

AYURVEDIC MANAGEMENT OF DRUG INDUCED HEPATITIS- A SINGLE CASE
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Article Received on 20/05/2025

Article Revised on 10/06/2025

Article Accepted on 30/06/2025

ABSTRACT

Drug-induced hepatitis is liver inflammation caused by adverse effects of certain medications. Symptoms include jaundice, fatigue, abdominal pain, nausea, and constipation. Diagnosis involves clinical history, physical examination, and laboratory tests, revealing elevated liver enzymes (SGOT and SGPT) and elevated bilirubin, indicating liver dysfunction. Hepatitis, characterized by yellowing of the skin, mucous membranes, and sclera, signals liver malfunction when serum bilirubin levels exceed 2.5 to 3 mg/dl. In Ayurveda, hepatitis is described as Kamala, where there's a diminished desire for diet and physical activity.^[1,2] This paper discusses a 28-year-old male patient from the IPD of the Panchakarma department at SDM College of Ayurveda Hassan, presenting with yellowish skin discoloration, icterus, yellow urine, anorexia, and frequent constipation for 30 days due to chronic folklore medication abuse.

KEYWORDS: Ayurveda, Drug Induced Hepatitis, Kamala, Panchakarma, Shamana, Shodhana, Liver Function Test.

INTRODUCTION

Drug-induced hepatitis is a form of liver inflammation caused by the hepatotoxic effects of certain medications, herbal medicines, or supplements. It accounts for a significant proportion of acute liver failure cases globally and represents a critical challenge in pharmacotherapy.^[3] The condition arises due to either direct toxic effects of drugs or immune-mediated idiosyncratic reactions, leading to hepatocyte injury and impaired liver function.

Clinically, drug-induced hepatitis manifests with symptoms such as jaundice, fatigue, abdominal pain, nausea, and anorexia. Key diagnostic features include elevated liver enzymes (SGOT and SGPT) and hyperbilirubinemia.^[4,5] The onset and severity of symptoms can vary widely, depending on the nature of the drug, dosage, and individual susceptibility.

In Ayurveda, this condition is analogous to Kamala, a disorder primarily associated with an imbalance of Pitta Dosha. The cardinal symptoms of Kamala include

Haridra Netra (yellowish discoloration of the eyes), Haridra Twak Nakha Aanana (yellowish discoloration of the skin, nails, and face), Rakta Pita Shakrita Mutra (reddish-yellow coloration of feces and urine), Hatendriya (weakness of the senses), Avipaka (indigestion), Daurbalya (generalized weakness), and Aruchi (anorexia).^[1] These symptoms closely mirror those of Hepatitis in conventional medicine. Ayurvedic texts categorize Kamala into two forms: Shakhasrita Kamala, a milder manifestation, and Kumbha Kamala, a more severe condition.^[2] According to Acharya Vagbhatta, Kamala may arise as a complication. Its treatment is extensively detailed in Ayurvedic literature, with a focus on Shodhana Karma (bio-cleansing therapies) such as Virechana (therapeutic purgation) to eliminate toxins, followed by Shamana Chikitsa (palliative treatments) aimed at restoring balance and strengthening the liver.

The presented case of unknown drug-induced hepatitis was effectively managed using a structured Ayurvedic

approach, emphasizing both Shamana (palliative) and Shodhana (purificatory) therapies. The stepwise integration of these treatment principles not only facilitated symptomatic relief but also supported hepatic recovery, as evidenced by significant improvements in clinical parameters and liver function tests (LFTs).^[6,7]

CASE REPORT

A 28-year-old male presented to the outpatient department of Panchakarma at SDM College of Ayurveda and Hospital with complaints of yellowish discoloration of the skin and eyes, Reduced appetite accompanied by generalized weakness, fatigue, and frequent episodes of constipation with hard stools for the past 30 days. The patient also reported sour belching,

abdominal bloating, and occasional abdominal pain prior to the onset of his current symptoms. Seeking relief from these issues, he consulted a folklore practitioner in his village and was prescribed unspecified medications(details unknown). He consumed these medications regularly for two months; however, his symptoms did not improve. Instead, his condition progressively worsened, with the appearance of yellowish discoloration of the skin and eyes, increased constipation, and persistent fatigue. With no signs of recovery, he decided to seek further evaluation and approached SDM College of Ayurveda and Hospital Hassan.

CLINICAL FINDINGS: ON 29/06/2024

DASHAVIDHA PAREEKSHA

S.no	Parameter	Findings
1	Prakriti	Pitta-Vata
2	Vikriti	Pitta dosha imbalance (primary) with secondary Vata aggravation.
3	Sara	Madhyama Sara
4	Samhanana	Madhyama Samhanana
5	Pramana	Proportional physical structure with no significant abnormalities.
6	Satmya	Traditional Indian diet; history of folklore medication leading to hepatotoxicity.
7	Satva	Madhyama Satva (moderate mental strength).
8	Aahara Shakti	Low appetite (Kshudha Mandya) with impaired digestion (Avipaka).
9	Vyayama Shakti	Reduced physical strength (Daurbalya) due to liver dysfunction and fatigue.
10	Vaya	Madhyama Avastha (youth, 28 years)

ASHTAVIDHA PARIKSHA

S.no	Parameter	Findings
1	Nadi (Pulse)	Pitta-Vata predominant pulse, indicating dosha imbalance.
2	Mutra (Urine)	Yellowish urine
3	Mala (Stool)	Hard stools (Vibandha) with reduced frequency,
4	Jihva (Tongue)	Yellowish coating.
5	Shabda (Voice)	Weak and fatigued voice
6	Sparsha (Skin)	Warm to touch with yellow discoloration and mild epigastric tenderness.
7	Drik (Eyes)	Yellowish sclera (icterus).
8	Akruti (Appearance)	Yellowish skin, lethargy.

GENERAL EXAMINATION

- **Appearance:** ICTERUS - PRESENT
- **Appetite:** Diminished.
- **Weakness:** Generalized weakness reported.
- **Physical Activity:** Aversion to physical activity noted.

Vital Signs

- **Pulse:** 88BPM
- **Blood Pressure (BP):** 130/90MMHG
- **Respiration:** 18CPM
- **Temperature:** AFEBRILE

SYSTEMIC EXAMINATION

GASTRO INTESTINAL SYSTEM

Inspection

- Abdomen appears normal in contour with no visible distension, scars, or prominent veins.
- No visible peristalsis or pulsations.

- Yellow discoloration of the sclera and skin noted, indicative of jaundice.

Palpation

- Mild tenderness noted in the **epigastric region** on superficial palpation.
- No guarding or rigidity observed.
- No palpable masses or organomegaly detected.
- Liver span could not be assessed due to patient discomfort.

Percussion

- Normal tympanic sound over the abdomen.
- No evidence of ascites (fluid thrill or shifting dullness absent).

Auscultation

- Bowel sounds normal in frequency and intensity.
- No vascular bruits heard.

DIAGNOSTIC ASSESMENT: LIVER FUNCTION TEST ON 29/06/2024

DIAGNOSTIC TEST	VALUES	UNITS	NORMAL VALUES
TOTAL BILIRUBIN	17.8	mg/dl	Adults:- 0-2.0 mg/dl Newborns:- 0-1 d 2.0-6.0 mg/dl 1-2 d 6.0-10.0 mg/dl 3-5 d 4.0-8.0 mg/dl
DIRECT BILIRUBIN	12.7	mg/dl	Adults&Infants:- 0-0.2 mg
INDIRECT BILIRUBIN	5.1		
TOTAL PROTEIN	4.6	mg/dl	6.2-8.2 mg/dl
ALBUMIN	2.7	mg/dl	3.5-5.3 mg/dl
ALKALINE PHOSPHATASE [ALP]	51.0	IU/L	25-147 IU/L
SGOT	1770.0	IU/L	8-34 IU/L
SGPT	1650.0	IU/L	4-36 IU/L

URINE ANALYSIS : ON 29/06/2024

BILE SALTS	PRESENT
BILE PIGMENT	PRESENT

NIDANA PANCHAKA

Category	Details
1. Nidana (Causative Factors)	
Ahara Nidana (Dietary Causes)	Consumption of folklore medications with unknown composition and dosage.- Heavy, unwholesome, or incompatible foods causing Ama (toxins).
Vihara Nidana (Lifestyle Causes) Aushadha Nidana	Sedentary lifestyle or lack of physical activity. Prolonged use of hepatotoxic folklore medications.- Lack of medical supervision during drug consumption.
2. Purvarupa (Prodromal Symptoms)	Generalized weakness (Daurbalya).- Loss of appetite (Aruchi/Kshudha Mandya).- Malaise and fatigue.- Occasional abdominal discomfort (Avipaka).- Constipation with hard stools.
3. Rupa (Manifest Symptoms)	Yellow discoloration of skin and sclera (Haridra Twak-Netra).- Yellowish urine (Rakta-Pita Mutra).- Persistent fatigue and weakness (Daurbalya).- Sour belching and abdominal bloating.- Occasional mild epigastric tenderness.- Frequent episodes of constipation with hard stools.
4. Upashaya-Anupashaya	
Upashaya (Relieving Factors)	Use of hepatoprotective herbs (Tikta Rasa Dravyas like Patola, Katurohini).- Mild purgation therapies (Nitya Virechana).- Easily digestible foods (Pathya Ahara such as rice gruel and boiled vegetables).
Anupashaya (Aggravating Factors)	Heavy, spicy, or fried foods.- Overexertion or lack of rest.

SAMPRAPTI

Hepatotoxic Folklore Medications (Nidana)
 ↓
 Imbalance of Pitta Dosha
 (Primarily Yakrit and Rakta-vaha Srotas affected)
 ↓
 Vitiation of Rakta Dhatu (Blood Tissue)
 ↓
 Accumulation of Ama (Toxins)
 ↓
 Margavarodha (Obstruction of Channels - Srotorodha)
 ↓
 Impaired Liver Function
 (Altered bile metabolism and bilirubin excretion)
 ↓
 ↑ Serum Bilirubin (Hyperbilirubinemia) & Liver Enzyme

Levels (SGOT, SGPT)

↓
 Clinical Manifestations:
 - Yellow discoloration (skin, eyes, urine)
 - Fatigue and generalized weakness
 - Constipation with hard stools
 - Anorexia and sour belching
 - Mild abdominal pain

↓
DRUG INDUCED HEPATITIS**THEARPEUTIC INTERVENTION**

PHASE – 1 – SHAMANA CHIKITSA: (29/05/24 – 12/06/24) ON ADMISSION IN IPD

- **Internal medications**

1. Avipattikara churna+Godanti Bhasma+Amritasatwa powder – 10gm-10gm-10gm B/F with warm water
2. Liv 52 tablets 1-0-1 A/F
3. Patola Katurohinyadi Kashaya 15ml -0-15ml A/F
4. Tab.Nirocil 1-0-1 A/F\

- **Pathya** : Rice Ganji and Boiled Vegetables only.

PHASE – 2 – SHAMANA CHIKITSA : (12/06/24 – 20/06/24) ON DISCHARGE

- **Internal medications**

1. Avipattikara churna – 0gm-0gm-20gm B/F with warm water
2. Liv 52 tablets 1-0-1 A/F
3. Patola Katurohinyadi Kashaya 15ml -0-15ml A/F
4. Tab.Nirocil 1-0-1 A/F

- **Pathya:** Rice Ganji and Boiled Vegetables only.

PHASE – 3 – SHODHANA CHIKITSA : (21/06/24 – 29/06/24)

1. Sarvanga Pariseka with Dhanyamla for 3 days
2. Shiropichu with Kalyanaka ghrita
3. Snehapana with Mahatiktaka Ghrita – In Arohana Snehapana of – 40ml,60ml,100ml
4. Sarvanga Abhyanga with Murchita taila + Pariseka with Dashamoola kwatha for 2 days
5. MriduVirechana Karma with Gandharvahastadi taila – 40ml + Warm milk – 100ml

ASSESSMENT OF VIRECHANA

No. of Vegas – 13.

Antiki – Vit and Pitta

Laingiki – Sroto vishuddhi, Indriya Samprasada, Laghutva

Shuddhi – Avara Shuddhi

SAMSARJANA KRAMA – 28/06/24 – 01/07/2024

FOLLOW UP AND OUTCOMES

S.no	Treatment	Dates	Before Treatment	After Treatment
1	Shamana Chikitsa (IPD) PHASE - I	29/05/24 -12/06/24 (14 days)	LFT – 29/05/24 Total Bilirubin – 17.8mg/dl Direct Bilirubin -12.7 mg/dl SGOT – 1770 U/L SGPT – 1650 U/L	LFT – 09/06/2024 Total Bilirubin – 13.1mg/dl Direct Bilirubin -8.6 mg/dl SGOT- 139 U/L SGPT- 80.9 U/L
2	Shamana Chikitsa (OPD) PHASE - II	12/06/24 -20/06/24 (8 days)	LFT – 09/06/2024 Total Bilirubin – 13.1mg/dl Direct Bilirubin -8.6 mg/dl SGOT- 139 U/L SGPT- 80.9 U/L	LFT – 20/06/2024 Total Bilirubin – 4.7mg/dl Direct Bilirubin – 3.0 mg/dl SGOT- 92.8 U/L SGPT- 78.5 U/L
3	Shodhana Chikitsa (IPD) PHASE - III	21/06/24 -29/06/24 (8 days)	LFT – 20/06/2024 Total Bilirubin – 4.7mg/dl Direct Bilirubin– 3.0mg/dl SGOT- 92.8 U/L SGPT- 78.5 U/L	LFT – 29/06/2024 Total Bilirubin – 1.4 mg/dl Direct Bilirubin – 0.9 mg/dl SGOT- 56.2 U/L SGPT- 38.0 U/L

OBSERVATION AND RESULT

Phase 1 - Weakness reduced, Normal Stools regularly, Improved Appetite, Abdominal bloating reduced

Phase 2 - Weakness relieved, Normal Stools regularly, Yellowish discoloration reduced

Phase 3 – Icterus absent, Weakness relieved, Normal Stools regularly, LFT reports within normal limits.

DISCUSSION

The presented case of unknown drug-induced hepatitis was effectively managed using a structured Ayurvedic approach, emphasizing both *Shamana* (palliative) and *Shodhana* (purificatory) therapies. The stepwise integration of these treatment principles not only facilitated symptomatic relief but also supported hepatic recovery, as evidenced by significant improvements in clinical parameters and liver function tests (LFTs).

PHASE-WISE DISCUSSION

Phase 1 and 2: Shamana Chikitsa

The initial two phases aimed at symptomatic alleviation and preparation of the patient for purificatory

procedures. Considering the patient's reduced strength (alpa bala), mild purgation through Nitya Virechana was administered. By facilitating gentle, daily elimination of toxins, Nitya Virechana supported the hepatobiliary system without taxing the patient's compromised Agni and Deha Bala.^[8]

The combination of hepatoprotective herbs, such as those in Patola Katurohinyadi Kashaya and herbal formulations like Liv 52 and Nirocil, demonstrated efficacy in reducing hyperbilirubinemia and restoring hepatic functions.^[9,10] The use of bitter drugs (Tikta Rasa Dravya), such as Mahatiktaka Ghrita, aligns with Ayurvedic recommendations for liver ailments. These herbs mitigate Pitta vitiation, enhance bile excretion, and promote tissue repair.^[11]

The gradual improvement in appetite, energy levels, and bowel regularity suggested enhanced Agni (digestive fire) and restored homeostasis in Pitta. Pathya (dietary guidelines) with easily digestible foods like rice gruel and boiled vegetables complemented the therapeutic

approach by minimizing the digestive load on the liver and optimizing nutrient absorption.

Phase 3: Shodhana Chikitsa

As the patient's strength (deha bala) improved, Shodhana Karma (bio-cleansing therapies) in the form of Virechana was introduced. Following preparatory procedures, including Sarvanga Pariseka and Snehapana with Mahatiktaka Ghrita, mild purgation (Mridu Virechana) was conducted using Gandharvahastadi Taila and milk.^[11] This approach, in line with Ayurvedic principles for managing Kamala (jaundice/hepatitis), targeted the root pathology by eliminating Margavarodha (obstructions in channels) and expelling accumulated Pitta.

The therapeutic effects of Virechana were evident in the complete resolution of icterus, normalization of stool color and consistency, and remarkable reductions in bilirubin and liver enzyme levels.^[6,12] The improvement in systemic and sensory functions (Indriya Samprasada) indicated restored vitality and balance of doshas.

CONCLUSION

This case study highlights the effectiveness of Ayurvedic management in treating drug-induced hepatitis, specifically using a structured and integrative approach based on classical principles. The treatment phases starting with **Shamana Chikitsa** to alleviate symptoms and stabilize the patient's condition, followed by **Shodhana Chikitsa** for detoxification demonstrated significant improvement in clinical symptoms and liver function parameters.

The use of hepatoprotective formulations like **Liv 52** and **Nirocil**, along with carefully chosen bio-cleansing therapies such as **Nitya Virechana** and **Mridu Virechana**, played a crucial role in restoring liver function and balancing vitiated **Pitta dosha**.

The outcomes marked improvement in liver enzyme levels, reduction in bilirubin levels, normalization of stools, and resolution of icterus validate the efficacy of Ayurveda in managing complex conditions like drug-induced hepatitis. This holistic treatment not only addressed the root cause but also rejuvenated the patient's overall health, emphasizing Ayurveda's relevance in managing contemporary health challenges.

Future studies and comparative trials can further establish the role of Ayurvedic therapies in hepatoprotective treatments, paving the way for broader acceptance of Ayurveda in treating Drug induced Hepatitis.

BEFORE TREATMENT



AFTER TREATMENT



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