



ROLE OF PANCHAKARMA IN MEDOROGA WITH REFERENCE TO DYSLIPIDAEMIA- A REVIEW ARTICLE

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ABSTRACT:

Dyslipidaemia is an abnormality in the circulating plasma lipids due to overproduction or deficiency of lipoproteins or both. It has been recognised as an independent risk factor for the development of Cardiovascular diseases globally. The Indian Council of Medical Research (ICMR) surveillance project reported a prevalence of *Dyslipidaemia* of 37.5% among adults aged between 15 to 64 years, with an even higher prevalence of *Dyslipidaemia* (62%) among young male industrial workers. It remains asymptomatic and undetected until lipid parameters are test to rule out other complication like myocardial infarction, obesity etc. There is no direct reference for *Dyslipidaemia* in Ayurveda. It is correlated with *Medoroga* caused due to improper formation or over nourishment of *Medo dhatu*. Ayurveda focus on the treatment of correcting *agni* and ensuring proper nourishment of tissues further normalizing the lipid parameters. Treatment modalities include *nidana parivarjana*, *sodhana*, *samana chikitsa* along with wholesome diet.

Keywords: Panchakarma, Dyslipidaemia, *Medoroga*

INTRODUCTION

Dyslipidaemia is metabolic disorder caused by imbalance of plasma lipids and lipoprotein abnormality including low High-Density Lipoprotein Cholesterol (HDL-C), Low Density Lipoprotein Cholesterol (LDL-C), Total Cholesterol (TC) and triglyceride (TG) levels. *Dyslipidaemia* has increased at an alarming rate in recent years globally and has become a major health hazards. The derangements in serum cholesterol, triglycerides, or both causing lipid disorders are commonly encountered in clinical practice and often have implications for cardiovascular risk and overall health^[1]. The rate of incidences of *Dyslipidaemia* is increasing enormously in many, worldwide mainly due to unwholesome diet, sedentary life style etc.

According to Ayurveda, Dyslipidaemia has been compared with *Medoroga* assessed quantitatively on the lipid parameter and qualitative changes seen in a person. The factors causing vitiation of *kapha- meda* in turn leads to *dushti* of *medavaha strotas* resulting in *medoroga*. It produces various *lakshanas* (sign and symptoms) as well as *upadravas* (complications). Based on the etiology, clinical features and complications; *Dyslipidaemia* can be well correlated with *medoroga* and treated accordingly with

shamana (palliative treatment) and *shodhana chikitsa* (purification therapies).

METHODS AND MATERIALS:

Ayurveda Samhitas, pubmed, google scholar, and modern medical literature have been searched. The keywords used are Dyslipidaemia and Ayurveda, Dyslipidaemia and Panchakarma.

Review of *Dyslipidaemia*

Types of *Dyslipidaemia*

1.Primary *Dyslipidaemia*- Primary *Dyslipidaemia* are usually genetic in nature and caused due to single or multiple gene mutations that result in overproduction or defective clearance of TG & LDL cholesterol, & underproduction or excessive clearance of HDL^[2]. This genetic defects leading to *Dyslipidaemia* can be correlated with the *beejaswabhaba nidana* (genetic factors)^[3].

2.Secondary *Dyslipidaemia*-Secondary *Dyslipidaemia* are caused by sedentary life styles and underlying medical conditions ^[4]. The causes are similar to the *nidans* leading to *medorogas*.

Causes

Excessive dietary intake of saturated fat, cholesterol, and trans fats.

Smoking

Alcohol overuse

Diseases like Diabetes mellitus, chronic kidney disease, hypothyroidism etc.

Sign and Symptoms

1. *Dyslipidaemia* usually shows no symptoms but can lead to symptomatic vascular disease, including coronary artery disease, stroke, and peripheral arterial disease.
2. High levels of LDL can cause arcus corneae and tendinous xanthomas at the Achilles, elbow, and knee tendons.
3. Patients with severe elevations of Triglycerides can have eruptive xanthomas over the trunk, back, elbows, buttocks, knees, hands and feet.
4. Extremely high lipid levels also can give a milky appearance to blood plasma^[5].

Nidan of medorogas (*Dyslipidaemia*)

1. Excessive intake *guru* (heavy), *madhura* (sweet), *snigdha* (oily), *sheet aahar* (cold food items), *kaphavardhak aaha* ^[6].
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)

Samprapti

Beejadoshha, santarpana nidana or specific *viruddha ahara* are the primary factors contributing for the *samprapti* of *Medo roga*. The unwholesome dietary habit, sedentary life style, *kapha vardak nidan* aggravates the *kapha dosha* further affecting

the *jathragni*. This diminishes *jathragni* further produces *ama* and leads to improper nourishment of *uttarottara* (subsequent) *dhatu*. The *kapha vardaka, medovardaka aahara vihara* further vitiates *medovaha srotas*. *Kapha dosha* and *medo dhatu* possess *ashrayashrayi bhava* (mutual interdependence) causing vitiation of both^[7]. *Prakupita* (vitiated) *kapha* mixed with *medas* undergoes pathological changes causing *medo dushti* and quantitative increase i.e *medovridhi*. *Medovridhi* causes *srotorodha* in turn affecting the normal functioning of *srotas*. *Abaddha* (unformed) *Meda Dhatu* (fat tissue) causes increased fatigue on exertion, dyspnoea and accumulation of fat at various sites like buttocks, breast, and abdomen^[8].

Samprapti Ghataka

Dosha: Kapha- kledaka, Pitta – Pachaka, Vata – Samana, vyana.

Dushya: Rasa, Meda.

Agni: Jathragni, Medo Dhatwagni

Ama: Jathragni and Medodhatwagni mandyajanita ama.

Srotas: Rasavaha srotas, Medovaha srotas,

Srotodushti prakara: Atipravrutti

Udbhavasthana: Amashaya.

Adhisthana: Medovaha srotas

Sanchara sthana: Rasa rakta and medo vaha srotas.

Roga marga: Abhyantara

Swabhava: Chirakari

	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

SCHEMATIC REPRESENTATION OF SAMPRAPTI

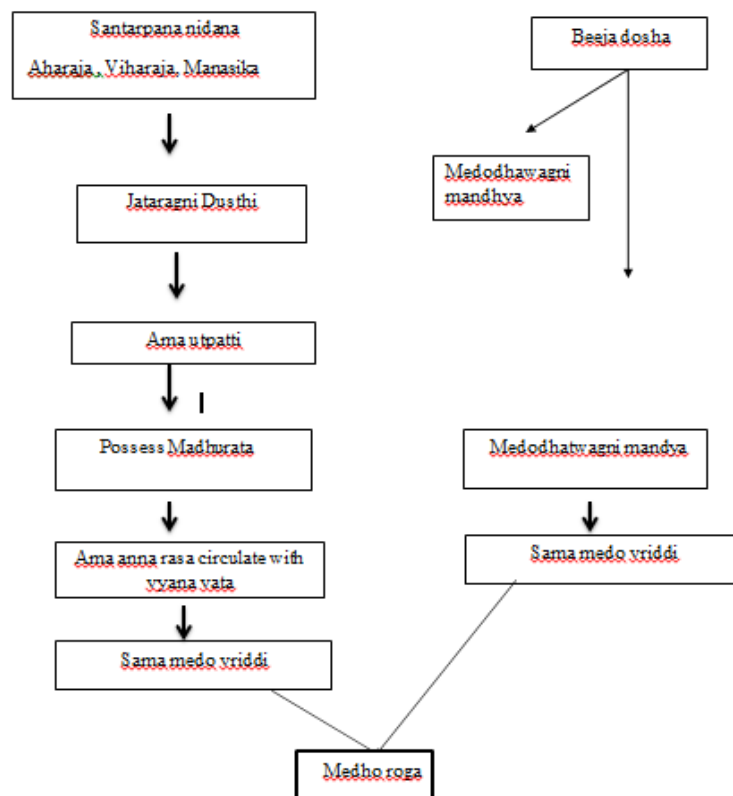


Figure 1: Schematic representation of Samprapti.

Management

Dyslipidaemia is a metabolic disorder produced by the impaired function of *jataragni* and vitiation in *medovaha srotas*. The treatment aims for regularising the cholesterol production and expelling the excess circulating cholesterol. Hence *agni* plays an important role in management of the condition.

In contemporary science, high LDL cholesterol is treated with statins, in few cases bile acid sequestrants, ezetimibe, niacin, and other measures. High levels of triglycerides are treated with niacin, fibrates, omega-3 fatty acids etc. Life style modification, dietary changes, physical exercise plays a vital role in *Dyslipidaemia*.

Treatment modalities consist of

1. *Nidan Parivarjana* (avoiding the causative factor) - avoiding *kaphakara medaja aahara*, *avyayama* (no physical exercise), *divaswapna* (day sleep).
2. *Aahaar* – in *medoroga* acharyas have explained “*guru cha atarpanam*” diet which is heavy to digest but does not over-nourishes the tissue. Usage of *takra*, *ushna jala* (hot water) should be promoted. Avoid *snigdha*, *sheeta* and *madhura*, *amla* (sour), *lavana* (salty) *rasa*.
3. *Vihara* – *Vyayama* (exercise), *Chankramana* (fasting), *upwasa* (fasting) to be followed.
4. Strict *patya* – *apatya* should be followed. *Aptarpana aahara* is to be followed.
5. *Shaman Aushadi* – *Laghana* , *deepana*, *pachana aushadi* (digestive and carminatives) to enhance the *agni* are advised as it is one among the *santarpanajanya Roga*. *Ushna* (hot), *tikshna* (penetrative), *pachak dravya* will help to do *aama pachana*, enhance *agni*. *Lekhaniya* (hypolipidemic drugs), *chedaniya dravya* (excising) will help in *srotomukhavishodhana* (to cleanse the orifices), dissolving and scrapping the amount of excess cholesterol from the blood.

Panchakarma in Dyslipidaemia

Panchakarma plays vital role in management of *Dyslipidaemia*. As per the primary *siddhanta*, *langhana*, *langhana- pachana*,

doshavaschena chikitsa can be adopted in *alpa*, *madhyama*, and *bahu dosha bala* respectively.

1. **Rukshana karma** – *Rukshana* in form of *udwartana*, *ruksha kashaya sevan*, *Takrapana* etc helps in alleviating *kapha*, *medasah pravilapanam* (liquefies and pacifies the stagnant adipose tissue). *Rokshana* also aids in *Agni deepana* and *Ama pachana*.

2. **Snehana** – Prior to *shodhana* for *dosha utkleshana* and bringing the *doshas* to *koshta*, *abhyantara snehana* and *swedana* is advocated. *Snehana* is usually done with *taila* in *medorogas* as *taila* alleviates the *Vata* without increasing the *kapha*.

3. **Swedana** – *swedana* is done to liquefy the *dosha*. Its *ushna tikshana* qualities help to mobilise and also liquefy the fat globules and aids for *Shaka* to *Koshta* movements of *dosha*.

4. **Vamana** - *Vamana* is indicated in *kapha vikaras* and expels out the excess *kapha*. *Vamana karma* being detoxifying in nature may help for the mobilisation of peripheral fat, which subsequently gets eliminated through liver. It also improves digestion and metabolism there by corrects the lipid metabolism and may regulate endogenous production of lipids^[10].

5. **Virechana**- *Virechana* helps to expel *pitta* from the body through the *gudamarga*. During *Snehapana* poly unsaturated fatty acids stimulate oxidation of cholesterol to bile acids.

When lipid rich diet enters duodenum, Cholecystokinin hormone is released, stimulating contraction of Gall bladder, thus resulting in bile secretion^[11]. *Virechana* helps in elimination of bile more rapidly so excess cholesterol gets excreted through the it. *Virechana* also improves the *Agni* and therefore normalizes the metabolism.

6. **Basti** – *Basti* having *ushna*, *teekshna*, *lekhaniya*, *chedaniya*, *kapha hara*, *medohara*, *karshana* properties are to be used for *Dyslipidaemia* depending on the bala of the patient. The *lekhana Basti* by its *lekhana guna* helps in exfoliating the *meda* and simultaneously pacifies the *vata*. *Lekahana Basti* contains *triphala kwatha*, *madhu*, *gomutra*, *saindavalavana*, *hingu*, *yavakshra*, *kasiya*, *shilajathu* which are the virtue of reducing *Meda*^[12]. *Kapha nashaka basti*, *kshaara basti* due to *srotoshodaka* properties are found beneficial in *Dyslipidaemia*.

DISCUSSION

Dyslipidaemia is condition with abnormally elevated levels of any one or all lipids parameters in the blood. There is no direct correlation of *Dyslipidaemia* in Ayurveda but based on the sign and symptoms, literature review it could compare with *medoroga* and can be treated in according to it.

The *patyaptya* has been given primarily great importance for the maintenance of lipid in the body.

Our acharyas have focused on *kaphahara*, *medohara chiktsa* by starting with *rukshana chiktsa* like *udvartana* where due to increased friction to all the parts of the body, the triglycerides present in the subcutaneous tissues will breakdown into fatty acids^[13]. These fatty acids are carried out to the liver due to central massage and on conversion into bile followed by *shodhana* expels them out of the body through the nearest route^[14]. *Vamana* helps to expel the excess *kapha* out from the body and also to have significant results in decreasing LDL and Serum Cholesterol from blood. *Virechana* cleanses the toxic material from body and restore the *Agni* (impaired metabolism) by acting at cellular level. In *Basti Karma*, the drugs used are mainly *medohara* (hypolipidaemic) and *Lekhana* in nature. *Basti* as it gets absorbed by the superior haemorrhoidal veins reach directly to the liver there by correcting liver metabolism helping in reducing the synthesis of cholesterol and increasing its excretion, and 2/3rd directly enters systemic circulation through inferior and middle haemorrhoidal veins resulting into significant availability of drugs bypassing first pass metabolism which may be the cause in reduction in serum level^[15].

CONCLUSION

Dyslipidaemia is one among leading metabolic disorder widely managed by Ayurvedic

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medicines and treatment procedures. Evaluating the classical references of *Medoroga* and understanding the theoretical concepts in detail by will help in enhancing the efficacy of the treatment. Timely intervention in the early stages of *Dyslipidaemia* will prevent progression into further stages like sclerotic or thrombotic conditions. Extensive research studies are needed to validate, explore and adopt these *Ayurvedic* concepts and drugs for world's future benefits.

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