DOI: 10.7860/JCDR/2024/68504.19429

Case Report

Complementary/Alternative Medicine Section

# Management of Viral Hepatitis with Siddha Medicines: A Case Report

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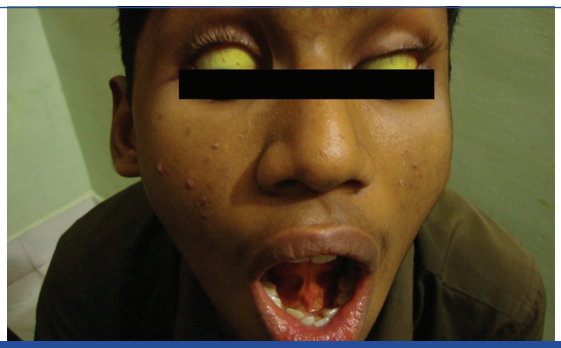
## ABSTRACT

Viral hepatitis is a common cause of acute liver injury that can lead to chronic liver disease, cirrhosis, and liver cancer. Viral hepatitis shares similarities with *kamalai* in Siddha medicine and is managed in accordance with Siddha treatment. Present case is of a 14-year-old male patient who presented with symptoms of fever, fatigue, malaise, and jaundice. Laboratory investigations, abdominal ultrasound features, and clinical findings indicated positive viral hepatitis. The patient was started on Siddha management to suppress Hepatitis B Virus (HBV) replication and prevent progression to chronic hepatitis B infection. The patient's symptoms gradually improved over the next few weeks, and follow-up blood tests showed a significant reduction in the values of elevated liver enzymes, indicating a good response to Siddha medicine treatment. The unique aspect of this case study was that it demonstrates a successful management of viral hepatitis B infection with the Siddha system of medicine.

**Keywords:** Hepatoprotective, Hyperbilirubinemia, Jaundice, *Kamalai*, Liver function, Traditional medicine

## CASE REPORT

A 14-year-old male presented to the Department of Siddha at Kaariyapatti Government Hospital in Virudhunagar District with a one-week history of fever, fatigue, malaise, and jaundice. He reported a loss of appetite, weight loss, and occasional nausea over the past few weeks. He denied any recent travel, blood transfusions, or intravenous drug use. On examination, the patient appeared jaundiced with a yellowish tinge to his skin and sclerae [Table/Fig-1].



**[Table/Fig-1]:** Clinical picture showing scleral icterus i.e the sclera are the white outer layer of the eye, which in this case have taken on a yellowish hue suggesting clinical sign of jaundice on first day of treatment.

He was alert and oriented but appeared fatigued. His blood pressure was 140/90 mmHg, heart rate was 90 beats per minute, and respiratory rate was 16 breaths per minute. His abdomen was soft, non tender, and non distended, with a palpable liver edge about 2 cm below the right costal margin. There was no splenomegaly or ascites, and no evidence of hepatic encephalopathy was observed, as indicated by normal mental status, intact cognitive function, and the absence of neurological deficits.

Blood tests showed elevated liver enzymes as shown in [Table/Fig-2] [1]. Viral hepatitis serology was positive for Hepatitis B Surface Antigen (HBsAg), Hepatitis B e Antigen (HBeAg), and Hepatitis B Core IgM Antibody (HBcIgMAb), indicating an acute hepatitis B infection. Given the critical nature of the patient's condition, the author (a physician) visited the patient daily. This was not a challenging task, considering the patient's small village hometown.

| Liver function test | 1st day | 25th day | 90th day | Reference value [1] |
|---|---|---|---|---|
| SGOT (IU/L) | 810 | 102 | 28 | 5 to 30 |
| SGPT (IU/L) | 600 | 88 | 21 | 4 to 36 |
| Alkaline phosphatase (IU/L) | 320 | 190 | 115 | 30 to 120 |
| Total bilirubin (mg/dL, µmol/L) | 24.8 | 6.3 | 0.7 | 2 to 17 |

**[Table/Fig-2]:** Liver function test results at different time points during treatment.
SGOT: Serum glutamic oxaloacetic transaminase; SGPT: Serum glutamic pyruvic transaminase

Urine analysis tested positive for bile salts and bile pigments. The patient's hepatitis C and Human Immunodeficiency Virus (HIV) tests were negative. Ultrasound of the liver revealed hepatomegaly with diffusely increased echogenicity, consistent with acute hepatitis. The patient was diagnosed with an acute hepatitis B infection presenting clinical findings of elevated liver enzymes, jaundice, and hepatomegaly on ultrasound.

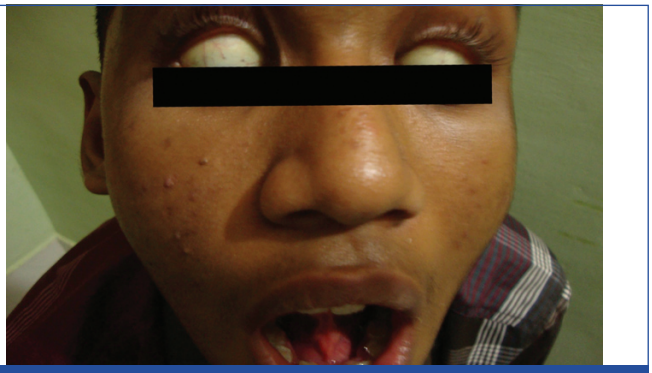
Siddha treatment was initiated as detailed in [Table/Fig-3] [2-5]. The patient was advised to adhere to strict dietary restrictions as they could strain the liver's digestion and worsen jaundice symptoms.

It was recommended that the patient rest, increase fluid intake, eat small and frequent meals, avoid fatty and fried foods, and consume more fruits and vegetables.

| Medicine name | Dosage | Duration |
|---|---|---|
| Nilavembu Kudineer | 50 mL twice a day | 1-3 days |
| Tablet Santhasanthrothayam | 2 tablet twice a day | 1-3 days |
| Agasthiyar kuzhambu | 200 mg with lemon juice in empty stomach at morning once | 3rd to 6th day |
| Silasathu parpam | 200 mg, twice a day | From 7-90th day |
| Kamalai kudineer | 50 mL, four times a day | From 7-90th day |
| Vedi Annabethi chenduram | 200 mg, twice a day | From 7-90th day |
| Karkam (medicinal paste Prepared of fresh raw materwimade with Keezhanelli Samoolam, onion, cumin seeds | 10 gm with butter milk | From 7-90th day |

**[Table/Fig-3]:** Siddha intervention profile prescribed to patient of viral hepatitis [2-5].

The treatment outcome showed gradual improvement in the patient's symptoms over the next few weeks, with his liver enzymes and bilirubin levels gradually normalising, as depicted in [Table/Fig-2]. A reduction in liver enzyme levels was observed from the 25th day of treatment onwards (SGOT- 102 IU/L and SGPT- 88 IU/L, Alkaline phosphatase- 190 IU/L), and total bilirubin levels decreased to 6.3 mg/dL. A significant drop was noted in the liver enzyme levels (SGOT- 28 IU/L and SGPT- 21 IU/L, Alkaline phosphatase- 115 IU/L) and total bilirubin levels decreased to 0.7 mg/dL after three months of treatment. The other haematological parameters remained unchanged throughout the treatment period, with no adverse effects observed from the prescribed drugs. The patient completed a three-month course of Siddha treatment with no significant adverse effects [Table/Fig-4].



**[Table/Fig-4]:** Unlike in [Table/Fig-1], the sclera of the patient appears white and without any yellowish discoloration. This lack of sclera icterus suggests that the underlying clinical finding disappeared on 90th day of treatment.

The patient was advised to continue regular follow-up with the physician to monitor his liver function and for the possibility of developing chronic hepatitis B infection.

## DISCUSSION

Jaundice is a pathological state in which the epidermis and sclera of the eyes develop a yellow hue due to an excess of bilirubin in the bloodstream [6]. This occurs when there is a disturbance in the metabolic, processing, or excretion pathways of bilirubin. The complications of jaundice may involve acute or chronic hepatic failure, pancreatitis, gallstones, and infections [7]. It is prudent to seek prompt medical attention upon the manifestation of jaundice, as it may be a harbinger of a life-threatening pathology [8]. *Kamalai* is the terminology used in Siddha literature [9]. It provides a comprehensive account of the aetiology, clinical features, classification, treatment, and dietary recommendations (*Pathiyam*) for viral hepatitis [10]. Only a handful of studies have investigated the effectiveness of Siddha medicine in hepatobiliary disorders [11]. The differential diagnosis of viral hepatitis B encompasses hepatitis A and C, autoimmune hepatitis, drug-induced hepatitis, alcoholic hepatitis, and Non-Alcoholic Fatty Liver Disease (NAFLD). A thorough medical history, physical examination, and laboratory investigations can facilitate prompt diagnosis of viral hepatitis B [12].

Improvement in symptoms, disappearance of jaundice, drop in hepatic enzyme levels to the normal range, and reduction in bilirubin levels at different intervals of the treatment indicate the resolving state of hepatic dysfunction. In this study, a significant drop in bilirubin and enzyme levels observed after the 25th day and 3rd month of the commencement of treatment. The present case study provides evidence of the efficacy of Siddha medicine in treating viral hepatitis B, which may encourage further research into traditional medical practices. The findings are consistent with those of Chouhan P and Garg A supporting the adoption of an integrated approach that combines traditional and modern medicine to achieve better patient outcomes [13].

Studies have demonstrated that Nilavembu Kudineer [13], Tablet Santhasanthrothayam [14], Kamalaikudineer [15], Vedi Annabethichenduram [16], Silasathuparpam [17], Karkam, formulated with Kilanezhi Samoolam (Whole plant), onion, and cumin seeds [18], possess hepatoprotective and antipyretic properties [19,20]. These drugs are polyherbal formulations obtained from Nilavembu (*Andrographis paniculata*), Vilamichai ver (*Plectranthus vettiveroides*), Vetiver (*Vetiveria zizanioides*), Santanam (*Santalum album*), Korai kizhangu (*Cyperus rotundus*), Parpatakam (*Mollugo cerviana*), Chukku (*Zingiber officinale*), Pei Pudal (*Trichosanthes dioica*), and Milagu (*Piper nigrum*), Manjal (*Curcuma longa*), Keezhkaai Nelliver (*Phyllanthus amarus*), Sirunerinjil Vaer (*Tribulus terrestris*), Seeragam (*Cuminum cyminum*), Pei Pudal (*Trichosanthes dioica*), Vilvamver (*Aegle marmelos*), Sirukeerai Ver (*Amaranthus tricolor*), Karisalankanni (*Eclipta prostrate*), Valmilagu (*Piper nigrum*), Sombu (*Foeniculum vulgare*).

These hepatoprotective and antipyretic effects may be attributed to the presence of active compounds, such as flavonoids, alkaloids, and terpenoids, which possess antioxidant and anti-inflammatory properties. *Agasthiyar kuzhambu* has purgative action, which helps to restore the balance of altered *Tridosha*. However, since the case report was limited to a single patient, the results may not be generalisable.

## CONCLUSION(S)

This case study highlights the successful management of acute hepatitis B infection using Siddha medicine. The patient's clinical presentation, including jaundice and elevated liver enzymes, significantly improved over the course of Siddha treatment. The prescribed Siddha interventions demonstrated effectiveness without any observed adverse effects. The results suggest that Siddha medicine may play a valuable role in the comprehensive management of viral hepatitis, supporting the need for further research.

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**PLAGIARISM CHECKING METHODS:** [Jain H et al.]
- Plagiarism X-checker: Nov 15, 2023
- Manual Googling: Mar 04, 2024
- iThenticate Software: Mar 06, 2024 (5%)

**ETYMOLOGY:** Author Origin

**EMENDATIONS:** 6

**AUTHOR DECLARATION:**
- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

Date of Submission: **Nov 06, 2023**
Date of Peer Review: **Jan 20, 2024**
Date of Acceptance: **Mar 09, 2024**
Date of Publishing: **May 01, 2024**