EFFECT OF NIDANA PARIVARJANA, DIETARY REGULATION, AND AYURVEDIC THERAPEUTICS IN FATTY LIVER WITH ASSOCIATED DYSLIPIDEMIA

ABSTRACT

This case study presents a 27-year-old male diagnosed with *Medoroga* (dyslipidemia), complicated by *YakritRoga* (Grade II fatty liver) and *Ashmari* (renal calculus). The *Ayurvedic* management was based on classical principles emphasizing *NidanaParivarjana* (avoidance of causative factors), *Pathya-Apathya* (dietary regulation), and *ShamanaChikitsa* (palliative treatment). The intervention aimed at correcting *Medo-DhatvagniMandya* (impaired lipid metabolism) and clearing *Srotorodha* (microchannel obstruction), thereby restoring *Dosha* balance. Appropriate *Ayurvedic* formulations and lifestyle modifications, resulted in significant clinical improvement. Ultrasonographic evaluation revealed notable improvement in liver and kidney. The patient also demonstrated enhanced physical and emotional well-being. This case highlights the holistic and individualized approach of *Ayurveda* in managing *SantarpanjanyaVyadhi* (diseases of over-nutrition) like dyslipidemia, offering a sustainable, non-invasive, and effective treatment modality for metabolic disorders and associated complications.

KEYWORDS

Ashmari, Dyslipidemia, Grade II Fatty Liver, *Medo-DhatvagniMandya, Medoroga, NidanaParivarjana, Panchakarma, SantarpanjanyaVyadhi, ShamanaChikitsa, Srotorodha*and*YakritRoga*

INTRODUCTION

Dyslipidemia refers to abnormal levels of lipids (fats) in the blood, including elevated total cholesterol, low-density lipoprotein cholesterol (LDL-C), triglycerides (TG), and reduced high-density lipoprotein cholesterol (HDL-C). It is one of the major risk factors for atherosclerosis, cardiovascular disease (CVD), stroke, and metabolic syndrome. The condition often remains asymptomatic, earning it the nickname "silent killer" due to its progressive damage to blood vessels and organs.[1]Dyslipidemia is categorized into two main types: primary and secondary. Primary dyslipidemia typically results from inherited genetic conditions, such as familial hypercholesterolemia. In contrast, secondary dyslipidemia develops due to lifestyle-related factors or underlying health issues like obesity, type 2 diabetes, hypothyroidism, chronic kidney disease, and alcohol consumption. The condition manifests in different forms, including hypercholesterolemia (high total cholesterol or LDL-C), hypertriglyceridemia (elevated triglycerides), mixed dyslipidemia (a combination of high LDL-C and triglycerides with low HDL-C), and isolated low HDL-C, which is frequently associated with metabolic syndrome.[2]Excess circulating lipids, particularly LDL-C, undergo oxidative modification and are deposited in the arterial wall, initiating an inflammatory cascade. This leads to plaque formation, endothelial dysfunction, and narrowing of arteries (atherosclerosis), which are precursors to coronary artery disease and stroke. In cases like non-alcoholic fatty liver disease (NAFLD), lipid accumulation in the liver (hepatic steatosis) is commonly associated with dyslipidemia, contributing to metabolic dysfunction and insulin resistance.[3]Dyslipidemia is mainly diagnosed through a fasting lipid profile, which measures

total cholesterol, LDL-C, HDL-C, and triglyceride levels. These blood tests help identify abnormal lipid levels that increase the risk of cardiovascular and metabolic diseases. In addition to lab tests, imaging techniques such as ultrasound and elastography can detect fatty liver, a common complication of dyslipidemia. Furthermore, kidney scans may reveal related conditions like nephrolithiasis (kidney stones), which can be linked to underlying metabolic imbalances associated with lipid disorders.[4]

Recent developments in dyslipidemia treatment include advanced therapies targeting lipoprotein(a) and LDL-C, such as lepodisiran, muvalaplin, and pelacarsen, which have demonstrated up to 95% reductions in Lp(a) levels in early trials, while agents like AZD0780, inclisiran, and VERVE-101 show significant LDL-C lowering through oral, siRNA, or gene-editing approaches. Additionally, novel therapies including solbinsiran, lerodalcibep, plozasiran, and pemafibrate are emerging with promising efficacy and safety profiles in early-phase studies. [5,6,7]

In *Ayurveda,* dyslipidemia—characterized by abnormal lipid levels—is seen as *Medoroga* (disorder of *Medadhātu*) or *Medodushti* (vitiation of fat tissue), arising from impaired *Medo-Dhatwagni* (lipid metabolism) and obstruction (*Srotorodha*) in microchannels (*Srotas*) due to metabolic imbalances. It aligns with the concept of *SantarpanjanyaVyadhi*, diseases arising from over-nutrition and sedentary habits. This condition is often precipitated by factors such as *Avyayama*(lack of exercise), *Adhyashana*(overeating), consumption of *Guru-SnigdhaAhara*(heavy, oily foods), *Divasvapna*(daytime sleeping), *AtiMadhura*(excessive sweets), and *Beejadosha*(genetic predisposition). *Panchakarma* therapies such as *Virechana* and *LekhanaBasti* have shown significant lipid-lowering and metabolic benefits in clinical studies, with outcomes comparable to conventional statins, especially when combined with *ayurvedic*formulations. Additionally, *ayurvedic* interventions and dietary regimens rooted in *Mitahara* and *NidanaParivarjana* play a crucial role in correcting lipid imbalances and supporting long-term cardiovascular health.

OBJECTIVE

To evaluate the efficacy of *Ayurvedic* interventions, including *NidanaParivarjana*, *Pathya-Apathya*, and *ShamanaChikitsa*, in correcting *Medo-DhatvagniMandya*, clearing *Srotorodha*, and restoring *Dosha* balance in *Medoroga* with associated *YakritRoga* and *Ashmari*.

CASE REPORT

A 27-year-old male with a confirmed diagnosis of dyslipidemia (*Medoroga*) visited to JeenaSikhoLifecare Limited Hospital, Vadodara, Gujarat, India, on March 12, 2025. Recent ultrasonography dated March 11, 2025, revealed a liver of normal size and morphology, exhibiting increased echotexture with focal fatty sparing, consistent with Grade II hepatic steatosis (*YakritRoga*). The gallbladder, pancreas, spleen, prostate, and urinary bladder were unremarkable without significant abnormalities. A 6 mm calculus (*Ashmari*) was identified in the lower calyx of the left kidney, with no evidence of obstruction or hydronephrosis. Other abdominal structures appeared normal, with no free fluid accumulation or lymphadenopathy observed.

Clinical parameters, including vital signs, are documented in Table 1, and findings from the *AshtasthanaPareeksha* are summarized in Table 2, with baseline ultrasonographic data presented in Table 3. Pre-treatment laboratory investigations are provided in Table 4.

Following a comprehensive *Ayurvedic* evaluation, a personalized therapeutic regimen was developed, incorporating *Ayurvedic* pharmacotherapy (*Shaman*) alongside customized dietary (*Ahar*) and lifestyle (*Vihar*) modifications.

Table 1: Vitals from each consult

Date	Blood Pressure	Pulse Rate	Weight
12-03-2025	120/90 mm Hg	74/min	61.900 Kg
12-04-2025	110/70 mm Hg	59/min	59.200 Kg
14-06-2025	130/80 mm Hg	78/min	60 Kg
16-08-2025	110/60 mm Hg	61/min	62 Kg

Table 2: *AshtasthanaPareeksha* of the patient

Parameters	Findings
Nadi (Pulse)	*VatajPittaj*
Mala (Stool)	*Avikrit* (Normal)
Mutra (Urine)	*Avikrit* (Normal)
Jiwha (Tongue)	*Saam* (Coated)
Shabda (Voice)	*Spashta* (Clear)
Sparsh (Touch)	*Anushnasheet* (Normal)
Akriti (Physique)	*Madhyam* (Normal)
Drik (Eyes)	*Prakrit* (Normal)

Table 3: Pre-treatment ultrasonographic dataas of March 11, 2025

Organ/System	Findings	Remarks/Impression
Liver	Normal size and shape; generalized increased echotexture with few areas of focal fatty sparing. Grade II fatty liver.	No IHBR dilation; normal CBD and portal vein.
Gallbladder	Partially distended with normal wall thickness; no sludge or calculus; no pericholecystic collection.	No abnormalities detected.
Pancreas	Normal size and echotexture; no bulky or hypoechoic areas; no peripancreatic fluid; pancreatic duct not dilated.	Normal appearance.
Spleen	Normal size and shape with homogenous echotexture; no focal or diffuse mass seen; splenic vein normal at hilum.	No abnormalities detected.
Right Kidney	Normal size, shape, echotexture; well-preserved cortico-medullary differentiation; no focal/diffuse lesion, stone, or hydronephrosis.	Normal right kidney.
Left Kidney	6 mm calculus in lower calyx; normal size, shape, echotexture; well-preserved cortico-medullary differentiation; no focal/diffuse lesion or hydronephrosis.	Left renal calyceal calculus without obstruction.
Urinary Bladder	Partially distended; no calculus or focal mass; normal wall thickness.	No abnormalities detected.
Prostate	Normal size (12 cc), shape, and echotexture; no focal/diffuse mass lesions.	Normal prostate.
Prevoid Volume	400 cc	
Postvoid Volume	10 cc (insignificant residual urine)	
Peritoneal Cavity	No free fluid noted	No ascites.
Bowel Wall	Thickness within normal limits	
Lymphadenopathy	No significant intra-abdominal lymphadenopathy	
Impression	Left renal calyceal calculus without obstructive changes.	
	Fatty liver Grade II.	

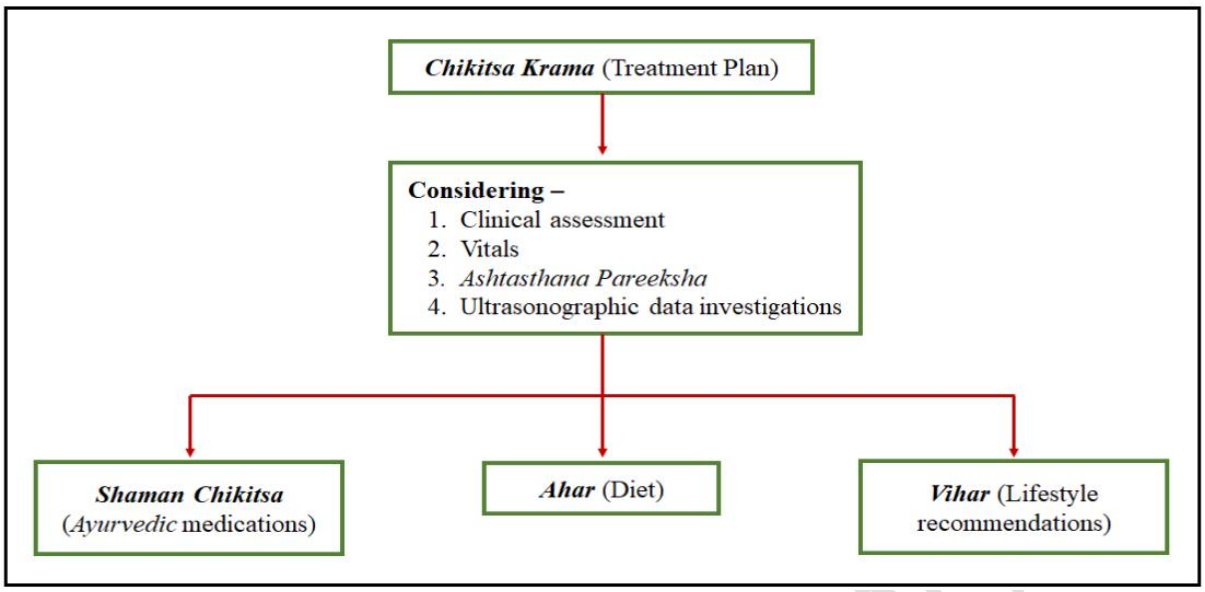
Table 4: Pre-treatment laboratory findings as of March 08, 2025

Tests	Values
Total Cholesterol	241 mg/dl
high-density lipoprotein (HDL) cholesterol	48 mg/dl
Non HDL Cholesterol	193 mg/dl
low-density lipoprotein (LDL) cholesterol	139 mg/dl
Very Low-Density Lipoprotein (VLDL) cholesterol	60 mg/dl
Triglycerides	301 mg/dl

TREATMENT PLAN

The treatment approach has been systematically outlined in Figure 1, depicting the structured framework of the *ChikitsaKrama*.

Figure 1: *ChikitsaKrama* of this case



I. *Shaman Chikitsa*

Based on the clinical evaluation, a detailed and patient-specific medication protocol was devised, as outlined in Table 5.

Table 5: *Ayurvedic* medicines prescribed

Date	Medicines	Dosage with *Anupana* (Medium)
12-03-2025	Uder Vikar Janya Rog Churna	Half teaspoon BD (*Adhobhakta* with *Koshna Jala*) *
	Arogya Vati tablet	1 Tab BD (*Adhobhakta* with *Koshna Jala*)
	Relivion powder	Half Teaspoon HS (*Nishikala* with *Koshna Jala*)
	Ciro - Care	1 Cap BD (*Adhobhakta* with *Koshna Jala*)
	Yakrit Tonic	15 ml BD (*Adhobhakta* with *Sama Matra Koshna Jala*) **
	Lipi Capsule	2 Cap BD (*Adhobhakta* with *Koshna Jala*)
12-04-2025, 14-06-2025 & 16-08-2025	Uder Vikar Janya Rog Churna	Half teaspoon BD (*Adhobhakta* with *Koshna Jala*)
	Arogya Vati tablet	1 Tab BD (*Adhobhakta* with *Koshna Jala*)
	Ciro - Care	1 Cap BD (*Adhobhakta* with *Koshna Jala*)
	Yakrit Tonic	15 ml BD (*Adhobhakta* with *Sama Matra Koshna Jala*)
	Lipi Capsule	2 Cap BD (*Adhobhakta* with *Koshna Jala*)
* ***Adhobhakta* with *Koshna Jala*** - After Meals with Lukewarm Water		
** ***Adhobhakta* with *Sama Matra Koshna Jala*** - After Meals with Equal Amount of Lukewarm		

II. *Ahar*

A targeted dietary strategy, notably the incorporation of a diabetes-specific meal plan, is essential in mitigating the progression of Dyslipidemia. In this case, a personalized diet regimen was meticulously formulated to address the patient's specific clinical requirements.[8]

a) *Pathya* (allowed):[9, 10]
   - Fresh and homemade food
   - Millet diet
   - Fresh fruits

b) *Apathya* (Avoid):[9, 10]
   - Wheat, Packed food, Refined food, Diary food/ Animal food, Coffee and Tea
   - Nutritional Supplements
   - Never eat after 8 PM
   - Non-steroidal anti-inflammatory drugs (NSAIDs)
   - In solid take small bite and chew 32 times
   - In liquid take sip and drink slowly

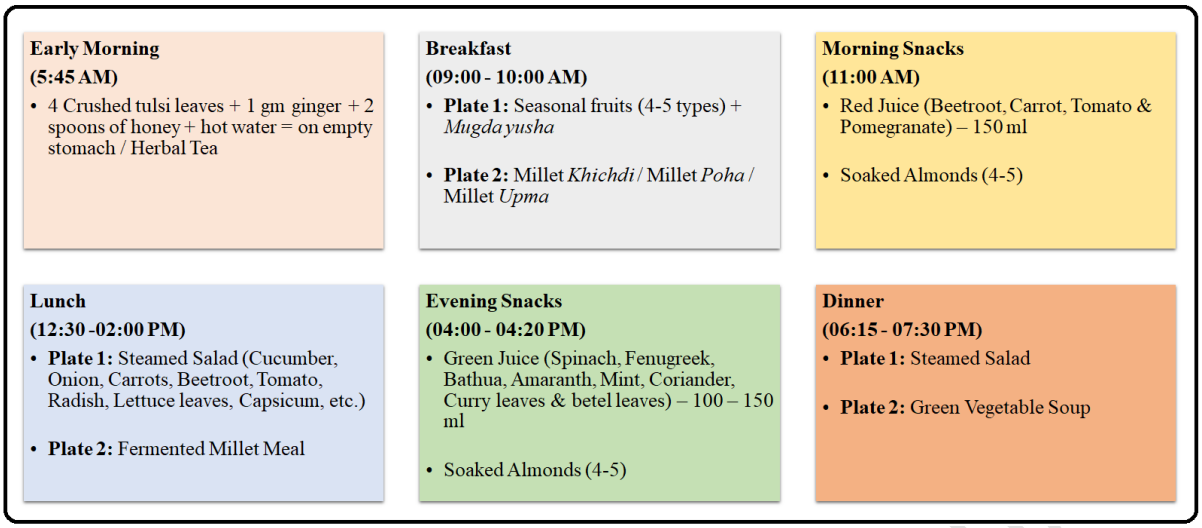
c) Hydration[11]
   - Boil 2 litres of water, reduce it to half (1 litre) and consume
   - Alkaline water - 3-4 times a day (1 litre)
   - Herbal tea (32 herbs tea)
   - Living water
   - Coconut water and Coconut milk
   - Almond milk

d) Millet Meal[12]
   - Foxtail (*Setariaitalica*)
   - Barnyard (*Echinochloaesculenta*)
   - Little (*Panicumsumatrense*)
   - Kodo (*Paspalumscrobiculatum*)
   - Browntop (*Urochloa ramose*)

e) Grains[13]
   - *Chanaka* (Bengal gram) – *Cicer arietinum*
   - *Adhaki* (Toor dal) - *Cajanuscajan*
   - *Mugda* (Green gram) - *Vignaradiata*
   - *Kulattha* (Horse gram) - *Macrotylomauniflorum Lam*.

f) Special Instructions[11]
   - Brisk walking 30 min with barefoot
   - Sit in sunlight for 1 hour
   - 10 min slow walk after every meal
   - One day fasting is recommended
   - Get quality sleep (8 hours)
   - Cook millets in a steel cookware using only mustard oil.
   - Sit in *Vajrasana* after every meal

g) Meal Structure[11]



Herbal Tea: [11]

Gauzaban *(Borago officinalis),* ***Kulanjan*** *(Alpinia galanga),* ***Badi Elaichi*** *(Amomum subulatum),* ***Laung*** *(Syzygium aromaticum),* ***Badiiyan Khtayi*** *(Illicium verum),* ***Banafsha*** *(Viola odorata),* ***Jufa*** *(Hyssopus officinalis),* ***Ashwagandha*** *(Withania somnifera),* ***Mulethi*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Brahmi*** *(Bacopa monnieri),* ***Chitrak*** *(Plumbago zeylanica),* ***Marich*** *(Piper nigrum),* ***Adoosa*** *(Justicia adhatoda / Adhatoda vasica),* ***Saunf*** *(Foeniculum vulgare),* ***Shankh Pushpi*** *(Convolvulus pluricaulis),* ***Arjun*** *(Terminalia arjuna),* ***Tulsi*** *(Ocimum sanctum),* ***Motha*** *(Cyperus rotundus),* ***Senaye*** *(Cassia angustifolia),* ***Sounth*** *(Zingiber officinale, dried ginger),* ***Majeeth*** *(Rubia cordifolia),* ***Sarfoka*** *(Tephrosia purpurea),* ***Dalchini*** *(Cinnamomum zeylanicum),* ***Gulab*** *(Rosa damascena),* ***Green Tea*** *(Camellia sinensis),* ***Giloy*** *(Tinospora cordifolia),* ***Tej Patta*** *(Cinnamomum tamala),* ***Lal Chandan*** *(Pterocarpus santalinus),* ***White Chandan*** *(Santalum album) and* ***Pudina*** *(Mentha piperita)*

Red Juice [11]

- A 150 ml formulation was prepared using a combination of beetroot, carrot, tomato, and pomegranate.

Green Juice [11]

- A 150 ml preparation was formulated using spinach, fenugreek, bathua, amaranth, mint, coriander, curry leaves, and betel leaves,

Green Vegetable Soup: [11]

- Spinach, Peas, Carrots, Cabbage, Capsicum, Ghee, Zucchini, Cucumber, Green Gram, etc. (10 grams each)
- Add Ginger, Garlic and Black Salt
- Grind & boil for a minute
- Add lemon as per taste & serve

III. *Vihar*[11]

- **Meditation**: The patient was advised to incorporate a one-hour daily meditation practice as part of the prescribed therapeutic protocol.
- ***Yoga***: The patient was recommended to practice *SukshmPranayam* and *Sukhasan* for 40 minutes daily.
- **Sleep**: The patient was advised to maintain 6 to 8 hours of continuous and restorative sleep each night.
- **Walking**: The patient was instructed to perform a daily 30-minute brisk walk without footwear.
- **Daily Routine**: The patient was advised to follow a structured and disciplined daily regimen.

OBSERVATIONS & RESULTS

Throughout the treatment period, the patient showed consistent and progressive clinical improvement. Assessments of quality of life indicated marked enhancement in both physical and emotional health. Significant changes were noted across four outpatient consultations.Ultrasonographicresults revealed a notable improvement in liver and kidney. as

presented in Table 6.Additionally, laboratory evaluations revealed significant decreases in key biochemical parameters, as detailed in Table 7.

Table 6: Pre and Post – treatment Ultrasonographicevaluations

Parameter	Before Ayurvedic Intervention (11/03/2025)	After Ayurvedic Intervention (14/06/2025)
Liver Echotexture	Generalized increased echotexture with focal fatty sparing – Fatty Liver Grade II	Normal echogenicity, no fatty infiltration or fibrosis noted
Left Kidney	6 mm calculus in lower calyx, no obstruction/hydronephrosis	Normal
Final Impression	Fatty Liver Grade II Left renal calyceal calculus (6 mm)	No focal lesion or fatty change; Normal elastography findings

Table 7: Pre and Post – treatment laboratory evaluations

Tests	Values	
	08-03-2025	08-08-2025
Total Cholesterol	241 mg/dl	160 mg/dl
high-density lipoprotein (HDL) cholesterol	48 mg/dl	42 mg/dl
Non HDL Cholesterol	193 mg/dl	118 mg/dl
low-density lipoprotein (LDL) cholesterol	139 mg/dl	81 mg/dl
Very Low-Density Lipoprotein (VLDL) cholesterol	60 mg/dl	44 mg/dl
Triglycerides	301 mg/dl	221 mg/dl

DISCUSSION

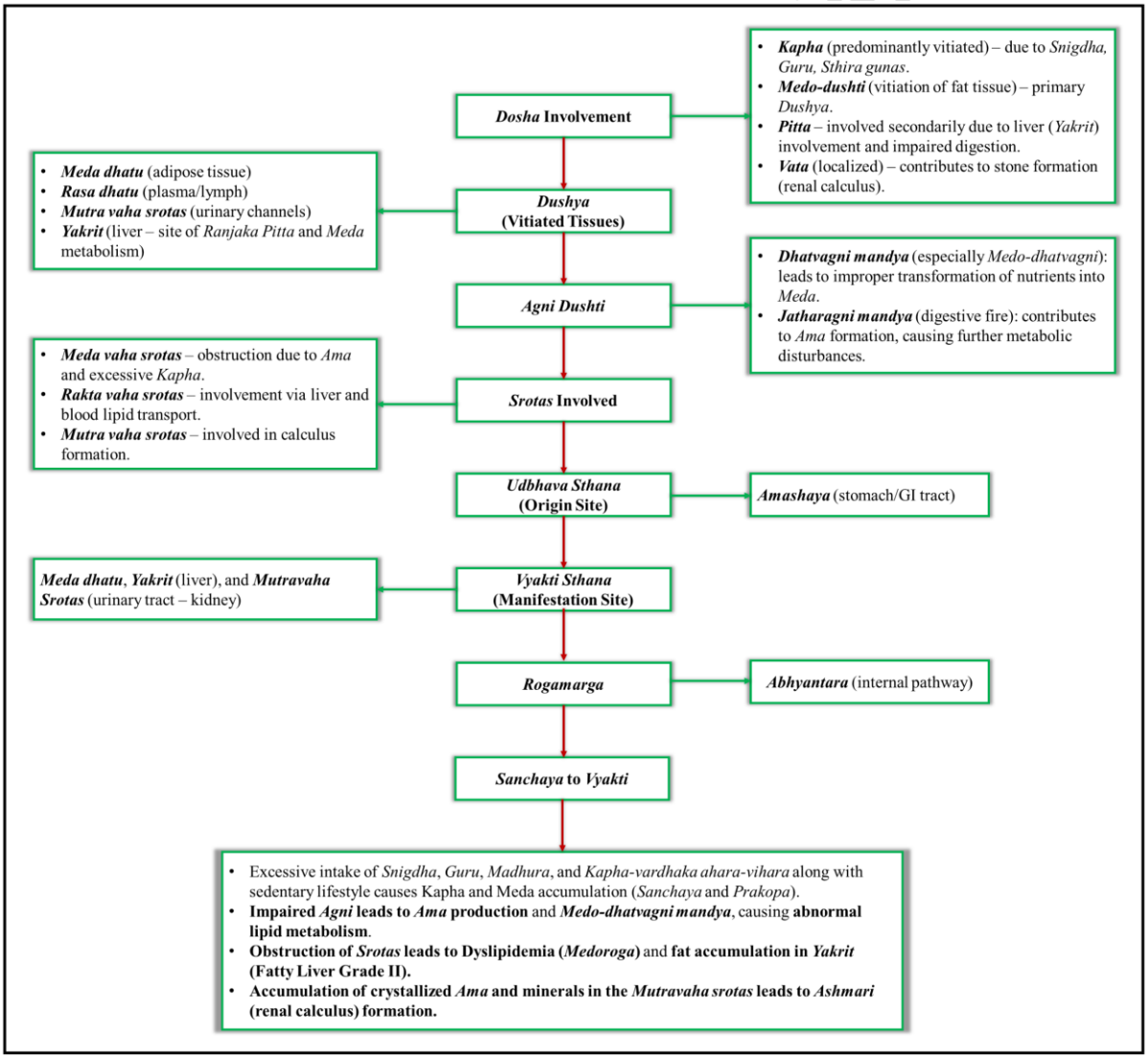
A 27-year-old male with a documented history of Dyslipidemia (*Medoroga*) received a comprehensive *Ayurvedic* treatment protocol at JeenaSikhoLifecare Limited Hospital. Pre-treatment ultrasonography revealed Grade II fatty liver and a non-obstructive 6 mm calculus in the lower calyx of the left kidney. A detailed clinical evaluation, including vital parameters, *AshtasthanaPareeksha*, and supportive laboratory investigations, guided the formulation of a personalized therapeutic approach. The integrative management plan focused on *NidanParivarjan* (elimination of etiological factors), complemented by individualized dietary (*Ahar*), lifestyle (*Vihar*), and palliative *Ayurvedic* (*ShamanChikitsa*) measures.

NidanParivarthan:The management of *Medoroga* (Dyslipidemia) focuses on eliminating causative factors that vitiate *MedaDhatu*. This includes avoiding excessive intake of *Snigdha*, *Guru*, and *MadhuraAhara* (oily, heavy, and sweet foods), processed items, and irregular eating habits. Lifestyle modifications such as increasing physical activity, avoiding daytime sleep (*Divaswapna*), reducing mental stress (*Chinta*, *Shoka*, *Krodha*), and maintaining a disciplined routine are essential. Suppression of natural urges (*VegaDharana*), irregular bowel movements, and genetic predispositions (*BeejaDosha*) should also be addressed for effective prevention and control of *Medoroga*.

***Samprapti*:**A comprehensive flowchart illustrating the *Samprapti* (pathogenesis) is provided in Figure 2. This diagram explains the *Ayurvedic* pathogenesis of *Medoroga* (dyslipidemia) and its complications. It begins with the involvement of various *Doshas* and *Dhatus*, where

Kapha is predominantly vitiated due to factors like *Snigdha* (unctuous), *Guru* (heavy), and *Shita* (cold) qualities, leading to *Medo-dushti* (vitiation of fat tissue). The impaired *Agni* (digestive/metabolic fire), particularly *Dhatvagni*, causes improper transformation of nutrients, resulting in *Ama* (toxic metabolites) formation and disruption in lipid metabolism. The obstruction in various body channels (*Srotas*), including *Medavah* (fat tissue channels), *Raktavah* (blood channels), and *Mutravah* (urinary channels), further aggravates the condition. The origin of pathology is mainly in the stomach and gastrointestinal tract (*Amashaya*), while manifestations appear in the liver (*Yakrit*) and kidneys (*MutravahSrotas*). This leads to clinical conditions like dyslipidemia, fatty liver (*Yakrit Rog*), and renal calculi (*Ashmari*). Key causative factors include excessive intake of unwholesome foods (*Snigdha, Guru, Madhura*), sedentary lifestyle, and impaired metabolism, which together cause *Kapha* and *Meda* accumulation, *Ama* build-up, and blockage of microchannels, resulting in the disease progression.[14]

Figure 2: *Sampraptiof Medoroga*



Ahar: A structured dietary and lifestyle regimen for managing *Medoroga* (dyslipidemia) emphasizes *Pathya* (wholesome) practices such as fresh, homemade food, millet-based meals, and seasonal fruits, while avoiding *Apathya* like refined, packed, dairy and animal

foods, wheat, caffeine, supplements, and late-night eating. Hydration recommendations include medicated water, alkaline water, herbal tea, coconut and almond milk. Key grains include foxtail, barnyard, little, kodo, and browntop millets, along with pulses like Bengal gram, green gram, *toordal*, and horse gram. The daily meal plan begins with tulsi-ginger water, followed by balanced meals and juices throughout the day, emphasizing digestion, metabolism, and lipid balance.[9,10,11,12,13]

Vihar:As part of the integrative treatment approach, the patient was recommended targeted lifestyle modifications to enhance overall health and support therapeutic goals. These included practicing one hour of daily meditation to encourage mental tranquility, along with 40 minutes of *SukshmaPranayama* and *Sukhasana* to improve respiratory efficiency and musculoskeletal stability. A minimum of 6 to 8 hours of uninterrupted, quality sleep was emphasized to aid physiological repair. The regimen also incorporated a 30-minute barefoot brisk walk to stimulate circulation and metabolism, along with adherence to a consistent, disciplined daily routine to reinforce metabolic balance and therapeutic efficacy.

***Chikitsa*:**The physician advised an integrative treatment approach centered on *Shaman Chikitsa* (palliative care). Following a detailed clinical evaluation, a customized medication regimen was formulated to address the patient's specific needs.A comprehensive overview of the *Ayurvedic* formulations used in this case is provided in Table 8. *Haritaki*and*Vibhitaki*are the principal herbs commonly incorporated in *Ayurvedic* formulations. Their therapeutic efficacy is determined by their *RasPanchak* – a comprehensive analysis of taste (*Rasa*), qualities (*Guna*), potency (*Virya*), post-digestive effect (*Vipaka*), and specific action (*Prabhava*) – as follows.[15]

Haritaki (Terminalia chebula)

- *Haritaki* is a highly revered medicinal plant in *Ayurveda*, classified as possessing *Pancharasa* (five tastes), namely *Madhura* (sweet), *Amla* (sour), *Katu* (pungent), *Tikta* (bitter), and *Kashaya* (astringent), with the exception of *Lavana* (salty) *rasa*.
- It exhibits *Laghu* (light) and *Ruksha* (dry) *Guna* (qualities), contributing to its ease of digestion and drying nature. The *Veerya* (potency) of *Haritaki* is *Ushna* (hot), indicating its capacity to stimulate metabolism and digestion.
- Following digestion, its *Vipaka* (post-digestive effect) is *Madhura* (sweet), which denotes nourishing and anabolic properties.
- Its *Prabhava* (specific action) is *Tridoshaghna* (pacifies all three *doshas* – *Vata*, *Pitta*, and *Kapha*), making it a versatile and foundational herb in *Ayurvedic* formulations for systemic detoxification, digestion, and rejuvenation.
- *Haritaki* exerts potent *Medohara* (fat-reducing), *Agnideepana* (digestive fire-stimulating), and *Tridoshaghna* (*dosha*-balancing) actions, making it highly effective in managing *Medoroga* (dyslipidemia) by enhancing metabolism, reducing excess fat, and eliminating accumulated toxins.[16]

Vibhitaki (Terminalia bellirica)

- *Vibhitaki* predominantly possesses the *Kashaya* (astringent) *Rasa* (taste), which contributes to its drying and binding effect on bodily tissues.
- It shares the *Laghu* (light) and *Ruksha* (dry) *Guna* (qualities), which enhance its metabolic and fat-reducing actions.

- Its *Veerya* (potency) is *Ushna* (hot), supporting digestive fire (*Agni*) and reducing *Kapha*-related imbalances.
- The *Vipaka* (post-digestive taste) of *Vibhitaki* is *Madhura* (sweet), denoting its restorative and nourishing effects.
- The herb exhibits *Prabhava* (special property) as *Kaphahara* (*Kapha*-pacifying) and *Medohara* (fat-reducing), making it especially beneficial in the management of metabolic disorders such as *Medoroga* (dyslipidemia or obesity).
- *Vibhitaki* offers significant *Medohara* (lipid-reducing), *Lekhana* (scraping), and *Kapha-Vatahara* (*Kapha* and *Vata* pacifying) properties, aiding in the effective management of *Medoroga* (dyslipidemia) by promoting fat metabolism, clearing *srotas* (body channels), and regulating lipid balance.[17]

The patient exhibited marked improvements in both physical health and emotional well-being, underscoring the efficacy of the *Ayurvedic* treatment in enhancing overall quality of life. This positive clinical outcome was further validated by post-treatment laboratory assessments. Consistent progress was observed throughout the in-patient care period, reflecting a steady and favourable response to the prescribed therapeutic regimen.

Table 8: Detailed description of medicines prescribed

Medicine	Ingredients	Therapeutic Effects
Uder Vikar Janya Rog Churna	***Haritaki*** *(Terminalia chebula),* ***Kutaki*** *(Picrorhiza kurroa),* ***Chiraita*** *(Swertia chirata),* ***Vibhitaki*** *(Terminalia bellirica),* ***Sharpunkha*** *(Tephrosia purpurea),* ***Guduchi*** *(Tinospora cordifolia),* ***Bhumi Amalaki*** *(Phyllanthus niruri)*	*Yakrit Shodhan* (supports liver detoxification), *Agni Deepan & Pachan* (enhances digestion and metabolism) and *Oja Vardhan* (strengthens the body's immune response).
Arogya Vati tablet	***Kajan*** *(Carthamus tinctorius),* ***Loh Bhasam*** *(Ferrum),* ***Abhrak Bhasam*** *(Mica),* ***Tamra Bhasam*** *(Copper),* ***Amalaki*** *(Emblica officinalis),* ***Vibhitaki*** *(Terminalia bellirica),* ***Haritaki*** *(Terminalia chebula),* ***Chitrak*** *(Plumbago zeylanica),* ***Kutaki*** *(Picrorhiza kurroa),* ***Nimba*** *(Azadirachta indica)*	*Prana Vardhan* (improves life force), *Shwas Rogahar* (alleviates respiratory disorders), *Ama Pachan* (digests metabolic toxins) and *Rogahar* (disease-alleviating)
Relivion powder	***Misreya*** (*Foeniculum vulgare*), ***Saindhav Lavana*** (*Rock Salt*), ***Shunthi*** (*Zingiber officinale*), ***Jang Haritaki*** (*Terminalia chebula*), ***Eranda*** **oil** (*Ricinus communis* – castor oil)	*Agnideepan* and *Pachan* (supports digestive health), *Shodhan* (aids in detoxification), *Balya* and *Rasayan* (enhances energy and vitality)
Ciro - Care	***Kutaki*** *(Picrorhiza kurroa),* ***Nishoth*** *(Nysarum aristatum),* ***Kampilak*** *(Sphaeranthus indicus),* ***Patol*** *(Trichosanthes dioica),* ***Makoy*** *(Solanum nigrum),* ***Ajwain*** *(Trachyspermum ammi),* ***Punarnava*** *(Boerhavia diffusa),* ***Sounf*** *(Foeniculum vulgare),* ***Pudina*** *(Mentha piperita),* ***Gokshur*** *(Tribulus terrestris),* ***Draksha*** *(Vitis vinifera),* ***Arjun*** *(Terminalia arjuna),* ***Aloe Vera*** *(Aloe barbadensis miller),* ***Rohitak*** *(Tecomella undulata),* ***Panchkol*** *(Zingiber officinale, Piper longum, Cuminum cyminum, Coriandrum sativum, Terminalia chebula),* ***Jalodari Ras, Yakrdari Loha, Shankh Bhasam*** .	*Yakrit Vriddhikar* (improves Liver Function and *Yakrit Shodhan* (detoxification)
Yakrit Tonic	***Rakt Punarnava*** *(Boerhavia diffusa),* ***Shweta Punarnava*** *(Boerhavia verticillata),* ***Bala*** *(Sida cordifolia),* ***Atibala*** *(Abutilon indicum),* ***Patha*** *(Cissampelos pareira),* ***Guduchi*** *(Tinospora cordifolia),* ***Chitrak*** *(Plumbago zeylanica),* ***Kakoli*** *(Roscoea procera),* ***Vasa*** *(Justicia adhatoda),* ***Nagarmotha*** *(Cyperus rotundus),* ***Ajwain*** *(Trachyspermum ammi),* ***Shunthi*** *(Zingiber officinale),* ***Krishna Marich*** *(Piper nigrum),* ***Lavang*** *(Syzygium aromaticum),* ***Methika*** *(Trigonella foenum-graecum),* ***Shweta Jeerak*** *(Cuminum cyminum),* ***Roheda Chhal*** *(Tecomella undulata),* ***Dalchini*** *(Cinnamomum verum),* ***Tejpatta*** *(Cinnamomum tamala),* ***Brihat Ela*** *(Amomum subulatum),* ***Kshudra Ela*** *(Elettaria cardamomum),* ***Jaiphal*** *(Myristica fragrans),* ***Naagkesar*** *(Mesua ferrea),* ***Kankol*** *(Piper cubeba),* ***Yashtimadhu*** *(Glycyrrhiza glabra),* ***Laliki*** *(Ardisia solanacea),* ***Madhuka*** *(Madhuca indica),* ***Shaker*** *(Saccharum officinarum),* ***Madhu*** *(Apis mellifera - Honey), and* ***Water*** *(H_2O)*	*Yakrit Shodhan* (liver detoxification), *Raktashodhan* (blood purification), *Ama Pachan* (digestion and elimination of toxins), *Yakrit Uttejaka* (liver stimulant), *Pittavardhak (Pitta* - increasing action) and *Rasayan* (rejuvenation)
Lipi Capsule	***Arjun*** *(Terminalia arjuna),* ***Guggulu*** *(Commiphora wightii),* ***Resine Ext.*** *(Resin Extract – source-specific),* ***Haridra*** *(Curcuma longa),* ***Bhumi Amalaki*** *(Phyllanthus niruri),* ***Guduchi*** *(Tinospora cordifolia),* ***Amalaki*** *(Emblica officinalis),* ***Haritaki*** *(Terminalia chebula),* ***Vibhitaki*** *(Terminalia bellirica),* ***Shunthi*** *(Zingiber officinale),* ***Krishna Marich*** *(Piper nigrum),* ***Pippali*** *(Piper longum),* ***Yashtimadhu*** *(Glycyrrhiza glabra),* ***Punarnava*** *(Boerhavia diffusa),* ***Jatamansi*** *(Nardostachys jatamansi),* ***Rasona*** *(Allium sativum),* ***Bulb Ext.*** (Bulb Extract – source-specific), ***Akika Pishti*** (Agate Calx), ***Mukta Pishti*** (Pearl Calx), ***Abhrak Bhasam*** (Mica Calx), ***Shankha Bhasam*** *(* Conch Shell Calx).	*Medohar* (reduces excess fat), *Lekhan* (scraping), *Hridaya Balya* (cardioprotective), *Raktashodhan* (blood purifier) and *Strotoshodhan* (opens body channels)

FUTURE RESEARCH ASPECTS

The future of research on *Medorog* (dyslipidemia) in *Ayurveda* offers promising avenues to integrate classical wisdom with modern scientific validation. Key areas of exploration include:

1. Standardization of *Ayurvedic* Formulations

There is a need for systematic clinical trials to standardize poly – *ayurvedic* formulations like *Triphala, Guggulu,* and *Arjuna*-based preparations, validating their lipid-lowering efficacy, safety profile, and pharmacokinetics.[18]

2. Mechanistic Studies

Investigating the molecular mechanisms of classical *ayurvedic* herbs such as *Haritaki, Vibhitaki, Guduchi, Bhumi Amalaki*, and *Guggulu* can provide insights into their role in lipid metabolism, gut microbiota modulation, and anti-inflammatory actions.[19]

3. Biomarker Identification

Future research can focus on identifying specific *Ayurvedic* and biochemical biomarkers that reflect *MedaDhatuDushti* (vitiation of adipose tissue) and its correlation with lipid profiles, obesity, and metabolic syndrome.[20]

4. Personalized Medicine (*Prakriti*-Based Approach)

Studying the impact of *Prakriti* (individual constitution) on the manifestation and treatment response in *Medoroga* can help develop personalized *Ayurvedic* interventions tailored to *Dosha* predominance.[21]

5. Ayurvedic Lifestyle Interventions

Long-term studies on the effectiveness of *AyurvedicAhara* (diet), *Vihara* (lifestyle), and *Dinacharya* (daily regimen) in preventing and managing dyslipidemia can provide preventive strategies aligned with modern public health goals.[22]

6. Integrative Models

Developing integrative models that combine *Ayurvedic* treatment protocols with modern lipid management could enhance patient outcomes, reduce drug dependency, and improve long-term metabolic health.[22]

7. Digital Health and Ayurveda

Leveraging digital platforms and AI-based tools to monitor *Medoroga* progression and treatment response through *Ayurvedic* parameters could revolutionize preventive and therapeutic approaches.[22]

CONCLUSION

The presented case of *Medoroga* (dyslipidemia) in a 27-year-old male, complicated by *YakritRoga* (Grade II fatty liver) and *Ashmari* (renal calculus), highlights the efficacy of a comprehensive *Ayurvedic* management approach rooted in classical principles. The clinical

outcome demonstrates that targeted interventions such as *NidanaParivarjana* (elimination of causative factors), *Pathya-Apathya* (dietary regulation), and *ShamanaChikitsa* (palliative therapy) can successfully correct *Medo-DhatvagniMandya* (impaired lipid metabolism), clear *Srotorodha* (obstruction of microchannels), and restore *Dosha* balance. Improvement in both objective parameters (ultrasound findings) and subjective well-being underscores the holistic benefits of *Ayurveda* in managing metabolic disorders. This case reaffirms that *Ayurvedic*principles, when applied systematically, offer a sustainable, individualized, and non-invasive strategy for managing *SantarpanajanyaVyadhi* (diseases of over-nutrition), including dyslipidemia and its associated complications.

Ultrasound improvements:

- The **liver echotexture showed marked improvement**, with normalization of echogenicity and **absence of fatty infiltration or fibrosis**, indicating **resolution of Fatty Liver Grade II.**
- The **6 mm renal calculus in the lower calyx of the left kidney resolved** completely, with kidney imaging returning to normal and **no signs of obstruction or hydronephrosis**.
- The final diagnostic impression **confirmed the elimination of focal lesions and fatty changes in the liver**, alongside normal elastography findings, reflecting substantial recovery of hepatic structure and function.

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