

## AYURVEDIC APPROACH TO THE MANAGEMENT OF VIRAL HEPATITIS: A CASE STUDY

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## ABSTRACT

Hepatitis is an inflammatory condition affecting the liver parenchyma, most commonly triggered by viral infections and other etiological factors. Clinically, it presents as a nonspecific prodromal syndrome, marked by symptoms such as headache, myalgia, arthralgia, nausea, anorexia, dark-coloured urine, jaundice, characterized by yellow discoloration of the skin, mucous membrane, sclera, and other tissues. In this study, an 11-year-old female patient exhibiting classical features of viral hepatitis was thoroughly evaluated using both subjective assessments and objective clinical examinations, with systematic documentation maintained throughout the clinical course. Prominent symptoms included abdominal pain, fever with chills, nausea, vomiting, anorexia, steatorrhea (fatty stools), and burning micturition. The primary focus of the management was the application of Ayurvedic therapeutics and the possible mode of action of the prescribed formulations. The treatment protocol included the administration of *Bhunimbadi Kada*, *Yakrut Pleehari Loha*, *Sudarshana Ghana Vati*, *Mrityunjay Rasa*, *Pravala Panchamruta*, and *Bhringarajasava*, complemented by adherence to *Pathya-Apathya*. The patient responded favourably to this integrative regimen, with significant clinical improvement and no observed complications.

**KEYWORDS:** Viral hepatitis, Ayurvedic therapeutics.

## 1. INTRODUCTION

Hepatitis refers to inflammation of the liver parenchyma, which can arise from viral infections or non-infectious aetiologies such as hepatotoxic substances, alcohol consumption, drug overdose (e.g., Paracetamol), and various metabolic disorders.<sup>[1]</sup> Among the viral causes, there are five primary hepatitis viruses, classified as types A, B, C, D, and E.<sup>[2]</sup>

Hepatitis B is considered acute when the infection persists for less than six months and chronic when it continues beyond this period.<sup>[3]</sup> Globally, it is estimated that approximately 2 billion individuals have been exposed to the Hepatitis B Virus (HBV), with 350 million living as chronic carriers.<sup>[4]</sup> India is categorized within the intermediate endemicity zone, with a prevalence rate ranging from 2% to 7%, and an average national prevalence of about 4%.<sup>[5]</sup>

Hepatitis B is a widespread global health concern. During the initial phase of infection, patients may exhibit non-specific, flu-like symptoms such as malaise, fever, muscle and joint pain, fatigue, anorexia, nausea, vomiting, abdominal discomfort, and diarrhoea.<sup>[6]</sup> As the disease progresses, more specific signs such as dark-coloured urine and jaundice—yellow discoloration of the

skin, mucous membranes, sclera, and other tissues—may manifest.<sup>[7]</sup>

HBV is transmitted through blood, semen, and other bodily fluids. Major transmission routes include unprotected sexual contact, sharing of contaminated needles, accidental needle-stick injuries, and vertical transmission from mother to foetus, particularly during the third trimester.<sup>[8]</sup>

Structurally, the hepatitis B virus consists of an outer envelope containing HBsAg (hepatitis B surface antigen), and an inner core that includes HBcAg (core antigen) and HBeAg (e antigen). Upon exposure, the host initiates a cell-mediated immune response, engaging cytotoxic T lymphocytes and natural killer cells, along with inflammatory cytokines to eliminate infected hepatocytes. The strength of the immune response correlates with the likelihood of viral clearance.<sup>[9]</sup>

Histologically, hepatocytes infected with HBV demonstrate a distinctive “ground-glass” appearance due to cytoplasmic accumulation of HBsAg—a hallmark feature unique to HBV infection.<sup>[10]</sup> Chronic infection is sustained by the continuous replication and shedding of the virus from regenerating hepatocytes into the

bloodstream, contributing to persistent viremia and liver damage.<sup>[11]</sup>

## 2. CASE REPORT

An 11-year-old girl presented with abdominal pain localized to the epigastric and right hypochondriac regions, which had persisted for a week and gradually intensified. She subsequently experienced fever with chills, nausea, vomiting, loss of appetite, steatorrhea (fatty stools), and burning sensation during urination. Despite consulting a paediatrician and initiating prescribed medications, there was no significant improvement in the condition.

Consequently, Ayurvedic treatment was pursued as an alternative approach.

### Showing Blood Investigation Report (Date: 05.02.2025)

Bio-chemical test	Values	Normal range values
Total Bilirubin	4.16	up to 1.2 mg/dL
Direct Bilirubin	1.89	up to 0.4 mg/dL
Indirect Bilirubin	2.27	up to 1.0 mg/dL
S.G.O. T	47	0-31 U/L
S.G.P. T	81	0-46 U/L
Alkaline phosphate	351	110-360 U/L

### Ayurvedic Management Protocol

	Oral medications
First visit (06.02.2025)	1. Bhunimbadi kada (10ml-10ml-10ml) 2. Mrityunjaya rasa (1-1-1) AF 3. Sudarshana Ghana vati (1-1-1) AF 4. Yakrut pleehari loha (1-1-1) AF
Second visit (17.02.2025)	1. Bhunimbadi kada (10ml-10ml-10ml) 2. Yakrut pleehari loha (1-1-1) AF 3. Praval Panchamruta (1-1-1) AF
Third visit (28.02.2025)	1. Yakrut pleehari loha (1-1-1) AF 2. Kamadugha Rasa (1-1-1) AF 3. Bhringarajasava (10ml-10ml-10ml)
Fourth visit (10.03.2025)	The Oral medications were discontinued.

## 3. OBSERVATIONS AND RESULTS

By the end of the first week of medication, symptoms such as fever with chills, abdominal pain, and vomiting had completely resolved. During the first and second follow-up visits, the patient reported a significant

improvement in symptoms, including anorexia, steatorrhea (fatty stools), and burning micturition. During the third follow up all the symptoms were resolved and oral medications stopped.

### Comparison of Blood Investigation Reports Before and After treatment

Bio-chemical Test	05.02.2025	16.02.2025	27.02.2025	10.03.2025	Normal range values
Total Bilirubin	4.16	2.07	1.38	1.0	up to 1.2 mg/dL
Direct Bilirubin	1.89	1.05	0.56	0.2	up to 0.4 mg/dL
Indirect Bilirubin	2.27	1.02	0.82	0.8	up to 1.0 mg/dL
S.G.O. T	47	35	33	18	0-31 U/L
S.G.P. T	81	51	48	22	0-46 U/L
Alkaline phosphate	351	358	135	140	110-360 U/L

## 4. DISCUSSION

Hepatitis refers to the inflammation of the liver parenchyma. In affected individuals, early warning signs often include general symptoms such as malaise, muscle and joint pain, fever, and fatigue. As the condition progresses, more specific indicators may develop, including dark-coloured urine and yellowing of the skin, mucous membranes, sclera, and other body fluids. Diagnosis typically involves a physical examination focusing on the skin and mucous membranes, observation of stool colour, and liver function tests through blood investigations.

In the present case, an 11-year-old girl presented with abdominal pain localized to the epigastric and right hypochondriac regions, which had persisted for a week

and gradually intensified. She subsequently experienced fever with chills, nausea, vomiting, loss of appetite, steatorrhea (fatty stools), and burning sensation during urination. Based on clinical symptoms and supported by laboratory test results, the diagnosis was confirmed as viral hepatitis. An Ayurvedic treatment plan was formulated, primarily following the *Shamana Chikitsa* approach, which included the administration of oral medications.

*Bhunimbadi Kadha* contains a combination of herbs like *Bhunimba*, *Katuki*, *Daruharidra*, *Guduchi*, *Nimba* with hepatoprotective, anti-inflammatory, antipyretic, and antiviral properties. *Mrityunjaya rasa* and *Sudarshana Ghana vati* both aid in the *ama Panchaka* and *jwaraghna* (antipyretic properties).

*Yakrut pleehari loha* contains herbs like *Katuki*, *Bhringraj*, and *Daruharidra* support liver cell repair, reduce inflammation, and help normalize liver enzymes. *Pravala Panchamruta* and *Kamadugha Rasa* chiefly works by pacifying excessive Pitta, making it beneficial in conditions characterized by inflammation, hyperacidity, and burning sensations.

Bhringarajasava is a classical Ayurvedic asava Kalpana prepared chiefly from Bhringaraja and other yakrit-uttejaka and pittahara dravyas. It is especially valued for its yakritshamaka, dipana- pachana, Rasayana and Rakta shodhana properties.

## 5. CONCLUSION

In this case study, oral medications such as *Bhunimbadi kada*, *Mrityunjaya rasa*, *Sudarshana Ghana vati*, *Yakrut pleehari loha*, *Pravala Panchamruta*, *Kamadugha Rasa*, *Bhringarajasava* along with *Pathya Apathy Ahara Vihara* proved to be very effective, without any complication. The patient got relief in the symptoms like fever with chills, nausea, vomiting, anorexia, steatorrhea (fatty stools), and burning micturition and the bilirubin level reduced within 1 month.

## 6. DECLARATION OF PATIENT CONSENT

The authors confirm that they have obtained a patient consent form, in which the patient or caregiver has authorized the publication of this case, including clinical details, in the journal. They acknowledge that the patient's or caregiver's name and initials will not be revealed, and every effort will be made to protect their identity. However, complete anonymity cannot be guaranteed.

## 7. CONFLICT OF INTEREST

Conflict of interest is declared none.

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