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# DYSLIPIDEMIA IN AN ADULT MALE: A CASE STUDY OF SERIAL LIPID PROFILES WITH A AYURVEDIC MANAGEMENT PLAN

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## ABSTRACT

**Background:** Dyslipidemia is characterized by abnormalities in circulating lipids and requires assessment of cardiovascular risk. An Ayurvedic assessment may explore *Agni*, *Kapha*, and *Meda* involvement & management. **Case presentation:** The laboratory records of an adult male, XYZ, were reviewed. On 25 March 2026, total cholesterol was 267.9 mg/dL, triglycerides were 448 mg/dL, HDL cholesterol was 38 mg/dL, and non-HDL cholesterol was 229.9 mg/dL. A subsequent report dated 17 July 2026 showed total cholesterol of 210 mg/dL, triglycerides of 164 mg/dL, HDL cholesterol of 59 mg/dL, and non-HDL cholesterol of 151 mg/dL. **Proposed management:** An individualized Ayurvedic plan would include *Nidana Parivarjana*, dietary regulation, regular physical activity, and assessment of *Prakriti*, *Agni*, *Koshta*, and associated illnesses. Dietary measures would emphasize vegetables, pulses, whole grains, and reduced consumption of sweets, refined carbohydrates, and fried foods. Any Ayurvedic medicine would require selection by a qualified practitioner after clinical examination and review of existing medications. Cardiovascular risk assessment, evaluation of secondary causes, and repeat lipid testing would accompany management. Lifestyle modification and management of secondary causes are established

components of triglyceride management. **Results:** Between the two reports, total cholesterol decreased by 57.9 mg/dL, triglycerides by 284 mg/dL, and non-HDL cholesterol by 78.9 mg/dL; HDL cholesterol increased by 21 mg/dL. **Conclusion:** The records demonstrate improvement in lipid parameters. However, absent treatment documentation, they do not establish the effectiveness of Ayurvedic therapy.

**KEYWORDS:** Dyslipidemia; Hypertriglyceridemia; Ayurveda; *Meda*; *Nidana Parivarjana*; Dietary modification; Lipid profile; Case study.

## INTRODUCTION

Dyslipidemia is a metabolic disorder characterized by abnormalities in blood lipids and lipoproteins, including elevated total cholesterol, low-density lipoprotein cholesterol (LDL-C), or triglycerides, and reduced high-density lipoprotein cholesterol (HDL-C). These abnormalities contribute to the assessment of atherosclerotic cardiovascular disease risk. Current guidelines emphasize evaluation of the overall lipid profile, cardiovascular risk factors, and associated medical conditions rather than interpreting an isolated cholesterol value.[1]

Hypertriglyceridemia frequently occurs alongside obesity, diabetes mellitus, dietary excess, alcohol consumption, and other metabolic disturbances. Secondary causes, including underlying illnesses and certain medications, should therefore be evaluated. Lifestyle modification forms an essential component of management and includes an appropriate diet, regular physical activity, weight management when indicated, and reduction of alcohol intake. Lipid-lowering medication is selected according to the patient's cardiovascular risk and the severity of lipid abnormalities.[2]

Within the Ayurvedic framework, dietary excess and inadequate physical activity are discussed in relation to *Santarpanajanya Vyadhi*, or disorders associated with overnutrition. The *Santarpaniya Adhyaya* of *Charaka Samhita* describes the influence of excessive nourishment on health and outlines dietary and activity-based measures for its management. These principles provide a traditional framework for considering nutrition and lifestyle in patients with metabolic abnormalities. However, dyslipidemia is a modern biochemical diagnosis and should not be treated as an exact equivalent of a single classical Ayurvedic disease.[3]

The *Ashtauninditiya Adhyaya* discusses *Sthaulya*, excessive accumulation of *Meda*, and the importance of individualized dietary and behavioral measures. These concepts may inform an Ayurvedic assessment of patients with associated adiposity, but elevated lipid levels alone do not establish *Sthaulya* or confirm a particular *Dosha* disturbance. Consequently, a proposed Ayurvedic management plan requires clinical assessment of constitution, digestion, dietary habits, physical activity, and associated symptoms.[4]

Ayurvedic preparations have also been investigated for their effects on lipid parameters, although clinical findings are inconsistent. A randomized trial published in 1994 reported reductions in total cholesterol, LDL-C, and triglycerides with *Commiphora mukul* administered alongside dietary therapy.[5] In contrast, a subsequent randomized, placebo-controlled trial published in 2003 found that standardized guggulipid did not improve cholesterol levels and could increase LDL-C in the population studied.[6] These findings indicate that traditional use alone does not establish clinical efficacy and that individual formulations require careful evaluation.

The present case study describes changes in the lipid profile of an adult male between March and July 2026 and outlines a proposed individualized Ayurvedic management approach. Because the available records contain laboratory findings without documentation of the intervening treatment, the observed improvement is presented descriptively and cannot be attributed to Ayurvedic therapy.

**AIM:** To describe changes in lipid parameters in an adult male with dyslipidemia and outline a proposed individualized Ayurvedic management plan.

**METHODOLOGY:** A descriptive single-case review was conducted by comparing lipid reports dated 25 March and 17 July 2026; the Ayurvedic plan was proposed because treatment details were unavailable.

## CASE STUDY

### Patient information

XYZ, an adult male, had two lipid profiles performed approximately four months apart. The first report recorded his age as 48 years, while the second recorded 47 years; his correct age requires verification. The available records provide biochemical findings but do not include clinical examination findings, prescriptions, or details of treatment received.

**Clinical history**

The initial lipid profile, dated 25 March 2026, showed elevated total cholesterol and triglycerides, increased non-HDL cholesterol, and low HDL cholesterol. These findings were consistent with dyslipidemia. Presenting complaints, duration of illness, dietary habits, physical activity, alcohol consumption, tobacco use, family history, and previous medication use were not documented. Associated conditions such as diabetes mellitus, hypertension, hypothyroidism, kidney disease, and liver disease also require assessment. Symptoms such as fatigue, excessive sweating, or heaviness should be recorded only if reported by the patient.

**General and systemic examination**

The supplied reports do not document height, weight, body mass index, waist circumference, blood pressure, pulse, or findings from cardiovascular, respiratory, abdominal, and neurological examinations. These parameters should be assessed during consultation to identify associated metabolic abnormalities and establish the patient's cardiovascular risk.

**Ayurvedic assessment**

A complete Ayurvedic examination would include assessment of *Prakriti*, *Vikriti*, *Agni*, *Koshta*, *Bala*, dietary habits, sleep, and physical activity. *Ashtavidha Pariksha* would comprise examination of *Nadi*, *Mutra*, *Mala*, *Jihva*, *Shabda*, *Sparsha*, *Drik*, and *Akriti*. Findings for these examinations are unavailable and cannot be assigned from lipid reports alone.

Possible involvement of *Kapha*, *Meda*, or disturbances of digestive and tissue metabolism may be explored during clinical assessment. These represent a proposed Ayurvedic interpretation rather than a confirmed diagnosis. Dyslipidemia does not, by itself, establish *Sthaulya*, *Ama*, or *Medovaha Srotodushti*.

**TREATMENT DETAILS**

The treatment regimen was given for **three months**, with **Koshna Jala (lukewarm water) as the Anupana for all medicines**.

| **Medicine** | **Dose and frequency** | **Anupana** |
|---|---|---|
| *Triphala Guggulu* | 2 tablets twice daily | *Koshna Jala* |
| *Trikatu Ghana* | 2 tablets twice daily | *Koshna Jala* |
| *hunthi–Musta Jala* | Quantity and frequency not specified | *Koshna Jala* |
| *Dashamoola Ghana* | 250 mg twice daily | *Koshna Jala* |

**Investigations**

The documented lipid values were as follows:

| Parameter | 25 March 2026 | 17 July 2026 |
|---|---|---|
| Total cholesterol | 267.9 mg/dL | 210 mg/dL |
| Triglycerides | 448 mg/dL | 164 mg/dL |
| HDL cholesterol | 38 mg/dL | 59 mg/dL |
| Non-HDL cholesterol | 229.9 mg/dL | 151 mg/dL |
| Reported LDL cholesterol | 140.3 mg/dL | 114 mg/dL |
| Reported VLDL cholesterol | 89.6 mg/dL | 32.8 mg/dL |
| Total cholesterol/HDL ratio | 7.05 | 3.56 |
| LDL/HDL ratio | 3.69 | 1.93 |

The first report's LDL value requires cautious interpretation because triglycerides exceeded 400 mg/dL and the LDL measurement method is unclear. Fasting status was not documented in the available information.

Further assessment may include blood glucose or HbA1c, thyroid function, liver and kidney function, and review of medications and alcohol intake, according to clinical findings.

**Diagnosis**

The initial biochemical findings were consistent with dyslipidemia involving hypercholesterolemia, hypertriglyceridemia, and low HDL cholesterol. The subsequent report showed improvement in the lipid profile. Individual treatment targets require assessment of overall cardiovascular risk.

**Proposed Ayurvedic management plan**

The following plan is proposed for clinical consideration; it is not a record of treatment administered to this patient.

**1. Nidana Parivarjana**

Management would begin by identifying and modifying relevant dietary and lifestyle factors. Excessive intake of sweets, sugar-sweetened beverages, refined carbohydrates, fried foods, and foods rich in saturated fat would be addressed. Alcohol intake, if present, would require assessment and restriction. Irregular meals and sedentary habits would also be reviewed.

**2. Ahara: dietary measures**

An individualized diet would emphasize vegetables, pulses, whole grains, and appropriate portions of fruit. Barley and other suitable whole grains may be included according to

tolerance and nutritional needs. Adequate dietary fibre and balanced protein intake would be encouraged.

Meal quantity and timing would be adjusted to the patient's nutritional requirements and digestive tolerance. Weight reduction would be advised only if excess weight or central adiposity were confirmed. Extreme fasting or restrictive diets would not be prescribed solely on the basis of the lipid reports.

**3. Vihara: lifestyle measures**

Regular physical activity, such as brisk walking, would be introduced according to fitness and medical status. A suitable goal would be at least 150 minutes of moderate activity per week, with muscle-strengthening activities where appropriate. Yoga and breathing practices may be used as supportive activities.

Regular sleep, reduced prolonged sitting, and a consistent daily routine would be encouraged. Activity and weight changes should be documented during follow-up.

**Follow-up and observations**

The second lipid profile was performed on 17 July 2026. Compared with the initial report, total cholesterol, triglycerides, non-HDL cholesterol, and lipid ratios decreased, while HDL cholesterol increased.

| Parameter | Observed change |
|---|---|
| Total cholesterol | Decreased by 57.9 mg/dL |
| Triglycerides | Decreased by 284 mg/dL |
| HDL cholesterol | Increased by 21 mg/dL |
| Non-HDL cholesterol | Decreased by 78.9 mg/dL |
| Total cholesterol/HDL ratio | Decreased by 3.49 |

| Parameter | Before treatment—illustrative | After treatment—illustrative |
|---|---|---|
| Body heaviness (*Gaurava*) | Moderate heaviness during daily activities | Reduced heaviness |
| Fatigue (*Klama*) | Frequent fatigue with routine activity | Reduced fatigue |
| Appetite (*Abhyavaharana Shakti*) | Irregular appetite | More regular appetite |
| Digestion (*Jarana Shakti*) | Occasional post-meal fullness | Reduced post-meal fullness |
| Bowel habits (*Mala Pravritti*) | Occasional constipation | Regular bowel movements |
| Tongue (*Jihva*) | Mild coating | Reduced coating |
| Sleep (*Nidra*) | Irregular sleep pattern | More regular sleep |
| Exercise tolerance | Difficulty maintaining regular activity | Improved tolerance of routine activity |

## DISCUSSION

The present case showed improvement in several lipid parameters between March and July 2026. Total cholesterol decreased from 267.9 to 210 mg/dL, triglycerides from 448 to 164 mg/dL, and non-HDL cholesterol from 229.9 to 151 mg/dL. HDL cholesterol increased from 38 to 59 mg/dL. These changes indicate an improved biochemical profile, although achievement of treatment targets requires assessment of the patient's overall cardiovascular risk. Current dyslipidemia guidelines emphasize individualized risk assessment alongside lifestyle measures and appropriate lipid-lowering therapy.[7]

From an Ayurvedic perspective, nutrition-related metabolic disturbances may be considered through the framework of *Santarpana*, *Kapha*, and *Meda*. The *Santarpaniya Adhyaya* describes disorders associated with excessive nourishment and recommends dietary regulation and physical activity as components of management. This provides a traditional rationale for addressing contributory dietary and lifestyle factors. However, the patient's specific *Dosha*, *Agni*, and *Srotas* involvement cannot be established from laboratory values alone.[8]

The supplied treatment regimen comprised *Triphala Guggulu*, *Trikatu Ghana*, *Shunthi–Musta Jala*, and *Dashamoola Ghana*, with *Koshna Jala* as the stated *Anupana*, for three months. Its intended Ayurvedic rationale may be described as supporting digestion and addressing clinically assessed metabolic disturbances. Nevertheless, the individual contributions of these preparations cannot be separated in a case involving multiple medicines. A specific lipid-lowering mechanism for the complete regimen was not demonstrated by the available observations.

Evidence concerning Triphala-containing preparations requires careful interpretation. A randomized trial of a proprietary Triphala preparation added to atorvastatin reported improvements in total cholesterol, non-HDL cholesterol, and the total cholesterol/HDL ratio compared with placebo plus atorvastatin. However, this was an adjunctive-treatment study and does not establish the effectiveness of Triphala alone or of the formulation used in the present case.[9]

Conversely, a double-blind randomized trial involving 90 participants found that a combination of Guggulu and Triphala administered for three months did not outperform placebo for total cholesterol, LDL cholesterol, BMI, or waist circumference. Although that

preparation cannot automatically be equated with the present *Triphala Guggulu*, its findings demonstrate why improvement in one patient should not be interpreted as proof of efficacy.[10]

Dietary changes, physical activity, weight changes, alcohol intake, and concurrent medication could also have influenced the observed results. These factors require documentation, particularly because management of secondary causes and lifestyle modification are central to treating elevated triglycerides. The treatment start and completion dates must also be verified before describing the March and July reports as pretreatment and post-treatment measurements.[11]

Several limitations affect interpretation. This is a single case without a comparison group, and the two investigations were performed at different laboratories. Fasting status, adherence, concurrent medicines, and adverse effects were not documented. The initial reported LDL value also requires verification because triglycerides exceeded 400 mg/dL and the measurement method was unclear. The previously drafted symptom changes were illustrative and should not be included as observed outcomes unless confirmed in the clinical records.

The case therefore documents improvement in serial lipid measurements in a patient for whom an Ayurvedic regimen was supplied. It does not establish that the regimen caused the improvement or reduced cardiovascular events. Complete prescription details, verified treatment dates, standardized follow-up investigations, and longer-term observations would strengthen the clinical report.

## CONCLUSION

The patient’s lipid profile improved, with reductions in total cholesterol, triglycerides, and non-HDL cholesterol and an increase in HDL cholesterol. The supplied three-month Ayurvedic regimen have contributed to these changes; however, this single case cannot establish its effectiveness.

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