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Madyapan Janita-Yakrit-Rogah: A Case Study on Ayurvedic Management

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Abstract

Alcoholic Liver Disease (ALD) is a significant global health concern, often complicated by comorbid conditions such as Type 2 Diabetes Mellitus (T2DM) and Hypertension (HTN). These metabolic disorders exacerbate liver damage, leading to increased inflammation, fibrosis and cirrhosis, and complicate the clinical management of ALD. This paper explores the interrelationship between ALD, T2DM and HTN, highlighting the role of insulin resistance, hypertension-induced portal pressure and metabolic disturbances in accelerating liver dysfunction. Non-invasive diagnostic tools like elastography and novel pharmacological treatments, including SGLT2 inhibitors and angiotensin receptor blockers, show promise in managing both diabetes and liver fibrosis. *Ayurvedic* medicine offers a holistic approach to managing ALD and its comorbidities, emphasizing the restoration of *Doshic* balance, detoxification and metabolic harmony. Case management is exemplified by a 53-year-old male patient with ALD, T2DM and HTN, treated using therapies, *Panchkarma* including, herbal formulations and lifestyle modifications. This *Ayurvedic* approach aims at not only treating symptoms but also addressing the root causes of these chronic conditions, improving overall liver health and quality of life. The combination of conventional and *Ayurvedic* strategies offers a comprehensive treatment model for managing ALD in the presence of T2DM and HTN.

Keywords: Liver Cirrhosis, Type 2 Diabetes Mellitus, Hypertension, *madyapan janita yakrit-rogah,* Liver Fibro-scan.

Introduction

Alcoholic liver disease (ALD) represents a spectrum of liver injury caused by chronic alcohol consumption, ranging from simple fatty liver to more severe outcomes such as cirrhosis and liver cancer. [1] It remains one of the leading causes of liver-related morbidity and mortality globally. The progression of ALD can be influenced by multiple factors, including coexisting metabolic disorders such as type 2 diabetes mellitus (T2DM) and hypertension. [2]. The presence of these comorbid conditions can complicate the clinical course of ALD, exacerbating liver damage and increasing the risk of adverse outcomes.

T2DM, a disease characterized by insulin resistance and chronic hyperglycaemia, is commonly associated with liver complications, including non-alcoholic fatty liver disease (NAFLD), which often overlaps with ALD. [3] Insulin resistance has been shown to exacerbate liver inflammation and fibrosis, contributing to the progression of both NAFLD and ALD. [4] Additionally, hypertension, a condition that affects a significant portion of the population, is another risk factor for liver complications. Elevated blood pressure has been linked to an increased risk of cirrhosis, portal hypertension and liver-related complications in patients with ALD. [5]

The combination of ALD, T2DM and hypertension creates a compounded burden on liver function, leading to a greater likelihood of severe liver dysfunction and higher mortality risk. Therefore, understanding the interrelationships between these conditions is crucial for developing effective prevention, diagnosis and management strategies. Addressing these overlapping chronic diseases in a comprehensive manner is key to improve patient outcomes and quality of life [6, 7].

Alcoholic liver disease (ALD) is exacerbated by type 2 diabetes mellitus (T2DM) and hypertension, leading to worsened liver damage and complications. These comorbidities contribute to increased liver inflammation, fibrosis and cirrhosis. Insulin resistance in T2DM worsens liver inflammation and fat accumulation, which is amplified by alcohol. Hypertension increases portal pressure, leading to more severe liver damage and higher risks of complications

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like liver [8, 9, 10]. The combination of these conditions accelerates liver fibrosis and cirrhosis, making management more complex, especially in controlling blood sugar, which is often disrupted by alcohol intake. Non-invasive tests like elastography aid in diagnosing liver damage, while treatments like SGLT2 inhibitors and angiotensin receptor blockers show promise in managing both diabetes and liver fibrosis. [11] Modern care includes multidisciplinary strategies focusing on alcohol cessation, weight management with blood pressure and glucose control. Personalized treatment approaches, including pharmacogenomics, are increasingly important [12].

In *Ayurveda,* the liver is regarded as a vital organ responsible for detoxification, digestion and the balance of the body's *doshas (Vata, Pitta* and *Kapha*). Alcoholic liver disease (ALD) is viewed as an imbalance in *Pitta dosha*, primarily due to the aggravating effects of alcohol, which is considered a substance that increases heat and toxicity in the body [13]. The excess consumption of alcohol leads to the accumulation of *Ama* (toxins) and disrupts the liver's natural ability to process and eliminate waste. When compounded with the metabolic disorders of type 2 diabetes mellitus (T2DM) and hypertension, the liver's capacity to maintain homeostasis becomes further challenged [14].

T2DM, associated with an imbalance in *Kapha* and *Vata doshas*, leads to insulin resistance and an excess of sugar in the body, which contributes to liver inflammation and fat accumulation. In *Ayurveda,* this condition is linked to a disturbance in the *Agni* (digestive fire), which in turn weakens the body's metabolic processes, creating a fertile ground for diseases such as fatty liver and cirrhosis. [15] Hypertension, which reflects an imbalance in *Vata* and *Pitta*, manifests as excess heat and dryness in the circulatory system, exacerbating liver dysfunction and leading to complications like portal hypertension and gastrointestinal bleeding. [16]

Ayurvedic treatment of ALD with T2DM and hypertension focuses on restoring the balance of the *doshas*, detoxifying the liver through *Ayurvedic* formulations like Kutki (*Picrorhiza kurroa*), Bhumyamalaki *(Phyllanthus niruri*), and Gokshura (*Tribulus terrestris*), and managing the metabolic imbalances through dietary modifications, lifestyle changes, and the use of *Panchakarma* (detoxification therapies). [17] The goal is to strengthen *Agni*, support the liver's detoxification processes, and harmonize the body's natural rhythms to improve overall health and prevent the progression of these chronic conditions. By addressing the root cause of these diseases through an integrated approach, *Ayurveda* offers a holistic solution for managing Alcoholic Liver Disease in the presence of type 2 diabetes and hypertension, with a focus on long-term healing and wellness [18].

"यदा तु रक्तवाहिनी रससञ्ज्ञावहानि च।
पृथक् पृथक् समस्ता वा स्रोतांसि कुपिता मलाः।।२५।।
मलिनाहारशीलस्य रजोमोहावृतात्मनः।
प्रतिहत्यावतिष्ठन्ते जायन्ते व्याधयस्तदा।।२६।।
मदमूर्च्छायसन्न्यासास्तेषां विद्याद्विचक्षणः।
यथोत्तरं बलाधिक्यं हेतुलिङ्गोपशान्तिषु।।२७।।
दुर्बलं चेतसः स्थानं यदा वायुः प्रपद्यते।
मनो विक्षोभयञ्जन्तोः सञ्ज्ञां सम्मोहयेत्तदा।।२८।।
पित्तमेवं कफश्चैवं मनो विक्षोभयन्नृणाम्।
सञ्ज्ञां नयत्याकुलतां विशेषश्चात्र वक्ष्यते।।२९।।" [19]

Case Report

A 53-year-old male patient with history of Alcoholic Liver Disease (ALD) with Type 2 Diabetes Mellitus and Hypertension visited Jeena Sikho Lifecare Limited Hospital, Derabassi on 14th of February, 2025 and was admitted for 5 days. He was presenting symptoms like -

- Intermittent constipation
- Burning micturition
- General body weakness and fatigue
- Black patch on right leg with itching
- Weight loss
- Heart burn, gastritis and hyperacidity
- Shortness of breath and cough

The patient was diagnosed with Type 2 Diabetes Mellitus since last 15 years and hypertension since past4 years. He is not on Insulin. Prior to this consult he was admitted twice in the past for the same condition.

The vitals and *Asht-sthana pareeksha* taken on the prime consultation are tabulated in table 1. The vitals taken during the IPD treatment is shown in table 2 whereas laboratory investigations and fibro scan interpretations observed during the treatment is shown in table 3. The patient was discharged on 18th of February, 2025. The vitals and *Asht-sthana Pareeksha* during the time of discharge is mentioned in table 4.

Table 1: Vitals and *Ashtasthana Pareeksha* observed on the day of patient visit

Parameter	Values
Blood Pressure	120/86 mm of Hg
Pulse Rate	79/min
Weight	63 Kg
SPO2	99%
Nadi	*Kaphaj Pittaj*
Mala	*Vibandh*
Mutra	*Prakrit*
Jiwha	*Saam*
Shabda	*Spashta*
Sparsha	*Samsheetoshna*
Akriti	*Madhyama*
Drika	*Prakrita*

Table 2: Vitals taken during IPD treatment

Date	Time	Weight (Kg)	Temperature (°F)	Blood Pressure (mm Hg)	Pulse (per min)	Respiration (per min)	Sugar (mg/dl)	SPO2 (%)
14-02-2025	12:20 PM	63 Kg	98.4 °F	120/80 mm Hg	86	18	-	99%
	8:00 PM	-	97.1 °F	120/80 mm Hg	82	18	-	99%
	9:00 PM	-	-	-	-	-	R-201 mg/dl	-
15-02-2025	5:00 AM	-	98.3 °F	120/80 mm Hg	80	20	F-154 mg/dl	99%
	9:20 AM	60 Kg	98.2 °F	120/80 mm Hg	88	18	-	99%

	9:10 PM	-	97.3 °F	130/80 mm Hg	82	20	R-170 mg/dl	99%
16-02-2025	5:00 AM	-	97.6 °F	120/80 mm Hg	80	18	F-149 mg/dl	98%
	10:00 AM	60 Kg	98.2 °F	120/80 mm Hg	88	16	-	99%
	9:00 PM	-	98.4 °F	130/80 mm Hg	96	18	R-183 mg/dl	99%
17-02-2025	5:00 AM	-	97.4 °F	120/80 mm Hg	96	20	R-149 mg/dl	98%
	9:00 AM	60 Kg	97 °F	130/80 mm Hg	94	18	-	98%
	9:00 PM	-	98.4 °F	120/80 mm Hg	74	18	R-180 mg/dl	99%
18-02-2025	5:00 AM	-	98.2 °F	120/80 mm Hg	74	18	-	99%
19-02-2025	9:20 AM	60 Kg	98 °F	130/80 mm Hg	88	18	-	99%

Table 3: Laboratory investigations and Fibro Scan reports during IPD treatment

Tests	Values	
	14-02-2025	**18-02-2025**
Hemoglobin (Hb)	9.0 g/dL	9.1 g/dL
Total Leukocyte Count (TLC)	3000/cumm	3100/cumm
Platelet Count	0.52 lacs/cumm	0.54 lacs/cumm
Total RBC Count	2.98 mil/cumm	3.17 mil/cumm
PCV/HCT	25.70%	27.20%
Alkaline Phosphatase (ALP)	151.77 U/L	150.00 U/L

Fibroscan:

E (Liver Fibrosis)	
E Value (*kPa*)	**Interpretation**
27.4	Severe Fibrosis/Cirrhosis

CAP (Fatty Liver)	
CAP Value (*dB/m*)	**Interpretation**
212	Grade 0 (<11% Fat) - Normal

Table 4: Vitals and *Asthasthana Pareeksha* on the day of discharge.

Parameter	Values
Blood Pressure	110/80 mm of Hg
Pulse Rate	79/min
Weight	63 Kg
SPO2	99%
Nadi	*Vataj Pittaj*
Mala	*Vibandh*
Mutra	*Ishta Peet*
Jiwha	*Saam*
Shabda	*Spashta*
Sparsha	*Samsheetoshna*
Akriti	*Madhyama*
Drika	*Prakrita*

During the treatment period, the patient received a combination of *Ayurvedic* treatments which covered a tailored therapeutic diet, lifestyle recommendations and *Panchkarma* treatments like *Rookshapottali Sweden*, *Dashamool, Punarnava* and *Shunthi lepam* over chest, abdomen and legs, *Shiropichu* with *Brahmi* oil, *Punarnava and Bhumi amla Siddha Matra Basti* (90 ml), *Punarnava and Bhumi amla Siddha Kashaya Basti*. *Ayurvedic* medications given during the course of treatment is shown in table 5. Daily medication Schedule is tabulated in table 6.

Table 5: Medicines Prescribed during IPD treatment

Medicines	Ingredients	Therapeutic Effects
Jalodar Har Tablet	Pippali (*Piper longum*), Haridra (*Curcum longa*), Baheda (*Terminalia Belerica*), Tamra Bhasm (Bhasma prepared from copper), Amla (*Phyllanthus emblica*), Bhavna Dravya-Thuhar Dudh (*Euphorbia neriifolia*), Gum Acacia (*Acacia arabica*).	*Deepan, Pachan, Yakrit Shodhan* and *Yakrit Rasayan*
Divya Shakti Powder	Trikatu, Triphala, Nagarmotha (*Cyperus rotundus*), Vay Vidang (*Embelia ribes*), Chhoti Elaichi (*Elettaria cardamomum*), Tej Patta (*Cinnamomum tamala*), Laung (*Syzygium aromaticum*), Nisoth (*Operculina turpethum*), Sendha Namak, Dhaniya (*Coriandrum sativum*), Pipla Mool (*Piper longum* root), Jeera (*Cuminum cyminum*), Nagkesar (*Mesua ferrea*), Amarvati (*Achyranthes aspera*), Anardana (*Punica granatum*), Badi Elaichi (*Amomum subulatum*), Hing (*Ferula assafoetida*), Kachnar (*Bauhinia variegata*), Ajmod (*Trachyspermum ammi*), Sazzikhar, Pushkarmool (*Inula racemosa*), Mishri (*Saccharum officinarum*).	*Deepan, Pachan* and *Rasayan*
Dr. Liv Shuddhi Tablet	Milk Thistle (*Silybum marianum*) extract, Bhuiamalaki (*Phyllanthus amarus*) panchang, Kutaki (*Picrorhiza kurroa*) root extract, Kalmegh (*Andrographis paniculata*) whole plant, Chhoti Makoy (*Solanum nigrum*) whole plant, Curcuminoids soft extracts, Kali Mirch (*Piper nigrum*) extract, Punarnava (*Boerhavia diffusa*) root, and Xanthan gum	*Yakrit Shodhan, Rasayan* and *Yakrit Balya*
Mutra Vardhak Vati	Gokshur (*Tribulus terrestris*), Guggulu (*Commiphora wightii*), Sonth (*Zingiber officinale*), Kalimirch (*Piper nigrum*), Pippal (*Piper longum*), Bahera (*Terminalia bellerica*), Harad (*Terminalia chebula*), Amla (*Phyllanthus emblica*), Motha (*Cyperus rotundus*).	*Mutrakrichrahara, Ashmarighna, Mutravirechana, Shirovirechana, Shothahara* and *Amapachana*
GE- LIV Forte Syrup	Bhringraj (*Eclipta alba*), Kuchri, Kalmegh (*Andrographis paniculata*), Kutaki (*Picrorhiza kurroa*), Vidhang (*Argyreia nervosa*), Nisoth (*Operculina turpethum*), Daruharidra (*Berberis aristata*), Chitrak (*Plumbago zeylanica*), Mool Bhu Amla (*Phyllanthus niruri*), and Shadashan (*Acorus calamus*).	*Yakrit Uttejaka* and *Shodhaka, Ojovardhaka, Agnivardhaka* and *Amlapittahara*
Hemotone Syrup	Ashwagandha (*Withania somnifera*), Guduchi (*Tinospora cordifolia*), Gokshur (*Tribulus terrestris*), and Punarnava (*Boerhavia diffusa*).	*Raktavardhaka, Raktaprasadana* and *Srotoshodhaka*
Platojee Capsule	Papaya (*Carica papaya*), Guduchi (*Tinospora cordifolia*), Sudarshan, Arogyavardhini, Amlaki rasayan, and Neem (*Azadirachta indica*).	*Raktavardhaka, Raktotpatti Janaka* and *Vyadhikshamatva Vardhaka*
Liv DS	Bhumiamla Ext. (*Barleria prionitis*), Kasani Ext. (*Cichorium intybus*), Himsra (*Leptadenia reticulata*), Punarnava Ext. (*Boerhavia diffusa*), Guduchi Ext. (*Tinospora cordifolia*), Kakamachi (*Solanum nigrum*), Arjun (*Terminalia arjuna*), Biranjasipha (*Berberis aristata*), Kasamarda Jhavuka (*Solanum xanthocarpum*), Vidanga (*Embelia ribes*), Chitrak (*Plumbago zeylanica*), Kutaki (*Picrorhiza kurroa*), Haritaki (*Terminalia chebula*), Bhringraj (*Eclipta prostrata*).	*Deepan, pachana* and *Rasayan*

Table 6: Daily medication Schedule

Date	Medicines	Dosage with Anupana
14-02-2025	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Dr. Liv Shuddhi	2 TAB BD (*Adhobhakta* with *koshna jala*)
	Mutra Vardhak Vati	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
15-02-2025	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Dr. Liv Shuddhi	2 TAB BD (*Adhobhakta* with *koshna jala*)
	Mutra Vardhak Vati	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Hemotone Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
16-02-2025	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Dr. Liv Shuddhi	2 TAB BD (*Adhobhakta* with *koshna jala*)
	Mutra Vardhak Vati	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Hemotone Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
17-02-2025	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)

	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Dr. Liv Shuddhi	2 TAB BD (*Adhobhakta* with *koshna jala*)
	Mutra Vardhak Vati	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Hemotone Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
18-02-2025	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Dr. Liv Shuddhi	2 TAB BD (*Adhobhakta* with *koshna jala*)
	Mutra Vardhak Vati	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Hemotone Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
Discharge	Divya Shakti Powder	Half a teaspoon (*Nishikala* with *koshna jala*)
	Liv DS	2 TAB BD (*Adhobhakta* with *koshna jala*)
	GE- LIV Forte Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Jalodar Har Vati	1 TAB BD (*Adhobhakta* with *koshna jala*)
	Hemotone Syrup	15 ml BD (*Adhobhakta* with *samamatra koshna jala*)
	Platojee Capsule	2 TAB BD (*Adhobhakta* with *koshna jala*)

Treatment Plan

"अथातो मदात्ययचिकित्सितं व्याख्यास्यामः।।१।।
इति ह स्माह भगवानात्रेयः।।२।। [20]

I. *Panchkarma* Therapies

Rookshapottali Sweden [21]	
Procedure	The patient is made to lie in a comfortable position.
	The warm *Pottali* (bolus) is applied to the affected area or the entire body using gentle pressing, tapping, and circular movements.
	The heat should be tolerable and not cause burns.
	When the *Pottali* cools, it is reheated and reused for 30-45 minutes
Physiology & Mode of action	The application of heat opens up the sweat glands (*Sweda Vaha Srotas*), allowing the body to expel *Ama* and excess *Kapha* through sweating.
	The warmth of the *Pottali* bolus relaxes muscle fibers, improving joint mobility and flexibility.

Dashamool, Punarnava* and *Shunthi Lepam [22]	
Procedure	A combination of *Dashamool*, *Punarnava* and *Shunthi* are blended together to make a *ayurvedic* paste
	The paste is applied over the affected area; in this case, both legs.
	Gently massage the paste into the skin or simply apply it as a layer over the area and leave it on the skin for about 20-30 minutes
Physiology & Mode of Action	*Dashamool* reduces pain, swelling, supports immune function, and helps remove toxins from the body.
	Punarnava is a diuretic & anti-inflammatory, reducing fluid retention and improving kidney filtration.
	Shunthi is known for its anti-inflammatory, analgesic, and digestive stimulant effects.
	These formulations work together to relieve pain, reduce inflammation, support detoxification, and rejuvenate tissues, making them effective for joint pain, muscle pain, oedema, and digestive issues.

3. Shiropichu with Brahmi oil [23]	
Procedure	Ensure the patient lies down comfortably on their back on a massage table
	Soak a clean cotton pad or cloth in the warmed *Brahmi* oil and gently squeeze out any excess oil so it doesn't drip
	Place a boundary on the patient's forehead to prevent the oil from entering their eyes and ears.
	Place the soaked cotton pad or cloth over the patient's forehead or scalp (target areas). You can also place it over the crown of the head for mental clarity benefits.
	Allow the oil to sit for about 20-30 minutes
Physiology and Mode of action	Affects the brain and nervous system, promoting relaxation and improving circulation.
	Brahmi oil enhances memory and reduces mental fatigue.
	The warm *Brahmi* oil improves blood circulation to the scalp and head, enhancing oxygen and nutrient supply to brain tissues.
	It soothes tension and reduces pain with its anti-inflammatory effects.

4. Bhumi Amla & Punarnava Siddha Sneh Basti (90 ml) [24]	
Procedure	The patient should be on an empty stomach or have a light meal 2-3 hours prior.
	The patient should lie on their left side (left lateral position) with knees bent.
	Bhumi Amla and Punarnava oil was gently introduced into the rectum via a sterile *Basti* tube, under controlled pressure.
	90 ml of the *basti* oil was administered and was instructed to retain the *Basti* for 20-30 minutes thus allowing maximum absorption
Physiology & Mode of Action	*Bhumi Amla* has hepatoprotective properties, stimulating liver function and enhancing bile secretion for better digestion.
	Punarnava is a diuretic & anti-inflammatory, reducing fluid retention and improving kidney filtration.

5. Bhumi Amla & Punarnava Siddha Sneh Kashaya Basti (90 ml) [25]	
Procedure	The patient should lie on their left side (left lateral position) with knees bent.
	Bhumi Amla and *Punarnava kashaya* (decoction) was gently introduced into the rectum via a sterile *Basti* tube, under controlled pressure.
	90 ml of the *basti* oil was administered and was instructed to retain the *Basti* for 20-30 minutes thus allowing maximum absorption
Physiology & Mode of Action	*Bhumi Amla* has hepatoprotective properties, stimulating liver function and enhancing bile secretion for better digestion.
	Punarnava is a diuretic & anti-inflammatory, reducing fluid retention and improving kidney filtration.

II. Diet

A perfectly tailored *Ayurvedic* Diet was followed [26]. Dietary Guidelines from Jeena Sikho Lifecare Limited Hospital.

a) Pathya[27]

- Fresh and homemade food
- Millet diet

b) Apathya [27]

- Wheat, Packed food, Refined food, Diary food/Animal food, Coffee and Tea
- Never eat after 8 PM
- In solid take small bite and chew 32 times
- In liquid take sip and drink slowly

c) Hydration

- Boil 2 litres of water, reduce it to half (1 litre) and consume
- Alkaline water - 3-4 times a day (1 litre)
- Consume Coconut water, Coconut milk, Almond milk
- Herbal water
- Living water
- Turmeric water

d) Millet Meal

- Foxtail (*Setaria italica*)
- Barnyard (*Echinochloa esculenta*)
- Little (*Panicum sumatrense*)
- Kodo (*Paspalum scrobiculatum*)
- Browntop (*Urochloa ramose*)
- *Mota Anaj* – Sorghum *(Sorghum bicolor)*

e) Special Instructions

- 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

f) Meal Structure

Time	Meal	Food Items
Early Morning (5:45 AM)	Detox	2 crushed garlic cloves, curry leaves
Breakfast (9:00 AM)	Fruits	Seasonal fruits (Pomegranate, Cucumber, Tomato, Guava) – Weight × 10 Kg
Morning Snacks (11:00 AM)	Energy Boost	*mugda yusha*, red juice, 4-5 soaked almonds
Lunch (12:30 PM - 2:00 PM)	Main Meal	Plate 1: Salad (Weight × 5 Kg) Plate 2: Millet recipes with proper hydration
Evening Snacks	Light Refreshment	Green juice (100-150 ml)
Dinner (6:00 PM)	Light Meal	Salad, fermented millets, chutney (made from five leaves, onion, tomato, garlic, and green chili)

III. Lifestyle Recommendations:

Activity	Practice	Details
Meditation	Stress Relief	Practice meditation daily to reduce stress and enhance mindfulness.
Yoga (40 min)	*Sukshma Pranayama & Sukhasana*	Perform these *yoga* exercises for flexibility, relaxation, and mental clarity.
Sleep	Quality Rest	Ensure 6-8 hours of uninterrupted, deep sleep for optimal health.
Daily Routine	Balance & Organization	Follow a structured routine to maintain discipline and productivity.

IV. Medicinal Interventions

The medicinal interventions included in this case were Jalodar Har Tablet, Divya Shakti Powder, Dr. Liv Shuddhi Tablet, Mutra Vardhak Vati, GE- LIV Forte Syrup, Hemotone Syrup, Platojee Capsule, Liv DS. Medications prescribed during the IPD treatment and at the time of discharge is shown in table 5.

Lab Reports

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LABORATORY REPORT

Age / Sex	: 53 years / Male	Reference	: Dr. JEENA SIKHO LIFECARE LTD
UID No	: 12688	Organization	: WELLCARE PATH LAB PVT.LTD
		Org ID	: WELLCARE PATH LAB
		Registered On	: FEB 14, 2025, 10:56 A.M.
		Collected On	: FEB 14, 2025, 10:56 A.M.
		Reported On	: FEB 14, 2025, 12:01 P.M.

46026

Investigations	Result(s)		
Complete Blood Count(CBC)			
Hemoglobin (HB) Method : Cynmeth Photometric Measurement	9.0	13.0 - 17.0	g/dL
Total Leucocytes Count (TLC) Method : Electrical Impedance	3000	4000 - 11000	/cmm
DIFFERENTIAL COUNT			
Neutrophils Method : VCSn Technology	66	40 - 75	%
Lymphocytes Method : VCSn Technology	28	20 - 45	%
Monocytes Method : VCSn Technology	04	2 - 10	%
Eosinophils Method : VCSn Technology	02	1 - 6	%
Basophils	00	0 - 1	%
Total RBC Count Method : Electrical Impedance	2.98	3.50 - 6.50	Mill/Cumm
Platelet Count Method : VCSn Technology	0.52	1.50 - 4.50	Lacs/Cumm
PCV/HCT Method : Calculated	25.7	35.0 - 47.0	%
Red cell distribution width (RDW) Method : Electrical Impedance	16.3	13.0 - 18.0	%
Mean corpuscular volume (MCV) Method : Electrical Impedance	86.2	76.0 - 96.0	fl
Mean Corpuscular Hemoglobin (MCH) Method : Calculated	27.9	27.0 - 32.0	pg
Mean Corpuscular Hemoglobin Concentration(MCHC) Method : Calculated	32.4	30.0 - 35.0	%
Microscopy,Fully Automated Hematology Analyser alfa swelab double chamber 3 Part			
RENAL FUNCTION TEST (RFT)			
BLOOD UREA Method : Urease/ UV	20.09	15.0 - 46.0	mg/dl
BLOOD UREA NITROGEN (BUN) Method : Kinetic UV Assay	9.38	7.0 - 25.0	mg/dl
CREATININE - SERUM Method : Modified jaffe method	0.90	0.70 - 1.40	mg/dl

CONDITIONS OF LABORATORY TESTING & REPORTING

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46026

Investigations		Result(s)	
BLOOD UREA NITROGEN / CREATININE RATIO Method : Derived	10.42	9.1 - 23.1	Ratio
URIC ACID Method : Uricase/ Peroxidase	6.53	3.0 - 7.2	mg/dL

Note:
Please correlate with clinical conditions.

Electrolytes

Sodium (NA+) Method : Method: ISE Direct	138.6	136.0 - 146.0	mEq/L
Potassium (K+) Method : Method: ISE Direct	4.00	3.50 - 5.50	mEq/L
Chloride (CL) Method : Method: ISE Direct	103.8	96.0 - 108.0	mEq/L

Method:
ISE Indirect

Interpretation
Sodium measurements are used in the diagnosis and treatment of aldosteronism (excessive secretion of the hormone aldosterone), diabetes insipidus (chronic excretion of large amounts of dilute urine, accompanied by extreme thirst), adrenal hypertension, Addison's disease (caused by destruction of the adrenal glands), dehydration, inappropriate antidiuretic hormone secretion, or other diseases involving electrolyte imbalance. Potassium measurements are used to monitor electrolyte balance in the diagnosis and treatment of disease conditions characterized by low or high blood potassium levels. Chloride measurements are used in the diagnosis and treatment of electrolyte and metabolic disorders such as cystic fibrosis and diabetic acidosis

Liver Function Test (LFT)

Total Bilirubin Method : Vanadate : oxidation	0.90	0.20 - 1.00	mg/dL
Direct Bilirubin Method : Vanadate : oxidation	0.48	0.00 – 0.60	mg/dL
Indirect Bilirubin Method : Derived	0.42	0.00 - 0.80	mg/dL
AST (SGOT) Method : IFCC* Without Pyridoxal Phosphate Activation	37.09	< 40.0	IU/L
ALT (SGPT) Method : IFCC* Without Pyridoxal Phosphate Activation	27.80	< 41.0	IU/L
Alkaline Phosphatase (ALP) Method : Modified IFCC	**151.77**	0.00 - 150.0	U/L
Total Protein Method : Biuret Method	7.85	6.4 - 8.2	g/dL
Albumin Method : Albumin Bcg1	3.75	3.4 - 5.0	g/dL

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LABORATORY REPORT

Age / Sex : 53 years / Male	Reference : Dr. JEENA SIKHO LIFECARE LTD	Registered On	: FEB 18, 2025, 11:09 A.M.
UID No : 12688	Organization : WELLCARE PATH LAB PVT.LTD	Collected On	: FEB 18, 2025, 11:09 A.M.
	Org ID : WELLCARE PATH LAB	Reported On	: FEB 18, 2025, 12:05 P.M.

46491

Test Description	Value(s)	Reference Range	
Complete Blood Count(CBC)			
Hemoglobin (HB) Method : Cynmeth Photometric Measurement	9.1	13.0 - 17.0	g/dL
Total Leucocytes Count (TLC) Method : Electrical Impedance	3100	4000 - 11000	/cmm
DIFFERENTIAL COUNT			
Neutrophils Method : VCSn Technology	72	40 - 75	%
Lymphocytes Method : VCSn Technology	20	20 - 45	%
Monocytes Method : VCSn Technology	06	2 - 10	%
Eosinophils Method : VCSn Technology	02	1 - 6	%
Basophils	00	0 - 1	%
Total RBC Count Method : Electrical Impedance	3.17	3.50 - 6.50	Mill/Cumm
Platelet Count Method : VCSn Technology	0.54	1.50 - 4.50	Lacs/Cumm
PCV/HCT Method : Calculated	27.2	35.0 - 47.0	%
Red cell distribution width (RDW) Method : Electrical Impedance	15.8	13.0 - 18.0	%
Mean corpuscular volume (MCV) Method : Electrical Impedance	85.8	76.0 - 96.0	fl
Mean Corpuscular Hemoglobin (MCH) Method : Calculated	27.4	27.0 - 32.0	pg
Mean Corpuscular Hemoglobin Concentration(MCHC) Method : Calculated	31.9	30.0 - 35.0	%

Microscopy,Fully Automated Hematology Analyser alfa swelab double chamber 3 Part

Liver Function Test (LFT)			
Total Bilirubin Method : Vanadate : oxidation	0.97	0.20 - 1.00	mg/dL
Direct Bilirubin Method : Vanadate : oxidation	0.55	0.00 – 0.60	mg/dL
Indirect Bilirubin Method : Derived	0.42	0.00 - 0.80	mg/dL

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		Reported On	: FEB 18, 2025, 12:05 P.M.

46491

Test Description	Value(s)	Reference Range	
AST (SGOT) Method : IFCC* Without Pyridoxal Phosphate Activation	38.50	< 40.0	IU/L
ALT (SGPT) Method : IFCC* Without Pyridoxal Phosphate Activation	29.19	< 41.0	IU/L
Alkaline Phosphatase (ALP) Method : Modified IFCC	150.00	0.00 - 150.0	U/L
Total Protein Method : Biuret Method	7.90	6.4 - 8.2	g/dL
Albumin Method : Albumin Bcg1	3.91	3.4 - 5.0	g/dL
Globulin Method : Derived	3.99	1.8 - 3.8	g/dL
A/G Ratio.	0.98	0.9 - 1.8	

Interpretation:

Enhanced liver fibrosis (ELF) test is used to evaluate liver fibrosis in patients with suspected chronic liver disease due to Viral Hepatitis B & C, Alcoholic liver disease and Non alcoholic fatty liver disease

END OF REPORT

Dr. Ankit Aggarwal
(Consultant Pathologist)

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AIG HOSPITALS
FibroScan
AIG HOSPITALS
HEPATOLOGY
TELANGANA HYDERABAD INDIA
CAP (dB/m)
E (kPa)
MEDIAN
IQR
22
228
55.9
6.8
12%
13/03/2024 11:35:23
M
SWF = 50Hz
Organ Liver
Operator sanju
Valid measurements 10
Total measurements 10
DR MITHUN SHARMA
Fasting Yes
Measurement conditions
Thick subcutaneous tissues Unknown
Patient positioning Supine
Choice of measurement position Unknown
Intercostal Space Unknown
Axillary Line Unknown
echosens
Mindspace Road, Gachibowli, Hyderabad, Telangana - 500 032 +91 40 4244 4222 info@aighospitals.com www.aighospitals.com
AIG Hospitals (a unit of Asian Institute of Gastroenterology) CIN: U99999TG1994PTC018352


FibroScan
HIIMS DERABASSI
CHANDIGARH
SmartExam: ON
CAP (dB/m)
E (kPa)
SD
MEAN
7
229
37.9
4%
27/05/2024 18:11:35
SWF = 50Hz
Height:
Weight:
Physician: DR. HIIMS DERABASSI
Fasting Yes
Measurement conditions
Thick subcutaneous tissues No
Patient positioning Supine
Choice of measurement position Anatomical landmarks
Intercostal Space 7th
Axillary Line Mid
echosens

Result

After 5 days of treatment, the patient has shown significant improvement in symptoms. This proves that the combination of treatments used in this case is very effective in Alcoholic Liver Disease (ALD) with Type 2 Diabetes Mellitus (T2DM) and Hypertension patients. The patient got relief from symptoms like intermittent constipation and burning micturition, general body weakness, fatigue, black patch on right leg with itching, weight loss, gastritis, hyperacidity, heart burn, shortness of breath and cough. The symptoms experienced by the patient gradually diminished during the treatment period. A comparison between symptoms on the day of admission and discharge are shown in table 8. A comparison between the patient's every set of fibro scan reports are tabulated in table 9.

Table 8: Comparison between symptoms on the day of admission and discharge

Symptoms on admission	Symptoms on discharge
Itching (4)	*Itching* (0)
Dyspnea (5)	*Dyspnea* (1)

Table 9: Comparison between fibroscan reports

DATE	CAP Value (dB/m)	E Value (kPa)
13-03-2024	228	55.9
27-05-2024	229	37.9
02-09-2024	240	35.7
17-02-2025	212	27.4

Discussion

A 53-year-old male patient with history of Alcoholic Liver Disease (ALD) with Type 2 Diabetes Mellitus and Hypertension visited Jeena Sikho Lifecare Limited Hospital, Derabassi on14th of February, 2025 and was admitted for 5 days. He was presenting symptoms like intermittent constipation and burning micturition, general body weakness, fatigue, black patch on right leg with itching, weight loss, gastritis, intermittent black stool, fever, hyperacidity, heart burn, shortness of breath and cough. The extensive treatment included maintaining a perfectly tailored *Ayurvedic* diet, making serious lifestyle recommendations and *Panchkarma* therapies. During the IPD treatment, regular vitals, *Ashtasthana Pareeksha* of the patient was taken without fail. *Samprapti* of this case is shown in figure 1. *Panchkarma* therapies like *Rookshapottali Sweden, Dashamool, Punarnava* and *Shunthi lepam* over chest, abdomen and legs, *Shiropichu* with *Brahmi* oil, *Punarnava and Bhumi amla Siddha Matra Basti* and *Punarnava and Bhumi amla Siddha Kashaya Basti*. In *Rookshapottali Sweden* the patient lies down, often on a special treatment table, and the therapist applies the warm *Pottali* to various parts of the body. This promotes sweating and removes toxin through the skin and relieves pain and inflammation of joints and muscles by improving circulation and relaxing stiff tissues. In *Dashamool, Punarnava* and *Shunthi lepam abhyaang,* the therapist gently massages the lepam on the skin or simply apply it as a layer over the area. *Dashamool, Punarnava* and *Shunthi lepam* functions to relieve pain, reduce inflammation, support detoxification and rejuvenate tissues, making them effective for joint pain, muscle pain, oedema and digestive issues. In *Shiropichu* with *Brahmi* oil, the patient lies down in a comfortable position, preferably on a clean surface like a mattress or a pillow and the therapist place the cotton pad or cloth which is soaked with medicines over the patient's forehead or scalp. The oil is allowed to sit for about 20-30 minutes. This affects the brain and nervous system, promoting relaxation and improving circulation. *Brahmi* oil enhances memory and reduces mental fatigue. *Punarnava and Bhumi amla Siddha Matra Basti* and *Kashaya Basti,* both treatments are the therapeutic enema where a medicated oil or decoction respectively is administered into the rectum for detoxification, balancing *doshas* and treating conditions like digestive disorders, oedema or joint issues.

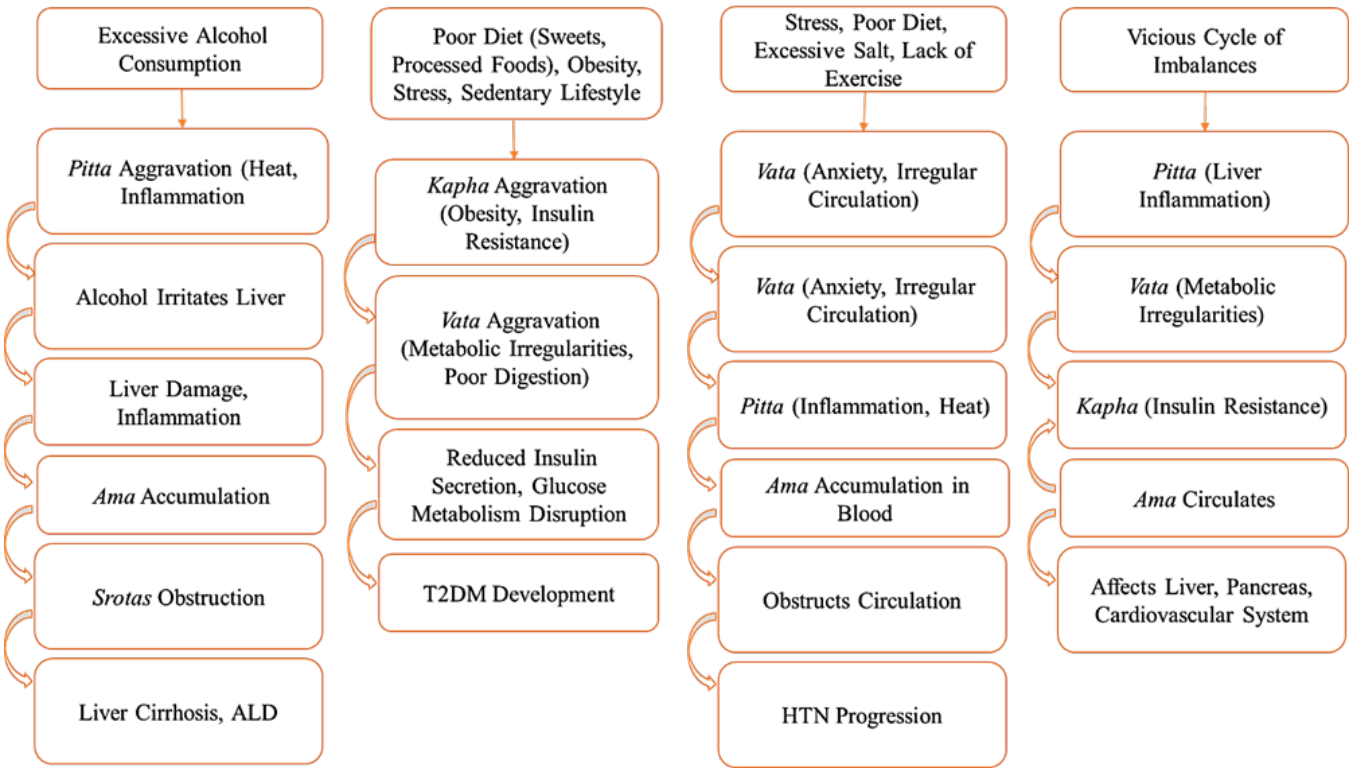

Fig 1: *Samprapti* of the case study

The patient was given *Ayurvedic* medications like Jalodar Har, Divya Shakti Powder, Dr. Liv Shuddhi Tablet, Mutravardhak Vati, GE- Liv Forte Syrup, Hemotone Syrup. Jalodar Har and GE- Liv Forte Syrup is prescribed mainly to maintain gut wellness by improving smoother digestion and also to cleanse and protect the liver naturally. Divya Shakti Powder is prescribed to enhance overall vitality and energy levels, addressing fatigue and weakness. Dr. Liv Shuddhi Tablet is good for liver detox, strengthens liver function and maintains overall wellness. Mutravardhak Vati is used for treating kidney stones, dysuria, painful micturition, high blood pressure and inflammatory conditions, while also providing relief in hyperuricemia and exhibiting antilithiasis properties. Hemotone Syrup help to support haemoglobin levels, boost energy and vitality and enhance blood circulation and also improves platelet count and boosts immunity.

Future Aspects

Alcoholic Liver Disease (ALD) coexisting with Type 2 Diabetes Mellitus (T2DM) and Hypertension presents a complex clinical scenario with significant implications for patient management and future research.

- **Integrated Multidisciplinary Care:** Collaboration among specialists and digital health monitoring to track and adjust treatments in real-time. [28]
- **Precision Medicine:** Genetic profiling and targeted therapies for individualized treatments. [29]
- **Advanced Liver Disease Management:** Stem cell therapies, non-invasive liver monitoring and personalized medications to reduce the need for transplants. [30]
- **Improved Diabetes and Hypertension Treatments:** New medications and technologies, including smart insulin systems and heart-liver-kidney research. [31]
- **Lifestyle and Behavioural Changes:** Digital tools, telemedicine, AI and wearable devices to help manage these conditions. [32]
- **Public Health Focus:** Prevention through lifestyle education, alcohol reduction and weight management programs. [32]
- **Early Detection and Monitoring:** Continuous health tracking to detect complications early. [33]
- **Complementary Medicine:** Integrating therapies like acupuncture and herbs to support liver and cardiovascular health. [34]

Conclusion

In this case of *Madatyaya* (Alcoholic Liver Disease), the clinical presentation corresponds with *Yakrit Roga* (liver disorder) predominantly involving *Pitta* and *Rakta* vitiation, compounded by *Ama* and *Kapha* accumulation. Chronic consumption of *Madya* (alcohol) leads to *Agnimandya* (digestive fire suppression), *Rasa-Rakta Dushti*, and ultimately *Madatyaya* (liver damage), resulting in features like *Jwara* (fever), *Aruchi* (anorexia), *Udara Shoola* (abdominal pain), *Kamala* (jaundice), and *Pandu* (anaemia).

Management was approached by correcting *Agni*, removing *Ama*, and pacifying vitiated *Pitta* and *Rakta*. Line of treatment followed *Shodhana* (purification) and *Shamana* (palliative) therapies using hepatoprotective and *Pittashamaka* formulations. Dietary modifications included *Pitta*-pacifying *Pathya*, avoiding *Madya*, *Amla*, *Lavana*, and *Katu Rasa*, and promoting *Madhura* and *Tikta Rasa dravyas*.

With this *Ayurvedic* approach, the patient showed gradual improvement in symptoms, appetite, energy levels, and liver function parameters. The case reaffirms the relevance of *Ayurvedic* diagnosis and management in *Madatyaya* and *Yakrit Vikara*, especially when integrated with lifestyle correction and abstinence from alcohol. Long-term *Rasayana* therapy is advised to restore *Dhatu Bala* and prevent recurrence.

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