

## MANAGEMENT OF INACTIVE CARRIER STAGE OF HEPATITIS B THROUGH AYURVEDA: A CASE REPORT

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### ABSTRACT

Hepatitis B is a common cause of liver disease and spreads easily due to inadequate awareness of safety measures. The WHO reports a prevalence of 2% in the South-East Asia Region. Key symptoms include Jaundice, Abdominal discomfort and Vomiting. Globally, the disease poses a significant health burden, particularly in the Western Pacific and African Regions, with 97 million and 65 million people chronically infected, respectively. In *Ayurveda*, this set of symptoms is known as *Kamala*. *Kamala* is caused due to aggravation of *Pitta Dosha*. This case report illustrates the effectiveness of the *Ayurveda* treatment modality in a patient with a viral load of < 150 IU/ml, and the values of AST (aspartate aminotransferase) and alanine transaminase (ALT) were 90 IU/ml and 120 IU/ml, respectively. A 55-year-old Male patient with a complaint of yellowish discoloration of urine, eyes, and skin with fatigue and irritability was diagnosed with *Kamala*. The patient was treated with *Ayurvedic* drugs. After the treatment for 6 months, improvement was observed based on AST (decreased from 90 IU/ml to 52.01 IU/ml) and ALT (decreased from 120 IU/ml to 57.5 IU/ml). This paper presents a case report of Hepatitis B carrier stage managed through *Ayurvedic* interventions. Significant improvement was observed in Appetite, Digestion, Fatigue with Irritability, Nausea, Yellow discoloration of Eyes, Skin, Nails, Face, Urine and Liver function parameters, with reduction in viral markers during follow-up. This case suggests that *Ayurveda* may play an adjunctive role in the management of inactive HBV carriers.

**KEYWORDS:** *Ayurveda*, *Hepatitis B*, Carrier Stage, *Yakrit Roga*, *Kamala*, HBVS.

### INTRODUCTION

Hepatitis is an Inflammation of the liver Parenchyma caused by a viral infection and non-infectious causes like Toxicity, Alcohol intake, Drugs (overdose of PSM), several metabolic disorders. There are 5 main hepatitis viruses, referred to as types of A, B, C, D and E. Hepatitis B is considered acute when it is lasts less than 6 months, and chronic when it persists longer. It is estimated that about 200 crores of the world's populations have been exposed to the hepatitis B virus, of which 35 crores it chronically. India falls in the intermediate endemicity zone, the prevalence is 2-7% and the average is 4%. Hepatitis B is a common disease

all over the world, and countries have been divided into 3 groups High, Intermediate and Low according to its endemicity.<sup>[1]</sup>

The hepatitis B virus is constructed of an outer capsule containing HBsAg (Hepatitis B virus surface antigen), an inner core containing HBcAg (Hepatitis B Virus core antigen), and HBeAg (Hepatitis B Virus e antigen). Exposure to HBV, results in a cell mediated immune response by sending cytotoxic T cells and natural killer cells to the virus and releasing inflammatory cytokines. The greater the immune response, the greater will be the chance of fighting the virus. As the cytoplasm of

hepatocytes are infiltrated by the HBV, they appear to have a 'ground glass' appearance under histological exam. This is unique for HBV and thus different from other forms of hepatitis. Because hepatocytes are continually proliferating, the virus is constantly being shed into the blood, which contributes to chronic infections.<sup>[2]</sup>

In *Ayurveda*, this disease condition bears symptomatic resemblance with *Kamala*, where cardinal symptoms are *Haridra Netra* (yellowish discoloration of eyes), *Haridra Twak Nakha Aanana* (yellowish discoloration of skin, nails, and face), *Hatendriya* (weakness of senses), *Rakta Pita Shakrita Mutra* (reddish yellow colour of faeces and urinals), *Avipaka* (indigestion), *Daurbalya* (generalized weakness), and *Aruchi* (anorexia).<sup>[3]</sup> On the basis of clinical features, Hepatitis B can be correlated with *Kamala*. *Kamala* is caused due to aggravation of *Pittadosha*. *Ayurveda* offers reference points for managing treatment decisions specific to each and every case and to project a vision or goal for a whole state of health, again unique to each and every case. *Ayurvedic* management of *Kamala* includes *Samshodhan* and *Samshaman* therapy which leads to break the *Samprapti* of the disease and hence provides complete cure. This case can be helpful for the management of Hepatitis B by using herbo-mineral formulations given in *Ayurveda*.<sup>[4]</sup>

## MATERIALS AND METHODS

### PATIENT INFORMATION

A 55 Years old hindu male patient, farmer by profession attended our Out patient Department (OPD) of Kayachikitsa no 1, Siddhakala ayurved mahavidyalay, Sangamner with the complaints of nausea, yellowish colored urine, yellowish colour skin, nails, face, severe body pain, fatigue with irritability and experiencing upper abdominal pain on and off, poor appetite and yellow discoloration of eye.

Initially, the symptoms were mild in nature. However, their severity gradually increased over time. The patient had been receiving allopathic treatment for the preceding two months, including antibiotics, Vitamin E capsules, probiotics, and proton pump inhibitors, but did not experience significant symptomatic relief. Subsequently,

### Treatment given

Table no. 1.

Sr no	Drug given	Doasage	Duration
1	<i>Arogyavardhini Vati</i>	250 mg BD	30 days / after food
2	<i>Phaltrikadi Kwath</i>	20 ml BD	First 60 days/ after food
3	Tab Liv 52	500 mg BD	First 60 days/ after food
4	<i>Punarnava Mandur</i>	250 mg BD	Next 60 days / after food
5	<i>Kalmegh Ghanvati</i>	500 mg BD	Next 60 days / after food

### Dietary Advice

- Light and easily digestible diet
- Avoid oily, spicy, fermented food
- Avoid alcohol and smoking

on 9 June 2025, liver function tests (LFT) and Polymerase Chain Reaction for HBV DNA were performed. Based on the investigation reports, the patient was newly diagnosed with Hepatitis B infection and expressed willingness to undergo Ayurvedic treatment. On further detailed inquiry, no history of blood transfusion was reported. Screening history revealed that neither his spouse nor children were affected by Hepatitis B infection. There was no significant family history of the disease. The patient also had no past surgical history and had not received vaccination against Hepatitis B.

According to *Ayurvedic* clinical assessment, the condition was diagnosed as *Kamala*. The patient had experienced intermittent symptomatic relief with previous medications; however, the overall therapeutic response gradually declined over time. Therefore, he sought Ayurvedic treatment with the expectation of sustained improvement. During the first consultation, the patient was thoroughly evaluated, prescribed medicines for 15 days, and advised admission during the subsequent visit for further management.

### Past History

Known case of Hypertension in the past 3 years on regular treatment. On regular treatment (Tab AmlO 5 mg OD).

### Clinical findings

*Ashtavidha pariksha* was within normal limit except *mutra* and *netra* were yellowish in colour. Patient had *madhyam akruti*.

*Dashavidha pariksha* was within normal limit except *aharshakti* (*abhyavarana*, *jaranshakti*) and *vyayamshakti* were *awar*.

Vital Parameters- Vital parameters were within normal limit.

### Systemic Examination

P/A – Abdomen was soft and mild Tenderness was present in right hypochondriac region.

**Investigation** – Blood investigation revealed raise levels of SGOT, SGPT, Sr.Bilirubin, Viral Load etc.

**Diagnosis** - From clinical features, physical examination and investigations patient was diagnosed having Hepatitis B (*Kamala*).

- Adequate sleep
- Stress reduction

**Assessment criteria for subjective criteria****1) Haridra Netra (yellowish discoloration of eyes)**

Sr	Description	Score
1	Normal color of sclera	0
2	Yellowish white color of sclera	1
3	Yellow color of sclera	2
4	Dark yellow color of sclera	3
5	Greenish yellow color of sclera	4

**2) Haridra Twaka, Nakha, mukha (yellowish discolouration of skin, nails, face)**

Sr	Description	Score
1	Normal complexion of skin, nails, and face	0
2	Yellowish white colour of skin, nails, and face	1
3	Yellow colour of skin, nails, and face	2
4	Dark yellow colour of skin, nails, and face	3
5	Greenish yellow colour of skin, nails, and face	4

**3) Avipak (Indigestion)**

Sr no	Description	Score
1	Able to digest any kind etables	0
2	Able to digest normal food	1
3	Able to digest light food but difficulty in digestion of normal food	2
4	Unable to digest light food as juice, Daliya, Khichadi, etc.	3

**4) Daurbalya (Generalized weakness)**

Sr no	Description	Score
1	No weakness	0
2	weakness after doing some extra work other than daily routine work	1
3	weakness after doing normal daily routine work	2
4	weakness without doing anything	3

**5) Aruchi (Anorexia)**

Sr no	Description	Score
1	Take a full diet on a proper gap	0
2	Take moderate diet on proper gap between meals	1
3	Decreased amount of diet and the increased gap between meals	2
4	Unable to consume a minimum amount of diet on at least 2 meal time	3
5	Unable to consume a minimum amount of diet in a whole day	4

**6) Udarshoola (Pain in abdomen)**

Sr no	Description	Score
1	No pain	0
2	Mild pain	1
3	Moderate pain	2
4	Severe pain	3

**7) Hrulaas (Nausea)**

Sr no	Description	Score
1	No nausea	0
2	Mild nausea, not requesting pharmacological rescue	1
3	Moderate nausea, requesting pharmacological rescue	2
4	Severe Nausea resistant to pharmacological treatment	3

## RESULTS AND DISCUSSION

## Subjective criteria

Table no. 02.

FOLLOW UP	<i>Haridra netrata</i>	<i>Haridra twaka, nakha, mukha</i>	<i>Avipaka</i>	<i>Daurbalya</i>	<i>Aruchi</i>	<i>Udarshoola</i>	<i>Hrulaas</i>
0 th day 9/6/25	3	3	3	3	4	2	3
30 th day	2	2	1	2	2	1	1
After 3 month	1	1	0	1	1	0	0
After 7 month 16/2/26	0	0	0	0	0	0	0

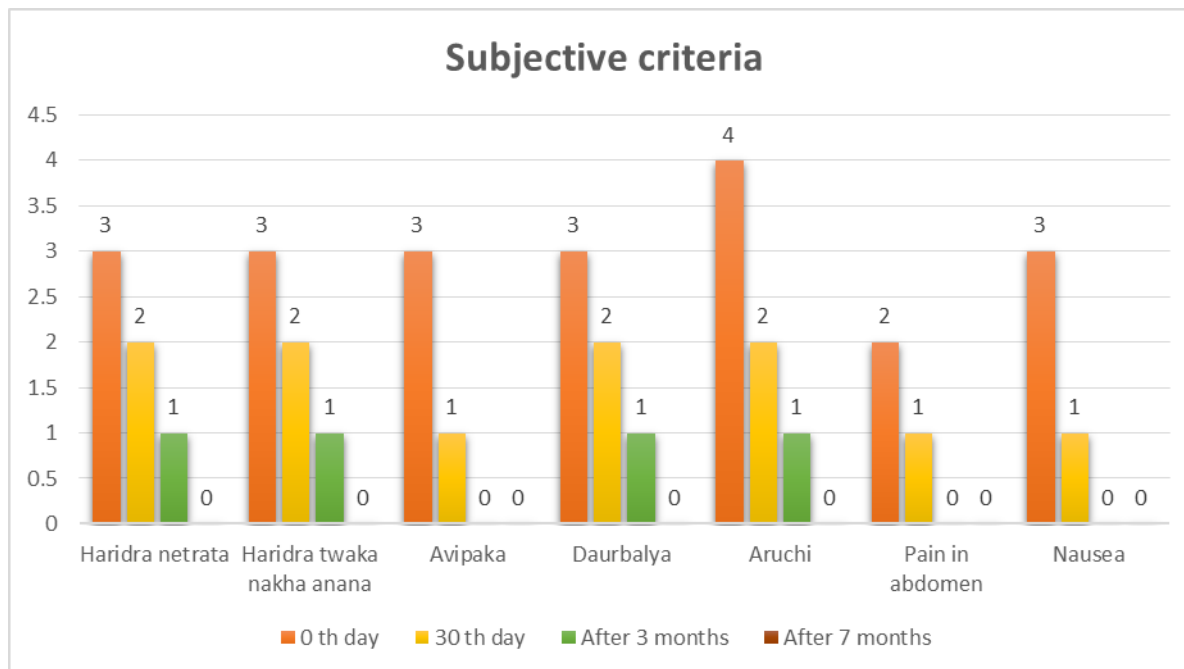


Fig. no. 1.

## Objective Criteria

Table no. 03.

FOLLOW UP	Haemoglobin	Serum bilirubin Total	Direct	Indirect	SGPT (ALT)	SGOT (AST)	VIRAL LOAD
Before treatment (9/6/25)	11.7 gm%	6.4 mg %	1.6 mg %	4.8 mg %	120 IU/L	90 IU/L	< 150 IU/ml
Mid Treatment (15/7/25)	11.5 gm%	0.87 mg %	0.36 mg %	0.51 mg %	66.21 IU/L	49.52 IU/L	-
After treatment (16/2/26)	13.7 gm%	0.86mg %	0.29 mg %	0.57 mg %	47.50 IU/L	52.01 IU/L	< 150 IU/ml

USG Finding (12/6/25) – Hepatomegaly measures (15.8 cm), altered echotexture of liver

HbsAg (9/6/25) – Positive

No adverse drug reaction was observed.

## DISCUSSION

1) *Arogyavardhini vati* - According to *Rasaratnasamucchaya*, *Bhaisajyaratnavali* and *Bharatbhaisajyaratnakar* the drug *Arogyavardhini vati* possess the pharmacological action like- *Kusthanasaka* (can alleviate all types of skin disorder) – indicated for 1 mandal (14 days). *Tridosha jvara nashaka* (fever arising due to involvement of three humours) - indicated for 5 days. Also the drug having the properties like- *Pachani* (digestive), *Dipani* (appetizer), *Pathya*

(wholesome for channel), *Hrudya* (cardio protective), *Medonashaka* (can alleviate the diseases arising from hyperlipidemia), *malashuddhikari* (cleaning of waste materials from body), increase *Kshudha* (appetizer), *Sarbaroga prashamani* (can alleviate all types of disorders from body) The drug contains ingredients like *Haritaki* (*Terminalia chebula*) which is an astringent and laxative in nature. It is effective for relieving liver disorders and useful in relieving fatty liver and cirrhosis of liver. The herb

*Bibhitaki (Terminalia belerica)* is a laxative and a valuable remedy for digestive disorders and effective anthelmintic. It has styptic property and hence useful in arresting bleeding. Another ingredient *Amalaki-(Embllica officinalis)* is an antibacterial, carminative, hypoglycaemic, stomachic, hypotensive and astringent agent. It has antioxidative, anti-hepatotoxic and immune modulator properties. The mineral *Shuddh shilajit* is an effective agent for renewing vitality. It acts like nectar; it has powerful antioxidant properties and thereby delays the process of aging. It is useful in relieving kidney diseases, liver diseases, digestive disorders and mental illness. The herb *Chitra (Plumbago zeylanica)* is an effective agent in relieving digestive disorders like loss of appetite, indigestion, piles, worms, colitis and various liver diseases. Another important ingredient (*Picrorrhiza kurroa*) is an effective therapeutic agent in liver disorders.<sup>[5]</sup>

- 2) *Phaltrikadi kwath - Phaltrikadi kwath* is common and famous preparation for the treatment of *Koshthashrit Kamala/ Hepatocellular jaundice, pandu /Anaemia* and other liver disorders. Since its a purely herbal preparation hence very much safe and more effective than any other herbomineral preparation. In short these Drugs have following properties i.e. *Pittahar, Pittarechak, Yakriduttejak, Deepan, Rechan, Pachak, Shothhara, Jwarahara, Kamala and Panduhara, Yakrit and Raktvikarhara, Tridoshar, Rashayan, Mutrajanana, Pittasarak, Anulomak, Shwedak, Dahaprashaman and Raktapittahar.*<sup>[6]</sup>
- 3) *Tab Liv 52 500 - Tab liv 52* is a hepatoprotective polyherbal Ayurvedic medicine manufactured by Himalaya Wellness Company, Bengaluru. It consists of many herbs including *Arjuna (Terminalia arjuna), Kakamachi (Solanum nigrum), Kasamarda (Cassia occidentalis), Tamarisk (Jhavuka-Tamarix gallica), Yarrow (Biranjasipha - Achilleamillefolium), caper bush (Himsara - Capparis spinose), wild chicory (Kasani - Cichorium intybus), Mandur Bhasma - Ferric Oxide.* Liv.52 restores functional efficiency of liver by protecting hepatic parenchyma and promoting hepatocellular regeneration and indicated in management of jaundice, hepatitis a (infectious hepatitis), Alcoholic hepatitis, early cirrhosis or pre-cirrhotic conditions, fatty liver disease osteato-hepatitis etc.<sup>[7]</sup>
- 4) *Punarnava mandur - Punarnavadi mandur* is diuretic. It detoxifies the blood and removes impurities from blood circulation. It is also useful in liver and kidney diseases mainly it is used in ascites and oedema. It is also used in *Rasapradoshaja vikara.* It is used in *Pandu* specially in *garbhini pandu* due to its *kaphapittashamak, rasayan, deepan, pachan, anulomak, raktavardhak, preenan, raktaprasadan, dhatuposhan* properties. Contents of *Punarnavadi mandur* are *laghu, ruksha, sheeta, katu, pittashamak.* *Punarnavadi mandur* is able to

breakdown the pathogenesis of *panduroga.* *Mandur bhasma* is natural source of iron, *sheetgunatmak* and *raktavruddhikar.*<sup>[8]</sup>

- 5) *Kalmegh ghanvati - Rasa (Taste) -Tikta ( Bitter) , Katu (pungent), Guna (Virtue) - Laghu (light), Teekshna (sharp), Virya (potency) - Ushana (hot potency), Vipaka (post-digestion) - Katu (pungent).*<sup>[9]</sup>

## CONCLUSION

This case report suggests that *Ayurvedic* management may be beneficial in the supportive care of patients with the inactive carrier stage of Hepatitis B. The treatment protocol showed improvement in clinical symptoms such as loss of appetite, fatigue, and indigestion, along with favourable changes in liver function parameters during follow-up. From an *Ayurvedic* perspective, interventions aimed at correcting *Agnimandya*, pacifying Pitta, and improving *Yakrit (~Liver)* function may have contributed to the observed outcomes.

Although serological clearance cannot be concluded from a single case, the findings indicate that *Ayurveda* may help enhance quality of life, improve metabolic function, and support hepatic health in carrier-stage patients when used under proper supervision. However, regular monitoring of viral markers and liver function tests remains essential. Further well-designed clinical studies with larger sample sizes are required to establish the efficacy, safety, and long-term role of *Ayurvedic* management in Hepatitis B carrier stage.

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