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A COMPREHENSIVE APPROACH TO CORONARY ARTERY DISEASE (*HRIDROG*): EVIDENCE FROM AN *AYURVEDIC* CASE STUDY

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ABSTRACT

Coronary artery disease (CAD) or *Hridrog* and hypertension (HTN) are closely linked, with hypertension being a major risk factor for the development and progression of CAD. This relationship involves mechanisms like endothelial dysfunction, arterial stiffness, and accelerated atherosclerosis, which contribute to impaired coronary perfusion and increased cardiovascular risk. Various studies have highlighted the high prevalence of CAD among hypertensive patients and the role of blood pressure management in reducing cardiovascular events. *Ayurveda* offers a holistic approach, focusing on *doshic* balance, detoxification, and lifestyle interventions to manage CAD and HTN. A case study was conducted at Jeena Sikho Lifecare Limited Clinic, Guwahati, involving a 46-year-old female diagnosed with CAD. The patient presented with symptoms of breathlessness, bradycardia, chest tightness, and weakness. After receiving *Ayurvedic* treatment, significant improvements were noted. Coronary angiography revealed severe CAD with Triple Vessel Disease, but follow-up echocardiography indicated stable left ventricular function, with no worsening of mitral regurgitation or development of new symptoms. The patient's condition stabilized with preserved heart function, highlighting the efficacy of integrating *Ayurvedic* therapies alongside conventional treatment for CAD management. This case study underscores the potential of *Ayurveda* in managing CAD, improving symptoms, and promoting overall health. Holistic *Ayurvedic* therapies, including dietary adjustments, lifestyle modifications, and *Ayurvedic* interventions, appear to offer significant benefits in conjunction with standard medical care for cardiovascular diseases.

KEYWORDS: Coronary Artery Disease (CAD), *Hridroga*, Hypertension (HTN), Triple Vessel Disease (TVD), *Ayurveda*, Lifestyle Interventions, *Rasayana.*

INTRODUCTION

Coronary artery disease (CAD) and hypertension (HTN) are closely interconnected, with hypertension being a major modifiable risk factor for the development of CAD. This relationship is multifaceted, involving mechanisms such as endothelial dysfunction, arterial stiffness, and accelerated atherosclerosis, all of which contribute to impaired coronary perfusion and increased cardiovascular risk.[1,2]

Several studies have highlighted the epidemiological and clinical links between CAD and HTN. According to studies, 71.7% of CAD patients were also hypertensive, with greater prevalence observed among older adults and women.[3] National data from the U.S. (NHANES) demonstrated an increase in the age-adjusted prevalence of comorbid CAD and HTN from 4.22% (1999–2000) to 5.40% (2017–2018), especially in younger populations.[4] Similar findings were observed in Cyprus, where 59% of patients with chronic CAD had hypertension.[5] These studies underscore the need for early detection and integrated care strategies.

Modern medicine recognizes the critical role of hypertension in the pathogenesis of CAD. Hypertension accelerates endothelial dysfunction and atherosclerosis, increasing myocardial oxygen demand and contributing to structural heart changes such as left ventricular hypertrophy.[6] Effective management of blood pressure has been shown to reduce cardiovascular events. The SPRINT trial reported that targeting a systolic BP <120 mmHg significantly lowered the incidence of major cardiovascular events compared to a 140 mmHg target.[17] Similarly, the CLIDAS study in Japan found better outcomes in CAD patients who maintained BP <130/80 mmHg.[8] The ALLHAT trial also concluded that thiazide-type diuretic were as effective as newer antihypertensive agents in preventing coronary events, supporting their use as first-line therapy.[9] Despite these advances, more robust risk factor control is needed, particularly in younger patients.[10]

Ayurveda offers a comprehensive and individualized approach to the management of CAD and HTN, emphasizing the restoration of *doshic* balance, detoxification, and lifestyle regulation.[11] In *Ayurveda*, hypertension is primarily viewed as a *Vata* disorder, often accompanied by Pitta or *Kapha* imbalances, while CAD falls under the category of "*Hridroga*," encompassing various cardiac pathologies.[12] The *Samprapti ghatak*[13,14] for this case study is mentioned in **Fig 1.**

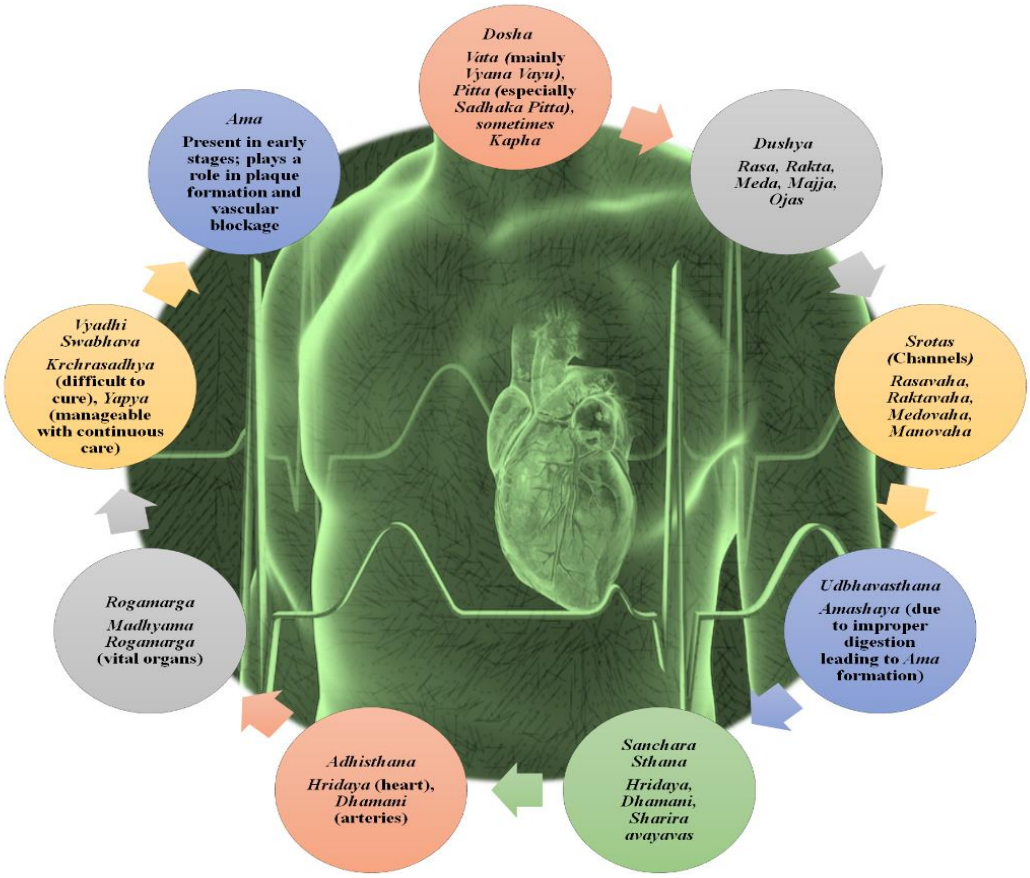


Fig 1: The *Samprapti Ghatak.*

व्यायामतीक्ष्णातिविरेकबस्तिचिन्ताभयत्रासगदातिचाराः|
छर्द्यामसन्धारणकर्शनानि हृद्रोगकर्तॄणि तथाभिघातः॥७७॥
वैवर्ण्यमूर्च्छाज्वरकासहिक्काश्वासास्यवैरस्यतृषाप्रमोहाः|
छर्दिः कफोत्क्लेशरुजोरुचिश्च हृद्रोगजाः स्युर्विविधास्तथान्ये॥७८॥[15]

Ayurvedic management includes *Ayurvedic* medicines, *Panchakarma* therapies, and mind-body interventions. Clinical trials such as one at AIIMS, New Delhi, are investigating the effects of *Sarpagandha Mishran* for Stage-I hypertension.[16] Heart Revival, a compound formulation, has shown cardio-protective and anti-atherogenic effects in experimental studies.[17] Dietary modifications based on *Ayurvedic* principles, such as a low-carbohydrate, high-antioxidant regimen, have demonstrated benefits in plaque stabilization.[18,19] Lifestyle interventions, including yoga, pranayama, and meditation, have been effective in reducing blood pressure and improving arterial health.[20] *Panchakarma* therapies such as *Snehana*, *Swedana*, and *Basti are* traditionally used to eliminate *Ama* and restore systemic balance.[21] Clinical evidence supports these integrative strategies, with reductions observed in arterial stiffness, BMI, cholesterol, and BP in patients undergoing *Ayurvedic* treatment.[22,23] This approach was explored in a case study involving a 46-year-old female with CAD,

where *Ayurvedic* intervention showed promising outcomes.

MATERIALS AND METHODS

I. Case Report

A 46-year-old female visited Jeena Sikho Lifecare Limited Clinic, Guwahati, Assam, on December 14, 2024. Her evaluation included a thorough medical history, physical examination, and diagnostics. There was no relevant family history. She underwent cholecystectomy 10 years ago. There was no addiction. She came with the complaints of breathing difficulties while walking and climbing stairs, generalized weakness, bradycardia and tightness in the chest for last 4 months. On examination it is found that well oriented CNS, SpO2 96% and pulse 48/min. The appetite and sleep was normal. She was diagnosed with Coronary artery disease. The *Ashta-vidh Pareeksha* during the visit is mentioned in **Table 1.** The basic vitals during the visit is mentioned in **Table 2.** The coronary angiography results before treatment and after treatment are shown in **Table 3.**

Table 1: The *Ashta-vidh Pareeksha* during the visits.

Parameter	Findings	
	03-04-2025	04-04-2025
Nadi	*Vataj Pittaj*	*Vataj Pittaj*
Mala	*Avikrit*	*Avikrit*
Mutra	*Avikrit*	*Avikrit*
Jiwha	*Saam*	*Niram*
Shabda	*Spashta*	*Spashta*
Spashta	*Anushna sheeta*	*Anushna sheeta*
Drik	*Avikrit*	*Avikrit*
Akriti	*Madhyam*	*Madhyam*

Table 2: The Basic vitals during the visits.

Parameter	Findings	
	03-04-2025	04-04-2025
Blood pressure (mmHg)	150/90 mmHg	120/70 mmHg
Weight (Kg)	60 Kg	61 Kg

Table 3: The coronary angiography and echocardiography results (Fig 2).

13 December 2024 – Coronary Angiography & Echocardiography	
Parameter	**Findings**
Left Anterior Descending	Diffuse plaque from ostium to distal segment; minor proximal stenosis; 80% stenosis in mid-segment.
Left Circumflex	Minor plaque in the ostioproximal segment.
Major Obtuse Marginal	99% proximal stenosis; distal TIMI 2 flow; large-caliber vessel.
Right Coronary Artery	Dominant artery with diffuse disease; 50–60% ostioproximal stenosis; 99% mid-segment stenosis; 100% distal occlusion.
Overall Impression	Coronary Artery Disease (CAD) involving all three major vessels—indicative of Triple Vessel Disease (TVD).
Left Ventricular Function	Hypokinesia of the inferoposterior wall; borderline LV filling pressure.
Valvular Assessment	Mild mitral regurgitation (MR).
13 March 2025 – Follow-Up Echocardiography	
Left Ventricular Hypertrophy	Concentric LVH observed.
Mitral Regurgitation	Mild MR persists.
LV Systolic Function	Good systolic performance.
LV Diastolic Function	Normal diastolic function.

An accurately designed *Ayurveda* and DIP Diet was provided to the patient to complement the *Ayurvedic* treatments administered for CAD.[24]

तेषां संशोधनसंशमनाहाराचाराः सम्यक्प्रयुक्ता निग्रहहेतवः ||२७||[25]

Treatment Plan

I. Dietary Guidelines

The following dietary recommendations are provided.

Table 4: The *Pathya and Apathya Ahara.*[26]

Pathya Ahara	*Apathya Ahara*
Green Gram *(Mudga)* – Light, easy to digest, and supports heart function.	**Buffalo Milk** Heavy and may increase *Kapha*, potentially burdening the heart.
Horse Gram Soup *(Kulatha Yusa)* – Helps in reducing Kapha and supports digestion.	**River Water** – May contain impurities; not recommended without purification.
Sugarcane Juice Soup *(Khanda Yusa)* – Provides energy and is beneficial when prepared appropriately.	**Hot, Sharp, and Heavy Foods *(Usna, Tiksna, Guru Paki)*** – Can aggravate *Pitta* and *Kapha*, affecting heart health.
Mango *(Aam)*, Pomegranate *(Anara)*, Fresh Radish and Banana *(Kela)*, Indian Laburnum – When ripe and consumed in moderation, it is nourishing.	**Astringent Foods *(Kasaya Ahara)*** – May impair digestion and are not conducive for heart conditions.
Dry Ginger *(Shunthi)* – Stimulates digestion and balances *Kapha* and *Vata*.	**Mahua *(Madhuka)*** – Heavy and may increase *Kapha*, potentially affecting heart health.

Hydration

- Consume alkaline water 3-4 times a day, along with herbal tea, living water, and turmeric water.+

Incorporating Millets

- Include five types of millets in your diet: *Foxtail*, *Barnyard*, *Little*, *Kodo*, and *Browntop*.
- Ensure that millets are cooked using steel utensils to maintain their nutritional value.

Meal Timing & Structure

- Breakfast (9:00 - 10:00 AM): Steamed seasonal fruits (equal to the patient's weight × 10 grams) and steamed *Mudga yusha*.
- Lunch (12:30 - 2:00 PM): Steamed salad and cooked millets.
- Evening Snacks (4:00 - 4:20 PM): Light, nutritious snacks.
- Dinner (6:15 - 7:30 PM): Same as lunch.

स्विन्नस्य वान्तस्य विलङ्घितस्य क्रिया कफघ्नी कफमर्मरोगे|
कौलत्थधान्यैश्च रसैर्वलान्नं पानानि तीक्ष्णानि च [१] शङ्करणि||१६||
मूत्रे शृताः कट्फलशृङ्गवेरपीतद्रुपथ्यातिविषाः प्रदेयाः|
कृष्णाशटीपुष्करमूलरास्नावचाभयानागरचूर्णकं [२] च||१७||
उदुम्बराश्वत्थवटार्जुनाख्ये पालाशरौहीतकखादिरे च|
क्वाथे त्रिवृत्त्र्यूषणचूर्णसिद्धो लेहः कफघ्नोशिशिराम्बुयुक्तः||१८||
शिलाह्वयं वा भिषगप्रमत्तः प्रयोजयेत् कल्पविधानदिष्टम्|
प्राशं तथागस्त्यमथापि [३] लेहं रसायनं ब्राह्ममथामलक्याः||१९||[27]

Foods to Avoid

- Eliminate wheat, processed and refined foods, dairy, animal-based products, coffee, and tea. The *pathya* and *apathya ahara* are mentioned in **Table 4**.
- Avoid eating after 8 PM to promote better digestion and metabolic function.

Special Practices

- Express gratitude before meals to encourage positive energy.
- Practice *Upvasa* (fasting), *Samayka Vyayama* (Regular exercise), *Sadvritta palana*, Yoga, *Pranayama*, Meditation, and *Gayatri* or *Omkara uchhara*.
- Engage in *Shavasana*, *Sukhasana*, *Dhanurasana*, *Makarasana*, and *Vajrasana*.[28]

II. Lifestyle Recommendations

Sungazing

Spend 30 minutes in direct sunlight each morning to absorb vitamin D and boost overall health and vitality.

Yoga

Practice yoga daily from 6:00 to 7:00 AM, focusing on flexibility, strength and mental clarity to improve hormonal balance and overall well-being.

Meditation

Incorporate meditation into daily routine to reduce stress, promote mental clarity and enhance emotional well-being.

Barefoot Walking

Walk briskly for 30 minutes daily, preferably barefoot on natural surfaces like grass, to improve circulation and foster a deeper connection with nature.

Sleep

Aim for 6-8 hours of restful sleep each night to support physical and mental recovery, ensuring the body's systems function optimally.

Consistent Daily Routine

Follow a balanced and structured daily routine that supports equilibrium between meals, physical activity and rest, helping to promote long-term health and vitality.

Medicinal Interventions

***1. Ayurvedic* interventions**

The *Ayurvedic* treatment employed in this case included Hriday Shuddhi Kwath, Relivon Powder, Hrid Care Capsule, Dr. BP Tablet, Heart Care Syrup and Cardioton Capsules. The medications prescribed for the patient during the treatment is outlined in **Table 5.** The details of the medicines are described in **Table 6.**

2. Allopathic interventions

The allopathic medicines previously prescribed were Aspirin (75mg) + Rosuvastatin (10mg) + Clopidogrel (75mg), Nitroglycerin (2.6mg), Ranolazine (500mg) and Telmisartan (40mg) + Metoprolol Succinate (50mg), which were continued during treatment.

Table 5: The medications prescribed for the patient during the treatment.

Date	Medicines	Dosage with *Anupana*
16-12-2024	Hriday Shuddhi Kwath	Half a teaspoon BD *(Adhobhakta* with *koshna jala*)
	Relivon Powder	Half a teaspoon HS *(Nishikala* with *koshna jala)*
	Heart Care	1 CAP BD (*Adhobhakta* with *koshna jala*)
	Cardioton Capsule	1 CAP BD (*Adhobhakta* with *koshna jala*)
	Dr. BP Care	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Heart Care Syrup	3 teaspoon BD (*Adhobhakta* with *sama matra koshna jala)*
17-03-2025	Hriday Shuddhi Kwath	Half a teaspoon BD *(Adhobhakta* with *koshna jala*)
	Relivon Powder	Half a teaspoon HS *(Nishikala* with *koshna jala)*
	Heart Care	1 CAP BD (*Adhobhakta* with *koshna jala*)
	Dr. BP Care	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Heart Care Syrup	3 teaspoon BD (*Adhobhakta* with *sama matra koshna jala)*

Table 6: The details of the medications prescribed for the patient during the treatment.

Medicine Name	Ingredients	Therapeutic Effects
Hriday Shuddhi Kwath	**Arjuna** (*Terminalia arjuna*), **Punarnava** (*Boerhavia diffusa*), **Peepal** (*Ficus religiosa*), **Dalchini** (*Cinnamomum verum*), **Chhoti Elaichi** (*Elettaria cardamomum*), **Giloy** (*Tinospora cordifolia*)	*Hridya, Raktashodhaka, Shothahara, Srotoshodhaka, Amapachaka* and *Tridoshahara*
Relivon Powder	**Sawarna Patri** (*Luffa aegyptiaca*), **Misreya, Sendha Namak**, **Sonth** (*Zingiber officinale)* , **Jang Harar** (*Chebulic Myrobalan*) and **Erand Oil** (*Ricinus communis*)	*Deepana, Pachana, Anulomana, Shodhana, Rasayana* and *Balya*
Hrid Care Capsule	**Lahshun BI. Ext.** (*Allium sativum*), **Arjun Bk. Ext.** (*Terminalia arjuna*), **Brahmi Lf. Ext.** (*Bacopa monnieri*), **Giloy St. Ext.** (*Tinospora cordifolia*), **Makoy Fr. Ext.** (*Solanum nigrum*), **Sarpgandha Sd. Ext.** (*Rauvolfia serpentina*), **Shankh Bhasma**	*Hridya, Deepan, Pachan, Shothahara, Raktashodhaka, Srothoshodhaka* and *Balya*
Dr. BP Tablet	**Shankhpushpi** (*Convolvulus pluricaulis*), **Shatavari** (*Asparagus racemosus*), **Ashwagandha** (*Withania somnifera*), **Brahmi** (*Bacopa monnieri*), **Vacha** (*Acorus calamus*), **Sarpagandha** (*Rauvolfia serpentina*), **Jeera** (*Cuminum cyminum*), **Giloy** (*Tinospora cordifolia*), **Malabar Nut** (*Justicia adhatoda*), **Jatamansi** (*Nardostachys jatamansi*), **Mukta Pishti** (*Purified Pearl Calcium - $CaCO_3$*).	*Uttara vata shamana, Rakta gata pitta shamana, Raktashodhana, Vata-pitta shamana, Hridaya rog nivaran, Shothahara, Chandraprabhakar, Mutral* and *Vedana*

Heart Care Syrup	**Arjuna** (*Terminalia arjuna*), **Sarpagandha** (*Rauvolfia serpentina*), **Shunthi** (*Zingiber officinale*), **Nimbu** (*Citrus limon*), **Lasun** (*Allium sativum*), **Amalaki** (*Emblica officinalis*), **Bhringraj** (*Eclipta alba*), **Punarnava** (*Boerhavia diffusa*), **Guduchi** (*Tinospora cordifolia*), **Gokshura** (*Tribulus terrestris*), **Neem** (*Azadirachta indica*), **Yashtimadhu** (*Glycyrrhiza glabra*), **Twak** (*Cinnamomum verum*), **Yavani** (*Trachyspermum ammi*), **Pippali** (*Piper longum*), **Lavang** (*Syzygium aromaticum*)	*Hridya, Raktashodhaka, Shothohara, Deepana, Medhya* and *Anulomana*
Cardioton Capsules	**Arjuna** (*Terminalia arjuna*), **Sarpagandha** (*Rauvolfia serpentina*), **Shunthi** (*Zingiber officinale*), **Nimbu** (*Citrus limon*), **Lasun** (*Allium sativum*), **Amalaki** (*Emblica officinalis*), **Bhringraj** (*Eclipta alba*), **Punarnava** (*Boerhavia diffusa*), **Guduchi** (*Tinospora cordifolia*), **Gokshura** (*Tribulus terrestris*), **Neem** (*Azadirachta indica*), **Yashtimadhu** (*Glycyrrhiza glabra*), **Twak** (*Cinnamomum verum*), **Yavani** (*Trachyspermum ammi*), **Pippali** (*Piper longum*), **Lavang** (*Syzygium aromaticum*)	*Hridaya, Raktashodhaka, Vata-pitta shamaka, Srotoshodhana, Rasayana* and *Shwasa-prashamana*

RESULT

Effectiveness of *Ayurvedic* Treatments: The patient underwent 4 months of *Ayurvedic* regimen, after the treatment she experienced noteworthy development in symptoms, which denotes the interventions used in the study are effective against CAD**.** After the treatment she was well oriented and got relief from symptoms like breathing difficulties, weakness, bradycardia and chest tightness which shows that the *Ayurvedic* interventions used in the case study are effective for CAD. The conditions before and after treatment is mentioned in **Table 7.**

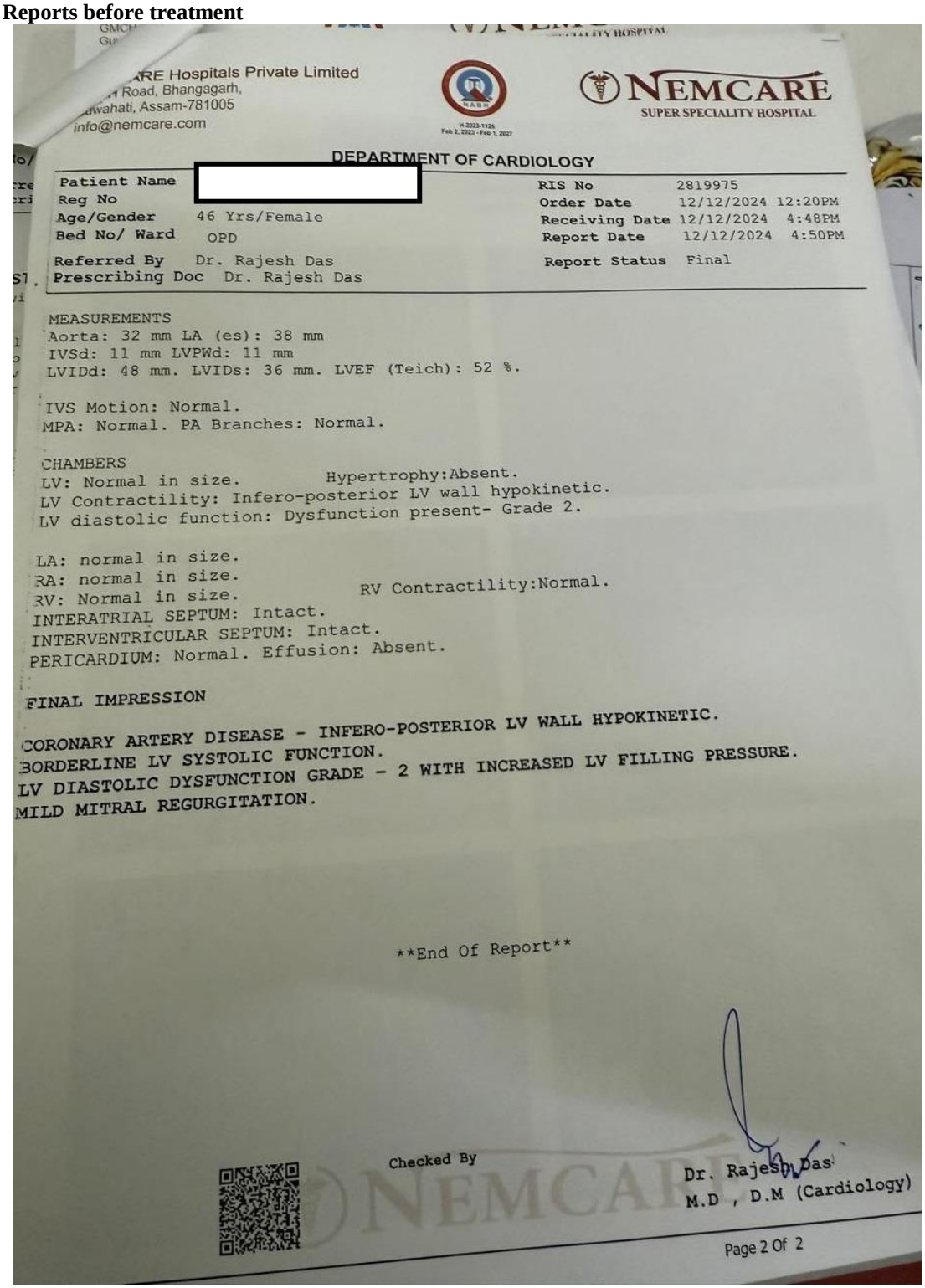
Table 7: The conditions before and after treatment.

Conditions	Before treatment	After treatment
Breathing Difficulty	While walking and climbing stairs	Relieved
Weakness	Generalized weakness	Reduced
Bradycardia	Low pulse rate (Moderate)	Mild
Chest tightness	Severe	Mild

Implications for Future Research

This study focused on a patient with CAD, yielding promising results. However, due to the small sample size, further research with randomized controlled trials and larger cohorts is needed to confirm the safety, efficacy, and reliability of integrated *Ayurvedic* treatments, helping to establish standardized therapeutic guidelines.

Fig 2 The coronary angiography and echocardiography reports
Fig 2a. Reports before treatment



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SUPER SPECIALITY HOSPITAL

DEPARTMENT OF CARDIOLOGY

Patient Name	[redacted]	RIS No	2819975
Reg No		Order Date	12/12/2024 12:20PM
Age/Gender	46 Yrs/Female	Receiving Date	12/12/2024 4:48PM
Bed No/ Ward	OPD	Report Date	12/12/2024 4:50PM
Referred By	Dr. Rajesh Das	Report Status	Final
Prescribing Doc	Dr. Rajesh Das		

MEASUREMENTS
Aorta: 32 mm LA (es): 38 mm
IVSd: 11 mm LVPWd: 11 mm
LVIDd: 48 mm. LVIDs: 36 mm. LVEF (Teich): 52 %.

IVS Motion: Normal.
MPA: Normal. PA Branches: Normal.

CHAMBERS
LV: Normal in size. Hypertrophy:Absent.
LV Contractility: Infero-posterior LV wall hypokinetic.
LV diastolic function: Dysfunction present- Grade 2.

LA: normal in size.
RA: normal in size.
RV: Normal in size. RV Contractility:Normal.
INTERATRIAL SEPTUM: Intact.
INTERVENTRICULAR SEPTUM: Intact.
PERICARDIUM: Normal. Effusion: Absent.

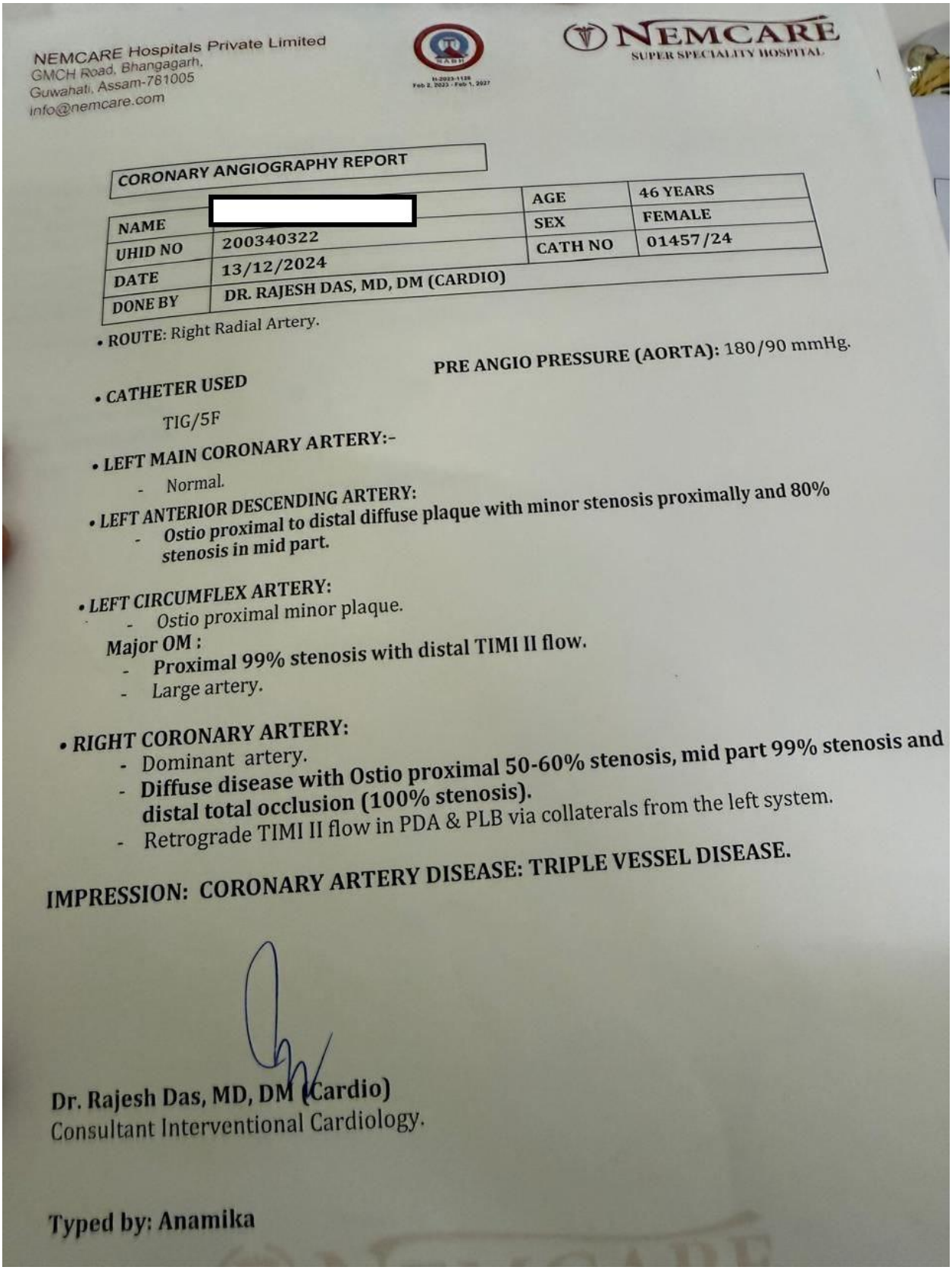
FINAL IMPRESSION

CORONARY ARTERY DISEASE - INFERO-POSTERIOR LV WALL HYPOKINETIC.
BORDERLINE LV SYSTOLIC FUNCTION.
LV DIASTOLIC DYSFUNCTION GRADE - 2 WITH INCREASED LV FILLING PRESSURE.
MILD MITRAL REGURGITATION.

End Of Report

Checked By
Dr. Rajesh Das
M.D , D.M (Cardiology)

Page 2 Of 2



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CORONARY ANGIOGRAPHY REPORT

NAME	[redacted]	AGE	46 YEARS
UHID NO	200340322	SEX	FEMALE
DATE	13/12/2024	CATH NO	01457/24
DONE BY	DR. RAJESH DAS, MD, DM (CARDIO)		

- **ROUTE:** Right Radial Artery.

- **CATHETER USED** — **PRE ANGIO PRESSURE (AORTA):** 180/90 mmHg.

  TIG/5F

- **LEFT MAIN CORONARY ARTERY:-**
  - Normal.
- **LEFT ANTERIOR DESCENDING ARTERY:**
  - **Ostio proximal to distal diffuse plaque with minor stenosis proximally and 80% stenosis in mid part.**
- **LEFT CIRCUMFLEX ARTERY:**
  - Ostio proximal minor plaque.

  Major OM :
  - **Proximal 99% stenosis with distal TIMI II flow.**
  - Large artery.
- **RIGHT CORONARY ARTERY:**
  - Dominant artery.
  - **Diffuse disease with Ostio proximal 50-60% stenosis, mid part 99% stenosis and distal total occlusion (100% stenosis).**
  - Retrograde TIMI II flow in PDA & PLB via collaterals from the left system.

IMPRESSION: CORONARY ARTERY DISEASE: TRIPLE VESSEL DISEASE.

Dr. Rajesh Das, MD, DM (Cardio)
Consultant Interventional Cardiology.

Typed by: Anamika

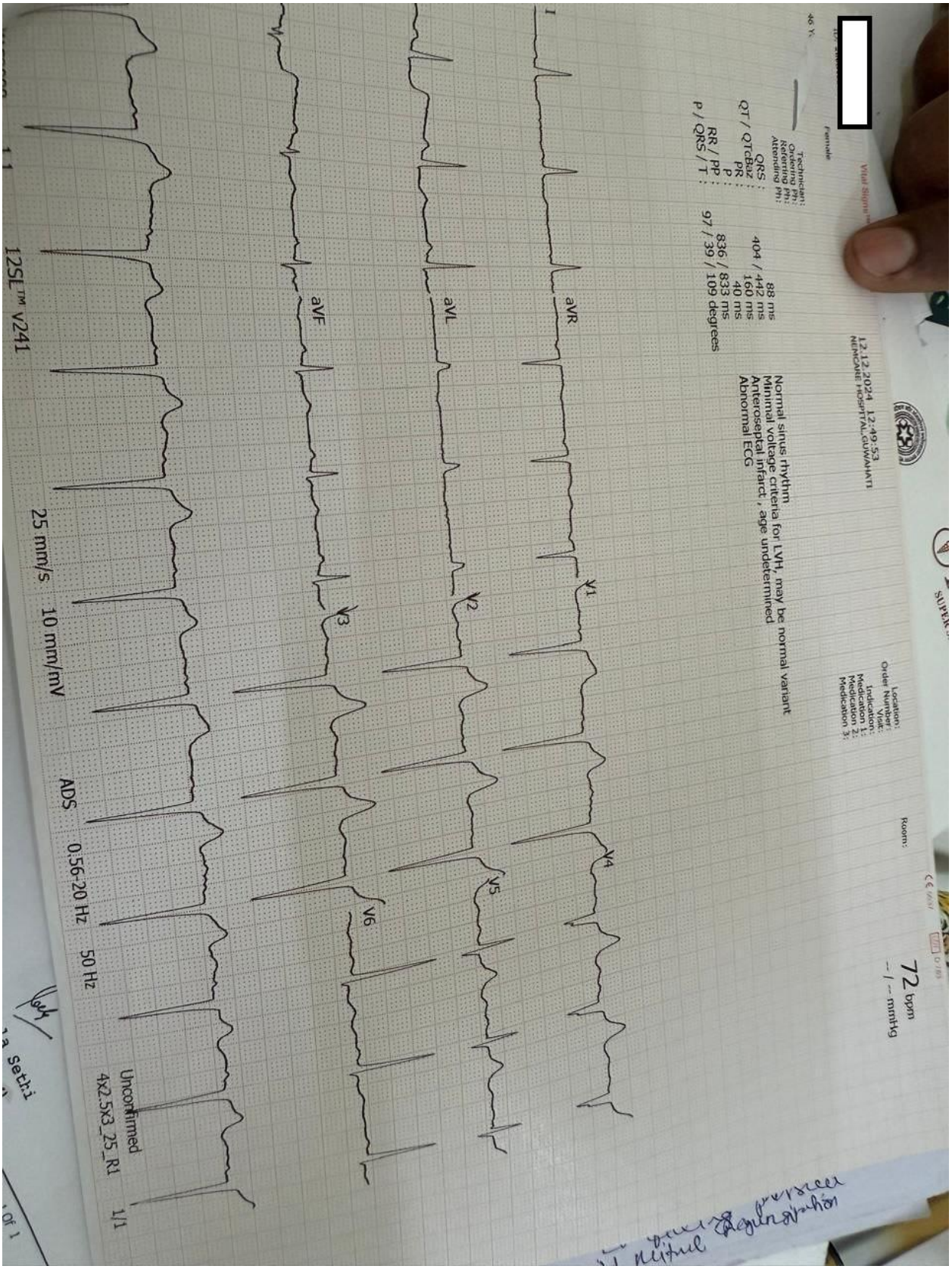
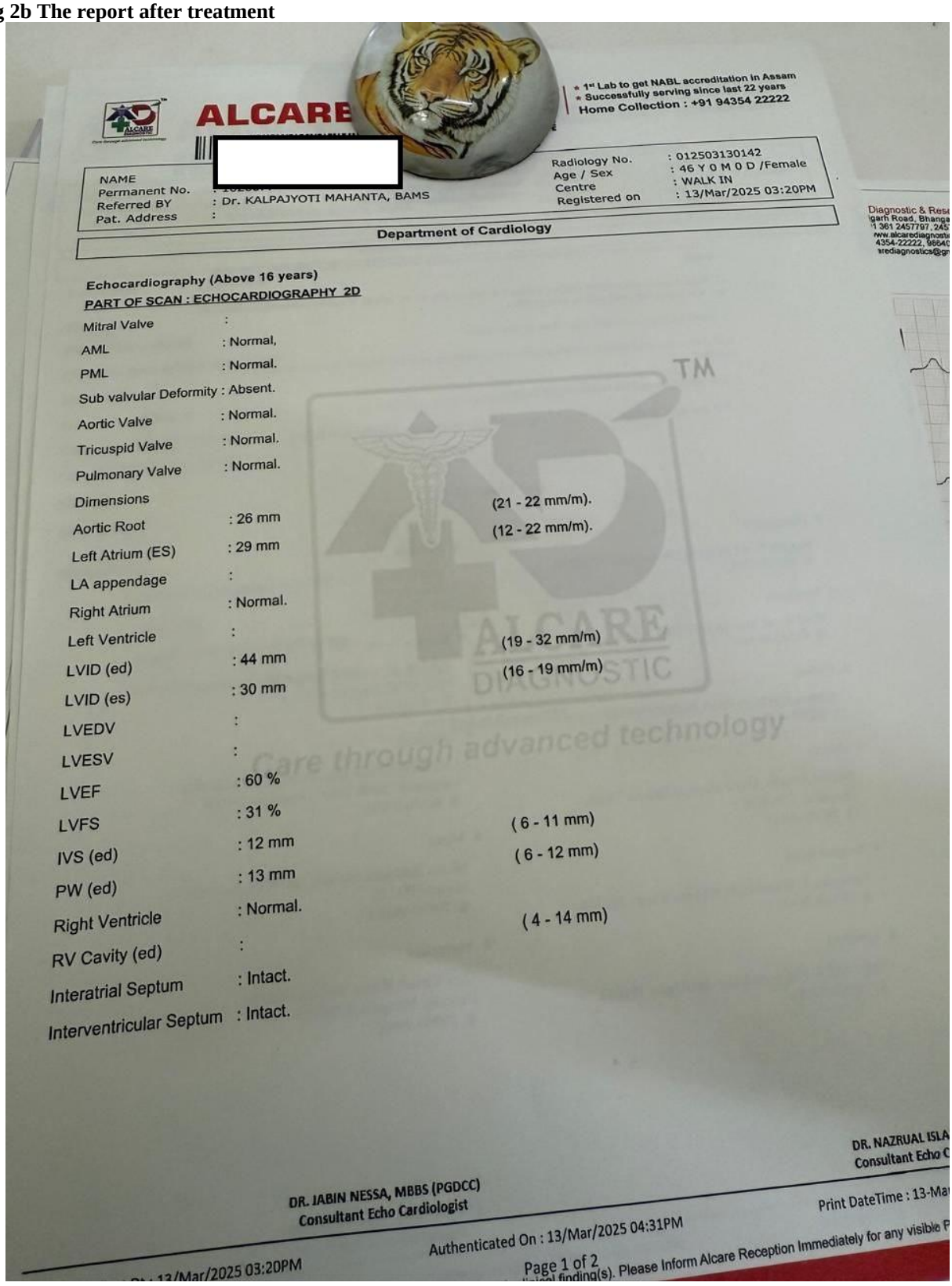

12-12-2024 12:49:53
NEMCARE HOSPITAL,GUWAHATI
72 bpm
-- / -- mmHg
Normal sinus rhythm
Minimal voltage criteria for LVH, may be normal variant
Anteroseptal infarct , age undetermined
Abnormal ECG
88 ms
404 / 442 ms
160 ms
40 ms
836 / 833 ms
97 / 39 / 109 degrees
I
aVR
V1
V4
aVL
V2
V5
aVF
V3
V6
25 mm/s 10 mm/mV ADS 0.56-20 Hz 50 Hz
Unconfirmed
4x2.5x3_25_R1
1/1
12SL™ v241

Fig 2b The report after treatment



ALCARE

* 1st Lab to get NABL accreditation in Assam
* Successfully serving since last 22 years
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NAME
Permanent No.
Referred BY : Dr. KALPAJYOTI MAHANTA, BAMS
Pat. Address :

Radiology No. : 012503130142
Age / Sex : 46 Y 0 M 0 D /Female
Centre : WALK IN
Registered on : 13/Mar/2025 03:20PM

Department of Cardiology

Echocardiography (Above 16 years)

PART OF SCAN : ECHOCARDIOGRAPHY 2D

Mitral Valve	:	
AML	: Normal,	
PML	: Normal.	
Sub valvular Deformity	: Absent.	
Aortic Valve	: Normal.	
Tricuspid Valve	: Normal.	
Pulmonary Valve	: Normal.	
Dimensions		
Aortic Root	: 26 mm	(21 - 22 mm/m).
Left Atrium (ES)	: 29 mm	(12 - 22 mm/m).
LA appendage	:	
Right Atrium	: Normal.	
Left Ventricle	:	
LVID (ed)	: 44 mm	(19 - 32 mm/m)
LVID (es)	: 30 mm	(16 - 19 mm/m)
LVEDV	:	
LVESV	:	
LVEF	: 60 %	
LVFS	: 31 %	
IVS (ed)	: 12 mm	(6 - 11 mm)
PW (ed)	: 13 mm	(6 - 12 mm)
Right Ventricle	: Normal.	
RV Cavity (ed)	:	(4 - 14 mm)
Interatrial Septum	: Intact.	
Interventricular Septum	: Intact.	

DR. JABIN NESSA, MBBS (PGDCC)
Consultant Echo Cardiologist

DR. NAZRUAL ISLA
Consultant Echo C

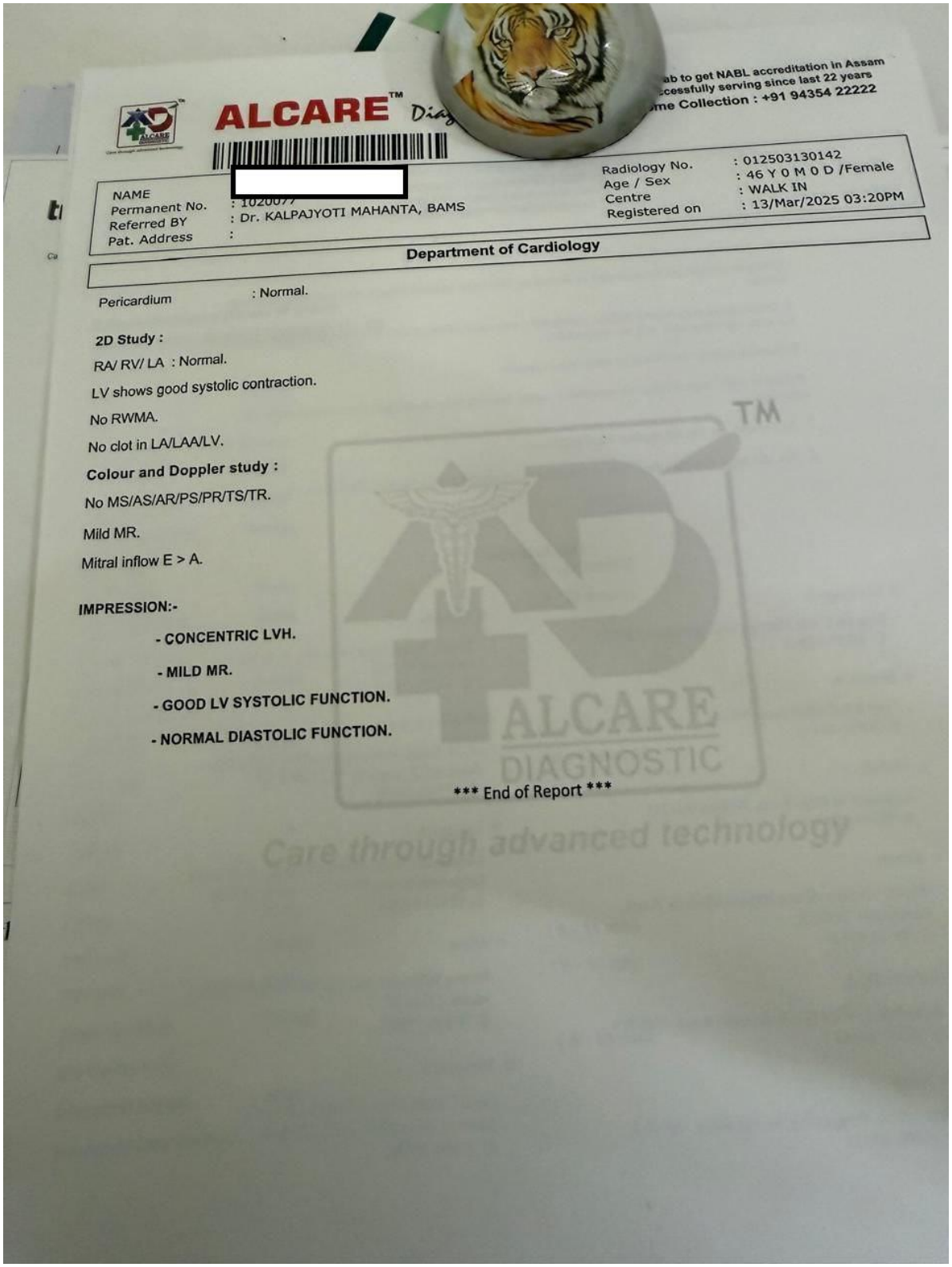
13/Mar/2025 03:20PM

Authenticated On : 13/Mar/2025 04:31PM

Print DateTime : 13-Ma

Page 1 of 2

finding(s). Please Inform Alcare Reception Immediately for any visible P



ALCARE™ Diag

ab to get NABL accreditation in Assam
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me Collection : +91 94354 22222

NAME [redacted]
Permanent No. : 1020077
Referred BY : Dr. KALPAJYOTI MAHANTA, BAMS
Pat. Address :

Radiology No. : 012503130142
Age / Sex : 46 Y 0 M 0 D /Female
Centre : WALK IN
Registered on : 13/Mar/2025 03:20PM

Department of Cardiology

Pericardium : Normal.

2D Study :

RA/ RV/ LA : Normal.

LV shows good systolic contraction.

No RWMA.

No clot in LA/LAA/LV.

Colour and Doppler study :

No MS/AS/AR/PS/PR/TS/TR.

Mild MR.

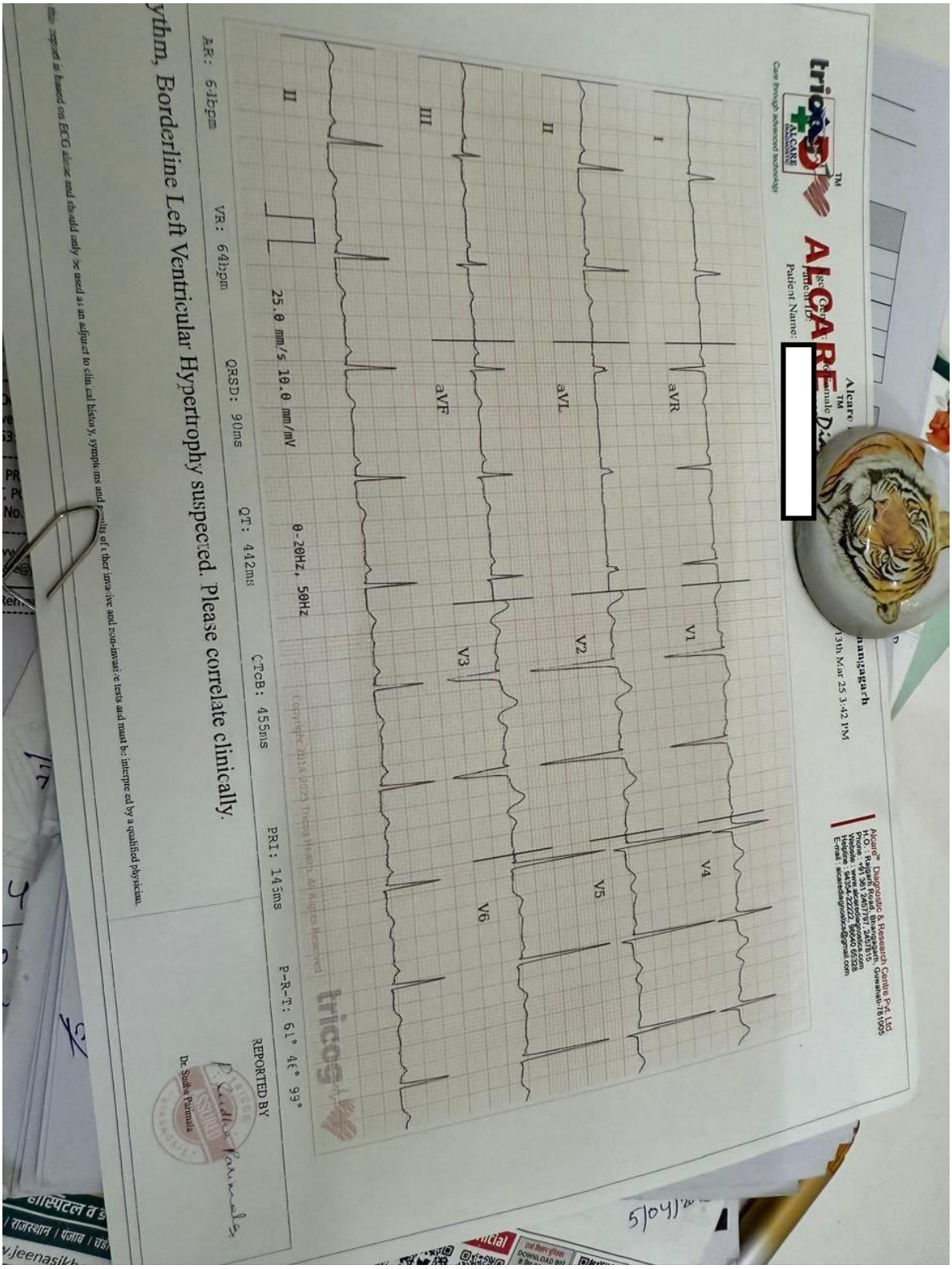
Mitral inflow E > A.

IMPRESSION:-

- **CONCENTRIC LVH.**
- **MILD MR.**
- **GOOD LV SYSTOLIC FUNCTION.**
- **NORMAL DIASTOLIC FUNCTION.**

*** End of Report ***

ALCARE DIAGNOSTIC
Care through advanced technology



DISCUSSION

Ayurvedic treatment integration for CAD offers a viable substitute for conventional medical methods. This case study describes the application of several *Ayurvedic* treatments to a 46-year-old woman who has been diagnosed with CAD. *Samprapti*[26,29,30] of this case study is illustrated in **Fig 4**.

वेगाघातोष्णरूक्षान्नैरतिमात्रोपसेवितैः |
विरुद्धाध्यशनाजीर्णैरसात्म्यैश्चापि(ति) भोजनैः ||३||
दूषयित्वा रसं दोषा विगुणा हृदयं गताः |
कुर्वन्ति हृदये बाधां हृद्रोगं तं प्रचक्षते ||४|| [31]

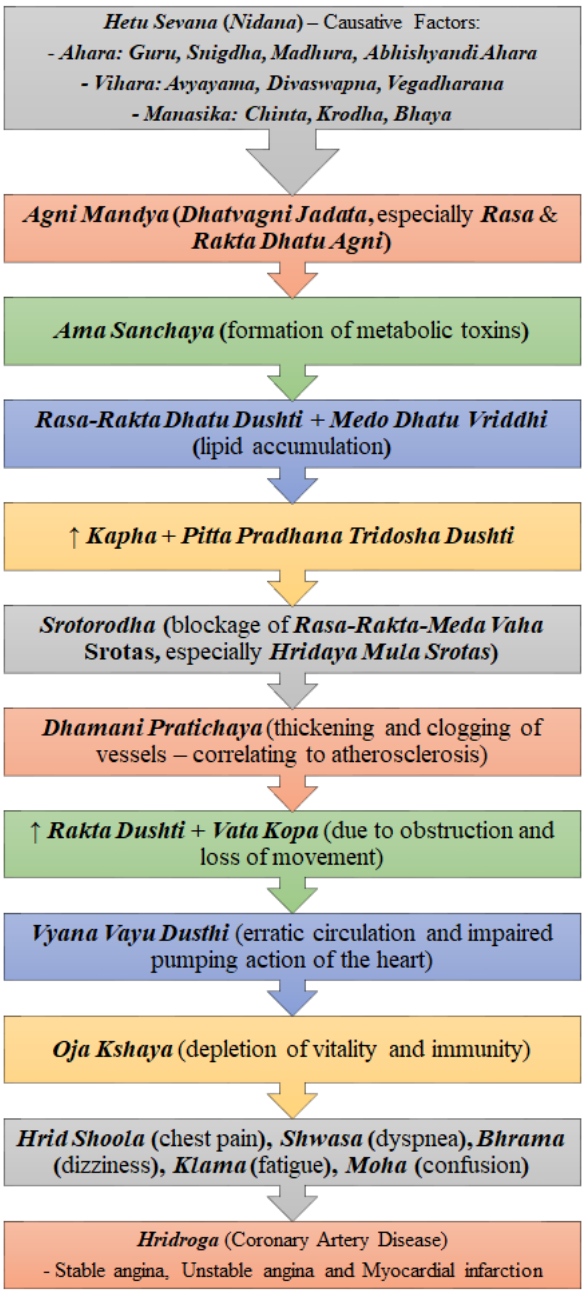


Fig 4: *Samprapti* of this case study.

During her 4 month of *Ayurvedic* treatment, she underwent *Ayurvedic* therapy regimen. CAD, or *Hṛidroga* in *Ayurveda*, is understood as a manifestation of *doshic* imbalance, primarily aggravated *Kapha* and *Vata*, leading to *ama* accumulation and *srotorodha*, particularly affecting the *rasavaha* and *hridya srotas* (channels related to plasma and the heart). This pathogenesis results in impaired *rasa* circulation, weakening of *hridaya* (heart) function, and subsequent cardiovascular complications.

To address this, *Ayurvedic* interventions focus on *ama pachana* (digesting toxins), *srotoshodhana* (cleansing channels), and *hridya* (cardiac tonic) therapies. Formulations such as Hriday Shuddhi Kwath and Relivon Powder are employed for their *deepana* and *pachana* properties, enhancing *agni* to prevent further *ama* formation. Hrid Care Capsule and Dr. BP Tablet contribute to *srotoshodhana* and *lekhana* actions, aiding in the removal of obstructions and reducing lipid accumulation within the channels. Heart Care Syrup, rich in *hridya Ayurvedic* medicinal herbs, supports the strengthening of cardiac muscles and normalizes heart rhythms, while also exhibiting *rasayana* effects to restore vitality. Cardioton Capsules offer *balya* and *ojovardhaka* benefits, fortifying the heart and enhancing overall resilience.

This case study highlights the potential benefits of integration of *Ayurvedic* therapy with previously prescribed allopathic medicine for managing CAD. *Ayurvedic* treatment, offer a more accessible, cost-effective approach, addressing underlying imbalances that contribute to heart dysfunction. While promising, further research is needed to confirm the effectiveness, safety, and reliability of *Ayurvedic* treatments in CAD management.

CONCLUSION

This case study evaluating the treatment of CAD through *Ayurvedic* interventions yields the following findings:

Symptoms: Upon visit, the patient presented with breathing difficulty, bradycardia, tightness in chest and general weakness. After *Ayurvedic* treatment, significant improvements were observed. The patient reported relief from all the symptoms, with no new symptoms emerging, suggesting a marked improvement in CAD and overall health.

Vitals and Investigations: There was a notable reduction in all the presented symptoms, reflecting positive changes in both lifestyle and diet. The patient's condition has shown stability and improvement over the follow-up period. Although the initial coronary angiography on before treatment revealed severe CAD with Triple Vessel Disease, the subsequent echocardiography after treatment indicated that the patient's left ventricular systolic function remains good, and diastolic function is now normal. There is no progression in the mild MR, and while concentric left ventricular hypertrophy was observed. Overall, the patient's condition is stable, with preserved heart function, showing positive signs of management and treatment.

In summary, holistic *Ayurvedic* therapies along with previously prescribed allopathic medicines for CAD showed promising results, including improvements in laboratory test results, vital signs, and symptoms. The integration of *Ayurvedic* treatments appears to alleviate CAD symptoms, and improve overall health.

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