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Review Articles

An Ayurveda Conceptual Review Of *Medoroga* W.S.R. To Dyslipidemia

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ABSTRACT-

Dyslipidemia does not allow an exact reference in Ayurveda though the study of Ayurveda literature bears some implicit allusions. This might be due to the fact that it is a metabolic disorder and not a full-fledged disease in itself. It is secondary to several additional severe conditions like coronary artery disease, cerebrovascular accidents, metabolic syndrome etc. In Ayurveda several attempts have been made to use individual terminology to compare dyslipidemia with conditions; like, *rasagata sneha vridhhi*, *rasa raktagata sneha vridhhi*, *medovridhhi*, *medoroga* or *medodosh*, *ama medo dhatu*.

The concept of dyslipidemia can be done on the basis of studying two of the closest diseases in Ayurveda having some amount of relation with dyslipidemia are *atisthaulya* or *medo roga*. In this paper, we review the literature on *medoroga* (dyslipidemia) to help physicians make an early diagnosis and reduce the morbidity and mortality associated with this situation.

Key Words: Dyslipidemia, cerebrovascular accidents, metabolic syndrome.

INTRODUCTION:

Dyslipidaemia is a condition of lipoprotein metabolism, which can

comprise overproduction or lack of lipoproteins or both. The disorder can manifest as an elevation of plasma

cholesterol, triglycerides, or both, or a low high density lipoprotein level or all three together that contributes to the development of atherosclerosis. Low high density lipoprotein and Hypertriglyceridaemia have been found to be independently and significantly related to myocardial infarction/stroke in patients with metabolic syndrome. Various categories of Hyperlipidaemia bring an increased hazard of cardiovascular disease. High-Density-Lipoprotein (HDL) cholesterol however confers protection. Generally the risk of CVD rises as the ratio of total cholesterol to HDL-cholesterol (TC: HDL-C) rises. Dyslipidaemia may be related to other diseases (secondary Dyslipidaemia) or to the interaction between genetic tendency and ecological causes.

PREVALENCE:

In India, there has been an alarming increase in the prevalence of Cardio Vascular Disease over the previous two decades so much that it accounts for 24% of all deaths between adults aged 25–69 years. The World Health Organization estimates that Dyslipidaemia is associated with more than half of global cases of Ischemic Heart Disease (IHD) and more than 4 million deaths per year. World Health Organization (WHO) in 2002 reported that high cholesterol level is one of the chief non-communicable disease-related threat factors in India. Nearly one third of the population of developed countries is detected to be having Dyslipidaemia; however, prevalence varies depending on ethnic group studied.

REVIEW OF LITERATURE:

In comprehensive Ayurveda literature, *medoroga* has been synonymously defined to *sthaulya*. Only

adhamalla while mentioning on *sharangdhara samhita*, tried to differentiate between the two types of *medo roga*:

1. *Medo roga*: adiposity including its clinical features (*sthaulya*)
2. *Medo dosha*: lipid disorders where *meda* acts as an etiological factor in the genesis of other diseases.

Abnormal accumulation of *medadhatu* in body is known as *medoroga*. *Medoroga* includes numerous numbers of other *medovikara*, which are collectively identified as *medoroga*. *Acharya Caraka* has described *medoroga* under the title of *atisthaulya*. *Acharya Charaka* mentioned *atisthaulya* under *ashtaninditiya*, which is actually *medopradoshajavikara*.¹

In nutshell, it can be stated that abnormal and imbalanced distribution/collection of *medodhatu* in body seems to be known as *medoroga*. Various synonyms used by *Acharya* like *medasvin*, *vipula*, *atisthula*, *sthula*, etc., indicate over nutritional condition & abnormality of *medodhatu*.

AETIO-PATHOGENESIS OF MEDOROGA:

Acharya Caraka has given more emphasis on exogenous type of causes in *medoroga* i.e. *meda* potentiating diet whereas *Acharya Sushruta* & *Acharya Vagbhatta* stressed mainly on endogenous causes including deranged functions of *dosha*, *dhatu*, *mala*, *strotasa* etc. *Amadosha* is the cause behind *medoroga* specially mentioned by *acharya vagbhatta*. *Beejadosh* is another significant *nidana* mentioned by *Acharya Caraka*, in modern science detail is supported with the overview of hereditary causes of dyslipidaemia². *Acharya Caraka* quoted *harshnityatwata* & *achinta* two

psychological factors as *nidana* of *medodusthi*¹. *Acharya Dalhana* has quoted three main etiological factors (*vishistaharavashat*, *adrishtavashat*, *medosavruta margatvat*) of *sthaulya* which encompass all the causes leading to an increase in the *asthayimedodhatu* thereby leading to a state of dyslipidaemia³.

SAMPRAPTI:

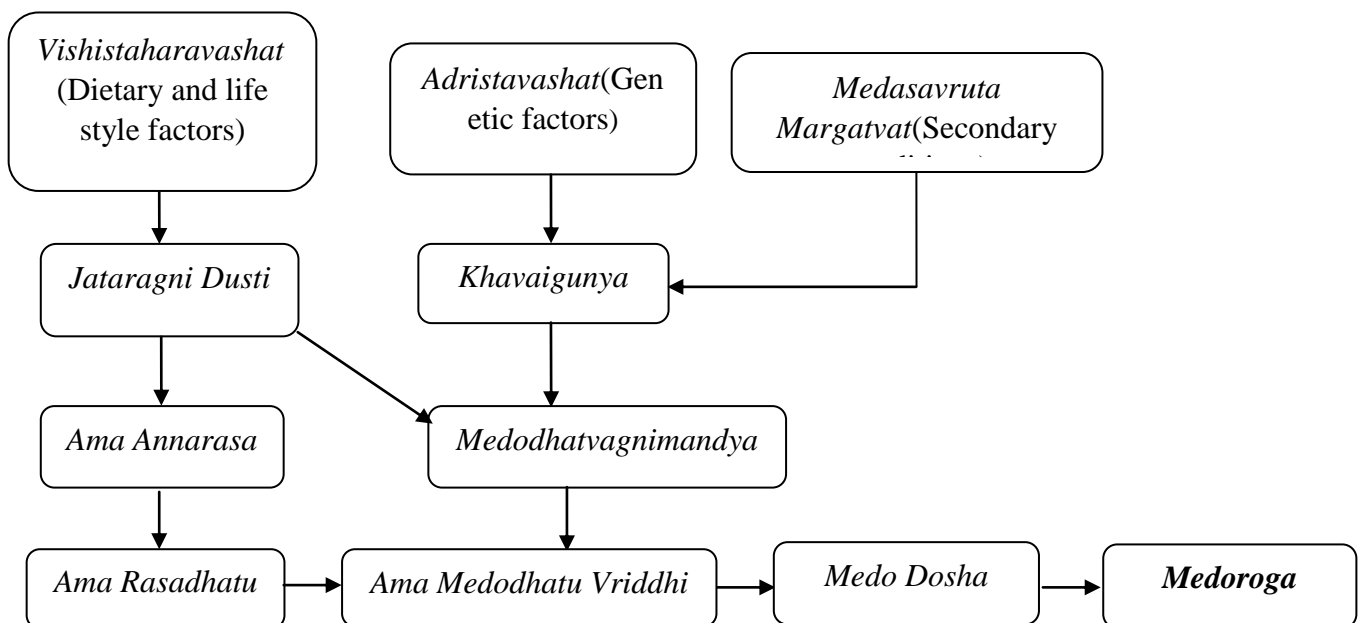
Medoroga has been narrated as *dushya* prevailing disorder. The *samprapti* of *medoroga* has been elucidated by the scholars of the *atreya* school of thought as well as *dhanvantari* school of thought and both the views are different. *Acharya Caraka* has accepted “*ahara*” as most common pathogenic factor for *medovridhi* in *medoroga* whereas *Acharya Sushruta* has accepted *amadasha*.

Overeating of *shleshma-bhuyishthaahara*, sedentary life-style, day-time sleeping, lack of exercise etc. Are various etiological factors for *medoroga*. Over indulgence with such type of factors leads to increase in *guru*, *snigdha*, *manda* & *sthiragunain* the body, which all

are similar to *guna* of *kapha* thereby causing *kaphabhuyishthadoshavridhi* in the body.

As an individual taking high calorie diet but proportionately low energy expenditure due to lack of physical activity i.e. Positive energy imbalance leading to accumulation of extra energy in the form of fats (lipids) i.e. Extreme accumulation of *medadhatu*. According to *samanyavisheshasidhdhanta* supported by *Acharya Caraka* & *Ashrayashrayi Sambandha*⁴ among *dosha-dushya*, there is straight relation between *kaphadosha* & *medodhatu* i.e. Increased consequences of *kapha* directly leads to increment in the *meda* proportion. Again on the other hand, in modern science, psychological disorders are also associated with overeating habits, in such patients leading to excessive calorie intake & thereby dyslipidaemia (*medoroga*). Therefore, *kapha* and *meda dhatu* both are leading *dosha-dushyaghataka* in pathogenesis.

Schematic presentation of Samprapti of Medoroga:



Accumulation of *kapha&meda* leads to *srotovarodha* causing trapping of *samanavayu* in *koshtha* leading to *avarana* to *samanavayu*. It leads to *jatharagnisandhukshana*. Increased *jatharagni* leads to rapid digestion of ingested food & leaves the person craving for food. This vicious cycle continues resulting in *medaatiupachaya*. Acharya Sushruta says that the *atisnehayukta anna rasa* leads to excess formation of *meda dhatu*. According to allopath science, the digestion of fat starts in duodenum & pancreatic lipase is the main enzyme involved thereafter resulting in the formation of free fatty acids & monoglycerides. So the pathology of dyslipidaemia can be well correlated with *atisnehayukta anna rasa* as told by Acharya Sushruta. Two types of *medodhatu* are found in *medoroga* as follows:

- **Baddha Meda Vriddhi:**
Representing the depot fat stored at various places in the body e.g. buttocks, abdomen, shoulders, breast etc.
- **Abaddha Meda Vriddhi:**
Representing the fat which circulates freely in the form of plasma lipids.

Acharya Sushruta has described various *updravadue* to *margavarodha* of *vata* by excessive *meda* leading to *alpaprana*, *pramehapidika*, *jwara*, *bhagandara*, *vidradhi*, *vatavikara* & ultimately death⁵.

Therefore, excess care is required while treating the patients of *medoroga* so that while pacifying & scraping of excess

kapha&meda there should not be further exacerbation of already vitiated *vata dosha*.

SAMPRAPTI GHATAKA:

1. Dosh

- **Kapha:** *Kapha* has *ashrayashrayee sambandha* with *medo dhatu*⁶ of the five types of *kapha dosha* taking part in the pathogenesis, *bodhaka* and *kledaka kapha* are mainly vitiated. *Bodhaka* and *kledaka kapha* are both associated with digestion and an impairment of the above two leads to derangement in the *jatharagni*. If the pathology of dyslipidemia proceeds further it leads to vitiation of *avalambaka kapha* which is said to reside in the heart and support other *kapha sthana* by providing them with the fluid and maintain normal integrity of the blood vessels in the heart.
- **Pitta:** *Pachaka pitta* is mainly diminished due to ingested faulty dietary habits resulting in hypofunctioning of *jatharagni* and subsequent *dhatvagni*. In later stages *sadhaka pitta* which resides in the heart may also be impaired.
- **Vata:** *Samana vata* also participates in the pathogenesis by not properly kindling the *jatharagni*. There is also impairment of *vyana vata* as follows:

It is said that the *rasa dhatu* distributed throughout the body by *vyana vayu*. Similarly *vyana vayu* helps in the circulation of the *poshaka medo dhatu* (lipoproteins) throughout the body. Also acharya Charaka narrated that *dhatugati* is the function of normal *vata*⁷. Chakrapani opined that this *gati* is related with the transfer of *rasadi* towards *poshya* i.e. main *dhatu*. This

can mainly be seen as the function of *vyana vayu* since its site of action is entire body. Thus, the impairment in this function of *vyana vayu* causes an imbalance in *dhatu* formation and their transformation in the body. Here mainly the *avyaahatagati* of *vyana vayu* getshampered because of the accumulation of vitiated *dushya* at macro and microcellular level.

2. Dushya

- **Rasa Dhatu:** *Rasa* is the main nutritive pool which carries along with it the nutrients of all the *dhatu*. Similarly the nutrients of the *sthayi medo dhatu* and also the *asthayi medo dhatu* are transported via the medium of *rasa dhatu*. Acharya sushruta has also attributed *sthaulya* and *karshya* to *rasa dhatu*⁸.
- **Medo Dhatu:** The main *dhatu* involved in the pathogenesis of *medoroga* is *poshakameda* which shows a quantitative increase. It is the precursor of the *sthayi medo dhatu* and hence may result in further complications like *sthaulya* and *prameha*.
- **Vasa:** *Vasa* is the *upadhatu* of *mamsa dhatu* and can be understood as the lipid content present in the *mamsa dhatu*. Due to its similarity in attributes with the *medo dhatu* it is also seen to be impaired.

3. Agni:

Jatharagni which is the regulator of all the other *agni* is in a diminished state. In *medo roga* though there is augmentation of *jatharagni* the excess intake of *atisnigdha*, *guru ahara* leads to *ama medo dhatu* formation via hypo functioning of the *medodhatvagni*. *Rasagni*

is also seen to be impaired leading to formation of *ama rasa dhatu* which further leads to hypofunctioning of *medodhatvagni*.

4. Ama:

Impaired *jatharagni* leads to *apachita anna* which results into *ama*. This *ama* is the root cause of all the diseases. This *ama rasa* further on being circulated to the all *dhatu* causes *dhatvagnimandya* (*medodhatvagni* especially) which results in the formation of *ama asthayi medo dhatu* and *ama sthayi medo dhatu* which leads to the condition of *medoroga*.

5. Srota:

The main *srota* involved in the pathogenesis is *rasavaha* and *medovaha srota*. An impaired *rasa* being the main nutritive pool transmits the excess of *upadana medo dhatu* which is the precursor of *asthayi medo dhatu*.

6. Srotoroga:

Srotoroga takes place due to *sanga* (accumulation /stagnation) type of pathology. In this type there is decreased catabolism due to various defects in the apolipoproteins and lipases leading to accumulation of excess lipoproteins in the circulation. Also an increased synthesis mainly dietary in origin can be appreciated.

7. Udbhavasthana:

All the diseases caused due to the *agnimandya* have an origin in *aamashaya*. Hence this condition is mainly dealt as *aamashayasamuttha*.

8. Sancharasthana:

The *asthayi medo dhatu* gets circulated throughout the body by the means of *rasayani* and *dhamani*.

9. Vyaktasthana:

The manifestations of *vridhdha asthayi medo dhatu* like xanthomas, xanthelasma etc., are seen in the entire body hence the entire body is taken into account as the *vyakta sthana* of the disease.

10. Rogamarga:

Since the main vitiated *doosha* in the disease is *medo dhatu* and it is carried by the medium of *rasa* and *rakta* this disease is said to follow *bahya rogamarga* or *shakha*. But if the pathogenesis proceeds, *madhyama rogamarga* also get involved in later stage.

1. Vyadhiprakriti:

Considering the *medo dhatu* as *gambhira* (deep seated) in nature which is mainly involved in the disease process thus the disease is considered to be *kashtasadhya* (difficult to cure).

2. Upadrava:

Various *upadrava*⁹ are mentioned in classics with reference to *medoroga* and *sthaulya* like *prameha*, *prameha pidika*, *jvara*, *vidhradhi*, *bhagandhara* etc.

TREATMENT:

The term dyslipidaemia is used to describe disordered lipid metabolism in the body. The dyslipidaemia in obesity and diabetes is generally associated with an insulin resistant state.¹⁰ Life style management including dietary modification, active exercises & quitting smoking are a good measure to lower the risk associated with dyslipidaemia. Effective weight loss lowers the raised serum cholesterol level. *Abaddha* or *baddhameda roga* mentioned in *prameha* & *sthaulya* in *ayurveda*, can be considered as dyslipidaemia. So, *medoroga* should be treated on the lines of

management of *sthaulya* and *prameha*. The treatment modalities of *medoroga* are:

1. **Nidana Parivarjana:** It includes non-indulgence in various etiological factors of *medoroga*. It also includes adaptation of suitable dietary & lifestyle modification regimen. It helps in arresting the further progression of the disease by decreasing the amount of substrate available. Exercises & active lifestyle help in utilizing the excess substrate deposited in the body in the form of *meda*, thereby creating a negative energy balance. In this manner, it is helpful in treating *medoroga*.
2. **Samshodhana Chikitsa:** It includes the administration of various purification procedures. *Panchkarma* procedures in *Ayurveda* like *virechana karma*, *lekhana basti*, *rukshaudavartana* etc. Can be considered under it. It helps in eliminating the accumulated *samadosha*, vitiated *doshas* & excessive *meda* from the body by scrapping it & thus helping in clearing the passage. Thus, *srotovishodhana* can be brought by removal of obstruction.
3. **Samshamana Chikitsa:** This therapy helps in improving the status of *jatharagni* & *dhatwagni* by *deepana* & *pachana* of the *ama dosha* & vitiated *dosha*. It includes *guru apatarpana* drugs, so that *karshana* should be aimed without getting digestion of drug by *agni sandhukshana* in case of *medoroga*.
 - *Guduchi*, *bhadramusta*, *triphala*, *takrarishta*, *madhu*

- *Vidanga, nagara, kshara, yava, amalakichoorna*
- *Brihatpanchamoola with madhu*
- *Agnimantha rasa and shilajatu*
- *Trikatu, katuki, triphala, shigru, vidanga,*
- *Madhoodaka, triphalakvatha and madhu, musta and madhu*
- *Yava and amalakichoorna*

Chikitsa Siddhanta: In particular

- *Vridhha asthaya medo dhatu* is a *santarpanjanya* condition hence its *chikitsa* comprises of *apatarpana*¹¹.
- Measures like *vamana, virechana, raktamokshana, vyayama, upavasa, dhooma, svedana, sakshaudra ahara, abhayaprasha,*

rukshanna sevana, different types of *choorna* and *pradeha* can all be employed as *apatarpana chikitsa*¹².

- Diet including *vatahara, shleshma* and *medohara dravya, tikshna basti* and *udvartana* can be adopted¹³.
- According to *sushruta rookshana dravya prayoga, vyayama* and *lekshana basti* are the treatment measures¹⁴.
- *Medovridhhi* should be treated in the lines of *sthoulya*¹⁵.

According to *basavarajeeyam* treatment principle includes *virechana, vamana* and *apatarpana chikitsa*¹⁶.

REFERENCES:

1. मेदसंश्रयांस्तुप्रचक्ष्महे। निन्दितानि प्रमेहाणां पूर्वरूपाणि यानि॥ (Ch.Su.28/15)
2. तदतिस्थौल्यमतिसंपूरणाद्गुरुमधुरशीतस्निग्धोपयोगादव्यायामादव्यवायाद्दिवास्वप्नाद्धर्षनित्यत्वदचिन्तनाद्बुद्धिजस्वभावाच्चोपजते। (Ch. Su. 21/4)
3. मेदो जनयति विशिष्टाहारवशाददृष्टवशान्मेदसाऽऽवृतमार्गत्वाच्च धातुद्वयमतिक्रम्य मेद एववर्धयति। डल्हण (Su.Su.15/32)
4. क्षेप्सा शेषेषु तेनैषामाश्रयाश्रयिणां मिथः।यदेकस्य तदन्यस्य वर्धनक्षपणौषधम्॥ (A.H.Su.11/26-27)
5. शेषाधातवोनाप्यायन्तेऽत्यर्थमतोऽल्पप्राणोभवतिप्रमेहपिडकाज्वरभगन्दरविद्रधिवातविकाराणामन्यतमंप्राप्यपंचत्वमुपयाति। (Su.Su.15/37)
6. *Vagbhata, Ashtanga Hridaya with Ayurveda Rasayana and Sarvanga sundara* commentary of Hemadri and Arunadatta, *Sootrasthana, Ayushkameeya Adhyaya* 11/26, edited by Yadavaji Trikamaji Acharya, Varanasi, Chaukambha Sanskrit Samsthana; 2004, pg.no: 186.
7. *Agnivesha, Charaka Samhita with Ayurveda Dipika* by Chakrapani, *Chikitsa Sthana* 15/ 37-38, pg. no 516, edited by Vaidya Yadavaji Trikamaji Acharya, Chowkhamba Sanskrit Sansthana, Varanasi, 2004.
8. *Sushruta Samhita, Sutra Sthana* 15/32, pg.no. 73
9. *Madhva Nidhana, Medodushthi Nidanam*, pg.no.66
10. Krentz AJ: Lipoprotein abnormalities and their consequences for patients with type 2 diabetes. *Diabetes ObesMetab* 2003, 5(Suppl 1):S19-S27.
11. ibidem no: 7, *Charaka Samhita, Sutra Sthana*, 10/6, pg.no.66
12. ibidem no: 7, *Charaka Samhita, Sutra Sthana*, 23/8, pg.no.122
13. ibidem no: 7, *Charaka Samhita, Sutra Sthana*, 21/21, pg.no.117
14. *Sushruta, Sushruta samhita with Nibhandha sangraha* Commentary of *Dalhana, Sutra Sthana-* 14/32 pg.no.126, edited by Yadavaji Trikamaji Acharya, Chaukambha Sanskrit Samsthana; Varanasi, 2004.
15. *Ashtanga Hridaya, Sutra Sthana* 11/31 pg.no. 73
16. *Basavarajeeyam*, 18/30-34