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Approach of understanding dyslipidaemia in unani medicine

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Abstract

Dyslipidaemia is a common metabolic disorder which is a major cause of coronary heart disease. It affects both genders, but is more common among males. In India 25-30% of urban and 15-20% rural subjects are suffering from dyslipidaemia. Currently, various synthetic lipid lowering agents are being used, however, Long term use of these medicine may leads to various adverse effects like hepatotoxicity, dyspepsia, myopathy, bloating, constipation, renal dysfunction etc. present study indertakes the concept of dyslipidemia as understtod in Unani mdicinee.

Keywords: Dyslipidaemia, unani medicine, obesity

Introduction

Dyslipidaemia is a disorder of lipoprotein metabolism, which includes over production or deficiency of lipoproteins or both. It 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 [1].

Dyslipidaemia is a major contributor to cardiovascular morbidity and mortality. Although awareness of the importance of the risk of dyslipidaemia has increased, however, its treatment has not improved accordingly. Even though the actual number of individuals receiving treatment has increased, the proportion of those who are treated but did not reach the recommended treatment goal is still disturbing [2].

Gupta R *et al* (2017) reported that Dyslipidaemia is the most important atherosclerotic risk factor. Recent studies have reported that high cholesterol is present in 25-30% of urban and 15-20% rural subjects. This prevalence is lower than high-income countries. The most common Dyslipidaemia in India are borderline high LDL cholesterol, low HDL cholesterol and high triglycerides. Studies have reported that over a 20-year period, total cholesterol, LDL cholesterol and triglyceride levels have increased among urban populations. Case-control studies have reported that there is significant association of coronary events with raised apolipoprotein B, total cholesterol, LDL cholesterol and non-HDL cholesterol and inverse association with high apolipoprotein A and HDL cholesterol. Prevalence of suspected familial hypercholesterolemia in urban subjects varies from 1:125 to 1:450. Only limited studies exist regarding lipid abnormalities in children. There is low awareness, treatment and control of hypercholesterolemia in India [3, 4, 5].

Rasheed *et al* (2014) reported that prevalence of Dyslipidaemia varies according to the age, sex, race, geographical conditions and association with other diseases. The age group of 30 to 40 years has tendency to high prevalence, but above 60 years it become markedly high. Men are more prone to dyslipidaemic than women; rural population has less prevalence then urban in India. The prevalence with other disease association is high i.e. diabetes, obesity, renal disease and liver disease etc [6].

Dyslipidaemia is an outcome of shifting from rural to urban that leads to sedentary lifestyle so the prevalence of Dyslipidaemia is higher in urban than rural areas [7].

There are several risk factor associated with Dyslipidaemia viz; diabetes, obesity, hypertension, hypothyroidism, sedentary life style, fatty/oily diets, excess alcohol intake, smoking [8].

Untreated dyslipidaemia leads to co-morbid symptoms (tiredness, dyspnoea, lethargy, loss of appetite, weight gain, PCOD) and complication (hypertension, hypothyroidism, infertility, PCOD, atherosclerosis, coronary artery disease, cardiovascular Death) [9].

In Classical Unani literature, there is a concept of *Quwt-e-Tabaiyah*, which provides the functions of *Taghziya* (nutrition), *Namiya* (growth) and *Tanasuliya* (reproduction) in the body,

and drive out the waste products (*Fuzlat*) from the body. *Kabid* (Liver) is the prime organ of *Quwat-e-Tabaiya*. *Quwat-e-Ghazia* is one of the types of *Quwat-e-Tabaiya* which is responsible for ingestion, digestion, absorption, transformation and assimilation of *ghiza* (Food) and excretion of waste products from the body. *Quwat-e-Ghazia* is served by four kinds of subordinate faculties (*Quwat-e-Khadima*). *Hazm-e-Kabidi* is one of the parts of *Quwat-e-Hazema* i.e. type of subordinate faculty of *Quwat-e-Ghazia*. *Hazm-e-Kabidi* is aimed at benefiting its own cells as well as the entire body^[10].

Hippocrates was the first Unani Physician, who gave comprehensive explanation of *Siman-e-Mufrit* including its complications^[11], later on renowned Unani physicians like *Galen*, *Ali- Ibn Abbas Majoosi* and *Ibn-e- Rushd* have mentioned the concept of *Shaham*(fat) and *Siman-e-Mufrit* in their treatises^[12, 13, 14]. *Ismail Jurjani* and *Ibn-e-Nafis* especially pointed out that obese people are more prone to develop cardiac and cerebral complications such as *Khafqan* (palpitation), *Ghashi* (syncope), *Sakta* (stroke), concealed haemorrhage, coma and sudden death^[15, 16].

The term Dyslipidaemia, as such is not mentioned in classical Unani literature; however they have described it under the broad headings of *Dasumat-e-Dam* (Greasy blood) & *Siman-e-Mufrit* (Obesity) with the abnormalities of *Hazm-e- Kabidi* as the main cause of dyslipidaemia. There are three such conditions which alter the function of *Hazm-e-Kabidi* i.e. *Baroodat-e-Jigar* (cold temperament of liver), causes interference in digestion of food (*Ghiza*). Second, leads to obstruction by viscous matter or any inflammation which causes partial digestion of nutrients. Third one is the nutrition resulting from alteration in quantity or quality (*Kammiyat-wa-Kaifiyat*) of *Ghiza*^[13].

There are various treatment modalities available for the management of dyslipidaemia: Dietotherapy (*Ilaj Bil Ghiza*), Regimental Therapy (*Ilaj Bil Tadbir*) and Pharmacotherapy (*Ilaj Bil Dawa*)^[17].

Reducing elevated levels of low-density-lipoprotein cholesterol (LDL-C) significantly reduces the incidence of coronary heart disease (CHD) events and mortality in hypercholesterolemic patients^[18, 19]. Currently, various synthetic lipid lowering agents are being used in the treatment of dyslipidaemia like: statins (Atorvastatin, Lovastatin, Pravastatin and Simvastatin), Bile-acid sequestrants (cholestyramine and colestipol), resins, niacin, fibric acid analogs (bezafibrate, fenofibrate and ciprofibrate) and ezetimibe etc^[20]. However, Long term use of these medicine may leads to various adverse effects like: hepatotoxicity, dyspepsia, myopathy, bloating, constipation, renal dysfunction, flushing, pruritus of the face and upper trunk, skin rashes, acanthosis nigricans, urticaria, myalgias, fatigue, headache, impotence, anaemia and hair loss^[21]. Therefore, there is a need to search a safe and effective novel therapeutic agents for better management of dyslipidaemia.

In Unani system of medicine, renowned Unani Physicians like *Hippocrates*, *Galen*, *Zakaria Rhazi*, *Ali Ibn-e-Abbas Majoosi*, *Ibn-e-Sina*, *Ismail Jurjani* etc. have recommended various drugs, which are hot in temperament to modulate liver functions and also scientifically reported to have anti-dyslipidaemic activity, viz; *Sadkofi* (*Cyperus rotundus*), *Balchhar* (*Nordostachys jatamansi*), *Muquil* (*Commiphora mukul*), *Chhal Arjun* (*Terminalia arjuna*), *Badranjboya* (*Mellisa officinalis*), *Abresham* (*Bombyx mori*), *Tukhm Methi* (*Trigonella foenum-graecum*), *Garlic* (*Allium sativum*),

Halela Zard (*Terminalia chebula*), *Balela* (*Terminalia bellerica*), *Aamla* (*Phyllanthus officinalis*), *ChaubeZard*(*Curcuma longa*), *Tukhm Kalonji* (*Nigella sativa*), *Gurmar Booti* (*Gymnema sylvestere*), *PostAnar* (*Punica granatum*), *Kundur* (*Boswellia serrata*), *Kanduri* (*Coccinia indica*), *Zeera* (*Carum carvi*), *Badiyan* (*Foeniculum vulgare*), *Ajwain* (*Trachyspermum ammi*) etc^[22, 23, 24].

Unani Formulations which are scientifically proved for anti-dyslipidemic activity on Human Subjects

There are some famous Unani formulations which are highly effective for the management of dyslipidemia and obesity such as-Safoof Kalonji^[6], Habbe Sundarus^[23], Qurs Luk^[24], Itriphal Sagheer^[25], Majoon Sheer Alvi Khan^[26], Safoof Muhazzil^[27], etc.

Conclusion

Dyslipidemia from above discussion seems a look alike concept as Dasumat Dam. Unani medicine has got packaged treatment strategy for its management which ranges from dietary modifications, specific regimental procedures to various pharmacotherapies. Pharmaceutical intervention aims at the formation of the normal blood and evacuation of the deranged phalgomatic humour. Thus, there are strong leads for research for the management of dislepedaemia.

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