



## EFFECT OF VASAGUDUCHCHADI KASAYAM IN A CASE OF HYPERLIPIDAEMIA - A CASE STUDY

Durbadal Majumdar<sup>1</sup>, Phalguni Bhattacharya<sup>2</sup>, Suman Kundu<sup>3</sup>

<sup>1</sup>Assistant Professor, Dept. of Shalyatantra, Raghunath Ayurved Mahavidyalaya & Hospital, Contai, Purba Medinipur, West Bengal, India

<sup>2</sup>Assistant Professor, Dept. of Kaumarbhritta, Raghunath Ayurved Mahavidyalaya & Hospital, Contai, Purba Medinipur, West Bengal, India

<sup>3</sup>Associate Professor, Dept. of Kayachikitsa, Raghunath Ayurved Mahavidyalaya & Hospital, Contai, Purba Medinipur, West Bengal, India

Corresponding Author: [drdurbadalmajumdar@gmail.com](mailto:drdurbadalmajumdar@gmail.com)

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## ABSTRACT

*Vasa-Guduchchadi Kasayam* is a widely used drug in *Ayurveda*. As per *Ayurvedic* literature '*Sahasrayoga*', *Vasa-guduchchadi Kasayam* is a water decoction or water extract of a group of herbs, namely *Vasaka*, *Guduchi*, *Triphala*, *Kutaki*, *Bhunimba*, *Nimba*. It is mainly indicated in *Pittaja Pandu*. In this study, a lipid-lowering activity of *Vasa-guduchchadi Kasayam* has been found in a case of hyperlipidaemia. *Vasa-Guduchchadi Kasayam* was prescribed as sole medication in that case not as co-therapy with any other conventional drug.

**Keywords:** *Vasaguduchchadi Kasayam*, Hyperlipidaemia

## INTRODUCTION

Disorders of lipid metabolism are one of the frequent pathological phenomena now a day in the population.

Lipid disorders play an important role in the pathogenesis of atherosclerosis and subsequent coronary

artery diseases.<sup>1</sup> Hyperlipidemia is defined as elevations of fasting total cholesterol concentration which may or may not is associated with elevated TG concentration.<sup>2</sup> Lipid closely correlates with the concept of *Meda* in *Ayurveda*. Circulating lipid in the blood is known as *Abaddha Meda* in *Ayurveda*.<sup>3</sup> Hyperlipidemia can broadly be classified as isolated elevation of cholesterol, isolated elevated TG and elevations of both. Hyperlipidemia is originated from both primary secondary causes. An important secondary cause of high cholesterol is hypothyroidism. Other important contributors to secondary hyperlipidemia include diabetes, renal disease, alcoholism, poor lifestyle regimen.<sup>4</sup> Diagnostic confirmation is achieved in hyperlipidaemia via serum fasting lipid profile, which routinely includes LDL, HDL, triglycerides, and total cholesterol.<sup>5</sup> Lipid disorders may be considered as *Medadusti* in *Ayurveda*. *Meda-Upashoshana* and *Srota Ksharatwa Utpadan* are two significant pharmacological actions of *Tikta Rasa* that make it suitable to administer as a therapeutic agent in such conditions.<sup>6</sup>

### CASE REPORT

The patient was male and having 41 years of age and residing at Contai, Purba Medinipur, West Bengal came to Kayachikitsa OPD of Raghunath Ayurved Mahavidyalaya & Hospital on 13/08/20 with a chief complaint of disturbed sleep. The patient was non-hypertensive and non-diabetic till August 2020. The patient was found to be affected by hyperlipidaemia accidentally on a routine investigation.

### Present illness:

Date	Serum cholesterol	Serum triglyceride	LDL	HDL
14/08/2020	274 mg/dl	190 mg/dl	230 mg/dl	34 mg/dl
02/10/2020	220 mg/dl	150 mg/dl	130 mg/dl	42 mg/dl
17/11/2020	190 mg/dl	130 mg/dl	94 mg/dl	49 mg/dl

### DISCUSSION

According to '*Sahasrayoga*', *Vasaguduchchadi Kasayam* is a water decoction or water extract of several herbs including *Vasaka*, *Guduchi*, *Triphala*, *Kutaki*,

The patient was healthy but got inadequate sleep both in respect to quality and duration.

**Drug History:** No history of regular medication.

**Physical Examination:** Vital sign at the time of 1st visit was as following -

Blood Pressure - 124/84 mm of Hg, Pulse - 78 bpm, Respiratory Rate - 19/min, no abnormality was found in physical examination.

### Investigation:

A routine examination of full blood count, lipid profile, fasting blood glucose which was advised on 13/08/20 and done on 14/08/20, was as following

Red cell count -  $5.9 \times 10^{12}$  /cmm

Total leucocyte count -  $6.2 \times 10^9$  /cmm

Neutrophils - 70%

Lymphocyte - 26%

Basophils - 1%

Eosinophils - 1%

Monocytes - 2%

Fasting blood glucose - 89 mg/dl,

Serum cholesterol - 274 mg/dl

Serum triglyceride - 190 mg/dl

LDL - 230 mg/dl

HDL - 34 mg/dl

The treatment advice to patients: Only *Vasaguduchchadi Kasayam* was advised to the patient orally at the dose of 25 ml twice daily on empty stomach with normal water. Conventional hypolipidaemic drugs were advised.

Follow up: The patient was evaluated by biochemical markers of hyperlipidemia in a regular interval for more than three months and the following were the outcome.

*Bhunimba*, *Nimba*. It is mainly indicated in *Pandu*, *Raktapitta* and *Kamala*.<sup>7</sup> *Vasaka*, *Guduchi*, *Kutaki*, *Bhunimba* and *Nimba* are *Tikta Rasa Pradhan Dravya*. *Guduchi* is associated with a significant reduc-

tion of serum and tissue cholesterol in alloxan diabetic rats.<sup>8</sup> Similarly hypolipidemic effects have been shown in *Triphala* on the experimentally induced hypercholesteremic rats.<sup>9</sup> Hypolipidaemic effect of Kutaki includes Low-density lipoprotein (LDL), triglyceride and total cholesterol levels are significantly reduced by *Kutaki* in high-fat diet treated mouse although serum HDL level seems not affected.<sup>10</sup> Andrographolide and neoandrographolide are the diterpenoids from *Bhunimba* which are effective to reduce the levels of triglyceride, total cholesterol (TC) and low-density lipoprotein cholesterol in mice and rats.<sup>11</sup> Neem has been shown protective effects against hyperlipidemia via improvement of the function of antioxidant markers and inhibition of oxidative damage of lipoproteins.<sup>12</sup>

## CONCLUSION

In this case study, *Vasaguduchchadi Kasayam* has been found to alleviate the markers of hyperlipidaemia. Further extensive experimental and clinical research is essential to explore and establish its hypolipidemic effect.

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