# A comprehensive management of hyperlipidemia with a case study from Adyant Ayurveda

# Abstract

Hyperlipidemia is a prevalent metabolic disorder requiring a holistic comprehensive approach effective and for management. This is a case study of successful treatment in a 42 year old male patient with complaints of hyperlipidemia consulting at Adyant Ayurveda. The patient came with the reports of lipid profile with Total cholesterol 255, Triglycerides 180, HDL cholesterol 156. A comprehensive treatment protocol was planned at Adyant Ayurveda which included Panchakarma virechana therapy, herbal medications, diet and lifestyle modifications. After 1 month of treatment, the lipid values were within normal range. This case study signifies the effectiveness of holistic ayurvedic treatment protocols in reversing hyperlipidemia.

# Introduction

Cholesterol is present in the form of lipophilic protein in the human body. As cholesterol is a important molecule in many cell structures and digestive juices, it is also central to many cell functions in the body. It is essential to maintain in normal levels. When the levels of lipids are raised, including cholesterol and triglycerides, it leads to hyperlipidemia, causing a risk factor for cardiovascular diseases. It has to be regularly monitored through blood tests as lipid profile including total cholesterol, HDL, LDL and triglycerides.

# **Case presentation**

A male patient aged about 42 yrs, approached Adyant Ayurveda Bangalore with reports of raised lipids checked during a routine health check, with associated complaints of weight gain, improper evacuation of bowels and lethargy. The values were Total cholesterol 255, Triglycerides 180, HDL 156

# Ayurvedic assessment and treatment

Based on the principles of Ayurveda a prakruti vikruti analysis and nadipariksha were done. There was an imbalance in pitta and mild imbalance in vata dosha. He was diagnosed with Medodusti associated with apana vayu vikruti. Cardiovascular diseases and Diabetes were the risk factors.

## **Treatment protocol**

At Adyant Ayurveda, a comprehensive treatment protocol was planned by the vaidyas based on the patients prakruti, body type and vikruti, the disorder.

Treatment plan

Panchakarma therapy

A combination of virechan(medicated purgation), basti and a few sessions of Shirodhara were advised and the patient underwent the treatments diligently

## Herbal formulations

A supportive care was planned with internal medications like, triphala, guggulu and herbal medications were given in therapies also.

## **Diet and Lifestyle modifications**

A diet chart which included freshly prepared meals, lots of boiled vegetables, with spices like cumin, ginger, asafetida was advised. Patient was asked to avoid deep fried foods, bakery foods, packed foods and stale foods. Also a strict exercise regime was given along with meditation techniques to keep calm.

#### Results

After a month of comprehensive Ayurveda treatment, there was a significant reduction in weight (around 4kg), bowel movements were normal and energy levels had improved. Adaptation to healthier diet and lifestyle was proving to be beneficial with a high recommendation for the holistic approach for hyperlipidemia by Adyant Ayurveda. The Total cholesterol was 201, triglycerides 74, HDL 46.

## **Discussion:**

This case study demonstrates the efficacy of the comprehensive Ayurvedic approach employed by Adyant Ayurveda in managing hyperlipidemia and restoring metabolic balance. The integration of personalized diet, lifestyle modifications, herbal formulations, and panchakarma therapies addressed the root cause of the patient's condition.

The dietary and lifestyle changes promoted healthy eating habits, physical activity, and stress reduction, which are crucial for lipid management. The herbal formulations and panchakarma therapies targeted the specific dosha imbalances and facilitated the removal of toxins (ama) and restoration of optimal digestion and metabolism

While this case study highlights the potential of Ayurvedic medicine in cholesterol management, further research is needed to validate the findings on a larger scale. Collaboration between Ayurvedic and modern medical professionals may lead to integrative approaches that leverage the strengths of both systems for better patient outcomes.

## Conclusion:

The comprehensive Ayurvedic treatment protocol employed by Adyant Ayurveda was successful in managing raised lipids in the presented case. This case study reinforces the value of personalized, holistic approaches in managing chronic metabolic disorders like hyperlipidemia. Integrating traditional Ayurvedic wisdom with modern healthcare practices holds promise for improving lipid care and reducing the global burden of this prevalent condition.

#### Patient Condition on Treatment Day 1 Date:

#### **General findings**

- Blood pressure (BP): 130/80 mmHg
- Pulse: 82/minutes
- Weight: 86 kg

#### **Physical examination**

- Abdomen: soft, nontender
- Cardiovascular: S1, S2 heard
- Pulmonary: normal breath sounds bilaterally

## Diagnosis

#### Medodosha-Hyperlipidemia

Prakriti

## Kapha Pitta(Dosha).

## **Risk factors**

Specific: Diabetes, Cardiovascular diseases

## Patient Condition at the Completion of His Treatment on Date

## **General findings**

- BP: 110/80 mmHg
- Pulse: 80/minutes
- Weight: 82 kg

## **Clinical examination**

- Abdomen: soft, no organomegaly
- Cardiovascular: normal S1, S2
- Pulmonary: normal breath sounds bilaterally

## **Treatment conclusion**

There were no adverse events during the patient's treatment course. He was advised to continue the internal and external treatments and medications for a period of 1 month with followup on Date. He attained Samyak Lakshana of Virechana, which means that he successfully completed his treatment with desired disease reversal.

## Medications

## Internal medications: Arogyavardhini and triphala

## External medications:

Diet and exercise regimen for the 15 days following treatment:

## Include:

- 1. Follow timely meal schedule. Have freshly prepared warm food.
- 2. Churned butter milk and boiled—cooled water to drink.
- 3. Cooked vegetables.
- 4. Broken wheat (daliya), millets, and jowar should be included in the diet.
- 5. Moderate levels of exercise daily.

## Avoid:

- 1. Refrigerated, deep oily fried, salty, spicy, and canned food items.
- 2. Curd, paneer, cheese, sweets, and sour foods.

- 3. Reduce excess usage of potato, cauliflower, green peas, rajma (kidney bean), chana (chickpea), peanut, and maida (white flour) products.
- 4. Daytime sleeping.
- 5. Exposure to cold water and cold weather

Reports

Methodology: Cholesterol: Cholesterol oxidase, esterase, peroxidase Triglycerides: Enzymatic with glycerol blank HDL, LDL cholesterol: Direct method VLDL cholesterol: Calculated End of the Repo	VLDL         Interpretation :       Measurements in the same patient can show physiological & analytical variations.         Additional testing for Apolipoprotein B, hsCRP, Lp(a) and LP-PLA2 should be considered among moderate risk for Atherosclerotic Cardiovascular Disease	LDL CHOLESTEROL	H.D.L CHOLESTEROL	TRIGLYCERIDE SERVIN	CHOLESTEROL SERUM	Type Of Sample : Serum LIPID PROFILE		Test Name	erified On : Barcode No. : 50686	ponsor : CASH	sferred By : Dr.NALINI M R M.B.B.S. M.D.		a.No/UHID : 156939/UHID156939
esterase, peroxidase cerol blank hod End of the Report	nt can show physiological & in B, hsCRP, Lp(a) and LP Cardiovascular Disease	36	↑ <b>156</b>	R3	180	↑ <b>Э</b> лл	LABORATORY PROFILES	Results	Passport No.	Barcode	<b>Bill Creation Date</b>	Report On	Sample Received
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Age: 42 Year(s) Gender: Ref. No.	M Contact No.: 9886226688 Referring Dr.: DR HC	Reported: 12/05/20 Report Status: Final	
	BIO-CHEMI		
Test Name	Test Result	Biological Reference Range	Sample
LIPID PROFILE STANDARD			
TOTAL CHOLESTEROL (CHOD-PAP)	201 mg/dL	Child Desirable : <170 Borderline High: 170-199 High : >199	SER
		Adult Desirable : <200 Borderline High: 200-239 High : >239	
ENZYMATIC		mg/dL	
TRIGLYCERIDES (FASTING SAMPLE)	74 mg/dL	Less than 150 mg/dl - Normal 150-199 mg/dl - Borderline high 200-499 mg/dl - High More than 500 mg/dl - Very high mg/dL	SER
GPO, Trinder without serum blank		Hore than 500 mg/a - very mg/ mg/a.	
HDL CHOLESTEROL	46 mg/dL	Females: No risk) > 65 Moderate risk - 45 - 65 High risk - 45 - Mais: No risk - > 55 Moderate risk - 35 -55 High risk - < 35 mg/dL	SER
Direct LDL Cholestrol	142 mg/dL	<100 - Optimal 100-129 - near optimal 130 - 159 - Borderline high 160 - 189 - High More than 190 - Very high mg/dL	SER
Non HDL Cholesterol (Calculated)	155 mg/dL	CHD and CHD risk equivalent (10-year risk for CHD >20%): <130 Multiple (2+) risk factors and 10-year risk =2%: < 160 0-1 risk factor: < 190	SER
		Note: Ref range are only approximate guide lines. Risk assessment should take both LDLc and other risk factors to derive over all 10yrs risk of CAD mg/dL	
TOTAL: HDL RATIO	4.37	LESS THAN 4.5	SER
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