as *Alasya*, *Atisweda*, *Kshudrashwasa*

Modern Parameters

- BMI
- Waist circumference
- Serum lipid profile (TC, TG, LDL, HDL)

Intervention

Patients were administered selected *Medodhatvagni Deepana* and *Medohara* formulations along with *Pathya-Apathya* advice for 12 weeks.

Statistical Analysis

Pre- and post-treatment data were analyzed using paired t-test. P value <0.05 was considered statistically significant.

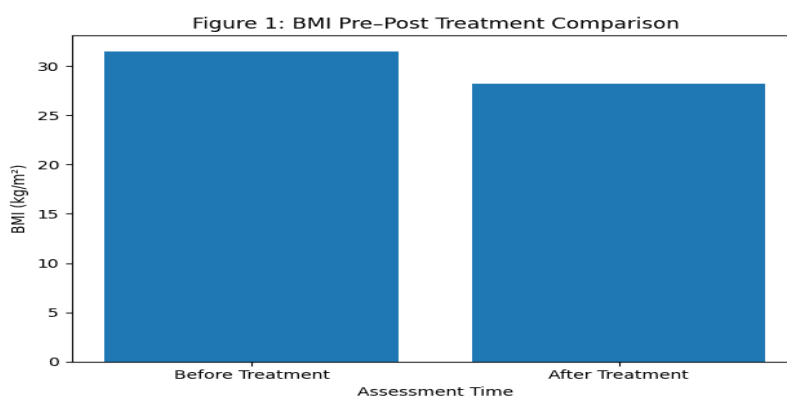
Results

Table 1: Assessment of *Medodhatvagni* and *Medodushti Lakshanas* (Scoring Scale)

Parameter	Grade 0 (Normal)	Grade 1 (Mild)	Grade 2 (Moderate)	Grade 3 (Severe)
<i>Kshudha</i> (Appetite)	Normal	Slightly reduced	Irregular	Very poor
<i>Pachana Shakti</i>	Normal digestion	Occasional heaviness	Frequent indigestion	Persistent <i>Ama</i>
<i>Alasya</i>	Absent	Occasional	Frequent	Persistent
<i>Atisweda</i>	Normal	Mild	Moderate	Excessive
<i>Meda Vriddhi Lakshana</i>	Absent	Mild	Moderate	Severe

Figures

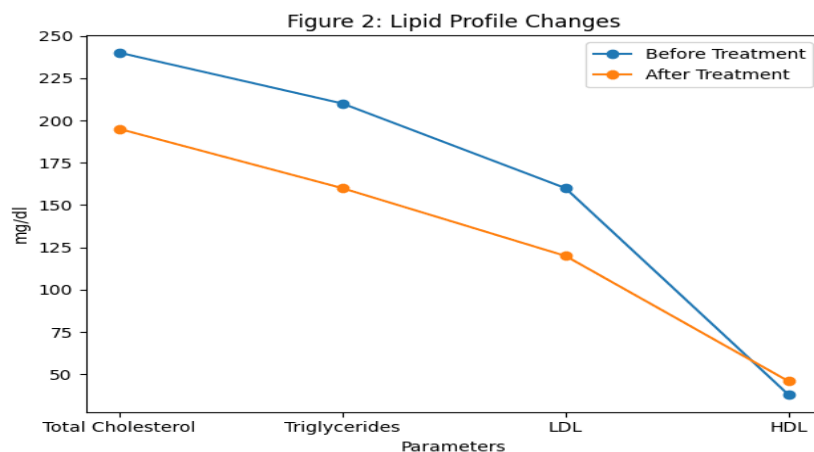
Figure 1: BMI Pre-Post Treatment Comparison



BMI Pre–Post Treatment Comparison

The figure depicts a statistically significant reduction in mean BMI after Ayurvedic intervention aimed at improving *Medodhatvagni*, indicating reduction in *Sthaulya*.

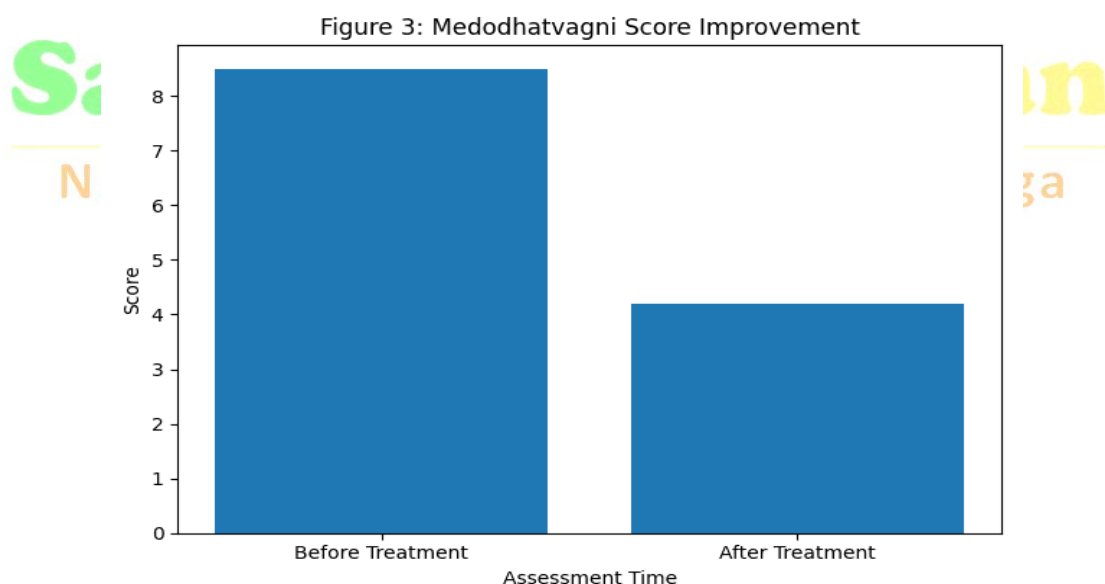
Figure 2: Lipid Profile Changes



Lipid Profile Changes

this figure shows a marked reduction in total cholesterol, triglycerides, and LDL levels with a concomitant improvement in HDL levels after treatment, reflecting normalization of lipid metabolism.

Figure 3: Medodhatvagni Score Improvement



Medodhatvagni Score Improvement

The figure demonstrates significant improvement in *Medodhatvagni* assessment scores following treatment, suggesting correction of *Medodhatvagni Dushti*.

DISCUSSION

The findings suggest that dysfunction of *Medodhatvagni* plays a central role in the development of obesity and dyslipidemia. Ayurvedic interventions help improve *Medodhatvagni*, reduce *Ama*, clear *Srotorodha*, and restore metabolic homeostasis. The observed biochemical improvements further support the Ayurvedic concept of *Dhatvagni* regulation.

CONCLUSION

Medodhatvagni is a key determinant in the pathogenesis of *Medoroga* and dyslipidemia. Targeting *Medodhatvagni* through Ayurvedic principles offers an effective and holistic approach to managing obesity and lipid disorders.

Limitations of the Study

- Small sample size
- Short duration of intervention

Future Scope

Further randomized controlled trials with larger sample sizes and longer follow-up are recommended.

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