



Review Article

EXPLORING DYSLIPIDEMIA THE AYURVEDIC WAY

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ABSTRACT

Ayurveda is one of the ancient sciences originated in India that describes the ways of healthy living. Mere absence of disease cannot be termed as health. To name so, there must not be any pathology too. It needs perfect sense of well-being. The classical texts of *Ayurveda* opine that vitiation of any of the *Dosha Dhatu* and *Mala* can cause ill health or disease, and hence they must be prevented or corrected at the earliest. Dyslipidemia is an easily preventable and controllable risk factor related to cardiovascular but, is an iceberg condition. It is not a disease in itself but a cause for or associated with many diseases. *Ayurvedic* classical texts have not directly described this condition in detail but there are few descriptions or names which can be related with dyslipidemia. This paper tries to conceptualize dyslipidemia as per Ayurveda based on *Dosha, Dhatu* and their *Guna* at the level of *Mahabhuta*. Here, an effort is made to term it as a condition given in texts but not as a disease.

INTRODUCTION

Lipid and lipoprotein abnormalities are extremely common in the general population, and are regarded as a highly modifiable risk factor for cardiovascular disease due to the influence of cholesterol on atherosclerosis. [1] Dyslipidemia does not bear a precise reference in *Ayurveda* though the study of Ayurvedic literature bears some implicit references. This might be due to the fact that it is a metabolic disorder and not a full-fledged disease in itself. It is auxiliary to several other severe conditions like coronary artery disease, cerebrovascular accidents, metabolic syndrome, diabetes, hypertension and many others. The study of Ayurvedic literature bears several ambiguous references pertaining to an increase in the amount of circulating body lipids, yet the literal meaning of dyslipidemia is not found to be distinctly stated anywhere. In *Ayurveda* various attempts have been made to use distinctive nomenclature to denote the word dyslipidemia/hyperlipidemia viz., *Rasagata Sneha Vridhhi*, *Rasa Raktagata Sneha Vridhhi*, *Medovridhhi*, *Medoroga*, *Medodosha*, *Prameha*, *Atisthoulya*. [2] The classical texts of Ayurveda opine that vitiation of any of the *Dosha Dhatu* and *Mala*

can cause ill health or disease, and hence they must be prevented or corrected at the earliest. This article, a conceptual work related to the research work "A study on effect of *Amalaki* as food supplement in dyslipidemia", tries to conceptualize dyslipidemia as per *Ayurveda* based on *Dosha, Dhatu* and their *Guna* at the level of *Mahabhuta*. Here, an effort is made to term it as a condition given in texts, but not as a full blown disease. Few parts of this original research are published elsewhere.

Understanding definition

Dyslipidemia is disorders of lipoprotein metabolism. They may manifest as one or more of the elevated total cholesterol, low-density lipoprotein cholesterol (LDL-C), & triglyceride levels or decreased high-density lipoprotein cholesterol (HDL-C) level.[3] Based on the definition of dyslipidemia, it seems like the unctuous quality (*Sneha Guna*) of blood gets increased causing its vitiation (*Raktadushti*). It can also be understood as the *Ap Mahabhoota* in blood gets increased and the ratio between *Ap* and *Tejo Mahabhoota* gets disrupted.

Understanding organs involved

Very minor fat digestion occurs in stomach by gastric lipase. The small intestine releases cholecystokinin which helps in the digestion of fat. Liver and pancreas release bile and pancreatic lipase respectively. Both these mix in the common bile duct and enter small intestine. The absorption of fat occurs in liver and small intestine by the absorptive cells lining of duodenum and jejunum. The metabolism of fat involves liver and circulatory system.^[4,5] This shows that the organs involved in digestion, absorption and metabolism are *Amashaya* which is a seat of *Pitta*^[6]; *Yakrit* and *Pleeha*, the roots of *Raktavaha Srotas* and various *Dhamani*, the roots of *Rasavaha Srotas*^[7] or *Rasavaha Srotas* itself. It means that based on the involvement of organs, dyslipidemia involves *Raktavaha* and/or *Rasavaha Srotas*; in other words *Rakta* and / or *Rasadhathu*.

Understanding causes

The secondary causes contribute, to many cases of dyslipidemia in adults. Sedentary lifestyle with excessive dietary intake of saturated fat, cholesterol and trans fats is the prime preventable cause here. Other causes include diabetes mellitus, alcohol overuse, hypothyroidism, cholestatic liver diseases. Among the diseases diabetic dyslipidemia (high TGs, high LDL-C and low HDL-C combination) is common.^[8] It is striking if the condition is added with Obesity or in poor control of diabetes or both. It is exacerbated by increased calorie intake (over eating of carbohydrates and fats) and physical inactivity. If we analyze these causative factors as per *Ayurveda* we can understand them as foods with *Atisnigdha - Madhura - Abhishyandi - Pichchila* properties, foods with *Snigdha* and *Ushna* or *Vidahi* quality, opposing foods, excessive consumption of alcohol, eating full stomach, sedentary life i.e., *Avyayama, Cheshta Dwesha, Sayya Sukha, Asana Sukha* and the diseases due to *Santarpana/* over nourishment.

Understanding symptoms

The condition dyslipidemia is usually asymptomatic. If seen, symptoms can be usually xanthoma, xantasma, dizziness, problem with vision, impairment of balance, problem in speaking, chest pain, calf pain.^[9] These vague symptoms point towards involvement of *Pitta* and / or *Kapha Dosha, Rasa* and *Raktha Dhathu*.

Conceptualizing Dyslipidemia

The condition '*Shonitabhishyanda*' is explained in the context of *Viruddhahara* by *Chakara*. It is said that if a person consumes *Poushaka, Rohinikashaka* or pigeon meat roasted

or fried in mustard oil along with honey and milk regularly, it cause *Shonitabhishyanda*.^[10] *Shonitabhishyanda* has two words *Shonita* which means blood and *Abhishyanda*. The condition *Abhishyanda* arises by consuming such foods or by following such activities which have the property as '*Abhishyandi*'. While explaining the actions of vitiated blood, *Vagbhata* says the vitiated blood causes *Abhishyanda*.^[11] *Abhishyandi* is a quality of food. Many definitions of '*Abhishyandi*' meaning similarly are given by various scholars of *Ayurveda*. Any substance, due to its sliminess, heaviness or nature of being difficult for digestion, occludes any of the *Sira* (channels) carrying *Rasa* and brings in dullness in flow (slows down the speed of flow) or burden (causing difficulty in flow) is considered as *Abhishyandi*. Such foods also cause superabundance of *Kapha Dosha* due to the similar properties.^{[12],[13]} Any food that has the ability to pollute or smear the channels that carries the essence of food from heart to various parts of the body is considered as *Abhishyandi*.^[14] While describing the classification of foods, in the context of *Mamsa Varga* (varieties of meat), group of *Anupa Mamsa* (includes meats of aquatic animals, marshy land animals or domestic animals) as "*Mahabhishyandi*" foods.^[15] The word meaning of *Mahabhishyandi* is given as "such foods which cause excessive moisture in channels of *Dosha, Dhātu* and *Mala*".^[16] Blood vitiated by *Kapha Dosha* has pale colour (*Ishath Pandu*), slimy (*Pichillam*), thick (*Ghanam*) and can form thread between two fingers (*Tantumad*).^[17]

Pathophysiology of dyslipidemia in Ayurveda (Samprapti)

Aspects of pathophysiology as per *Ayurveda* (*Samprapti Ghataka*):

- *Dosha: Kapha* and *Piita*
- *Dushya: Raktha* and/or *Rasa*
- *Srotas: Raktavaha* and / or *Rasavaha*
- *Srothodushti: Atipravritti, Sanga*
- *Udhhava Sthana: Amasaya*
- *Sancharasthana: Rasa -Raktavaha Srotas*
- *Vyakthasthana: Dhamanai*
- *Rogamarga: Abhyanthara*
- *Agni: Jatharagni* or *Bhutagni Mandhya*

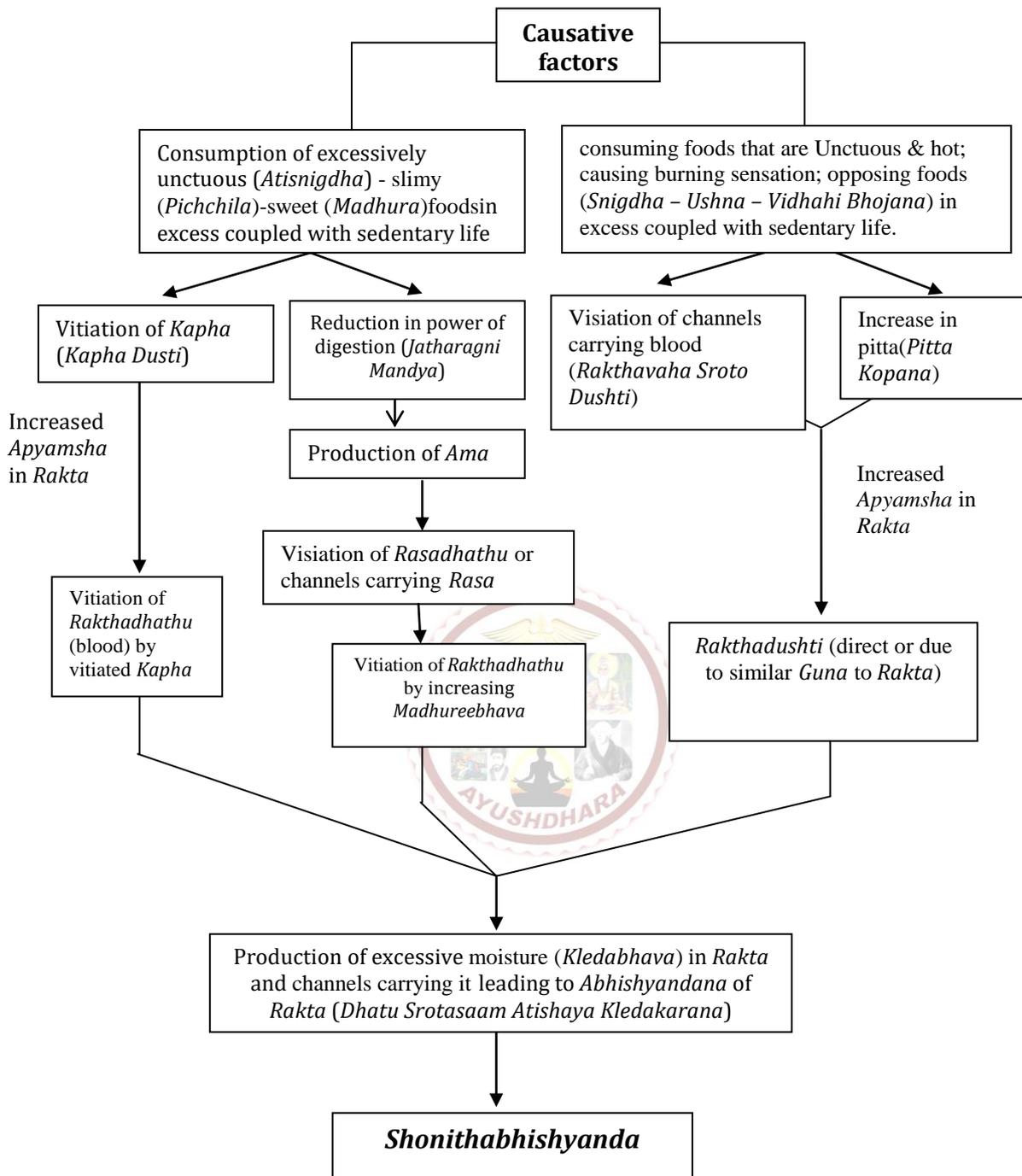
Hypothetical pathophysiology of dyslipidemia in Ayurveda

The condition dyslipidemia can be correlated to the condition "*Shonitabhishyanda*", *Abhishyanda* in *Shonita* (blood). The causes (*Nidana*) of this can be of two groups i.e., Excessive and/ or regular consumption of foods with *Atisnigdha - Pichchila- Madhura* quality as well as excessive consumption of foods with *Snigdha-Ushna-*

Vidhahi properties. When these causes coupled with sedentary lifestyle will lead to *Shonitabhishyanda*.

The pathophysiology is showed in a schematic diagram below [Figure 1]:

Figure 1: Flow Diagram of Samprapti of Shonitabhishyanda



CONCLUSION

Based on the description given for dyslipidemia, it seems to be a condition and not a disease by itself. The understanding can be done as per *Ayurveda*, if the details can be understood at the level of *Mahabhuta* rather than *Dosha* or *Lakshana*. *Shonitabhishyanda* is a condition mentioned under *Viruddhahara* shows it to be a consequence of causes like that. There is no detailed description given as it is not a disease. Hence it is purely based on physician to understand the pathophysiology

before the management is done to prevent the occurrence of diseases related to it.

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