Journal of Ayurveda & Holistic Medicine

www.jahm.co.in

eISSN-2321-1563

CASE REPORT OPEN ACCESS

AYURVEDIC APPROACH IN THE MANAGEMENT OF HEPATITIS: A CASE REPORT

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Submitted on- 20-03-24	Revised on- 28-03-24	Accepted on-30-03-24

ABSTRACT

Hepatitis is the commonest of viral infection preceding to damage the hepatocytes and progress to cirrhosis and liver cancer. Hepatitis prodrome symptoms includes anorexia, nausea, vomiting, malaise, jaundice. Here, a case report of 17- year- old male patient presented with symptoms pain in abdomen, yellowish micturition, poor appetite, generalized weakness. He was diagnosed with Hepatitis B by laboratory findings and clinical presentation. Ayurvedic medications (*Phaltrikadi kwath, Arogyavardhini vati, Syp AmlycureDS, Chitrakadi vati, Pippali churna* etc) was given in the management of Hepatitis B (~*Yakrit sthotha* and *Kamala)* for the period of 88 days and still on follow up. An effective outcome in the management of Hepatitis was observed in reduction of symptoms and diagnostically by HBsAg negative, Sr.Bilirubin Total (decreased from7.46mg/dl to 0.88mg/dl, SGPT (decreased from 1082 U/L to 23.9 U/L), SGOT (decreased from 1240 U/L to 21.7 U/L).

Keywords-Hepatitis; Jaundice; Case report; *Pippali churna*

INTRODUCTION

Hepatitis B virus (HBV) is a 42-nm hepadnavirus with a partially double stranded DNA genome, inner core protein (hepatitis b core antigen HBeAg) and outer surface coat (hepatis B surface antigen HBsAg). [1] India falls in the intermediate hepatitis B virus (HBV) endemicity group, with a prevalence rate of 2% to 4% in the general population. It is transmitted by exposure to infectious blood or other body fluids (e.g., semen, vaginal secretions -sexual intercourse) as well as perinatally from infected mother to infant. [2] The incubation period of an acute hepatitis B virus infection is approximately 12 weeks with majority of patients experiencing mild illness and less than 1% experiencing fulminant hepatic failure. [3] Serological marker for hepatitis B is hepatitis B surface antigen (HBsAg). The virology diagnosis and monitoring of HBV infection are based on immunoassays detecting viral antigens and specific anti-HBV antibodies, as well as nucleic acid detection assays targeting the genomic material of virus. [4] Treatment modalities in Hepatitis B include interferons (peginterferon alfa-2a, interferon alfa-2b), nucleoside analogue (entecavir, lamivudine, telbivudine) and nucleotide analogue (adefovir, tenofovir) [5] It results in nephrotoxicity, peripheral neuropathy, myopathy. [6] In ayurveda *yakrit shotha* and *Kamala* can be considered as hepatitis B. It is a *raktavahsrotak vyadhi* with mool (~roots) *yakrit* and *pleha*. The pathological condition is characterized by yellowish discoloration of nails, eyes and tongue. Dark reddish yellow discoloration of urine associated with skin color *bhekvarna* (~similar to the color of toad), poor appetite, fatigue, generalized itching, burning sensation. [7]

CASE REPORT

A 17-year-old male patient, a student, visited the outpatient department of *Kayachikitsa* with OPD no. 23334246 complaints of pain in abdomen, yellowish micturition with burning sensation and generalized weakness in the last two weeks. Patient has no history diabetes, thyroid and hypertension. No history of ethanol hepatitis B vaccination and blood transfusion was found.

Clinical Findings

Table- I. *Asthavidha pariksha* (~eight folds examination)

Nadi (~pulse)- *Vatapittaj*	*Mala* (~excreta)- *Peeta varna* (~yellowish discoloration)
Mutra (~urine) *Peeta varna* (~yellowish discoloration)	*Jivha* (~tongue)- *Saam* (~coated)
Shabda (~voice)- *Spastha* (clear)	*Sparsha* (~touch)- *Anushna* (~not too hot)
Drik (~eye)- *Peeta varna* (~yellowish discoloration)	*Akriti* (~built)- *Samanaya* (~normal)

Dashavidha pariksha (~ten folds examination) *Prakriti* (~physical constittution) of patient was *pitta-kaphaj*, *Vikruti* (~morbidity) was in *raktavahasrotas* (~ channels carrying bone marrow). The patient had *avara samhana* (~compactness or tissue or organs). Height was 5 feet 2 inch and weight 50kg. *Satmya* (~homologation), *Satwa* (~psychic condition) were *madhyam* (~moderate. *Ahar shakti* (~power of intake and digestion of food) and *Vyayam shakti* (~power of performing exercise) were *avara* (~mild).

Table- II. General physical examination

General Condition	**Stable**
Pulse rate	84/min
Respiratory rate	21/min
Blood pressure	130/80mmhg
Pallor	Absent
Icterus	Present
Cyanosis	Absent
Lymph nodes	Absent
Clubbing	Not palpable
Edema	Absent

Table- III. Assessment criteria

S.no.	Symptoms	Normal	Mild	Moderate	Severe
1.	*Haridrata* of *Netra* (yellowish discolouration of sclera)	0	1	2	3
2.	*Haridrata* of *Tvaka* (yellowish discoloration of skin)	0	1	2	3
3.	*Dourbalya*	0	1	2	3
4.	*Peetata* of *mutra* (yellowish discolouration of urine)	0	1	2	3
5.	*Aruchi* (Anorexia)	0	1	2	3

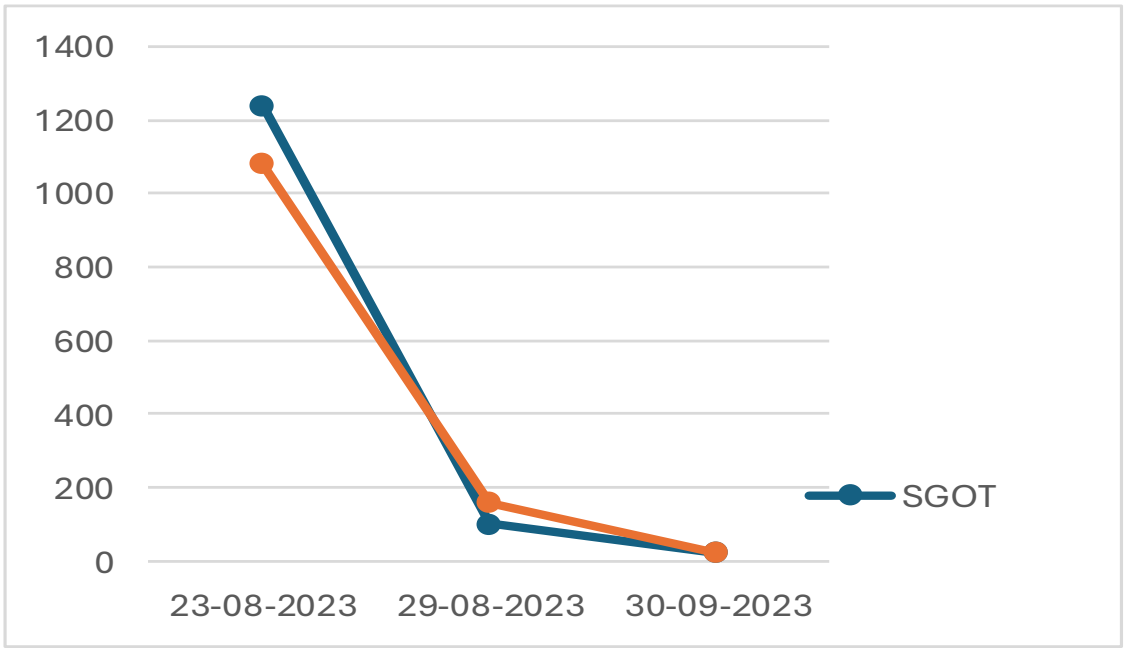
6.	*Hrillasa* (Nausea)	0	1	2	3

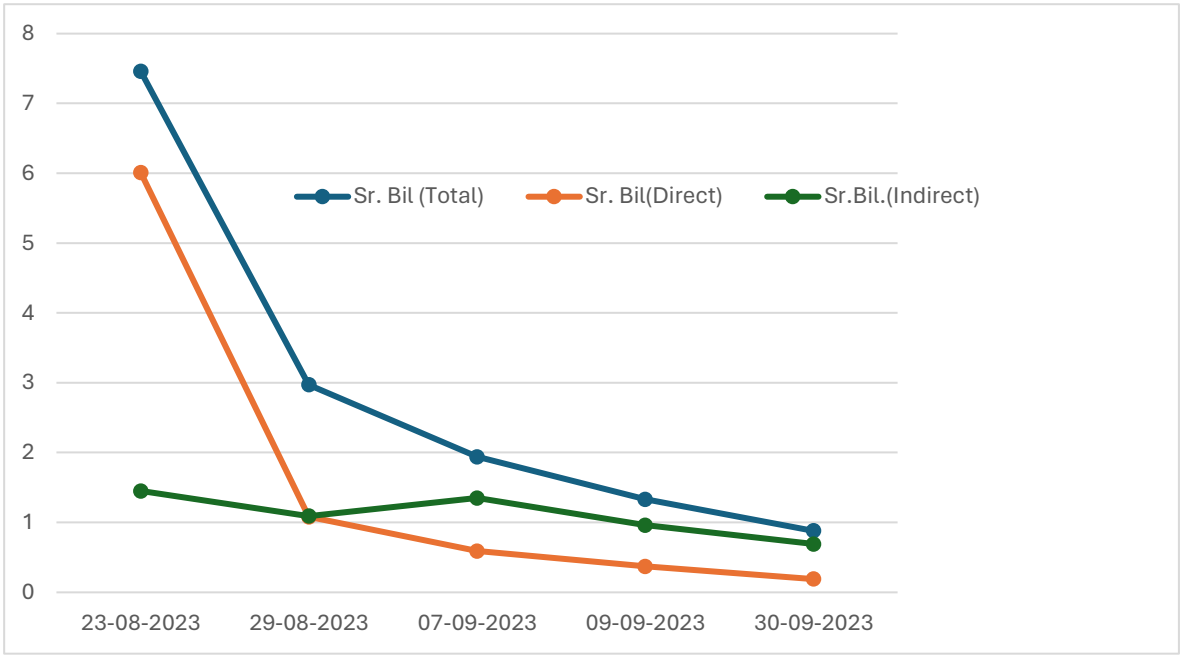
Table- IV. Subjective assessment

S.NO.	SYMPTOMS	BEFORE TREATMENT	AFTER TREATMENT
1.	*Haridrata* of *Netra* (yellowish discolouration of sclera)	3	0
2.	*Haridrata* of *Tvaka* (yellowish discoloration of skin)	3	0
3.	*Dourbalya*	3	1
4.	*Peetata* of *mutra* (yellowish discoloration of urine)	3	0
5.	*Aruchi* (Anorexia)	3	0
6.	*Hrillasa* (Nausea)	1	0

Table- V. Diagnostic assessment

Hematological Investigation	**23/8/23**	**25/8/23**	**29/8/23**	**7/9/23**	**9/9/23**	**30/9/23**	**11/10/23**
Sr. bilirubin (Total)(mg/dl)	7.46	-	2.97	1.94	1.33	0.88	
Sr. Bilirubin (Direct) (mg/dl)	6.01	-	1.08	0.59	0.37	0.19	
Sr. Bilirubin (Indirect) (mg/dl)	1.45	-	1.89	1.35	0.96	0.69	
SGOT (U/L)	1240	-	100.9			21.7	
SGPT (U/L)	1082	-	159.7			23.9	
HBsAg		Reactive					Negative
HBVC		Not Present					
HBVA		Non-reactive					





Timeline

After assessing the patient symptoms later confirmed by laboratory findings the line of treatment of *kamla* was given with oral medication (*Arogyavardhini vati, Syp Liv 52, Avipattikar churna, Phaltrikadi kwath, Chitrakadi vati*) and diet restrictions oily, junk food, spicy, meat, cheese, and easily digestible home cooked food was advised. He got relief in symptoms in the follow-up of 10 days. Later *Pippali churna* was added in the medication as it possesses *rasayan*, hepatoprotective activity. As the patient is in OPD level *Vardhman pippali rasayan* is not convenience for it, so *pippali*

churna with *anupan* of milk is given to patient in tapering dose. *Acharya Charaka* has included this drug under *rasayan* and it can be used as powder, decoction, paste, in *kalpa* therapy in ascending and descending doses.

Table- VI. Therapeutic interventions

Date	**Oral medication**	**Dose**	**Frequency**	***Anupan***
24/8/2023-28/8/2023 (5 days)	1. *Arogyavardhini vati*	2 Tab	Twice a day	Luke warm water
	2. Syp Liv 52	10ml	Twice a day	
	3. *Avipattikar Churna*	5gm	Twice a day	
	4. *Phaltrikadi Kwath*	30ml	Twice a day	
	5. *Chitrakadi vati*	1 tab	Thrice a day	
29/8/2023-3/9/2023 (6 days)	1. Syp Liv 52	10ml	Twice a day	Luke warm water
	2. *Arogyavardhini vati*	2tab	Twice a day	
	3. *Phaltrikadi kwath*	30ml	Twice a day	
	4. Syp Himcocid	10 ml	Twice a day	
	5. *Pippali churna*	1gm	Twice a day	Milk
4/9/2023-24/9/2023 (21 days)	1. *Arogyavardhini vati*	2 Tab	Twice a day	Luke warm water
	2. Syp Amylcure DS	10 ml	Twice a day	
	3. *Phaltrikadi kwath*	30ml	Twice a day	
	4. *Avipattikar churna*	5gm	Twice a day	
	5. *Pippali churna*	2gm	Twice a day	Milk
25/9/2023-4/11/2023 (40 days)	1. *Arogyavardhini vati*	1tab	Twice a day	Luke warm water
	2. *Syp Amylcure DS*	10ml	Twice a day	
	3. *Phaltrikadi kwath*	15ml	Twice a day	
	4. *Pippali churna*	1gm	Twice a day	Milk
5/11/2023-20/11/2023 (16 days)	1. *Arogyavardhini vati*	1tab	Twice a day	Luke warm water
	2. Syp Amylcure DS	10ml	Twice a day	
	3. *Phaltrikadi kwath*	15ml	Twice a day	
	4. *Pippali churna*	1gm	Twice a day	Milk
20/11/2023- till now	Continue same treatment			

Follow-up and outcomes

Patient is in follow-up with improved in symptoms and no adverse effect of prescribed drugs. Positive outcome was observed by the use of ayurvedic medication in the treatment of Hepatitis B.

DISCUSSION

Liver is the main organ that participate in the digestion of fat, carbohydrate, lipid, protein, vitamin and minerals. Rejuvenation of hepatocytes can be done by the *rasayan* properties drugs. According to ayurveda, hepatitis or jaundice is acknowledged as *Yakritsotha* and *kamla* caused by the impairment of *pitta dosha* and *rakta dhatu*. *Piitahar*, (drugs which alleviate *pitta dosha*), *pitta rechan* (laxatives), *raktashodhak* (blood purifier), *srotoshodhak* (improves blockage of channels), *shothhar* (anti-inflammatory), and *rasayan* (rejuvination) drugs in combination were used in the management of disease.

Arogyavardhini vati contains *Tamra Bhasma* (incinerated copper), *Guggulu*, *Kutki Triphala* are having *lekhana* (scrapping), *dipana* (improving digestion and metabolism) and *medadoshahara* (correcting lipid metabolism). It has effects on the enhancement of antioxidant enzymes, superoxide dismutase, glutathione, and catalase amylase activity in the body. [8]

Syp LIV 52 possess hepatoprotective effect which can be attributed to diuretic, anti-inflammatory, anti-oxidative and immunomodulating properties. [9] *Syp Amlycure DS* has rasayan effect on liver.

Phaltriakdi kwath contains fruits of amalaka (Emblica officinalis), Haritaki (terminalia chebula), Vibhitaki (Terminalia belerica), stem of Daruharidra (Berberis aristata), root of indrayan (Citrullus colocynthis) and mustak (cyprus rotundus) all in equal quantity. [10]

Syp Himcocid and *avipattikar churna* has agni deepan pacham (digestion and metabolism enhancing) and mriduvirechan (mild laxative) properties [11] *Chitrakadi vati* improves the digestion.

Pippali (Piper longumLinn.) fruit contains a number of constituents, including volatile oil, alkaloids, isobutylamides, lignans and esters. Piperine, which is the prime constituent of fruit, is reported to be having significant anti-inflammatory activity. [12] *Pippali* has *Dipana*, *Pachana*, and *Rasayan* actions [13] All these ayurvedic herbal and herbomineral preparation collectively work in breaking the pathogenesis of *yakrita shotha* and *kamla*.

CONCLUSION

As modernization and various awareness programs, hepatitis B is the major cause of progressing liver cirrhosis and cancer. It is an indispensable role of ayurvedic regimens in viral disease as hepatitis. This is a single case study and improvement was noticed in form of reduction of symptoms and remission of hepatitis b in laboratory findings. Ayurvedic medications (*Phaltrikadi kwath, arogyavardhini vati, Syp Amylcure DS, Pippali churna*) etc pacifying the pitta and *rakta dosha* which are vitiated that produces *yakrita sthotha*. By the

intervention of oral ayurvedic medication for period of 88 days show improvement in symptoms and diagnostically by HBsAg negative, Sr.Bilirubin Total (decreased from7.46mg/dl to 0.88mg/dl, SGPT (decreased from 1082 U/L to 23.9 U/L), SGOT (decreased from 1240 U/L to 21.7 U/L). Ayurvedic medications can prove a boon in the treatment of liver disorder and be adapted as primarily treatment in Hepatitis. For further study large sample size will be required to prove this impact.

Declaration of patient consent

The authors confirm that they have acquired a patient consent form, in which the patient or caregiver has granted permission for the publication of the case, including accompanying images and other clinical details, in the journal. The patient or caregiver acknowledges that their name and initials will not be disclosed, and sincere attempts will be undertaken to safeguard their identity. However, complete anonymity cannot be assured.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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CITE THIS ARTICLE AS

Sushant Kumar Sahoo, Shreya Joshi. Ayurvedic approach in the management of hepatitis: A case report. *J of Ayurveda and Hol Med (JAHM)*. 2024;12(3):118-126

Conflict of interest: None

Source of support: None