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ISSN: 2581-785X;<https://irjay.com/>DOI: [10.47223/IRJAY.2022.5917](https://doi.org/10.47223/IRJAY.2022.5917)A Conceptual Study of *Medo Dusthi* w.s.r. to Dyslipidemia in AyurvedaVed Prakash¹, Deepti Parashar², Sangeeta³

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ABSTRACT:

As the Indian economy grows, the epidemic of *Medo Roga* has spread across the country. The food we eat on a daily basis contributes to our health. However, many people's desire to eat more and exercise less is hastening the spread of the *Medo Roga*. Obesity is spreading in the modern day due to lifestyle changes and increased consumption of junk food combined with a stressful lifestyle. According to recent studies, high cholesterol is present in 25-30% of urban and 15-20% of rural subjects. This prevalence is lower in low-income countries than in high-income countries. This negative health consequence could be the cause of a variety of lifestyle disorders such as dyslipidemia, hyperlipidemia, malnutrition, and osteoarthritis, among others. In today's fast-paced world, dyslipidemia is a major lifestyle disorder. The ramifications of *Medo Vikriti* and its dangers have been well documented in our classics. *Medoroga* is primarily an *Agni* imbalance caused by a variety of etiological causes, including *Aaharatmak*, *Viharatmak*, *Mansik*, and others such as *Bijabhava* (hereditary). There is no such phrase as dyslipidemia in *Ayurveda* texts, however the qualities of *Sneha Dravya* are defined as *Medodhatu* in *Ayurveda*.

Key words- *Ayurveda*, dyslipidemia, *Medoroga*, life style disorder.

INTRODUCTION

Meda is mainly present in *Udara* but *Mansa* and *Brihat Asthi* also consist some of it's part. It is termed as *Sarakta Meda* when *Meda* is present inside of *Anu Asthi* (small bones) and said as *Majja* when it is present in *Sthula Asthi* (large bones). *Vasa* is the pure form of *Meda* which is present inside the *Mansa* (Peshi). Thus *Meda*, *Vasa* and *Majja* can be corelated to all forms of lipids.

There are two type of *Medo dusthi*-

1. *Meda Dhatu Vridhi*
2. *Meda Dhatu Kshaya*

In this article, we are describing *Medo Dhatu Vridhi* in context of dyslipidemia. But among these, *Medo Dhatu* has importance more importance as it is responsible *Medoroga* (Hyperlipidemia) and various metabolic disorders. *Medoroga* is a common term given to the disorder related to *Medo Dhatu Dushti*. *Medodushti* is abnormal deposition of *Meda Dhatu* in body due to disturbances in metabolism and *Agnimandya*. Unbalanced diet combined with sedentary habits is the most important cause of *Medoroga* (*Sthaulya*). Dyslipidemias are a group of disorders that affect lipoprotein metabolism. Dyslipidemia has been



recognized as a separate risk factor for the development of cardiovascular disease (CVD). In both industrialized and developing countries, cardiovascular diseases (CVDs) constitute the leading cause of morbidity and mortality. The medical community is increasingly concerned about the link between dyslipidemia and type 2 diabetes mellitus (DM) as a co-morbidity for cardio-vascular events that finally lead to a high rate of mortality. Dyslipidemia is becoming the leading cause of the most complex and life-threatening disorders, including coronary artery disease, ischemia (which accounts for 56 percent of all I.H.D. cases), cerebrovascular accidents, myocardial infarction (which accounts for 18 percent of all CVD cases), arthritis, and a variety of other conditions such as hypertension, which can lead to multi-organ damage. Increased plasma levels of cholesterol, triglycerides, or both, as well as lower levels of HDL cholesterol, characterize dyslipidemias clinically. The majority of dyslipidemias in industrialized countries are hyperlipidemias, or blood lipid elevations caused by diet and lifestyle. The most prevalent type of dyslipidemia is hyperlipidemia. Hyperlipidemia is believed to be a silent killer because it is difficult for the patient to identify on their own due to the lack of apparent signs. The significance of dyslipidemia may be found in its risk factors, such as diabetes, metabolic syndrome, obesity, and life-threatening consequences, such as cardiovascular disease (CVD). The majority of patients with dyslipidemia have a combination of genetic (often polygenic) and environmental factors contributing to their illness (lifestyle, medical condition or drug).

AIM AND OBJECTIVE

The aims and objectives of present research work are as follows:-

- i. To study the *Medo Dusti* in context of Dyslipidemia and to review the available literature in *Ayurvedic* text and its correlation with modern literature.
- ii. To evaluate the relation between *Medo Dusthi* and dyslipidemia.

MATERIAL AND METHODS

It is a review study article.

- In classical *Ayurvedic* literature, the *Medo Dusthi* described form of etiology, causative factor, sign & symptom briefly in *Brihattra* and *Laghutryi*.
- In this article review some *Ayurvedic* text, modern books, PUBMED and Research article.

Conceptual study of *Medo Dusthi* w.s.r. to Dyslipidemia

Medo Dhatu- Two types of *Meda* (Fat) are described in Ayurveda¹ :-

Baddha (bounded/unmovable) *Meda*- The fat, which is not mobile and is stored in the form of fat at various places (fat depots/ omentum/muscles in the body).

Abaddha Meda (unbounded/movable) - The fat, which is mobile and circulates in the body along with blood in the form of lipids (Cholesterol, Triglycerides, LDL, HDL & VLDL etc.)

Karma of Medo Dhatu –

As states by Acharya Sushruta, *Snehana* (oiliness/ luster of skin, hairs and eyes etc.), *Sweda* (sweat), *Dridhatva* (strength), *Asthipusti* (strengthening of bones) and *Netra Gatra Snigdhatva* (oiliness of eyes and body) are the main functions of *Medo Dhatu*. The term *Medoroga* was first used by Acharya Madhav to define obesity and related lipid complications. Literally it means a disease in which *Medo Dhatu* is deranged. In Ayurveda also *Meda* is considered as prime *Dushya* in context of different diseases like- *Prameha*, *Medoroga* and *Sthaulya* etc. In the Metabolic Syndrome the abnormal *Meda*, when deposited into subcutaneous tissue, it gives the clinical presentation of Obesity and similarly when that incompact *Meda* (*Abaddha*) extracted to *Basti* (urinary system) it creates the manifestations of *Prameha* (D.M.) and when this *Meda* is unnaturally deposited in the arterial wall and increase the peripheral resistance (*Dhampipraticchaya*/arteriosclerosis), it is term to clinical manifestation like Hypertension and when these unnatural *Meda* present in the *Rakta-vaha srotas* (CVS) leads to increased level of unwanted fat level- Hypercholesterolemia.

Causes of Medo Dusthi-

The most common cause of *Medoroga* is an unbalanced diet along with sedentary lifestyle (*Sthaulya*). The following are the etiological factors of *Medoroga*:

1. ***Aharaj Nidan*** (Dietary Factors): Overeating, frequent eating, excessive *Madhur*, *Sheeta*, *Guru Ahara*, *Shleshma dravya Ahara*, *Ati Med Ahara*, *Ati Madya* (Liquors) *sevan*, excessive bakery products, and so on are examples of incorrect eating methods.
2. ***Mansik Nidan*** (Behavioral Factors): The majority of metabolic disorders are caused by a change in lifestyle. These are caused by habits such as daytime sleeping, lack of exercise, lack of thinking, exhilaration, and sedentary habits.
3. ***Bija Doshaj*** (Genetic or Hereditary Factors): These factors play important role in the development of *Medoroga* (*Sthaulya*).²

4. *Mithya Karma* (Improper Therapeutic Application): *Santarpana* (weight gain therapy) may give to *Medoroga* (*Sthaulya*).³

Medoroga is caused by *Dushti of Medo Dhatu* which involve complex consequential process of *Medovridhi*. Acharya Madhav described its pathogenesis as follows-

Samprapati-

1. Excessive production of *Medo Dhatu* (due to dietary factor, behavioral factor, genetic or hereditary factor)
2. Excessive *Medo Dhatu* lead to *margavarodh* and depletion of other Dhatus and provocation of Vayu.
3. Provocation of Vayu causes an increase in false appetite, which leads to overeating.
4. Excessive consumption of food lead to excessive *Medo Dhatu* production.

Rupa-

The excessive accumulation of fat and flesh results in ugliness, such as pendulous buttocks, abdomen, and breasts, as well as a reduction in energy, making the person less interested in physical activity. Apart from these basic symptoms, the Charaka Samhita mentions eight *Medo Roga* impairments, each with a detailed aetiology. *Ayushohrasa* (Diminution of longevity) - Decreased life expectancy due to insufficient feeding of other Dhatus.⁴

- *Javoparodha* (Lack of enthusiasm) –
- *Kricchavyavaya* (Difficulty in sexual activity)
- *Daurbalya* (Debility) –
- *Daurgandhya* (Foul smell from the body) –
- *Swedabadha* (Distressful sweating) –
- *Kshudhatimatrata* (Excessive hunger)
- *Pipasatiyoga* (Excessive thirst)

Dyslipidemia-

Dyslipidemia are disorder of lipoprotein metabolism, including lipoprotein overproduction or deficiency. These disorders may be manifested by elevation of the serum total cholesterol, LDL and triglyceride concentration, and a decrease in the HDL cholesterol concentration.⁵

Risk Factor-⁶

Important Modifiable Risk Factor for Dyslipidemia, Serval behaviors can lead to dyslipidemia.

1. Cigarette smoking
2. Obesity and sedentary lifestyle
3. Consumption of foods high in saturated fat and trans fat
4. Excessive alcohol consumption may also contribute to higher triglyceride levels.
5. Genetical cause
6. Advanced age.

Types of Dyslipidemias

Dyslipidemia is divided into primary and secondary types.⁷

1. Primary – Inherited or Familial Dyslipidemias

2. Secondary - Acquired

Among the specific types of primary dyslipidemia are-

- a) Familial combined dyslipidemia
- b) Familial hypercholesterolemia
- c) Familial hyperapobetalipoproteinemia

Symptoms-

- High blood pressure
- Coronary artery diseases
- Diabetes
- PAD (pulmonary artery disease)
- Obesity
- Abdominal pain
- Acute pancreatitis
- Chronic kidney disease
- Chest pain
- Stoke
- Dizziness
- Calf muscle pain during walking
- Dyspnea
- Confusion.

Table no 1. Shows guidelines of NCEP ATP III : Dyslipidemia Table no.2 shows Similarity between *Meda and lipid*

DISCUSSION

Excess fat and flesh leads to unsightly features such as pendulous buttocks, abdomen, and breasts, as well as a decrease in energy, making the person less interested in physical activity.¹¹ *Medoroga* is classified as *Atisthaulya* by Acharya Charak, who explains that *Atisthaulya* is caused by the *dushti of Medovaha Srotas* and can be considered a synonym for *Medoroga*. *Medoroga* and its genesis were described by Acharya Madhava. He said that *Medodushti* is the aberrant deposition of *Medo Dhatu* in the body. *Medodushti* is made up of various other *Medo Vikaras*, together known as *Medoroga*. *Medoroga* can be defined as an abnormal and unequal distribution or collection of *Medo Dhatu* in the body. Madhukoshkara¹² and Bhavamishra¹³ support this notion by describing various chapters of *Medoroga*. In the 34th chapter, Madhavakar describes the disease under the title of *Medoroga*, using the words *Medaswina*¹⁴, *Atisthula*¹⁵, and *Sthula*¹⁶ as synonyms. Madhavakar highlighted *Nidana and Rupa*, and painted a detailed image of *Medoroga*, incorporating all prior authors' ideas.

CONCLUSIONS

Dyslipidemia is a condition in which the body's lipid levels are aberrant. The vitiated *medo dhatu* plays a vital part in the development of many metabolic disorders. The etiological reasons, signs, and symptoms of *medoroga* are essentially identical to those of dyslipidemia. Agni is in charge of the body's metabolic processes. Excess homologues *poshak Medo Dhatu* circulate due to the disease of *medodhatwagni mandya*. which can be used to describe a condition like dyslipidemia. The treatment option is determined by the type of lipid problem. The Ayurvedic classics don't have a specific term for dyslipidemia. Scholars have attempted to utilize different names for dyslipidemia, according to the literature. The Ayurvedic notion has been used to treat biomedically defined clinical conditions including dyslipidemia. These hypotheses have been used to better understand the origin and pathogenesis of dyslipidemia, including *Medo Dhatu dusthi*.

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Table no 1. According to the guidelines of NCEP ATP III : Dyslipidemia

Serum lipoprotein	Fasting values (mg/dl)	Interpretation
Total cholesterol	<200	Desirable
	200-239	Borderline high
	>240	High
LDL cholesterol	<100	Optimal
	100-129	Near optimal
	130-159	Borderline high
	160-189	High
	>190	Very high
HDL cholesterol	<40	Low
	>60	High
Triglyceride	<150	Desirable
	150-199	Borderline high
	200-499	High
	>500	Very high

Table no.2 Similarity between *Meda* and lipid-

<i>Meda</i>	Lipid
Intake of excessive <i>Sneha</i> (<i>Ghrita, Tail, Vasa, Majja</i>) ⁸	Intake of high fatty diet (ghee, oils, butter etc.) increase body lipids
Dietary intake of excessive <i>Guru</i> <i>Madhur Ras Dravya</i> causes <i>Medoroga</i> ⁹	Increase consumption of carbohydrates (specially sucrose enhances cholesterol level) ¹⁰