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LITERARY REVIEW ON MEDOROGA W.S.R. TO DYSLIPIDEMIA

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ABSTRACT

An increase in the total cholesterol, triglyceride levels, low-density lipoprotein (LDL) cholesterol, and a drop in blood levels of high-density lipoprotein (HDL) cholesterol. The primary cause of dyslipidemia nowadays are sedentary lifestyles. The condition of lipoprotein metabolism known as Dyslipidemia is characterized by and bad eating habits. Dyslipidaemia is a major lifestyle disorder that has been linked to a variety of diseases, including cardiovascular disease, the metabolic syndrome, and hypertension. Due to its involvement in the pathogenesis of atherosclerotic disorders like coronary heart disease (CHD), a major source of morbidity and mortality worldwide, dyslipidaemia has attracted interest from all over the world. It is correlated with *Medoroga*, which is brought on by either overnutrition or incorrect *Medo dhatu* production.

KEYWORDS: *Medoroga*, Dyslipidemia, *Meda Dhatu*.

INTRODUCTION

In accordance with *Acharya Sushruta*, "*Sharira Dharanata Dhatawa Iti Uchyate*," or "*Dhatu's*," are seven entities that contribute to the body's stability and longevity. The body is composed of seven *Dhatus*: *Rasa, Rakta, Mamsa, Meda, Asthi, Majja and Shukra*. Among these, *Meda* is one of the body's seven *Dhatus*. *Meda Dhatu's Prakrita Karma* (Functions) include making the body lubricating and greasy as well as causing sweating, which keeps the skin hydrated. *Meda Dhatu* nourishes the bones and offers the body strength. Two *Anjali* is the amount of *Meda Dhatu* in the body.[1] *Medo Dhatu* becomes *Snigdha* and *Drava* in nature when the *Sara Bhaga* (Nutrients) of *Medo Dhatu*, which is present in *Mamsa Dhatu*, is

changed into *Medo Dhatu* by *Mamsa Dhatwagni* with an extra buildup of *Jala Mahabhuta* portion.[2]

The elongation of the abdomen and flanks (Pendular hanging), coughing, and dyspnea are some more symptoms that *Acharya Susrutha* claims might arise from an excessive buildup of *Medo Dhatu* in the body.[3] Additionally, *Acharya Vagbhatta* listed the following signs and symptoms of *Medo Vriddhi*: fatigue and dyspnea, even with mild activity; and pendulous drooping of the breast, abdomen, and buttocks as a result of an excess buildup of *Meda Dhatu*.[4] *Yogaratnakar* states that the *Nidana* of *Medoroga* are sleeping during the day, not exercising, and consuming a diet high in *Kapha Dosha Vardhaka*. *Meda Dhatu* builds up as a result of the sweet liquids that turn into *Sneha.* When *Meda Dhatu* accumulates and blocks *Strotasas*, other *Dhatus* are not adequately nourished, which causes *Meda Dhatu* to grow even more. This is known as *Medoroga*. Breathlessness (*Kshudra Shwasa*), excessive thirst (*Trisha*), excessive sleep (*Moha*), sudden obstruction of breath (*Krathana*), looseness of the body (*Sadana*), excessive hunger (*Kshuta*), excessive perspiration (*Sweda*), foul body odor (*Daurgandhya)*, fatigue (*Alpa prana*), and lack of libido (*Alpa Maithuna*) are all symptoms of *Medo Roga*.[5]

Medoroga has been described in a number of classical writings. However, *Medoroga* has not been specifically named in *Ayurvedic Brahatrayi*. According to *Madhav Nidana, Yogratnakar, and Bhaishajya Ratnavali, Medoroga* is a distinct entity. By looking at the underlying etiology and clinical symptomatology, *Medoroga* and dyslipidemia can be closely associated from the standpoint of the literature found in the *Samhita*. The word "dyslipidaemia" describes a condition of lipoprotein metabolism that can lead to either a lipoprotein excess or deficit, or both. Symptoms of the disease may include low levels of high-density lipoprotein, elevated plasma cholesterol, triglycerides, or both, or any combination of these three characteristics.[6]

Lipoproteins are the small blood particles that contain lipids, phospholipids, triglycerides, and proteins. Under normal circumstances, HDL (High density lipoproteins) transports cholesterol and phospholipids from organs and tissues, such as the heart, back to the liver. Phospholipids and cholesterol are transported from the liver to tissues and organs such as the heart via low density lipoprotein, or LDL. VLDL, or very low-density lipoprotein, is responsible for carrying triglycerides from the liver to adipose tissue. The cause of dyslipidemia is abnormalities in lipoproteins.[7] Dyslipidemia is a known modifiable risk

factor for the onset of atherosclerosis, cardiovascular illnesses, stroke, type 2 diabetes, and other conditions; Early detection and active treatment of dyslipidemia are essential to reducing the incidence of mortality from CVDs and cerebral strokes because cardiovascular diseases are one of the world's leading causes of death and there is a strong correlation between dyslipidemia and CVDs.

Prevalence

Globally, the prevalence of dyslipidemia varies by population age and ethnicity. The incidence of dyslipidemia in India is unknown since it usually manifests as a subclinical disorder with no symptoms. In India, 15–20% of respondents in rural areas and 25–30% of respondents in urban areas suffer from dyslipidemia. Males are more prone to suffer it, even though it affects both sexes. It seems to be more prevalent in people between the ages of 30 and 40, but it becomes notably more prevalent after the age of 60.[8] Dyslipidemia affects 37.5% of persons aged 15 to 64, according to the Indian Council of Medical Research's Sevillians research.[9]

MATERIAL AND METHODS

Traditional Ayurvedic literature, contemporary literature, the books on pharmacology (*Dravyaguna*) and *Rasashastra*, periodicals, research journals, and the Pub-med medical database were all consulted for this review.

Nidana

1. Excessive intake of *Guru* (heavy), *Madhura* (sweet), *Snigdha* (oily), *Sheet Aahara* (cold food items), *kaphavardhak Aahara*.[10]
2. Eating at improper time.
3. Overeating
4. Excessive fatty food.
5. Sedentary life style.
6. Lack of exercise.
7. *Santarpana janya vikaras* (Disease due to over nourishment)

To the list of *Nidanas, Acharya Charak* added *Beejaswabhava*, or the hereditary component.[11]

Pathogenesis of *medoroga*[12]

According to *Acharya Charak*, foods are absorbed and digested more quickly when the *Vata Dosha*, which has its channel blocked by fat, moves around a lot in the stomach. The person eats too much food and digests it too quickly as a result. If he waits to eat, he develops a number of quite dangerous problems. When fat levels reach too high, the *Doshas* suddenly cause major issues and put lives in jeopardy. However, *Susuruta* has focused on the concept of *Ama Dosha*, but *Acharaya Charka* views *Aahara* as the most prevalent cause for *Medovriddhi*. *Kaphavardhak Aahara Vihara* causes undigested *Aam Rasa* to form, which in turn causes excessive *Medovriddhi*. Additionally, *Madhavakara* said that when fat levels rise too high, pathways get blocked, making it impossible to nourish other *Dhatu* and just causing fat to accumulate.[13]

Samprapti ghataka

Dosha*: *Tridosha (Kledak Kapha Pachak Pitta Samana Vayu)

Dushya: *Rasa, Meda*

Agni: *Jathragnivriddhi, Medadhatavagni Mandya*

Strotas: *Rasavaha Strotas, Medovaha Strotas*

Strotodushti: *Sanga*

Udbhavasthana: *Amashaya*

Adhishthana: *Vrikka, Vapavahana* (where *Medodhara Kalaa* is present in body)

Roga marga: *Bahya*

Vyadhi swabhaava: *Chirakaari*

Sadhyata: *Krichsaadhya*

Table 1: Normal lipid parameters.[14]

	Desirable	Borderline	High risk
Total Cholesterol	<200 mg/dl	200-239 mg/dl	>240 mg/dl
HDL	>60 mg/dl	40-60 mg/dl	<40 mg/dl
LDL	<130 mg/dl	130-159 mg/dl	>160 mg/dl
Triglycerides	<150 mg/dl	150-199 mg/dl	>200 mg/dl

Clinical features

Kshudra Shwasa (breathlessness), *Trisha* (excessive thirst), *Moha*, *Swapna* (excessive sleep), *Krathana* (sudden obstruction of breath), *Sadana* (looseness of the body), *Kshuta* (excessive hunger), *Sweda* (excessive sweating), *Daurgandhya* (foul body smell), *Alpa Prana* (fatigue), *Alpa Maithuna* (loss of libido).[15]

Along with these core symptoms, *Medo Roga* has identified eight *Doshas* (disabilities), which are as follows.[16] *Ayushohrasa* (Reduction in life expectancy), *Javoparodha* (Lack of enthusiasm), *Krichchhavyavaya* (Difficulty in performing sexual act), *Daurbalya* (Debility), *Swedabadha* (Distressful sweating), *Kshudhatimatrata* (Excessive hunger), *Pipasa Atiyoga* (Excessive thirst).

Management

Every kind of *Medopradoshaja Vikara* is managed with greater emphasis on *Pathya* and *Apathya*. In *Medoroga Chikitsa*, *Viharas* such as *Vyayama, Langhana*, and *Kapha-Meda-Vata Hara Anna Pana* are recommended. Additionally, this can be utilized as a preventative step. Non-pharmacological treatments like dietary adjustments, exercise, and lifestyle modifications are also recommended by modern medicine.

The first line of management for *Medoroga*, according to *Charaka*, is "*Guru Cha Atarpanama*," which offers A*ahara* or *Oushadha* that have *Guru Guna* but do not result in *Tarpana*.[17] This type of *Dravya* is said to be honey. This is related to the idea of a low-fat, low-carb, high-protein diet that is used to treat dyslipidemia without the use of medications.[18] Additionally, *Vata Shleshma Medo Hara Anna Pana* is recommended, while *Ruksha Ushna Teekshna Basti* and *Ruksha Udvartana* are employed as therapy methods.[19]

The two basic approaches of managing *Medoroga*, according to *Sushruta*, are *Virukshana* and *Chhedana*. *Chhedana* is for *Strotoshodhana*, while *Virukshana* is for *Medoharana*.[20] Both the elimination of excess fat and the regulation of normal lipid metabolism depend on these two treatments. Statins are recommended as the initial treatment for dyslipidemia by modern medicine. Statins, which block HMG-CoA, slow down the synthesis of cholesterol. Less cholesterol is produced, which increases the number and function of LDL receptors and promotes the elimination of circulating LDL, IDL, and VLDL cholesterols. Drugs that improve plasma lipoprotein catabolism are called fibrates.[21] Similar to the catabolism of lipoproteins, which enables the elimination of an excess of circulating lipoproteins, is the idea of *Virukshana* or *Medoharana*. *Chhenedana* and *Strotoshodhana* are associated with LDL receptor stimulation, which results in the elimination of LDL, IDL, and VLDL. A balanced combination of these two roles is necessary to keep the blood's lipoprotein levels within acceptable limits. In addition, *Shamana Oushadhis* such as *Guggulu, Shilajitu, Lohabhasma, Triphala, Kshara*, and others are helpful in the efficient treatment of dyslipidemia.

DISCUSSION

Dyslipidemia increases the risk of atherosclerosis, which in turn causes major conditions like heart disease and strokes. This is due to a decrease in HDL-C and an increase in atherogenic lipids such as TG, LDL-C, and VLDL-C. By making the right dietary and lifestyle choices, dyslipidemia and associated problems can be avoided to a greater degree. Once the disease has taken hold, pharmacological management will also be necessary. *Medo Dhatu* is associated with lipid in *Ayurveda*. The structural and functional similarities between lipid and *Medo Dhatu* can be inferred from an analysis of the textual references. There is a correlation between dyslipidemia and *Medoroga*, and the etiopathogenesis, clinical characteristics, and consequences of these illnesses are comparable. Increasing the elimination of excess circulating cholesterol and decreasing the synthesis of cholesterol are the primary goals of treatment for dyslipidemia. *Ayurvedic* techniques such as *Chhedana* and *Virukshana* are comparable to this. Both *Virukshana* and *Chhedana Chikitsa* are capable of performing *Medoharana* and *Srotoshodhana*.

CONCLUSION

Ayurvedic medicines and treatment methods are commonly used to control dyslipidemia. Improving the effectiveness of the treatment will require a thorough understanding of the theoretical ideas by analyzing the traditional *Medoroga* references. This theoretical investigation includes details on dyslipidemia and its *ayurvedic* equivalent, *Medoroga*. In this article, the etiopathogenesis, clinical characteristics, consequences, and therapy of dyslipidemia and *Medoroga* are compared.

REFERENCES

1. *Charak Samhita* of *Agnivesha* revised by *Charaka* and *Dridhabala*, Edited by DrGangasahaya Pandeya forwarded by *Vaidya* Yadavji Trikamji *Acharya*, *Sharira sthan* 7 *Sharirasankhya Adhyaya*, *Shloka* no published by Chaukhamba Sanskrita Sansthana Varanasi, Reprint, 2011; 7: 15-810.
2. *Charaka Samhita* of *Agnivesha* volume 2, edited by Dr. Brahmananda Tripathi forwarded by Dr. Prabhakara Janardana Deshapande, *Charak Chikitsasthana*, *Grahanidosha Chikitsa Adhyaya Shloka* n0, Published by - Chaukhamba Surbharti Prakashana, 15: 30-556.
3. *Sushruta Samhita* of *Maharshi Sushruta*, Edited by Dr. Ananta Ram Sharma, forwarded by Acharya Priyawat Sharma *Sushruta Sutrasthana Doshadhatumala KshayaVridhhi*

Vigyaniyam Adhyaya, *Shloka* no, Publishers-Chaukhamba Surbharati Prakashana, 15: 18-122.

4. *Vagbhata's Ashtanga Hridayam* translated by professor K.R Shrikant Murthy, *Ashtanga Hridaya Sutrasthana Doshadivigyaniyam Adhyaya*, publishers-Chaukhamba Krishnadas Academy Varanasi, Reprint, 2018; 11, 10: 157.
5. *Yogaratnakar* part 2, edited and translated by Dr. Ashakumari and Dr. Premavati Tiwari *Medoroga Adhikara* published by Chaukhamba Vishwabharti, 40: 3-771.
6. API textbook of medicine editor in chief Yashpal Munjal nineth edition, disorder of metabolism, lipids and lipoproteins metabolism published by the association of physicians of India, 1235; 2: 18.
7. Essentials of medical physiology sixth edition by K Sembulingam and Prema Sembulingam chapter Digestion, absorption and metabolism of lipids published by Jaypee Brothers Medical Publishers Ltd, 47: 295.
8. [Internet], http://nhp.gov.in/dyslipidaemia mtl.
9. API textbook of medicine editor in chief Yashpal Munjal nineth edition, disorder of metabolism, lipids and lipoproteins metabolism page no 1236 published by the association of physicians of India, 1236; 2: 18.
10. *Yadavaji Trikamaji (*editor), *Charaka Samhita* of *Charaka*, *Sutrasthana*, Varanasi; Chowkhambha Sanskrit Sansthan, 2017; 116, 21: 4-2.
11. *Shastri Kashinath* & *Gorakhnath Chaturvedi*, *Charaka Samhita* of *Agnivesha* elaborated *Vidyotini* Hindi commentary, *Sutra sthana* chapter *Ashtaninditiya*, Chaukhambha Bharati Sansthan, Varanasi, reprint edition, 2005; 21: 409.
12. Sharama P.V. *Carak Samhita* (*Sutrasthan to Indriya Sthana*) Varanasi Chaukhambha orientaliya Varanasi, 2014; 1: 144.
13. Shri Madhavakar, *Madhav Nidanam* reprinted edition Varanasi Chaukhambha Prakashan Varanasi, 2070; 2: 36.
14. Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults. Executive Summary of The Third Report of The National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, And Treatment of High Blood Cholesterol In Adults (Adult Treatment Panel III). JAMA, 2001; 285(19): 2486-2497.
15. *Yogaratnakar* part 2, edited and translated by Dr. Ashakumari and Dr. Premavati Tiwari *Medoroga Adhikara*, published by Chaukhamba Vishwabharti, 40, 3: 771.
16. Sharama P.V. *Carak Samhita* (*Sutrasthan to Indriya sthana*) Varanasi Chaukhambha orientaliya Varanasi, 2014; 1: 144.

17. *Agnivesha – Charaka Samhita,* Edited by *Acharya* Yadavji Trikamji, Chaukambha Publication, Varanasi, 2000; 738: 118.
18. Feinman, R.Dd, Volek, J.S. Low carbohydrate diets improve atherogenic dyslipidemia even in the absence of weight loss. Nutr Metab (Lond), 2006; 3: 24.
19. *Agnivesha – Charaka Samhita,* Edited by *Acharya* Yadavji Trikamji, Chaukambha Publication, Varanasi, 2000; 738: 118.
20. *Sushruta, Sushruta Samhita*, Edited by *Acharya* Yadavji Trikamji, Choukambha Sanskrit Sansthan, 1997; 824: 73-74.
21. Dennis. L. Kasper et al, Harrison's Principles of Internal Medicine, McGraw-Hill Medical Publishing Division, New Delhi, 2005; 16, II: 2607-2296.