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Kumbha Kamala: An *Ayurvedic* Approach to Liver Cirrhosis Management – A Case Study

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Abstract

Liver cirrhosis (*Kumbha Kamala*) is a chronic and progressive liver disease characterized by fibrosis and impaired hepatic functions, often leading to complications such as portal hypertension, ascites and hepatic failure. In *Ayurveda*, it is correlated with *Yakrit Vridhi*, primarily associated with vitiated *tridosha*, which results in *Ruddhapatha Kamla* & *Kumbha Kamala*. This write-up explores the *Ayurvedic* perspective on liver cirrhosis and its complications, emphasizing *Samprapti* (pathogenesis), *Panchkarma* therapies, and *Ayurvedic* formulations for management. A case study of a 38-year-old male patient with liver cirrhosis and mild ascites is presented. The study concludes that a holistic *Ayurvedic* approach, integrating detoxification and dietary modifications can effectively manage liver cirrhosis and associated complications, promoting overall well-being. Early diagnosis and timely management are crucial in improving patient outcomes, preventing further complications and enhancing quality of life.

Keywords: *Ayurveda*, Hypertension, *Kumbha Kamala*, Liver Cirrhosis, *Panchkarma, Yakrit Vridhi*.

Introduction

Liver cirrhosis is a chronic and progressive disease characterized by the replacement of healthy liver tissue with scar tissue (fibrosis), ultimately leading to the deterioration of liver functions. It represents the end stage of chronic liver damage from a variety of causes, including chronic alcohol abuse, viral hepatitis and non-alcoholic fatty liver disease. Cirrhosis is a significant global health issue, contributing to considerable morbidity and mortality. [1] Liver cirrhosis is a multifactorial condition, primarily associated with metabolic syndrome and immune-mediated disorders such as autoimmune hepatitis and cholestatic liver diseases. [2, 3, 4, 5, 6] Cirrhosis results from chronic liver injury that activates hepatic stellate cells, which in turn produce collagen and other extracellular matrix components. Over time, the accumulation of this fibrotic tissue distorts the liver's architecture, leading to the formation of regenerative nodules. This process disrupts normal blood flow through the liver, causing portal hypertension and impaired hepatic function. [7] Liver cirrhosis may initially be asymptomatic but eventually presents with jaundice (yellowing of the skin and eyes), ascites (accumulation of fluid in the abdomen), hepatic encephalopathy (toxin accumulation in the brain due to impaired liver detoxification), variceal bleeding (bleeding from varices in the gastrointestinal tract, including the oesophagus, stomach and rectum), coagulopathy (impaired blood clotting), muscle wasting, fatigue, and weight loss. [8] Cirrhosis is diagnosed through clinical evaluation, lab tests, imaging (e.g., ultrasound, elastography), and occasionally liver biopsy, with non-invasive tools like FibroScan and Aspartate Transaminase to Platelet Ratio Index (APRI) commonly used for fibrosis assessment. [9] Cirrhosis can result in severe complications such as portal hypertension, ascites, hepatorenal syndrome, hepatocellular carcinoma, spontaneous bacterial peritonitis, hyponatremia, infections, gastroesophageal varices, and hepatic encephalopathy. [10] These complications significantly impact prognosis and require prompt medical management. Management of cirrhosis in modern medicine involves treating and preventing further liver damage, managing complications and monitoring for liver cancer. [11] Recent studies have focused on improving the management of liver cirrhosis, particularly concerning

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surgical interventions. [12] Advancements in understanding the pathophysiology of jaundice have led to improved diagnostic and therapeutic approaches. Research has emphasized the importance of early detection and the role of liver function tests in diagnosing the underlying causes of jaundice. [13] Another study has investigated the connection between high blood pressure and liver cirrhosis particularly focusing on portal hypertension. [14] Studies have identified signs such as gynecomastia, caput medusae, ascites and swelling of the legs as indicators of portal hypertension in patients with advanced liver disease. [15]

As per *Ayurveda,* liver is a vital organ for *Pitta* production (metabolism) and a seat of *Ranjaka pitta* responsible for hematopoiesis. Liver Cirrhosis (*Kumbha Kamala*) is primarily due to the aggravating effects of alcohol, which is considered a substance that increases heat and toxicity in the body [16]. All the forms of *Kamala* (Jaundice), if untreated eventually convert into *Kumbh Kamala* (Liver Cirrhosis). [17] The excessive consumption of alcohol leads to the accumulation of toxins and disrupts liver's natural ability to process and eliminate waste. When compounded with the metabolic disorders of hypertension, liver's capacity to maintain homeostasis becomes further challenged. [18]

Type 2 Diabetes Mellitus (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. [19] 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. [20]

Ayurvedic treatment of *Kumbha Kamala* focuses on restoring the balance of the *doshas*, detoxifying the liver through *Ayurvedic* formulations like *Kutki* (*Picrorhiza kurroa*), *Bhumyamalaki (Phyllanthus niruri*) and *Gokshur* (*Tribulus terrestris*), and managing the metabolic imbalances through dietary modifications, lifestyle changes and the use of *Panchkarma* (detoxification therapies). [21] 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 *Kumbha Kamala*, with a focus on long-term healing and wellness. [22]

Objective

To assess the effectiveness of *Ayurvedic* management in a case of liver cirrhosis (*Kumbha Kamala*) with mild ascites through *Samprapti Vighatana, Panchkarma* and *Ayurvedic* interventions aimed at restoring liver function and improving quality of life.

Case Report

A 38-year-old male with a confirmed diagnosis of liver cirrhosis with mild ascites presented to Jeena Sikho Lifecare Limited Hospital, Derabassi, Punjab, on October 16, 2024. The patient primarily presented with facial and pedal oedema (*Mukha-Pada Shotha*), generalized weakness and fatigue (*Daurbalya*), bilateral hand tremors (*Hasta Kampana*), increased appetite (*Bahu Kshudha*), yellowish discoloration of the sclera (*Peeta Netra Vabhasata*), elevated blood pressure (*Rakt gata vata*), symptoms indicative of hyperacidity (*Amla Pitta Lakshana*), frequent bowel movements occurring 3–4 times daily (*Atidrava Malapravritti*), and yellowish urine (*Peetamutrata*).

The patient had a documented history of liver cirrhosis and jaundice since 2015, underwent surgical correction of an umbilical hernia four years prior, and had been managing hypertension for the past two years. A positive maternal family history of hypertension was also noted. On admission, a comprehensive clinical evaluation, including *Ashtasthana Pareeksha* (eight-fold *Ayurvedic* diagnostic assessment), was conducted. Findings from this assessment are presented in Table 1, alongside baseline laboratory investigations in Table 2.

Based on the clinical profile, the patient was admitted for a six – day inpatient care program. An individualized and integrative *Ayurvedic* treatment protocol was initiated, incorporating classical *Ayurvedic* formulations, relevant *Panchkarma* procedures, customized dietary recommendations, and lifestyle guidance. Upon discharge on October 22, 2024, the patient demonstrated marked clinical improvement following the completion of the treatment regimen. Subsequent follow-up evaluations were conducted at monthly intervals over the next three months. During these follow-up visits, the patient continued to show progressive and sustained improvement in his overall condition.

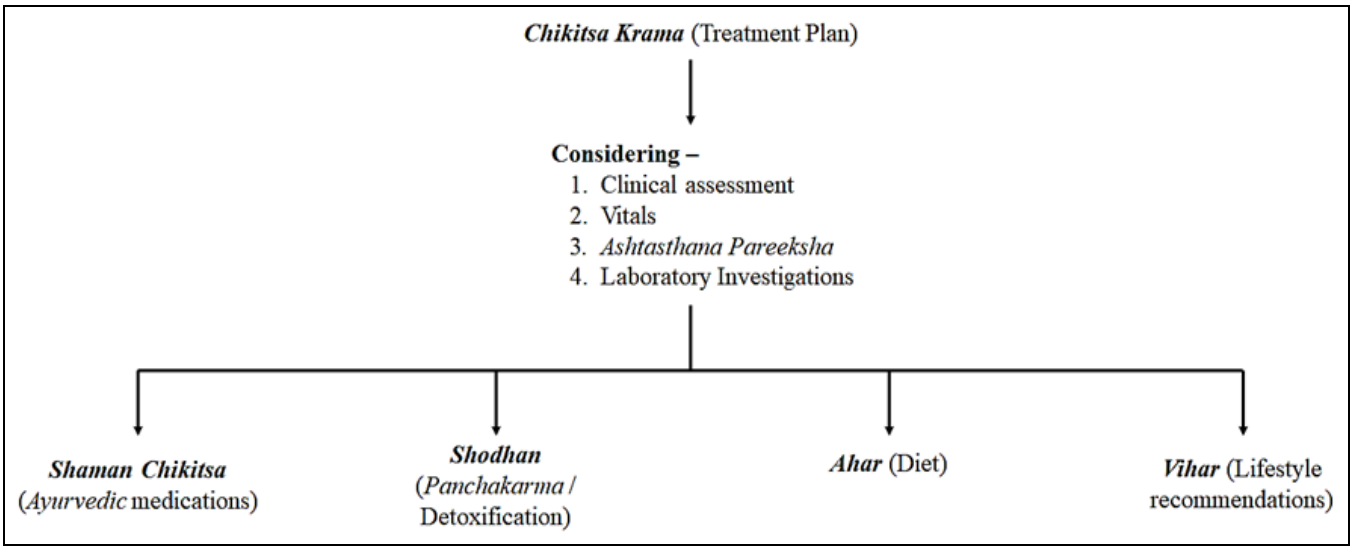
Table 1: Pre-Treatment Vitals and *Ashtasthana Pareeksha* Observations (16-10-2024)

Parameters	Values
Blood Parameter	138/80 mm Hg
Pulse Rate	100/min
Weight	71 Kg
Height	165 cms
BMI	26.1
Nadi (Pulse)	Pittaj Vataj
Mala (Stool)	*Krishna Varna (Black stool)*
Mutra (Urine)	*Pitta Varna (Normal - Pale)*
Jiwha (Tongue)	*Saam (Coated)*
Shabda (Voice)	*Spashta (Clear)*
Sparsh (Touch)	*Anushnasheet (Normal)*
Akriti (Physique)	*Prakrit (Normal)*
Drika (Eyes)	*Ishtapitta (Normal)*

Table 2: Initial Laboratory Evaluation Conducted on 16-10-2024

Tests	Values
Total bilirubin	3.5 mg/dL
Direct Bilirubin	1.33 mg/dL
Indirect Bilirubin	2.17 mg/dL
Aspartate Aminotransferase (AST)	65.78 IU/L
Alanine Transaminase (ALT)	30.98 U/L
Urine Colour	*Dark Yellow*
Urine Visual Appearance	*Hazy*
Urine: Pus Cells	8-10/HPF
Urine: Epithelial Cells	10-12/HPF
Urine Bilirubin	*Present*

Treatment Plan



The patient underwent a 6-day inpatient treatment program that included personalized *Ahar-Vihar* (diet and lifestyle modifications), *Nidan Parivarjan* along with *Shodhan* and *Shaman Chikitsa*. Vital parameters were closely monitored throughout the treatment period, with daily observations summarized in Table 3.

Table 3: The vitals noted during the IPD treatment

Date	Time	Weight (Kg)	Temperature (°F)	Blood Pressure (mm Hg)	Pulse (per min)	Respiration (per min)	SPO2 (%)
16-10-2024		71 Kg	97.8 °F	130/80 mm Hg	100/min	18/min	99%
	7:50 PM	-	97.2 °F	120/90 mm Hg	108/min	18/min	99%
17-10-2024	5:30 AM	-	98.1 °F	120/80 mm Hg	90/min	18/min	98%
	9:30 AM	71 Kg	97.8 °F	140/90 mm Hg	90/min	19/min	99%
	7:50 PM	-	97.4 °F	140/90 mm Hg	100/min	18/min	99%
18-10-2024	5:48 AM	-	98.2 °F	130/90 mm Hg	102/min	18/min	99%
	8:15 PM	71 Kg	97.3 °F	120/80 mm Hg	100/min	18/min	99%
19-10-2024	5:10 AM	-	98.1 °F	120/80 mm Hg	90/min	20/min	98%
	9:30 AM	-	97.8 °F	110/80 mm Hg	96/min	18/min	99%
	9:00 PM	69.5 Kg	98.4 °F	120/70 mm Hg	90/min	18/min	99%
20-10-2024	5:02 AM	-	97.3 °F	110/70 mm Hg	86/min	16/min	98%
	9:00 AM	-	98.4 °F	140/80 mm Hg	86/min	20/min	99%
	8:48 PM	-	99.1 °F	120/80 mm Hg	98/min	18/min	99%
21-10-2024	5:58 AM	-	98.7 °F	110/70 mm Hg	82/min	20/min	98%
	9:00 AM	70 Kg	98.4 °F	140/80 mm Hg	90/min	18/min	99%
	9:00 PM	-	98 °F	130/80 mm Hg	94/min	20/min	99%
22-10-2024		-	98.1 °F	130/80 mm Hg	90/min	18/min	97%
	4:40 AM	70 Kg	98.4 °F	120/80 mm Hg	84/min	20/min	99%

I. *Shaman Chikitsa*

Based on the clinical evaluation, a detailed and patient-specific medication protocol was devised, as outlined in Table 4.

Table 4: *Ayurvedic* medicines prescribed

Consult	Date	Medicines	Dosage with Anupana (Medium)
IPD	16-10-2024 & 17-10-2024	Yakrit sanjeevani	2 TAB BD (*Adhobhakta with Koshna Jala*)*
		GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)**
		Arogya Vati tablet	2 TAB BD (*Adhobhakta with Koshna Jala*)
		Platojee Capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Chander prabha vati	2 TAB BD (*Adhobhakta with Koshna Jala*)
	18-10-2024	Yakrit sanjeevani Tablets	2 TAB BD (*Adhobhakta with Koshna Jala*)
		GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Arogya Vati tablet	2 TAB BD (*Adhobhakta with Koshna Jala*)

		Platojee Capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Chander prabha vati	2 TAB BD (*Adhobhakta with Koshna Jala*)
		Jalodar Har Vati	1 TAB OD (*Adhobhakta with Koshna Jala*)
	19-10-2024 TO 22-10-2024	Yakrit sanjeevani Tablets	2 TAB BD (*Adhobhakta with Koshna Jala*)
		GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Arogya Vati tablet	2 TAB BD (*Adhobhakta with Koshna Jala*)
		Platojee Capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Jalodar Har Vati	1 TAB OD (*Adhobhakta with Koshna Jala*)
	Discharge	Divya Shakti Powder	Half Teaspoon HS (*Nishikala with Koshna Jala*)***
		Jalodar Har Vati	1 TAB OD (*Adhobhakta with Koshna Jala*)
		GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Platojee Capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Liv DS	1 TAB BD (*Adhobhakta with Koshna Jala*)
		Yakrit sanjeevani	1 TAB BD (*Adhobhakta with Koshna Jala*)
1st Follow up	25-11-2024	GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Jalodar Har Vati	1 TAB BD (*Adhobhakta with Koshna Jala*)
		FE Capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Arogya Vati tablet	2 TAB BD (*Adhobhakta with Koshna Jala*)
		Ciro care capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
2nd Follow up	23-12-2024	GE- Liv Forte Syrup	20 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Jalodar Har Vati	1 TAB BD (*Adhobhakta with Koshna Jala*)
		FE Capsule	1 CAP BD (*Adhobhakta with Koshna Jala*)
		Arogya Vati tablet	2 TAB BD (*Adhobhakta with Koshna Jala*)
		Ciro care capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
3rd Follow up	27-01-2025	Ciro care capsule	2 CAP BD (*Adhobhakta with Koshna Jala*)
		Jalodar Har Vati	2 TAB BD (*Adhobhakta with Koshna Jala*)
		GE- Liv Forte Syrup	15 ml BD (*Adhobhakta with Sama Matra Koshna Jala*)
		Yakrit Shoth Har Vati	1 TAB BD (*Adhobhakta with Koshna Jala*)
		Uder Vikar Janya Rog Churna	Half Teaspoon HS (*Nishikala with Koshna Jala*)

II. *Shodhan*

Based on comprehensive clinical evaluation, a personalized *Panchkarma* treatment regimen was formulated for the patient, incorporating procedures such as *Shirodhara, Matra Basti, Rookshapottali Sweden* and *Lepam*.

1. *Shirodhara with Brahmi oil* [23]

Preparation	The *Brahmi* oil was gently heated in a water bath to body temperature (around 39–40°C).
Pre-Procedure *(Purva Karma)*	The patient was positioned supine on the *Shirodhara* table and the eyes and ears were protected using cotton.
	A gentle massage with *Brahmi* oil was given to the head, forehead, and shoulders for 5–10 minutes to promote relaxation.
Main Procedure *(Pradhan Karma)*	The *Shirodhara* pot was placed about 5 inches above the forehead, allowing a steady stream of lukewarm *Brahmi* oil over the *Ajna* chakra.
	The oil was rhythmically poured from temple to temple for 45 minutes at a consistent temperature.
Post-Procedure *(Paschat Karma)*	The patient was rested for 15 minutes post-procedure, excess oil was removed with warm towels, followed by a warm herbal bath, and advised light diet and rest for the day.

2. *Bhumi Amla* & *Punarnava Siddha Sneh Basti* (90 ml)[24]

Preparation of *Sneha*	*Bhumi Amla and Punarnava were processed into Siddha Sneha using the classical Sneha Paka method as per Ayurvedic protocol.*
Pre - Procedure (*Purv karma*)	The patient was advised a light diet the day prior, followed by mild *Abhyanga* and *Swedan* to enhance the procedure's efficacy.
Main Procedure (*Pradhan karma*)	The patient was positioned in the left lateral posture, and a sterilized *Basti Netra* was attached to the *Basti Putaka*.
	Approximately 90 ml of lukewarm *Bhumi Amla* and *Punarnava Siddha Sneha* was gently administered rectally.
Post Procedure (*Paschat Karma*)	The patient was advised to retain the *Sneha* as tolerated, followed by a light warm diet and avoidance of cold, exertion, and stress.

3. *Rookshapottali Sweden* [25]

Preparation of Pottali (Boluses)	Coarse powders comprising 200 grams of *Dashamool*, 150 grams of *Punarnava* and 50 grams of *Shunthi* were dry-roasted, finely powdered, and enclosed in sterile cotton cloth to prepare herbal boluses for external use.
	The boluses were heated to 42°C and reused for each session.
Pre - Procedure (Purv karma)	The patient was given a light diet, instructed to void bladder and bowels, and positioned comfortably based on the treatment area.
Main Procedure (Pradhan karma)	The heated *Ayurvedic* herb boluses were systematically applied with gentle pressure and circular motions over the affected areas for 30–45 minutes, maintaining a comfortable temperature until adequate sweating was achieved.
Post Procedure (Paschat Karma)	The patient was rested and advised to avoid cold exposure, heavy meals, and exertion, followed by a lukewarm bath and light, warm diet.

4. *Lepam* with *Dashang Dashamool Trikatu* [26]

Preparation of *Lepam*	*Dashanga, Dashamoola, and Trikatu* powders were mixed with warm water to prepare a smooth, lump-free paste suitable for topical application.
Pre - Procedure (*Purv karma*)	The patient had a light meal, voided bladder and bowels, and was positioned comfortably after cleansing and drying the affected area with lukewarm water.
Main Procedure (*Pradhan karma*)	The paste was evenly applied over the affected area and left undisturbed until it reached a semi-dry state.
Post Procedure (*Paschat Karma*)	Once semi-dry, the paste was gently removed with lukewarm water, the area was cleaned and dried, and the patient was advised to avoid cold exposure, exertion, and immediate washing.

III. *Ahar*

An *Ayurvedic* Disciplined and Intelligent Person's Diet (D.I.P. Diet) was followed [27]. Dietary Guidelines from Jeena Sikho Lifecare Limited Hospital

a) *Pathya* [28] (recommended)

- Fresh and homemade food
- Millet diet

b) *Apathya* [28] (to be avoided)

- Wheat, Packed food, Refined food, Diary food/Animal food, Coffee and Tea
- Never eat after 8 PM
- Chew solid foods thoroughly with small bites – ideally 32 times – and consume liquids slowly in measured sips.

c) Hydration [27]

- Boil 2 litres of water, reduce it to half (1 litre) and consume in a day
- 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 [29]

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

e) Special Instructions [27]

- Brisk walking 30 min with barefoot
- Sit in sunlight for 1 hour
- 10 min slow walk after every meal
- One day fasting/week 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)

Green Vegetable Soup:

- 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

Plate 1:
Patient Weight X 10

Plate 2:
Patient Weight X 5

Herbal Tea [27]:
Gunzaban *(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)*

IV. *Vihar* [27]

- **Meditation:** The patient was instructed to engage in one hour of meditation as part of the therapeutic regimen.
- ***Yoga*:** Perform *Sukshm Pranayam* and *Sukhasan* for 40 minutes daily.
- **Sleep:** Ensure 6-8 hours of uninterrupted, deep sleep.
- **Walking:** The patient was advised to engage in a 30-minute brisk walk barefoot daily

- **Daily Routine:** The patient was advised to adhere to a consistent and well-regulated daily routine

Observations & Results

Throughout the treatment period, the patient demonstrated consistent clinical improvement. Quality of life assessments revealed notable enhancements in both physical and emotional health. Within six days of inpatient care, there was significant alleviation of symptoms, including pedal oedema, generalized weakness, fatigue, hyperacidity, hand tremors, excessive hunger, facial puffiness, mild icteric sclera, and yellowish urine. Laboratory investigations showed marked reductions in Total, Direct, and Indirect Bilirubin levels, as well as SGOT and SGPT values, as outlined in Table 5. Table 6 highlights the changes in clinical symptoms before and after the intervention. Additionally, the FibroScan findings revealed substantial improvement in liver stiffness measurements, as evidenced by improved E (kPa) values, detailed in Table 7. Follow-up assessments conducted monthly over the subsequent three months indicated continued and sustained improvement in the patient's overall health status.

Table 5: Comparative Evaluation of Laboratory Parameters Pre- and Post-Treatment

Tests	Values	
	16-10-2025	**22-10-2025**
Total bilirubin	3.5 mg/dL	2.4 mg/dL
Direct Bilirubin	1.33 mg/dL	1.04 mg/dL
Indirect Bilirubin	2.17 mg/dL	1.36 mg/dL
AST (SGOT)	65.78 IU/L	56.3 IU/L
ALT (SGPT)	30.98 U/L	26.61 U/L
Urine Colour	Dark Yellow	Dark Yellow
Urine Visual Appearance	Hazy	Slightly Hazy
Pus Cells	8-10/HPF	5-7
Epithelial Cells	10-12/HPF	2-3/HPF
Bilirubin	Present	Present

Table 6: Comparative Analysis of Clinical Symptoms at Admission and Discharge

Symptoms on admission	Symptoms on discharge
Pain - Score: 4/10 [30]	Relieved - Score: 0/10 [30]
Pedal Oedema - Score: 4+ [31]	Improved - Score: 1+ [31]
Weakness	Improved
Fatigue	Relieved
Hyperacidity	Relieved
Tremors on both hands	Improved
Excessive hunger	Relieved
Increased Bowel Movements	Relieved

Table 7: Serial Fibro-Scan Reports during the Course of Treatment

Parameter	E (Liver Fibrosis)		
	21-10-2024	**23-12-2024**	**27-01-2025**
E Value (kPa)	74.1	64.5	53.6

Discussion

In this case study, a 38-year-old male patient with a history of Liver Cirrhosis and Hypertension was admitted to Jeena Sikho Lifecare Ltd. Hospital for a six-day course of complete *Ayurvedic* treatment. The patient presented with severe symptoms, including bilateral pedal oedema, generalized weakness, fatigue, hyperacidity, hand tremors, excessive hunger, intermittent facial puffiness, mild icteric sclera, and yellowish urine. Based on comprehensive initial assessments – including vital signs and findings from *Ashtasthana Pareeksha* – a personalized treatment protocol was developed, incorporating *Nidan Parivarjan* (elimination of causative factors), dietary and lifestyle modifications, *Panchkarma* therapies, and *Shaman Chikitsa* (palliative management).

***Nidan Parivarjan*:** Avoiding alcohol consumption and discontinuing the use of hepatotoxic drugs are essential preventive measures to protect liver health. These lifestyle modifications significantly reduce the risk of liver inflammation, fibrosis, and the progression to chronic liver diseases such as cirrhosis. [32] Effective stress management, maintaining regular sleep patterns, and avoiding a sedentary lifestyle play a crucial role in supporting liver health. These factors help regulate metabolism, reduce oxidative stress, and prevent the onset or progression of liver disorders. Additionally, therapeutic measures were taken to correct *Agni Dushti* by improving metabolism and eliminating accumulated *Ama*. [33]

***Samprapti* (pathogenesis):** The pathogenesis of this case is depicted in Figure 1. [34] It outlines the *Ayurvedic* understanding of *Kumbha Kamala* (Liver Cirrhosis), which originates from *Nidana* (causative factors) such as *Ahar* (improper dietary habits), *Vihar* (unhealthy lifestyle practices) and *Adhisthana* (infectious etiologies). These factors lead to the vitiation of the three *Doshas—Kapha, Pitta,* and *Vata—* which subsequently affect the *Dhatus* (body tissues), notably *Rasa* (plasma), *Rakta* (blood), *Mamsa* (muscle) and *Meda* (adipose tissue). The pathology progresses by involving *Strotas* (channels), mainly the *Yakritvaha* (hepatic) and *Raktavaha* (circulatory) *Strotas*, resulting in *Strotorodha* (channel obstruction) due to factors like *Sanga* (blockage), *Atipravritti* (excess flow), and *Sira Granthi* (fibrosis). This leads to progressive pathological stages (*Samprapti Ghataka*) involving *Pitta* aggravation, *Kapha* obstruction, and eventual *Vata* dominance with tissue depletion. Clinical features such as jaundice, ascites, fatigue, indigestion, weight loss, itching, and leg swelling manifest, culminating in the chronic condition *Kumbha Kamala* (Liver Cirrhosis).

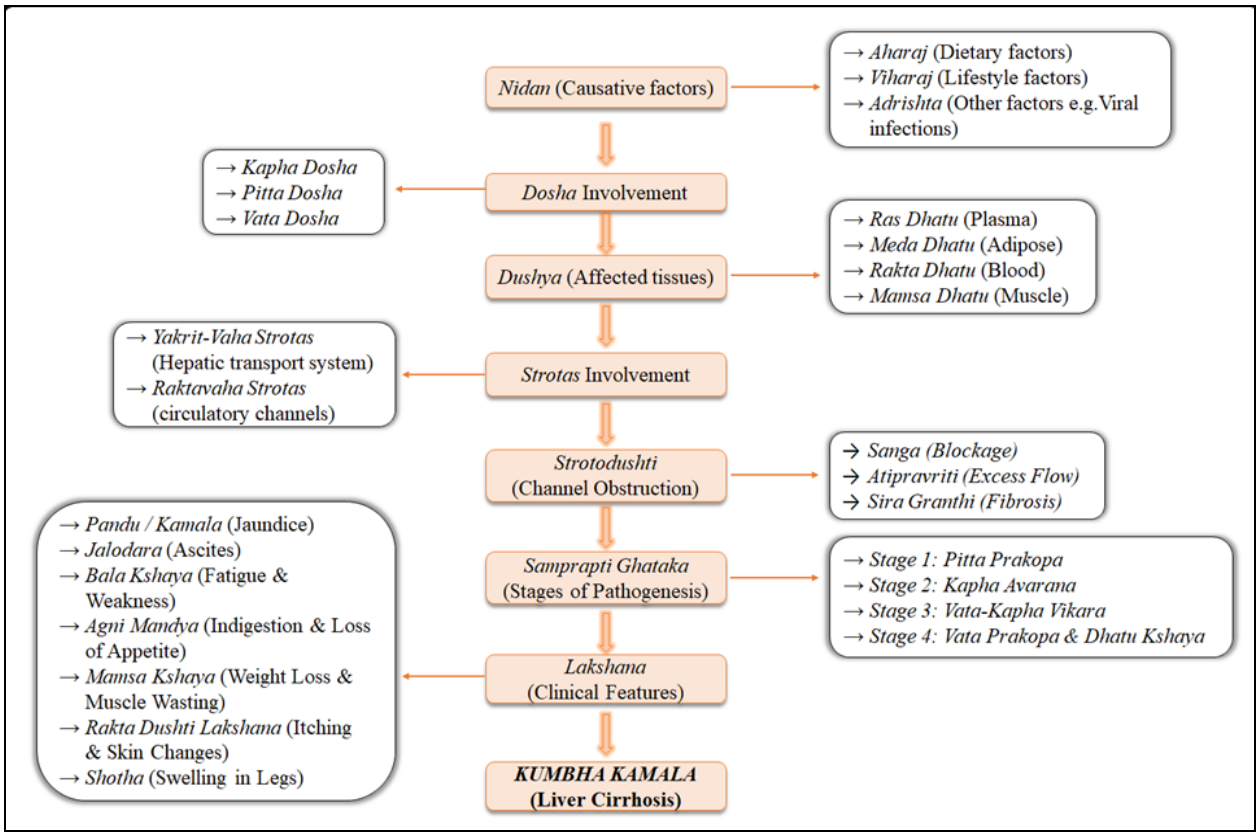


Fig 1: *Samprapti* of this case

***Ahar* (Diet):** The patient was instructed to adhere to a strict *Ayurvedic* diet as prescribed by the physician. The dietary plan emphasized the consumption of fresh, homemade meals with a focus on millets, while strictly avoiding wheat, packaged foods, refined products, dairy and animal-based foods, as well as stimulants like coffee and tea. The patient was also advised not to eat after 8 PM and to include nourishing beverages such as coconut water, coconut milk, and almond milk in the daily routine. [29, 35, 36]

***Vihar* (Lifestyle Recommendations):** The patient was advised to implement specific lifestyle modifications, including daily meditation to reduce stress and enhance mental clarity. A prescribed set of *yoga* practices was recommended to improve flexibility, promote relaxation, and support emotional well-being. Additionally, maintaining 6–8 hours of uninterrupted, restorative sleep and adhering to a structured daily routine were emphasized to support overall health and discipline. [37]

***Chikitsa* (Treatment):** The physician advised a perfectly formulated *Shaman Chikitsa* and perfectly designed *Panchkarma* therapies. *Panchkarma* therapies like *Shirodhara, Matra Basti, Rookshapottali Sweden* and *Lepam* were administered on the patient.

- *Brahmi* oil was used to perform *Shirodhara*. The lukewarm *Brahmi* oil, through its action on the *Ajna chakra*, helped calm the mind, reduced cortisol levels, and improved cerebral circulation. [23]
- *Basti* was done using *Bhumi Amla* and *Punarnava*. *Bhumi Amla* is known for its hepatoprotective and blood-purifying properties, while *Punarnava* acts as a natural diuretic, aiding in the elimination of excess fluids and supporting renal function. [24,38]
- *Rookshapottali Swedan*, induces sweating, facilitating the elimination of toxins through the skin, and helps relieve pain and inflammation in the joints and muscles by enhancing circulation and relaxing stiff tissues. [25,39]
- *Dashang, Dashamool*, and *Trikattu* powders were formulated together to make the lepam. The formulation acted through its anti-inflammatory, analgesic, and detoxifying properties, balancing *Vata* and *Kapha*, relieving pain and stiffness, and enhancing local circulation. [26,40,41,42]

A comprehensive overview of the *Ayurvedic* formulations used in this case is provided in Table 9. *Nishoth, Amla, Bhumi Amla, Nagarmotha, Vidanga, Haritaki, Chitrak, Ajwain, Kalmegh,* and *Bhringaraj* are among the principal herbs commonly incorporated in *Ayurvedic* formulations. Their therapeutic efficacy is determined by their *Ras Panchak* – a comprehensive analysis of taste (*Rasa*), qualities (*Guna*), potency (*Virya*), post-digestive effect (*Vipaka*), and specific action (*Prabhava*) – as follows. [43]

- *Nishoth (Operculina turpethum)* is characterized by its bitter and astringent taste (*Tikta and Kashay Ras*), light and dry qualities (*Laghu and Ruksh Guna*), and cooling potency (*Sheeta Virya*). It undergoes a pungent post-digestive transformation (*Katu Vipaka*) and is specifically indicated as *Yakrit Vardhak*, meaning it restores and strengthens liver function.
- *Amla (Phyllanthus emblica)*, known for its *Madhur* and *Tikta* taste, possesses *Laghu* and *Snigdha* qualities. Its cooling nature and sweet post-digestive effect make it a highly effective *Yakrit Rakshana* (hepatoprotective) agent, promoting liver regeneration and longevity.
- *Bhumi Amla (Phyllanthus niruri)* is *Kashay* and *Katu* in taste with *Laghu* and *Ruksh* attributes. Unlike *Amla*, it is heating in nature (*Ushna Virya*) and has a *Katu Vipaka*. Its main action is *Ama Pachan*, indicating its role in detoxification and the digestion of toxins, making it especially helpful in clearing hepatic blockages and boosting immunity.

Table 9: Detailed description of medicines prescribed

Medicines	Ingredients	Therapeutic Effects
Yakrit sanjeevani	*Kutki (Picrorhiza kurroa), Bhumi Amla (Barleria prionitis), Kalmegh (Andrographis paniculata), Sarpankha (Tephrosia purpurea), Bhringraj (Eclipta prostrata), Giloy (Tinospora cordifolia), Makoy (Solanum nigrum), Punarnava (Boerhavia diffusa), Pitt Papda (Fumaria indica), Nagarmotha (Cyperus scariosus), Harad (Terminalia chebula), Bahera (Terminalia bellerica), Amlaki (Phyllanthus emblica), Black Pepper (Piper nigrum), Long Pepper (Piper longum), Ginger (Zingiber officinale).*	*Deepan - Pachan (digestive stimulant) and Rasayana (rejuvenative therapy)*
GE- Liv Forte Syrup	*Bhringraj (Eclipta prostrata), Kuchri (Hedychium spicatum), Kalmegh (Andrographis paniculata), Kutaki (Picrorhiza kurrooa), Vidanga (Embelia ribes), Nisoth (Operculina turpethum), Daruharidra (Berberis aristata), Chitrak Mool (Plumbago indica), Bhumi Amla (Phyllanthus niruri), Sudarshana (Crinum Latifolium)*	*Deepan and Pachan.*
Arogya Vati tablet	*Kajan (Carthamus tinctorius), Loh Bhasm (Ferrum), Abhrak Bhasm (Mica), Tamra Bhasm (Copper), Amalaki (Emblica officinalis), Vibhitaki (Terminalia bellirica), Haritaki (Terminalia chebula), Chitrak (Plumbago zeylanica), Katuka (Picrorhiza kurroa), Nimba Patra (Azadirachta indica).*	*Ojas Vardhana (enhances immunity), Ama Pachana (removal of toxins) and Krimi Hara (antimicrobial agent)*
Platojee Capsule	*Papaya (Carica papaya), Guduchi (Tinospora cordifolia), Sudarshan, Arogyavardhini, Amlaki rasayan and Neem (Azadirachta indica)*	*Rakta Vardhaka (blood enhancer), Rakta Dhatu Poshan (maintenance of blood tissue) and Ojas Vardhaka*
Chander prabha vati	*Camphor (Cinnamomum camphora), Vacha (Acorus calamus), Nagarmotha (Cyperus rotundus), Bhumi Amla (Phyllanthus niruri), Giloy (Tinospora cordifolia), Turmeric (Curcuma longa), Daruharidra (Berberis aristata), Dhania (Coriandrum sativum), Haritaki (Terminalia chebula), Baheda (Terminalia bellerica), Amla (Phyllanthus emblica), Vidanga (Embelia ribes), Ginger (Zingiber officinale), Kalimirch (Piper nigrum), Himalayan Salt, Nisoth (Operculina turpethum), Tejpatta (Cinnamomum tamala), Cinnamon (Cinnamomum cassia), Cardamom (Elettaria cardamomum), Shilajeet*	*Used for Mutrakricchra (dysuria), Shukra Kshaya (oligospermia) and Prameha (diabetes)*
Jalodar Har	*Pippali (Piper longum), Haridra (Curcuma longa), Baheda (Terminalia Belerica), Tamra Bhasm (Bhasma prepared from copper), Amla (Phyllanthus emblica), Bhavna Dravya- Thuhar Dudh (Euphorbia neriifolia), Gum Acacia (Acacia arabica).*	*Supports Grahani (digestive disorder), enhances Agni Deepana and promotes Yakrit Rakshana (hepatoprotection)*
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, Dhania (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).*	*Ojas Vardhana, Balya (strength-promoting), Rasayana and Klama (fatigue)*
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), Chitraka (Plumbago zeylanica), Kutaki (Picrorhiza kurroa), Haritaki (Terminalia chebula), Bhringraj (Eclipta prostrata).*	*Used for Yakrit Roga (Liver diseases), Grahani Roga, Amlapitta and Aruchi (diminished appetite)*
FE Capsule	*Makoy (Solanum nigrum), Shilajeet (ASS) Ext. (Shilajeet), Yasad Bhasam (ASS) (Zinc oxide), Loh Bhasam (ASS) (Iron oxide), Swarn Makshik Bhasam (ASS) (Gold and Copper Bhasma), Mukta Shukti Pishti (ASS) (Pearl and Oyster Shell Powder).*	*Used for Pandu Roga (Anaemia) and Daurbalya (weakness)*
Ciro care capsule	*Kutaki (Picrorhiza kurroa), Nisoth (Operculina turpethum), 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 Bhasm.*	*Improves Yakrit Vardhana (liver enhancement) and supports Shodhana (detoxification)*
Yakrit Shoth Har Vati	*Punarnava (Boerhavia diffusa), Kalimirch (Piper nigrum), Pippali (Piper longum), Vayavidanga (Embelia ribes), Devdaru (Cedrus deodara), Kutha Haldi (Picrorhiza kurroa), Chitrak (Plumbago zeylanica), Harad Bahera (Terminalia chebula, Terminalia bellirica), Amla (Emblica officinalis), Danti (Baliospermum montanum), Chavya (Piper chaba), Indra Jon (Taraxacum officinale), Pippla Mool (Piper longum), Motha Kalajira (Nigella sativa), Kayphal (Myrica esculenta), Kutki (Picrorhiza kurroa), Nisoth (Operculina turpethum), Sonth (Zingiber officinale), Kakd Singhi (Cucumis sativus), Ajwain (Trachyspermum ammi), Mandur Bhasma (Ferrum).*	*Helps in better liver function, strengthen digestion process and helps in detoxification*
Uder Vikar Janya Rog Churna	*Hing (Ferula asafoetida), Ajwain (Trachyspermum ammi), Jeera (Cuminum cyminum), Saunf (Foeniculum vulgare), Dhania (Coriandrum sativum), Amla (Phyllanthus emblica), Bala (Sida cordifolia), Pippali (Piper longum), Chitrak (Plumbago zeylanica), Shunthi (Zingiber officinale), Triphala (Phyllanthus emblica, Terminalia chebula, Terminalia bellirica).*	*Helps in stimulating the digestive system, alleviating gas, promoting appetite, and improving bowel movements*

- *Nagarmotha (Cyperus rotundus)* exhibits a *Madhur – Tikta* taste, is *Laghu* and slightly *Snigdha*, and has a *Shita* potency. It undergoes *Madhur Vipaka* and functions as a *Raktavardhaka*, enhancing microcirculation and supporting liver detoxification and regeneration.
- *Vidanga (Embelia ribes)* has a *Katu*, *Tikta*, and *Kashay* taste, with *Laghu* and *Ruksh* properties and a heating effect. It is categorized as *Medohar* (fat-reducing) and *Rasayan* (rejuvenating), which helps in preventing fatty liver changes and promoting liver tissue health.
- *Haritaki (Terminalia chebula)* is unique with all *Ras* except salty and has a *Ushna* potency. With its liver-cleansing properties (*Yakrit Shodhan*) and ability to balance fluids (*Udakara*), it plays a significant role in reducing ascites and toxin accumulation in liver disease.
- *Chitrak (Plumbago zeylanica)* is spicy in taste, sharp in nature (*Teekshna*), and *Ushna* in potency. It enhances digestion and metabolism (*Balya* and *Rasayana*), stimulating liver function and strengthening the body overall.
- *Ajwain (Trachyspermum ammi)* is *Kashay* and *Tikta*, *Laghu* in quality, and *Shita* in potency. It acts as a digestive stimulant (*Deepan*) and liver purifier (*Yakrit Shodhan*), making it useful for managing indigestion and liver congestion.
- *Kalmegh (Andrographis paniculata)* is *Madhur* and *Tikta*, with *Snigdha* and *Guru* qualities and *Ushna* potency. Its *Madhur Vipak* and actions like *Raktavardhak* (blood builder) and *Balya* (tonic) make it a powerful immune enhancer and hepatoprotective herb with anti-inflammatory benefits.
- Lastly, *Bhringraj (Eclipta prostrata)* is *Tikta* and *Kashay* in taste, *Ruksh* in quality, and *Shita* in nature. It has a *Katu* post-digestive effect and is renowned for its actions such as *Yakrit Rakshan* (liver protection) and *Shoth – har* (anti-inflammatory), which promote liver cell regeneration and reduce hepatic inflammation.

Lab Reports

Lab Report from 16-10-2024

WELLCARE PATH LAB

Sco-80 Shri Bala Ji Complex, Old Ambalaroad, Dhakoli, Zirakpur, P.b. 160104
Contact No.: +91 98729 96010
Email : wellcarepathlab.pvt.ltd@gmai.com

AN ISO 9001:2015 CERTIFIED CLINICAL LAB
CERTIFICATE No:- QMS-WCL-2209152

LABORATORY REPORT

Age / Gender : 38 years / Male
Patient ID : UHID - JAMM1912023
Source : WELLCARE PATH LAB

Scan to Validate

Referral : Dr. JEENA SIKHO LIFECARE LTD
Collection Time : OCT 16, 2024, 10:13 A.M.
Receiving Time : OCT 16, 2024, 10:13 A.M.
Reporting Time : OCT 16, 2024, 11:27 A.M.
Sample ID : 35823

Test Description	Value(s)	Reference Range	
Complete Blood Count(CBC)			
Hemoglobin (HB)	8.5	13.0 - 17.0	g/dL
Total Leucocytes Count (TLC)	4000	4000 - 11000	/cmm
DIFFERENTIAL COUNT			
Neutrophils	72	40 - 75	%
Lymphocytes	20	20 - 45	%
Monocytes	05	2 - 10	%
Eosinophils	03	1 - 6	%
Basophils	00	0 - 1	%
Total RBC Count	2.91	3.50 - 6.50	Mill/Cumm
Platelet Count	0.80	1.50 - 4.50	Lacs/Cumm
PCV/HCT	26.2	35.0 - 47.0	%
Red cell distribution width (RDW)	16.3	13.0 - 18.0	%
Mean corpuscular volume (MCV)	90.0	76.0 - 96.0	fl
Mean Corpuscular Hemoglobin (MCH)	29.3	27.0 - 32.0	pg
Mean Corpuscular Hemoglobin Concentration(MCHC)	32.6	30.0 - 35.0	%
Microscopy,Fully Automated Hematology Analyser alfa swelab double chamber 3 Part			
Liver Function Test (LFT)			
Total Bilirubin	3.50	0.20 - 1.00	mg/dL
Direct Bilirubin	1.33	0.00 – 0.60	mg/dL
Indirect Bilirubin	2.17	0.00 - 0.80	mg/dL
AST (SGOT)	65.78	15 .0 - 50.0	IU/L
ALT (SGPT)	30.98	15.0 - 50.0	IU/L
Alkaline Phosphatase (ALP)	134.68	0.00 - 150.0	U/L
Method : -			
Total Protein	5.68	6.4 - 8.2	g/dL
Albumin	3.20	3.4 - 5.0	g/dL
Globulin	2.48	1.8 - 3.8	g/dL
A/G Ratio.	1.29	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

ONDITIONS OF LABORATORY TESTING & REPORTING

he reporting result are for the information and for interpretation of the referring doctor only. • If the result of the test (s) are alarming or unexpected, the patient is advised to contact the laboratory immediately for ossible remedial advice. • This reports is not valid for medico-legal purposes. • Wellcare Clinical Lab not its employees assume any liability to for any loss or damage that may be incurred by any person as a result of presuming he meaning or contents of the report. • It is Presumed that the tests performed on the specimen belong to the patient; names or identified. • Results of tests may vary from laboratory to laboratory and also in some parameter from me to time for the same patient. Only such medical professional who understand reporting units, reference ranges and limitations or technologies should interpret result. • Results valid until stamped by labs authorized signatory.

NOT VALID FOR MEDICO LEGAL PURPOSE | EMERGENCY 24 HOURS | TIMINGS - 8.00 AM TO 8.00 PM

WELLCARE PATH LAB

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Source : WELLCARE PATH LAB

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Collection Time : OCT 16, 2024, 10:13 A.M.
Receiving Time : OCT 16, 2024, 10:13 A.M.
Reporting Time : OCT 16, 2024, 11:27 A.M.
Sample ID : 35823

Test Description	Value(s)	Reference Range
HIV - 1 Antibody Method : -		NON-REACTIVE
HIV - 2 Antibody Method : -		NON-REACTIVE
HBSAG RAPID TEST		
Hepatitis B Surface Antigen(HBsAg) RAPID Method : Method: Immunochromatographic		NON-REACTIVE
HCV RAPID TEST		
Hepatitis C Virus Antibody (Anti HCV) Rapid Method : Method:Rapid Tri-line		NON-REACTIVE

Interpretation:

A negative result does not exclude the possibility of infection with HIV. Levels of HIV Antibodies may be undetectable in the window period. This is a screening assay, all positive result should be confirmed by other supplementry methods like Western Blot Assay / HIV PCR.---

A negative test result does not exclude the possibility of exposure to or infection with Hepatitis B Virus. levels of HbsAg may be undetectable both in early infection and late after infection.

Viral Hepatitis is a systemic disease primarily involving the liver. Most cases of acute viral hepatitis seen in children andadults are caused by Hepatitis A Virus (HAV), Hepatitis B Virus (HBV), or Hepatitis C Virus (HCV). Hepatitis B Virus was discovered by Blumberg, et al. A complex antigen known as the Hepatitis B Surface Antigen (HBsAg) found on the surface of HBV is the first to be detected. The presence of HBsAg in a serum sample is indicative of an active HBV infection, either acute or chronic.----

HCV Card Test is a rapid test to qualitatively detect the presence of antibody to HCV in a whole blood serum or plasma specimen. The test utilizes a combination of recombinant antigen to selectively detect elevated levels of HCV antibodies in whole blood, serum or plasma. If the antibody test is reactive, you need an additional test to see if you currently have Hepatitis C. This test is called a RNA test. Another name used for this test is a PCR test.

C/E Complete Urine Examination

URINE ROUTINE AND MICROSCOPIC EXAMINATION

PHYSICAL EXAMINATION:

Colour of Urine	Dark Yellow	Straw to Yellow	/HPF
Visually Appearance	Hazy	Expected Clear	/HPF
Reaction (pH)	Acidic 6.0	5.0 - 8.0	/HPF
Specific Gravity	1.015	1.000 - 1.030	/HPF
Protein	Absent	Expected Absent	/HPF
Glucose	Absent	Expected Absent	/HPF

WELLCARE PATH LAB

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LABORATORY REPORT

Age / Gender : 38 years / Male
Patient ID : UHID - JAMM1912023
Source : WELLCARE PATH LAB

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Referral : Dr. JEENA SIKHO LIFECARE LTD
Collection Time : OCT 16, 2024, 10:13 A.M.
Receiving Time : OCT 16, 2024, 10:13 A.M.
Reporting Time : OCT 16, 2024, 11:27 A.M.
Sample ID : 35823

Test Description	Value(s)	Reference Range	
MICROSCOPIC EXAMINATION			
Pus Cells	**8 - 10**	0 - 2	/HPF
Epithelial Cells	**10 - 12**	Expected Absent	/HPF
Red Blood Cells (RBC).	Absent	Expected Absent	/HPF
Casts	Absent	Expected Absent	/HPF
Crystals	Absent	Absent	/HPF
Others	Nil	Expected Nil	/HPF
Leukocytes	Absent		/HPF
Ketone	Absent		/HPF
Nitrate	Absent		/HPF
Urobilinogen	Absent		/HPF
Bilirubin	**Present**		/HPF
Blood	Absent		/HPF
Microalbumin	Absent		/HPF
Ascorbic Acid	Absent		/HPF

Note:

Normal urine color is due to the presence of a pigment called urochrome. Urine color varies based on the urine concentration and chemical composition. Normal urine can vary from pale light yellow to a dark amber color. Highly concentrated urine has a darker yellow appearance.

END OF REPORT

Dr. Ankit Aggarwal
(Consultant Pathologist)

Page 5 of 5

Lab Report from 22-10-2024

WELLCARE PATH LAB

Sco-80 Shri Bala Ji Complex, Old Ambalaroad, Dhakoli, Zirakpur, P.b. 160104
Contact No.: +91 98729 96010
Email : wellcarepathlab.pvt.ltd@gmai.com

AN ISO 9001:2015 CERTIFIED CLINICAL LAB

CERTIFICATE No:- QMS-WCL-2209152

LABORATORY REPORT

Scan to Validate

Age / Gender : 38 years / Male
Patient ID : UHID - JAMM1912023
Source : WELLCARE PATH LAB

Referral : Dr. JEENA SIKHO LIFECARE LTD
Collection Time : OCT 22, 2024, 08:49 A.M.
Receiving Time : OCT 22, 2024, 08:49 A.M.
Reporting Time : OCT 22, 2024, 10:00 A.M.
Sample ID : 36257

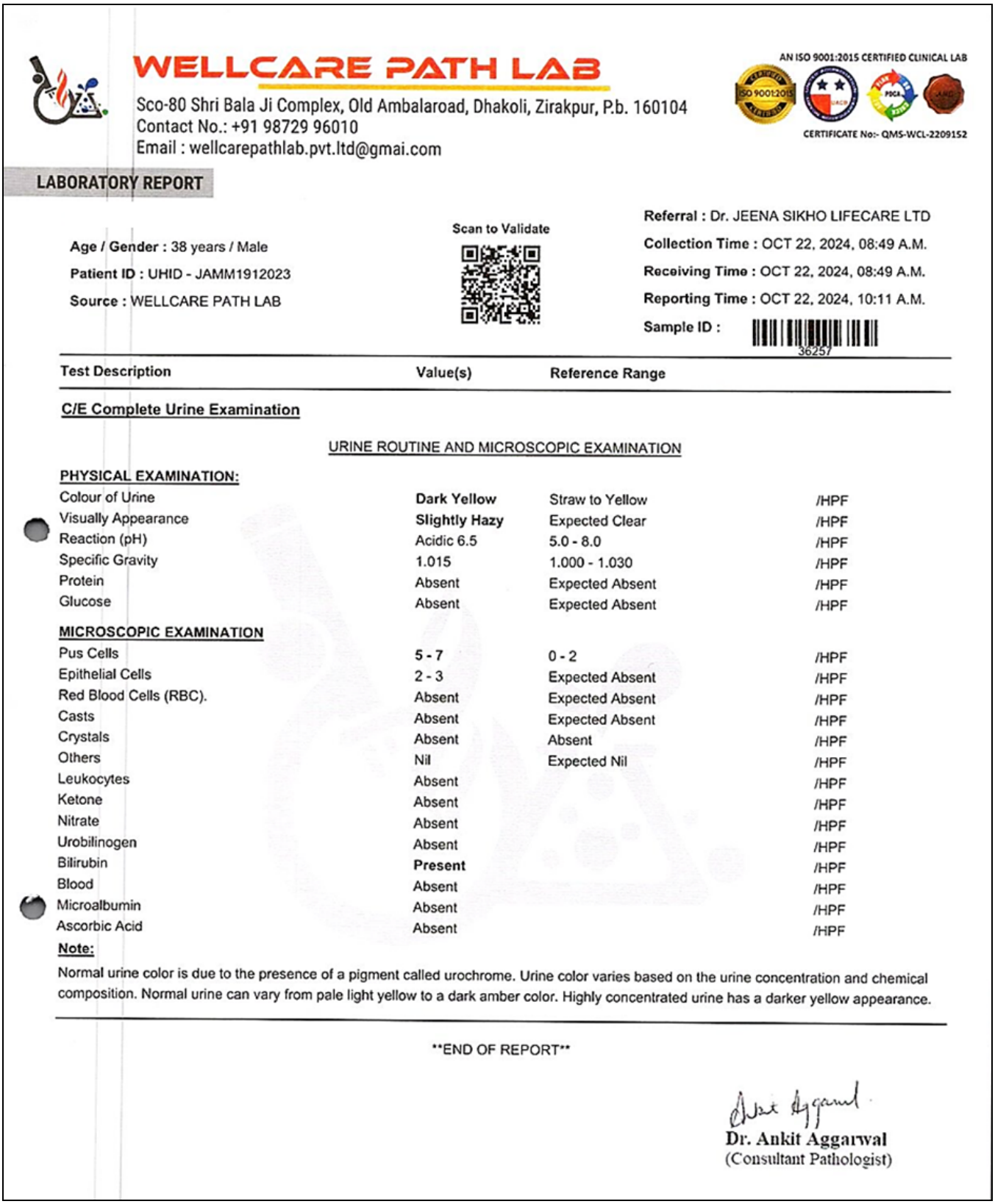
Test Description	Value(s)	Reference Range	
Complete Blood Count(CBC)			
Hemoglobin (HB)	7.3	13.0 - 17.0	g/dL
Total Leucocytes Count (TLC)	3000	4000 - 11000	/cmm
DIFFERENTIAL COUNT			
Neutrophils	70	40 - 75	%
Lymphocytes	25	20 - 45	%
Monocytes	03	2 - 10	%
Eosinophils	02	1 - 6	%
Basophils	00	0 - 1	%
Total RBC Count	2.55	3.50 - 6.50	Mill/Cumm
Platelet Count	0.57	1.50 - 4.50	Lacs/Cumm
PCV/HCT	22.7	35.0 - 47.0	%
Red cell distribution width (RDW)	15.9	13.0 - 18.0	%
Mean corpuscular volume (MCV)	89.1	76.0 - 96.0	fl
Mean Corpuscular Hemoglobin (MCH)	28.7	27.0 - 32.0	pg
Mean Corpuscular Hemoglobin Concentration(MCHC)	32.3	30.0 - 35.0	%

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

Liver Function Test (LFT)			
Total Bilirubin	2.40	0.20 - 1.00	mg/dL
Direct Bilirubin	1.04	0.00 – 0.60	mg/dL
Indirect Bilirubin	1.36	0.00 - 0.80	mg/dL
AST (SGOT)	56.30	15 .0 - 50.0	IU/L
ALT (SGPT)	26.61	15.0 - 50.0	IU/L
Alkaline Phosphatase (ALP)	168.2	0.00 - 150.0	U/L
Method : -			
Total Protein	5.00	6.4 - 8.2	g/dL
Albumin	2.69	3.4 - 5.0	g/dL
Globulin	2.31	1.8 - 3.8	g/dL
A/G Ratio.	1.16	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



WELLCARE PATH LAB

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AN ISO 9001:2015 CERTIFIED CLINICAL LAB
CERTIFICATE No:- QMS-WCL-2209152

LABORATORY REPORT

Age / Gender : 38 years / Male
Patient ID : UHID - JAMM1912023
Source : WELLCARE PATH LAB

Scan to Validate

Referral : Dr. JEENA SIKHO LIFECARE LTD
Collection Time : OCT 22, 2024, 08:49 A.M.
Receiving Time : OCT 22, 2024, 08:49 A.M.
Reporting Time : OCT 22, 2024, 10:11 A.M.
Sample ID : 36257

C/E Complete Urine Examination

URINE ROUTINE AND MICROSCOPIC EXAMINATION

Test Description	Value(s)	Reference Range	
PHYSICAL EXAMINATION:			
Colour of Urine	**Dark Yellow**	Straw to Yellow	/HPF
Visually Appearance	**Slightly Hazy**	Expected Clear	/HPF
Reaction (pH)	Acidic 6.5	5.0 - 8.0	/HPF
Specific Gravity	1.015	1.000 - 1.030	/HPF
Protein	Absent	Expected Absent	/HPF
Glucose	Absent	Expected Absent	/HPF
MICROSCOPIC EXAMINATION			
Pus Cells	**5 - 7**	0 - 2	/HPF
Epithelial Cells	2 - 3	Expected Absent	/HPF
Red Blood Cells (RBC).	Absent	Expected Absent	/HPF
Casts	Absent	Expected Absent	/HPF
Crystals	Absent	Absent	/HPF
Others	Nil	Expected Nil	/HPF
Leukocytes	Absent		/HPF
Ketone	Absent		/HPF
Nitrate	Absent		/HPF
Urobilinogen	Absent		/HPF
Bilirubin	**Present**		/HPF
Blood	Absent		/HPF
Microalbumin	Absent		/HPF
Ascorbic Acid	Absent		/HPF

Note:

Normal urine color is due to the presence of a pigment called urochrome. Urine color varies based on the urine concentration and chemical composition. Normal urine can vary from pale light yellow to a dark amber color. Highly concentrated urine has a darker yellow appearance.

END OF REPORT

Dr. Ankit Aggarwal
(Consultant Pathologist)

Future Research Aspects

Liver cirrhosis and hypertension (especially portal hypertension) are closely related and can lead to severe complications, including gastrointestinal bleeding, ascites and hepatic encephalopathy. [8] The future research aspects of these conditions are crucial for better understanding, diagnosing, preventing and treating liver diseases. Here are some potential suggestions for future research:

- **Enhancing Awareness**: Liver diseases are difficult to treat or cure; however, preserving liver health through heightened public awareness – particularly among high-risk groups – can be achieved through proactive approaches[44]
- **Pathophysiology:** Understanding the molecular mechanisms driving liver fibrosis and portal hypertension to identify new therapeutic targets. [45]
- **Diagnostic Tools:** Developing non-invasive biomarkers and advanced imaging techniques for early detection and monitoring disease progression. [46]
- **Treatment Strategies:** Improving pharmacological treatments for portal hypertension, preventing gastrointestinal bleeding and advancing endoscopic or

surgical interventions. [47]

- **Liver Regeneration:** Investigating stem cell therapies and enhancing liver transplant outcomes. [48]
- **Gut-Liver Axis:** Exploring the role of the gut microbiome in cirrhosis and portal hypertension to design new treatments. [49]
- **Personalized Medicine:** Tailoring treatments based on genetic profiles and advancing targeted therapies for better outcomes and *Prakriti* (individual constitution) based *Ayurvedic* approaches. [50]
- **Cardiovascular and Renal Impact:** Understanding the interplay between liver disease, cardiovascular health and renal complications like hepatorenal syndrome. [51]
- **Quality of Life:** Focusing on psychosocial factors and patient-reported outcomes to improve the overall care experience. [52]

Conclusion

This case study illustrates the successful *Ayurvedic* management of *Kumbha Kamala* (Liver Cirrhosis) in a patient presenting with advanced clinical symptoms and significantly impaired liver function. The patient also had a two-year history of hypertension. Based on a thorough evaluation of clinical presentation, laboratory investigations, and symptomatology, a comprehensive treatment strategy was implemented. This included *Nidan Parivarjan* (elimination of causative factors), modification of *Ahar – Vihar* (diet and lifestyle), *Panchkarma* therapies for systemic detoxification and *Shaman Chikitsa* with hepatoprotective and *Rasayan* formulations.

Throughout the treatment course, the patient exhibited marked clinical improvement, including symptom relief, enhancement of *Agni* (digestive and metabolic strength), and restoration of *Yakrit* (liver) function, as evidenced by improved laboratory markers and fibroscan results. Follow-up evaluations conducted monthly over a three-month period confirmed sustained improvement and stabilization of hepatic function.

This case underscores the effectiveness of an individualized, holistic *Ayurvedic* approach in the management of chronic liver disorders and highlights the potential of integrative therapies to enhance quality of life and support long-term hepatic recovery.

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