# Managing a case of hyperlipidaemia from the homoeopathic perspective: a case report

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ABSTRACT

#### **KEY WORDS**

Case report

Hyperlipidemia Lipid profile analysis Homoeopathy Modified Naranjo Criteria Lycopodium clavatum

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# Introduction

Dyslipidemia is a nomenclature used for an array of disorders encompassing lipoprotein metabolism, including either deficiency or overproduction of lipoproteins or both. Components of dyslipidemia may include elevated levels of LDL cholesterol, elevated levels of triglycerides or both and/or lower levels of HDL cholesterol (1). The most common form of dyslipidemia is hyperlipidemia or high lipid levels, which can result from unhealthy diet (fatty or oily diets), smoking or tobacco exposure, medications (like glucocorticoids), hypothyroidism, uncontrolled diabetes, poor lifestyle regimen, or genetic and can lead to cardiovascular disease (CVD) with severe complications (1-3). Uric acid is an independent risk factor for hyperlipidemia and coronary artery disease (4), and increase intake of alcohol, red meat, refined grains, and sugarrich meals are associated with high serum uric acid levels or hyperuricemia (5). Globally CVDs mark themselves as the leading cause of death with about three quarters of which being contributed from the developing countries (6). In developing countries like India, approximately 25-30% of urban and 15-20% rural subjects are reported to be under the brackets of dyslipidaemia with higher age group prevalence and male predominance. Poorly managed cases of dyslipidaemia may lead to co-morbid symptoms of dyspnoea, lethargy, weight gain, loss of appetite, and also complications like hypertension, hypothyroidism, infertility, poly cystic ovarian disease, atherosclerosis,

Hyperlipidaemia is a disorder characterised by elevated levels of lipid in blood and is frequently regarded as one of the main risk factors for atherosclerotic illnesses, including coronary heart disease. The associated risk factors include obesity, sedentary lifestyle, fatty food intake, excessive alcoholism and smoking. Since hyperlipidaemia has few or no significant clinical signs, a lipid panel or lipid profile analysis constitutes as the primary method of diagnosis. A case of 51-year-old male suffering from Hyperlipidaemia for few years, which was temporarily relieved with conventional treatment, has been presented here. Clinically patient reported with pain in calves, burning feet, dyspepsia and occasional arthritic pain. After a thorough clinical evaluation, Lycopodium Clavatum in increasing potency (up to Q5), was prescribed when needed. The outcome assessment was done by using the 'Modified Naranjo Criteria'. This case report demonstrates improvement of symptoms as well as the reduction of serum cholesterol and triglycerides with individualised homoeopathic treatment.

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coronary artery disease and lastly cardiovascular death (1). Initial management for dyslipidemia or hyperlipidemia and hyperuricemia involves lifestyle modifications and proper diet regime which includes limiting saturated fat, trans fat and cholesterol food intake, high fiber vegetarian diet, avoidance of alcohol, sugar-sweetened drinks and purine rich product as meat, sea food etc. (5,7). Smoking and physical inactivity are associated with low HDL cholesterol concentrations; hence smoking should be avoided and regular exercise should be advised (7). Many homoeopathic medicines like Allium sativum, Aurum metallicum, Baryta muriatica, Calcarea Carbonica, Curdlipid, Rauvolfia serpentina, Strontium carbonicum, Strophanthus hispidus, etc., may be beneficial in the management of lipid disorders. A short review provides some positive leads for managing patients with dyslipidemia using homoeopathy (8).

## **Case presentation**

A 51-year-old male patient visited the OPD of National Institute of Homoeopathy on September 30, 2021 with hyperlipidemia. His lipid profile analysis revealed high levels of cholesterol and Triglycerides. Clinically, the patient reported with cramping in both calves, which worsens at night. Burning and heated feet, primarily on the right side. Occasional arthritic pain throughout the body, particularly in small joints. In addition to acidity or heartburn and sour eructation, which was worst in the afternoon.

## History of present complaints

For the past 3–4 years of duration, the patient had hyperlipidemia and hyperuricemia, for which he received conventional treatment, which provided only temporary relief. He then discontinued his previous medication and decided to begin homoeopathic treatment in order to alleviate his concerns.

#### Personal history

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Patient was married and interpersonal relation was good. He had addiction of smoking. His occupation was business. His accommodation was well ventilated.

#### Mental generals

Patient was irritable and gets easily angry. He wants company and doesn't like to be alone. He was forgetful and weakness of memory.

#### Physical generals

His appetite was good but a slight meal causes fulness of stomach. His diet habitat was non vegetarian. He had marked desire for sweet and fish and aversion for sour food. Intolerance for pulses which causes indigestion. His thirst was moderate and tongue was clear and moist. Thermal reaction was hot. His perspiration was moderate and sleep was adequate.

## Clinical findings

His built was normal and nutrition was good. Blood Pressure – 130/80 mm Hg, pulse – Regular with 84 bpm, respiratory rate – 19/min and Temperature – 98°F. No systemic abnormality was found on clinical examination.

#### Investigations

Lipid profile test revealed high cholesterol, Triglycerides, LDL and VLDL levels; Serum uric acid (SUA) level was 6.80 mg/dL. Both the investigations performed on 23 June 2021 [Table 1]. Past investigations performed on 11 Oct 2018 revealed normal Complete Blood Count (CBC), TSH, fasting plasma glucose (FBS), urea, creatinine (Cr.) and liver function test (LFT).

Table 1: Showing lipid profile and serum uric acid level before treatment

Investigation	Result
Cholesterol	285 mg/dL
Triglycerides	254 mg/dl
HDL Cholesterol	56 mg/dL
LDL Cholesterol	167 mg/dl
VLDL Cholesterol	62 mg/dL
Cholesterol: HDL Ratio	5.09
LDL: HDL Ratio	2.98
Serum uric acid	6.80 mg/dL

### Diagnostic assessment

This case was diagnosed as hyperlipidaemia on the basis of investigation reports. The diagnosis comes under specific code, 5C80.2, in ICD-11 for Mortality and Morbidity Statistics, under Endocrine, nutritional or metabolic diseases—which depicts mixed hyperlipidaemia (9).

#### Case analysis

Analysis and evaluation [Table 2] were done after detailed case taking and a case totality was constructed. The symptoms were taken for repertorisation as follows:

- i. Easily angry
- ii. Desire company
- iii. Forgetful
- iv. Slight meal causes fulness of stomach
- v. Desire for sweet and fish
- vi. Aversion for sour food
- vii. Indigestion from pulses
- viii. Acidity or Heartburn at afternoon
- ix. Cramping in both calves < at night
- x. Burning and heated feet, primarily on the right side.
- xi. Occasional arthritic pain throughout the body, particularly in the lumber region and small joints

#### Table 2: Analysis and evaluation

Characteristic Mental Generals	i. ii. iii.	Easily angry Desire company Forgetful
Characteristic Physical Generals	i. ii. iii. iv. v.	Desire for sweet and fish Aversion for sour food Indigestion from pulses Easy satiety and sensation of fulness of stomach Acidity or Heartburn at afternoon
Particulars	i. ii. iii.	Cramping in both calves < at night Burning and heated feet, primarily on the right side. Occasional arthritic pain throughout the body, particularly in the lumber region and small joints

In this case, repertorisation was carried out by the software RADAR OPUS 3.1.5, using Synthesis Repertory (10). After repertorisation, the top ranked medicines were Lycopodium, Sepia and Sulphur. Repertorial result shown in Figure 1.



Figure 1: Repertorial Sheet

## Therapeutic intervention

Considering the repertorial totality and consultation with Materia Medica, Lycopodium clavatum was selected as individualised homoeopathic remedy for this case. Baseline prescription: Lycopodium clavatum Q1/AD, followed by Lycopodium clavatum Q2/AD was prescribed for 60 days. Advised for daily exercise, less fat intake, low purine rich diet, avoid sugar-sweetened drinks, healthy diet, avoid smoking and alcohol intake, along with investigation of liver function test, repeat lipid profile test and Serum uric acid level.

#### Follow-up and outcome

After receiving the initial prescription, the patient responded favourably, and after one and half months of treatment, an analysis of his lipid profile revealed a favourable improvement and a decline in serum uric acid levels [Table 3]. Clinically, the patient had improved significantly up until three months prior to the recurrence of his symptoms; therefore, Lycopodium clavatum Q3 was administered in conjunction with a placebo on the second visit (07/02/2022). His hunger thereafter much increased, and the cramps in his legs and heartburn were both significantly lessened. There were no more episodes of the associated infrequent arthritic pain. In the third visit (31/05/2022), the patient complained of having burning feet and a minor dyspepsia. Lycopodium clavatum Q4 was then administered, and a repeat lipid profile investigation was also suggested. The patient reported a normal lipid profile test at the fourth visit (05/07/2022), along with a further decline in serum uric acid levels [Table 4]. Changes in Lipid profile and SUA levels at various time points are shown in Figure 2. Clinically, he was significantly better; no new symptoms had appeared, and his previous complaints had not become any worse. Lycopodium clavatum Q5 was prescribed along with a placebo since the burning hot sensation in both feet persisted but was much diminished. Follow up is summarized in Table 5. The outcome and possible causal attribution of the changes in this case were assessed using the 'Modified Naranjo Criteria' (11). The total score of outcome in this case was 9 out of 13, which suggest a "definite" causal attribution between the medicine and its outcome [Table 6].

 Table 3: Showing lipid profile and serum uric acid level during treatment

Investigation	Result
Cholesterol	232 mg/dL
Triglycerides	195 mg/dl
HDL Cholesterol	54 mg/dL
LDL Cholesterol	133 mg/dl
VLDL Cholesterol	45 mg/dL
Cholesterol: HDL Ratio	4.30
LDL: HDL Ratio	2.46
Serum uric acid	6.60 mg/dL

 Table 4: Showing lipid profile and serum uric acid level after treatment

Investigation	Result
Cholesterol	219 mg/dL
Triglycerides	148 mg/dl
HDL Cholesterol	52 mg/dL
LDL Cholesterol	137 mg/dl
VLDL Cholesterol	30 mg/dL
Cholesterol: HDL Ratio	4.21
LDL: HDL Ratio	2.63
Serum uric acid	6.10 mg/dL



Figure 2: Changes in Lipid profile and SUA levels at different time points

# Discussion

Hyperlipidemia is a disorder marked by elevated level of lipid in blood such as cholesterol and triglycerides. Although hyperlipidemia by itself usually does not cause major symptoms, but presence of this underlying pathology frequently causes serious health conditions like coronary heart disease (CHD) which can eventually result in death (12). Hence, to decrease cardiovascular events like CHD and premature death, early detection and treatment are consequently crucial. Available studies confirms that morbidity and mortality of CHD can be reduced by treating the hyperlipidemia (13). Additionally, it has been observed that asymptomatic hyperuricemia is frequently associated with mixed hyperlipidemia or hypertriglyceridemia (14). High serum uric acid has a linear link with triglycerides and LDL cholesterol, but an inverse relationship with HDL cholesterol (4). Therefore, in hyperlipidemic patients, look for associated comorbidities like hyperuricemia and treat accordingly.

Hyperlipidemia in this case was treated using a single homoeopathic medicine, i.e., Lycopodium clavatum, which was selected after a thorough case taking and on the basis of the totality. As diet regime plays an important role in hyperlipidemia, so proper dietary advises (daily exercise, less fat intake, avoid smoking and alcohol intake etc) also given in this case. A detailed evaluation of the clinical presentation was performed during follow-up visits, and the intervention was administered in accordance. The effectiveness of individualized homoeopathic treatment was evaluated in this case by using the Modified Naranjo Criteria, which denote a "definite" causal relationship between the medicine and the result.

The adverse effects of the existing lipid-lowering medications have heightened the tendency to switch towards alternative therapies, and epidemiological observations suggest that doing so has had satisfactory outcomes on the effects of hyperlipidemia in many communities, including developed nations (15) Homoeopathy can play a vital role in

#### Table 5: Follow-up and outcomes

Date	Observation	Prescription	Laboratory investigations
First visit	Baseline symptoms (presented subjective and objective symptoms/signs)	Lycopodium Q1/AD/16 days, followed by Lycopodium Q2/AD/16	Advised for liver function test, repeat lipid profile test and Serum uric acid level.
Second visit	His presenting complaints increases for last 1 months, after initial improvement for 3 months in terms of intensity.	Lycopodium Q3/AD/16 days Rubrum 30 1–2 glob. AD × 16 days	Cholesterol level: 232 mg/dl, Triglycerides level: 195 mg/dl, VLDL level: 45 mg/dl, Serum uric acid level: 6.60 mg/dL, FBS & LFT within normal limits.
Third visit	Acidity and Cramp in calve markedly reduced Appetite much improved, bloating decrease Associated occasional arthritic pain didn't occur. Burning feet slightly reduced	Lycopodium Q4/AD/16 days Rubrum 30 1–2 glob. AD × 16 days	Advised for repeat lipid profile test and Serum uric acid level.
Fourth visit	Occasional Burning hot sensation felt in feet No new symptoms were there and no aggravation of old complaints	Lycopodium Q5/AD/16 days Rubrum 30 1–2 glob. AD × 16 days	Normal lipid profile test and further decrease in serum uric acid levels

#### Table 6: Assessment done by Modified Naranjo Criteria score

Sl. no	Domains	Yes	No	Not sure or N/A		6 B	6 B Direction of cu the following a order of impro	Direction of curve the following as order of improve from organs of t
1	Was there an improvement in the main symptom or condition for which the homoeopathic medicine was prescribed?	+2	-	-			to those of less deeper to more of the individua downwards?	
2	Did the clinical improvement occur within a plausible timeframe relative to the drug intake?	+1	-	_		7	Did "old sympto seasonal and no that were previ have resolved) during the cour	
3	Was there an initial aggravation of symptoms?	-	0	-		8	Are there alterr	
4	Did the effect encompass more than the main symptom or condition (i.e., were other symptoms ultimately improved or changed)	+1	-	-			than the medic probability— c improvement? (Consider know other forms of clinically releva	
5	Did overall wellbeing improve?	+1	_	_		9	Was the health confirmed by a	
6 A	A Direction of cure: did some	-	_	0			(e.g., laboratory observation, etc	
	order of the development of symptoms of the disease?					10	Did repeat dosi create similar c	

6 B	Direction of cure: did at least two of the following aspects apply to the order of improvement of symptoms: – from organs of more importance to those of less importance? –from deeper to more superficial aspects of the individual? –from the top downwards?	_	_	0
7	Did "old symptoms" (defined as non- seasonal and non-cyclical symptoms that were previously thought to have resolved) reappear temporarily during the course of improvement?	-	0	-
8	Are there alternate causes (other than the medicine) that—with a high probability— could have caused the improvement? (Consider known course of disease, other forms of treatment, and other clinically relevant interventions)	_	+1	_
9	Was the health improvement confirmed by any objective evidence? (e.g., laboratory test, clinical observation, etc.)	+2	_	-
10	Did repeat dosing, if conducted, create similar clinical improvement?	+1	-	-

N/A: Not available.

this regard. Several randomized controlled studies suggest that homoeopathic therapy significantly improves hyperlipidemia compared to the control group without any adverse effect (16–18). Lycopodium clavatum is beneficial in the treatment of elevated cholesterol. Several studies demonstrate the effectiveness of lycopodium in lowering elevated cholesterol levels and enhancing the general health of those with hyperlipidemia (19,20). Homoeopathic medicines could therefore be used in addition to conventional medicine to treat hyperlipidemia.

# Conclusion

Dyslipidaemia or hyperlipidemia is a curse bestowed on humanity owing to the tremendous unhealthy lifestyle modifications and the deleterious effects of the existing lipid-lowering medications have made alternative therapies paint itself lucrative and prove the same. Homoeopathy fills in the potholes of management in lifestyle disorders like hyperlipidemia only to act as a saviour in the war of life long repetition of innumerable drugs and aids. This case study demonstrates a favourable outcome for the treatment of hyperlipidemia using individualised homoeopathic medicine with therapeutic lifestyle adjustments. More well-designed studies, however, are warranted to strengthen homoeopathy's efficacy in the treatment of hyperlipidemia.

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# Authors' contribution

KD, NS: Data acquisition, Conceptualization/design, analysis and writing the original draft.

SV, AKT: Formal Analysis, reviewing and editing.

Each author has given their consent for the final version to be published and agrees to be responsible for all parts of the work to ensure that any concerns regarding the accuracy or integrity of any component of the work are duly investigated and addressed.

# **Informed consent**

The patient willingly gave his consent in written for publication of this case report.

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# **Conflict of interest**

None.

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