



A Case Study on Management of Dyslipidemia W.S.R to Medoroga

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ABSTRACT

Dyslipidemia is a medical condition that refers to an abnormal blood lipids level. Hyperlipidemia or high lipid levels is the most common type of dyslipidemia. Another, less common form of dyslipidemia, hypolipidemia, refers to abnormally low lipid levels. Dyslipidemia is a metabolic disorder that can affect serum lipid parameters. Dyslipidemia may be primarily caused by genetic or secondary causes by lifestyle and other factors. Primary as well as secondary causes contribute to dyslipidemia in large than a few tiers. Dyslipidemia is managed by a lipid-lowering agent with lifestyle modification as well as some dietary restrictions. In ancient science, dyslipidemia was not mentioned as a disease it can be compared with Medoroga. In this case study, a 36-year male patient who had complaints of weakness, lethargy, heaviness of the body and excessive sweating for 2 months was diagnosed as dyslipidemia based on lipid profile and treated with Aarogyavardhini Vati, Triphaladi Kwath, Medohara Guggulu and Abhayachurna. A significant result is observed in symptoms of the patient as well as in blood lipid levels.

Keywords: *Dyslipidemia, Medoroga, Aarogyavardhini Vati, Abhayachurna*

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INTRODUCTION

Dyslipidemia refers to unhealthy levels of lipids in the blood [1]. Hyperlipoproteinemia is due to disturbances of lipid transport that result from accelerated synthesis or reduced degradation of lipoproteins that transport cholesterol and triglycerides [2]. Hyperlipidemia is an increase in the serum lipids mainly cholesterol, triglycerides, or both. Lipid metabolism has two pathways- 1) The exogenous pathway starts from intestinal absorption of dietary fat and cholesterol. 2) Endogenous Pathway that begins with VLDL manufacturing from the liver [3] Reverse cholesterol transport is the system of removing cholesterol from tissues and returning it to the liver. HDL (synthesized and catabolized in the liver and intestine) is the main lipoprotein concerned with this process. The choice of treatment for dyslipidemia is lipid-lowering agents like Statins, Nicotinic acid, Ezetimibe, etc. with lifestyle modification [3]. Dyslipidemia is associated with increased risk factors for atherosclerotic cardiovascular disorders and other systemic diseases. In ancient science, the term *Medoroga* is explained under *Santarpanjanyavyadhi*. It's a type of *Medopradoshajavyadhi*. The disease produced by the increased fatty tissue (*Meda*) in the body is called *Medoroga* [4]. Due to etiological factors, there is an increase in the body's fatty tissue, which produces obstruction in various systems. Specifically, this obstructs '*Vata*'. This obstructed *Vata* starts wandering in the abdominal cavity and increases *Jatharagni* (Digestive power) which causes more and quick digestion and absorption of food. Even though the *Jatharagni* (Digestive power) is increased, there is reduced digestive power at the tissue level (mainly *Medo-dhatwagni Mandya*). Hence the conversion of muscle tissue into fatty tissue does not take place properly. This causes excess faulty deposition of fat in the body and *Medoroga* is produced [5]. *Medoroga* symptoms include *Ashakti* (weakness), *Kshudraswasa* (slight breathlessness), *Trishna* (excess thirst), *Moha* (drowsiness), *Swapna* (Excessive sleep), *Sadana*(lethargy), *Kshudha* (increased hunger), *Sweda* (sweating), *Alpamaithuna* (decreased libido), etc. [6]. Food that will reduce fatty tissue and *Kapha* and control *vata* is advisable, *Ruksha-ushna Basti* (Enema), *Udavartana* (powder massage), etc. types of Treatment

modalities mention in classics for *Medoroga* [7]. Based on the similarity in the pathophysiology of dyslipidemia can be correlated with *Medoroga*.

In this study, the patient is diagnosed case of dyslipidemia with complaints of weakness, lethargy, heaviness of the body and excessive sweating. He has been on regular medications for dyslipidemia but due to unsatisfactory results of therapy. So, He visited Parul Ayurved Hospital for ayurvedic treatment.

MATERIAL AND METHODS

CASE REPORT

Chief Complaints

A patient complained of weakness, lethargy, heaviness of the body and excessive sweating for 2 months.

History of present complaints

A 36 years male patient was consulted to Kayachikitsa OPD No. 116 of Parul Ayurved Hospital, Parul University, Vadodara on 23rd Aug 2021. He was diagnosed with a case of dyslipidemia on a general routine blood investigation at a private hospital and started medication. The patient is taking regular medications as instructed by a doctor but gradually developed complaints of weakness, lethargy, heaviness of the body and excessive sweating since the last 2 months. So, the patient is stopped taking medication. Hence, He came to our hospital to try ayurvedic treatment anticipating that he may not have to continue medications or may not have further problems.

Past medical History

The patient was visited a private hospital to get a medical certificate for a new job and did some blood investigation on 17th May 2021. In lipid profile investigation there was an increase in Total cholesterol, Triglycerides, LDL cholesterol then the patient was diagnosed with a case of dyslipidemia and started medication Tab. Atorva 40mg once a day for 1 month. After completion of a 1-month course of treatment. He went to the hospital for follow-up and checked lipid profile but the report did not show a satisfactory result of therapy. Consultant doctor changes the medication Tab Atorva E once a day and was advised for some dietary restrictions for 1 month. After regular medications simultaneously he developed above said complaints.

Personal History

Aahara(Diet)- Mixed diet (*Madhura, Amla Pradhana* Food habit)

Mala (Bowel)- Regular/clear-once/day

Mutra (Micturition)- 3-4 times/1times- day/night

Kshudha (Appetite)-*Samyaka* (Normal)

Nidra (Sleep)-*Samyaka* (Normal)

Jivha (Tounge)-*Alpalipta* (slight coated)

Vyasana(Habit)- Tobacco chewing for 10 years / Occasionally alcohol

On Examination

General examination	Systemic examination
BP- 118/80 mmHg Pulse-76/min RR- 18/min Temp- Afebrile Appearance -fair Pallor/edema/clubbing/lymph nodes- Absent Height-170cm/Weight-82kg/BMI- 28.37kg/m ²	RS- Bilateral air entry clear / Normal CVS- S ₁ , S ₂ clear heard, Normal CNS- Conscious, Oriented P/A- soft, No distension, Normal bowel sound, No organomegaly detected

Treatment strategy: -

After the proper examination of the patient ayurvedic medical intervention was started as follows-Before starting internal medications, *Kosthashodhana* was done by *Eranadataila* -30ml with half a glass of milk in the night for 3 days. Then 2-month internal medications were given to the patient. The patient was advised to start the physical exercise with some dietary modification and restricted for tobacco chewing.

Table 1: Ayurvedic Medical Intervention was given for 1 month.

Sr no	Medications	Dose	Anupana	Duration
1	<i>Aarogyavardhini vati</i>	500mg /BD/ After food	Warm water	1 month
2	<i>Triphaladi Kwath</i>	15ml / BD/ before food	Warm Water	1 month
3	<i>Abhayachurna</i>	1 TSP empty stomach	<i>Madhu</i> (Honey)	1 month

Table 2: Ayurvedic Medical Intervention was given for the next 1 month.

Sr no	Medications	Dose	Anupana	Duration
1	Medohara Guggulu	1 gm /BD/ After food	Warm water	1 month
2	Triphaladi Kwath	15ml/ BD/ before food	Warm Water	1 month
3	Abhayachurna	1 TSP empty stomach	Madhu (Honey)	1 month

RESULTS

The proper assessment was done on each follow-up of the patient. A significant result is observed in the symptoms of the patient. After the completion of 2-month ayurvedic treatment lipid levels within normal parameters as well as improvement was observed in BMI (Body Mass Index).

Table 3: Showing improvement in symptoms of the patient.

Sr no	Symptoms	Before treatment	On 1 st follow up	After treatment
1	Weakness	Mild	Absent	Absent
2	Lethargy	Moderate	Mild	Absent
3	Excessive sweating	Moderate	Mild	Absent
4	Heaviness of the body	Mild	Absent	Absent

Table 4: Showing improvement in lipid profile.

Sr no	Lipids	Before treatment (20 Aug. 2021)	On 1 st follow up (25 Sep. 2021)	After treatment (28 Oct. 2021)
1	Cholesterol	250 mg/dl	216 mg/dl	168 mg/dl
2	Triglyceride	319 mg/dl	205 mg/dl	174 mg/dl
3	HDL Cholesterol	32 mg/dl	39 mg/dl	42 mg/dl
4	LDL Cholesterol	154.20 mg/dl	136 mg/dl	91.20mg/dl
5	VLDL	63.8 mg/dl	41 mg/dl	34.8 mg/dl
6	LDL/HDL Ratio	4.81	3.5	2.17
7	Chol/HDL Ratio	7.81	5.5	4.0

***Table 4: Showing lipid profile value before and after treatment.**

Report 1 (Before treatment)	Report 2 (On 1 st follow up)	Report 3 (After treatment)

Table 5: Showing improvement in BMI (Body Mass Index)

Sr no	BMI chart/units	Before treatment	On 1 st follow up	After treatment
1	Height - cm	170 cm	170 cm	170 cm
2	Weight - kg	79kg	78.2 kg	76.9 kg
3	BMI - kg/m ²	27.33 kg/m ²	27.05 kg/m ²	26.60 kg/m ²

DISCUSSION

Aarogyavardhini Vati: Aarogyavardhini Vati is a classical Herbomineral formulation that has the property of Pachana, Deepana, Hrudyā (Cardioprotective), Medohara (Lipid-lowering effect), Tridosahara, Malashudhikara, Rasayana, Kshudhavaradhaka (Appetizer), Sarvarogahara (useful in all

diseases), *Dhatvagnivardhana* (increase digestive fire at tissue level), *Pittasravaka* (Improve bile secretions), *Srotoshodhaka* (channels cleaners). It is useful in diseases like *Kustha* (Skin disorders), *Yakrutavikara* (Liver disorder), *Jwara* (All types of fever) [8]. Beneficial in *Shotha* (Odema), *Jalodara* (Ascites), *Bruhataantra* and *Laghuantravikruti* (Intestinal disorders), *Pandu* (Anemia), *Prameha* (Diabetes) [9]. In various research work, *Aarogyavardhini Vati* has been proven for its Anti-Dyslipidemic Activity, Antihyperlipidemic activity, effectiveness in weight loss, antioxidant and anti-inflammatory activity [10]. *Aarogyavardhini Vati* is useful in dyslipidemia by increasing serum HDL and by decreasing serum cholesterol, triglyceride, LDL level [11]. *Katuki* (*Picrorhizakurroa*) is a major component of *Aarogyavardhini Vati* has a choleric effect. *Aarogyavardhini Vati* is proved for its hypolipidemic effects which can prevent atherosclerosis as well as be beneficial in the reduction of dose and side effects of lipid-lowering agents [12]. *Aarogyavardhini Vati* improves liver functions, absorption and metabolic activity of the body which is helpful in the reduction of lipid levels [13].

Medohara Guggulu: *Medohara Guggulu* content *Shunthi*, *Pippali*, *Maricha*, *Chitrakamoola*, *Musta*, *Vidanga*, *Aamlaki*, *Haritaki*, *Vibhitaki* and *Guggulu*. It has *Katu-Tikta Rasa*, *Laghu-Ruksha Guna*, *ushna-Virya*, *Katu-Vipaka* which helps in clear the obstructed channels by decreasing *Aama*, *Meda*, and *Kapha* which causes excess deposition of fat in the body [14]. *Medohara Guggulu* is explained under the *Medoroga Chikitsa* and it's useful in diseases like *Medoroga*, *Kaphapradoshajavyadhi*, *Aamavata*. It will burn fat, enhance the digestion process, it decreases the new accumulation of fat in the body [15].

Triphaladi Kwatha: *Triphaladi Kwatha* is mentioned in Charaka Samhita for diseases that come under *Santarpanjanyavyadhi* [16]. It has *Deepana*, *Pachana*, *Tridosahara*, *Lekhana*, *Vatanulomana*, *Rasayana* property. It will improve the digestion process and enhance the metabolic activity of the body. *Triphala* has hepatoprotective, antioxidant properties and prevents the liver from free radical damage

Abhayachurna with Madhu (Honey):

Abhaya (*Terminalia chebula* Retz.) with *Madhu* (Honey) is mentioned in ayurvedic classical texts for *Santarpanjanyavyadhi* [18]. *Abhaya* is a synonym of *Haritaki*. The drug has the properties like *Lavanarहितapancharasa*, *Vipaka-Madhura*, *Virya-Ushna*, *Guna- Laghu*, *Ruksha*, *Prabhava-Tridosahara*. The pharmacological action of a drug likes *Deepana*, *Pachana*, *Yakrututtejana*, *Mruduvirechana*, *Krumighna*, *Rasayana*. Due to the *Katu*, *Tikta*, *Kashaya Rasa* and *Ruksha Guna* help in *Lekhana* and *Shoshana* of *Meda*, *Kapha* [19]. In the previous research study, the Administration of *Haritaki* with *Madhu* has shown a hypolipidemic effect as well as a reduction in body weight [20]. *Madhu* (Honey) has properties of *Laghu*, *Ruksha*, *Grahi*, *Agnideepana*, *Yogavahi*, *Sukshmasrotogami* (which work upto minute channels), *Medoghna* (reduces body fat) and best *Lekhana* (reduces body weight) [21].

CONCLUSION

In this clinical case study, the patient has shown significant results are observed in symptoms of the patient as well as in serum lipid levels. The drug which is used in the management of Dyslipidemia (*Medoroga*) possesses the properties of antioxidant, anti-inflammatory, hepatoprotective, hypolipidemic. These properties of the drug improve the metabolism of the body thus, Improvement was observed in the symptoms of weakness, lethargy, heaviness of the body and excessive sweating. So, this clinical study shows that dyslipidemia can be managed with ayurvedic medicines effectively and help in preventing the complication of diseases and side effects of the long-term use of statins like lipid-lowering drugs.

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