



AYURVEDIC MANAGEMENT OF HEPATITIS B (HBsAg Positive) – A CASE STUDY

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ABSTRACT:

In the present era, Hepatitis B is the common global health problem, caused by Hepatotropic virus B of Hepadnaviridae family. It is characterized by the parenchymal liver cell damage, and due to unawareness of the safety measures more prone to spread. This case report illustrated the effectiveness of the Ayurvedic treatment modality in a patient with a viral load 5400 IU/ml. the patient was treated with basic fundamental principles of Ayurveda, after 2 months of treatment HBV DNA were not detected in reports. Improvement was observed based on hepatitis B virus deoxyribonucleic acid (DNA) polymerase chain reaction (PCR) (hepatitis B DNA PCR). The patient was stable and asymptomatic during the follow-up period of 4 months.

Keywords: Hepatitis B, Ayurveda, Virus, *Jwara*, *Pitta* ,HBV DNA.

INTRODUCTION :

Hepatitis is an inflammation of the liver Parenchyma caused by a viral infection and other condition like toxicity, Alcohol intake, Drugs (overdose of PSM), several metabolic disorders, etc. are also responsible. There are 5 main hepatitis viruses, referred to as types of A, B, C, D and E. Hepatitis B is considered acute when it lasts less than 6 months, and chronic when it persists longer. Chronic viral hepatitis refers to hepatic inflammation or necrosis of varying severity due to infection with hepato- tropic viruses such as hepatitis B virus (HBV), hepatitis C virus (HCV), or hepatitis D virus (HDV) (in association with HBV), persisting for at least 6 months; in contrast, infection with hepatitis A virus or hepatitis E virus is usually self- limiting and chronic hepatitis does not occur. The spectrum of disease following these infection ranges from self- limiting infection, mild to severe hepatitis, cirrhosis, and hepatocellular carcinoma (HCC).¹

When the patient, first infected the warning signs includes; Flu like symptoms initially along with malaise, muscle and joint ache, Fever, Fatigue, Loss of appetite, Nausea and vomiting, Abdominal pain, Diarrhea. More specific symptoms include dark colored urine and yellow discoloration of the skin, mucosa, sclera and other tissue fluids. Hepatitis B is caused by Hepatitis B Virus. It is transmitted from person to person through blood, semen and other body fluids. Common routes of transmission include sexual contact, sharing of needles, accidental needle sticks and placental transmission (3rd trimester of pregnancy)².

In Ayurveda, reference of *Aupasargika Roga* is found in *Sushruta Samhita*³;
‘प्रसङ्गाद्वात्रसंस्पर्शात्त्रिश्वासात् सहभोजनात्, सहशय्यासनाच्चापि वस्त्रमाल्यानुलेपनात्,
कुष्ठं ज्वरश्च शोषश्च नेत्राभिष्यन्द एव च, औपसर्गिकरोगाश्च सङ्क्रामन्ति नरात्ररम् ’

Distinctive feature of such diseases is “*Sankramanti Naraannaram...* (spreads from one human to another human)”. Modes of spread mentioned are caused by physical contact (Intercourse / frequent coming in contact / involve in any gathering), direct physical touch, exhalation of respiration, eating together, sleeping nearby, sitting nearby, and using cloth, ornaments and emoluments. Some of the examples quoted like *Kushtha*, *Jwara*, *Shosha*, *Netraabhishtyanda* and *Aupasargika Roga*. ‘

In *Jwara chikitsa Adhyaya*, Acharya Charak specially mentioned the concept of *Leenadosha*⁴,
अधिशेते यथा भूमिं बीजं काले च रोहति । अधिशेते तथा धातुं दोषः काले च कुप्यति ॥
स वृद्धिं बलकालं च प्राप्य दोषस्तृतीयकम् । चतुर्थकं च कुरुते प्रत्यनीकबलक्षयात् ॥

That is, just as a seed lying in the earth germinates only after getting a favorable time (season), in the same way, the *Doshas* lying in *Dhatus* are also aggravated on favorable time. whenever the favorable circumstances of *Leena Dosha* occurs they cause recurrent episodic fever, so the attempt has been made to understand this disease condition as per the concept of ‘*Jwara chikitsa*’.

CASE REPORT :

A 39 year young male patient K/C/O of HBsAg Positive (Hepatitis B +ve) came for the treatment to OPD No.4 (P.G. Kayachikitsa department) at Govt. Akhandanand Ayurveda Hospital, Ahmedabad on 4th December 2023, with having following complaints;

- *Jwara* (fever – on & off which is relieved on medication) - since 1.5 year
- *Dakshina-udara-pradeshe-shoola* (Pain in right hypochondriac region which is dull aching & not radiating to any other site) since 1.5 year
- *Aruchi* (Loss of appetite) since 1.5 year
- *Klama* (Fatigue) since 1 year
- *Sarvangsharire Kandū* (Generalized Itching) since 1 year

1.5 year back, patient was suffered from above mentioned symptoms and taken allopathic medication, but did not get relief. Meanwhile, on 15th FEB 2023 , he was advised for HBV DNA polymerase chain reaction (PCR). Through the test report he was found to be hepatitis B positive and treated for the same with some antiretroviral drugs & immunomodulators for more than 9 months, but there was no any significant improvements in complaints. Hence along with report of HBsAg positive he came to our hospital for better treatment, On further

history, it was revealed that he did not have any blood transfusions in his life. Neither his children nor his spouse has this infection. No family history of this disease was there. He did not have any surgical history. He had not been vaccinated for hepatitis B.

FAMILY HISTORY – No any specific

PAST HISTORY - No any specific

PERSONAL HISTORY

Diet : Vegetarian(spicy food), Junk food (sometimes)

Sleep : 3 to 4 hr /night (disturbed sleep)

Bowel Movement : 2-3 time /day

Appetite : decreased

Micturition: 4 to 5 times / day (slight yellowish urination)

CLINICAL FINDINGS :

On physical examination, paleness of face and nail beds were noted. The patient was lethargic and restless. He was conscious and well-oriented to time, date, and place. On abdominal examination, there was no organomegaly, but the right hypochondriac region was tender. There were no signs of ascites. There was no puffiness of the face or edema on the body. No lymphadenopathy , No clubbing. All vitals were normal.

VITALS: (on 4th December 2023)

Pulse : 92 / min

Respiratory rate : 20/min

Blood pressure : 118 /76 mm hg

Temp. : 99.3 F

INVESTIGATION REPORT :

HBV DNA PCR test, on February 17, 2023 ; showed viral load : 5400 IU/ml.

LFT, RFT – within normal limit

THERAPUTIC INTERVANTION

After assessing the patient and taking consent, the whole treatment was started as follow;

MEDICINE	DOSE	ANUPANA
1. <i>Avipattikar churna</i> – 6gm <i>Navayasloha</i> – 250mg <i>Kamdugdha</i> – 250 mg	2 times / day (before meal)	<i>Ghrita</i>
2. <i>Punarnava mandoor vati</i>	2 tab BD (after meal)	Warm water
3. <i>Sudarshan ghanavati</i>	2 tab BD (after meal)	Warm water
4. <i>Arogyavardhini vati</i>	2 tab TDS (empty stomach)	Warm water
5. Tab. Nirocil	1 tab TDS (empty stomach)	Warm water
6. <i>Abhayadikwatha</i> + <i>Manjisthadi kwath</i>	40 ml (empty stomach)	

The above mentioned treatment was continued for 2 months. During whole period of treatment patient was put on strict vegetarian diet with less spicy and oily food, with adequate amount of sleep 8-10 hours per day, and less physical exercise for better recovery.

OBSERVATION & RESULTS

Patient came to our Hospital regularly and medications were continued for 2 months. With the help of our Ayurvedic treatment the patient had started improving in symptoms within 7 days. He got rid of all complaints within 1 months and started feeling healthy, and energetic. He was clinically stable also. Routine investigations were repeated, like LFT, RFT and CBC these are within normal range. After a period of 1 month, HBV DNA PCR test were repeated, and HBV DNA was not detected (09/01/24). And after 2 months of treatment HBsAg were also negative. During follow up period, the patient was advised to continue with *Pathya*. With these treatment c/o indigestion and incomplete bowel evacuation was relieved and appetite of patient were also improved. Clinical observation revealed no toxic effects.

ASSESSMENT OF DISEASE IMPROVEMENT

SYMPTOMS	BEFORE TREATMENT	AFTER TREATMENT			
		1 st week	2 nd Week	1 st month	2 nd month
<i>Jwara</i> (fever - on & off)	++ +	+	+	—	—
<i>Dakshina-udar-pradeshe - shoola</i> (right upper abdominal pain)	++	++	++	—	—
<i>Aruchi</i> (loss of appetite)	++ +	++	+	—	—
<i>Klama</i> (fatigue)	++ +	++	+	+	—
<i>Sarvang Kandu</i> (generalized itching)	++	+	—		


INVESTIGATION REPORT

BEFORE TRETMENT – on 15 February, 2023

TEST REPORT			
Name	: Mr. Vijaybhai K Panchal	Reg.No	: 302101519
Age/Sex	: 37 Years/ Male	Pass.No.	
Ref. By		Reg Date	: 15-Feb-2023 12:23 PM
Client Name	: NEW CARE PATHOLOGY LABORATORY @ Vastral	Coll.Date	: 15-Feb-2023 12:23 PM
		Report Date	: 17-Feb-2023 09:11 AM
HBV QUANTITATIVE PCR			
Parameter	Result	Unit	Biological Ref. Interval
* HBV DNA TARGET	DETECTED		
* HBV Quantitative Real Time-PCR	5400	IU/mL	
Clinical Utility: The viral load provides the direct and reliable estimate of the level of HBV replication. Quantification of HBV DNA level is important as it serves to be a prognostic marker of HBV infection. It is used to establish baseline levels in patients before initiation of the therapy and for monitoring therapeutic response and disease progression.			
Interpretation: HBV Viral load is expressed as IU/mL. The linear range for the quantification of HBV is 3 IU/mL to 10,000,000 IU/mL. Calculated viral copies less than 3 IU/mL or more than 10,000,000 IU/mL will be reported as <3 or >10,000,000 IU/mL. A result of "<3 IU/mL" indicates the presence of HBV RNA in the sample provided below the detection limit of the assay. It may reflect a viral load below the detection limit of the assay. 1 IU/L = 1 COPIES/mL. High levels of HBV-DNA copies, ranging from 100,000 to a billion viral copies/ml, indicate rapid viral replication in liver. Low or undetectable levels, indicate an "inactive" infection.			

AFTER TREATMENT - On 9th January 2024

Regd. Of-cc : 5th Floor, Doctor House, No. Parimal Garden, Ahmedabad-380006 Gujar
IN 187579SGG30FFCE705F

LABORATORY REPORT			
Reg. No	: 40102201897	Reg. Date	: 09-Jan-2024 14:08
Name	: Mr. VIJAYBHAI PANCHAL	Collected on	: 09-Jan-2024 14:08
Sex/Age	: Male / 39 Years	Report Date	: 09-Jan-2024
Ref. By		Tele. No	
Location	: DR. VAIBHAV V. PATEL @ L.G.CORNER	Dispatch At	:

HEPATITIS B VIRUS (HBV) QUANTITATIVE DETECTION REPORT

Indication for testing: (1) Detection and quantification of Hepatitis B (HBV) specific DNA. (2) Monitoring disease progression in chronic HBV infection. (3) Monitoring response to anti-HBV therapy

Methodology: TaqMan probe assay based Real Time Polymerase Chain Reaction (RT-PCR)

RESULT

Specimen	HBV Viral DNA	HBV Viral Load (IU/mL)
Blood EDTA	Target Not Detected	Nil

INTERPRETATION

➤ HBV DNA viral load is expressed in IU/mL. The range of this assay is 50 IU/mL to 10 million IU/mL. HBV DNA. Calculated copy numbers less than 50 IU/mL or above 10,000,000 IU/mL will be reported as either <50 IU/mL or > 10 million IU/mL.

➤ The term "**Target not detected**" indicates that the detectable amount of HBV viral DNA was not found in the specimen (Negative)

➤ The term "**Detected**" indicates that the detectable amount of HBV viral DNA was found in the specimen (Positive)

DISCUSSION

In Ayurveda, treatment is of two types: Bio-purificatory methods (*Samshodhana*) and Internal Medicine (*Samshamana*) indicated for the complete eradication of *Doshas* and eliminate the disease. Hence Ayurveda plays an important role in the management liver disorders. The patient was observed with main complain of fever associated with anorexia, fatigue, abdominal pain, etc. since more than 1 year. So line of treatment was selected on the basis of the '*Jwara chikitsa*' and '*Samapitta chikitsa*' *Siddhant*. Drugs like *Katuki*, *Kirattikta*, *Vasa*, *Kalmegha*, *Punarnava*, *Bhuyamlaki* etc are substantiated by various clinical and experimental trails and have shown the actions like; *Jwaragna* (Anti- pyretic), *Pitta hara/ Pitta rechana*, Hepatoprotective properties, *Deepan – Pachan*, *Rasayana* (Geriatric) and, *Sroto shodhana* (Channel purifier) properties. With

these perspectives, patient was treated with *Arogyavardhini vati*, *Sudarshana ghanvati*, *Punarnava mandoor vati*, *Avipattikar churna*, *Manjisthadikwath* + *Abhayadikwatha*.

Aryogyavardhini Vati (contains mainly *Katuki* 50%) is anti-inflammatory and anti-viral property. *Katu - Tikta Rasa* of *Aryogyavardhini Vati*, which is also *Pittarechana* in property & has potential *Srotoshodhan*, *Srotoprasadhan* action. *Aryogyavardhini Vati* is considered as a liver tonic, this drug is extensively used in Hepatic disorders. *Sudarshana Ghanavati* is an classical ayurvedic herbal formulation which was used for its potential action of *Pachan*, *Srotoshodhan*, *Anuloman*, *Jwaragna* and *Pitta rechana*. Similarly *Punarnava mandoor vati* has potential *Srotoshodhan*, *Srotoprasadhan*, *Shothagna* and *mutravirechan* action. *Avipattikar churna* + *Dhatriloha* + *Kamdugdha rasa* combination was given to counter the *Pitta-vruddhi* and mild *Anuloman* effect. *Bhuyamlaki* is a main contain in Tab.Nirocil which is considered as liver tonic. Many study has been done on the hepatoprotective action of *Bhuyamalaki*. Similarly *Abhayadi* & *Manjisthadikwath* was used. With above management patient got rid of all clinical features within a month he started feeling very well, healthy, enthusiastic and energetic. So to eradicate the *Dhatugata Leenadosha*, these treatment was given as per the condition of patient.

CONCLUSION

Despite the advancement of modern medical facilities and various awareness programs, hepatitis B is fatal till date. This is the need of the era to develop Ayurvedic protocols for various viral diseases. This study provides a lead where a patient who took Ayurvedic medications and turned HBsAg negative along with relief in clinical signs & symptoms.

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