

Management of Hepatitis B (Carrier stage) through Ayurved – A Case report

Case Report

Ashish Chhaganlal Zanwar^{1*}, Sadhana Misar Wajpeyi²

1. PG Scholar, Department of Kayachikitsa, 2. Head of Department, Department Of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital, Research Centre, Salod (H), Wardha, Maharashtra.

Abstract

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). It is a major global health problem. On the basis of clinical features, Hepatitis B can be correlated with *Kamala*. *Kamala* is caused due to aggravation of *Pittadosha*. *Ayurvedic* management of *Kamala* includes *samshodhan* and *samshaman* therapy which leads to break the *samprapti* of the disease and hence provides complete cure. In this case study 53 years old male patient having complaints of yellowish colored urine and reduced appetite along with generalized weakness, nausea and mild pain in right hypochondriac region was treated with herbomineral preparations (*Phalatrikadi Kwath*, *Arogyavardhini Vati*, *Liv52 HB*, *Rohitakarishtha* etc.) described in classical texts of Ayurveda for 6 months. Assessment was done on the Subjective & Objective (Pathological) Parameters Before, after and during treatment. Significant improvement was observed in subjective and objective parameters after completion of treatment. From this study it can be concluded that Hepatitis B can be successfully managed with principles of Ayurveda.

Keywords: *Arogyavardhini Vati*, *Hepatitis B*, *Kamala*, *Phalatrikadi Kwath*, *Rohitakarishtha*.

Introduction

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). It is a major global health problem. It can cause chronic infection and puts people at high risk of death from cirrhosis and liver cancer. (1) Most cases of chronic hepatitis B among adults, however, occur in patients who never had a recognized episode of clinically apparent acute viral hepatitis. The degree of liver injury (grade) in patients with chronic hepatitis B is variable, ranging from none in inactive carriers to mild to moderate to severe. The spectrum of clinical features of chronic hepatitis B is broad, ranging from asymptomatic infection to debilitating disease or even end-stage, fatal hepatic failure.(2)

There is a serious dearth of data regarding the true prevalence of HBV in India. HBsAg positivity has been reported to range between 2% and 8% in most studies. (3)

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 herbomineral formulations given in Ayurveda.(4)

Case report

A 53 years old male patient came to *Kayachikitsa* OPD (OPD No.1812180021) of Mahatma Gandhi Ayurveda College Hospital & Research Centre, Salod (H), Wardha with chief complaints of yellowish colored urine and reduced appetite. He also had associated complaints like generalized weakness, nausea and mild pain in right hypochondriac region.

History of present illness

Patient was apparently alright before 3 months. Then he developed anorectal disease for which he was advised surgery and during investigations for the same, he was diagnosed as HBsAg Positive. After that he had developed symptoms like yellowish discoloration of urine with loss of appetite so he came to MGAC Hospital for the management. He gave history of nursing care of his father who had suffering from HBsAG since 5 years.

Past history

There was no past history of Diabetes mellitus, Hypertension and Asthma.

Family history

Father had history of HBsAG positive since 5 yrs. He had the history of blood transfusion prior to it.

Clinical examination

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

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

*Corresponding Author:

Ashish Chhaganlal Zanwar

PG Scholar, Department of Kayachikitsa,
Mahatma Gandhi Ayurved College, Hospital,
Research Centre, Salod (H), Wardha, Maharashtra.
Email – draczanwar@gmail.com

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, etc.

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

Table 1: Treatment given

Sr.No.	Drug given	Dose	Duration /Time
1	<i>Arogyavardhini vati</i>	250mg BD	14 days by interval of 7 days for 4 months/ after food
2	<i>Liv. 52 HB</i>	125mg BD	6 months/ after food
3	<i>Punarnava mandoor</i>	250mg BD	6 months/ after food
4	<i>Triphala churna</i>	5gm	6 month / HS
5	<i>Pahala trikadi kwath</i>	20ml BD	6 months/ after food
6	<i>Rohitakarishtha</i>	20ml BD	6 months/ after food

Observation & Results

Table 2: Observations of the study parameters

SN		Parameter assessed	0 day	On 30 th day	On 60 th day	On 90 th day	On 180 th day
1.	KFT	Sr. Urea (mg %)	20.14	18	23	21	20
		Sr. Creatinine (mg %)	1.00	0.98	1.03	0.95	0.75
		Sr. Na (mmol/L)	137	140	143	145	140
		Sr. K (meq/L)	4.2	5.0	5.3	5.2	4.0
2.	LFT	Sr.bilirubin (total) (mg %)	1.23	1.17	0.82	0.78	0.74
		Direct (mg %)	0.44	0.56	0.23	0.21	0.20
		Indirect (mg %)	0.79	0.61	0.59	0.56	0.52
		SGOT (IU/L)	69	85	56	52	20.11
		SGPT (IU/L)	32	37	36	37.2	26.14
		Alkaline phosphate(IU/L)	183	180	180	179	175
3.	USG abdomen	Before Dilated CBD & fatty liver grade 2 Liver- echo texture coarse	After Mild dilated CBD & fatty liver grade 1. Liver- echo texture coarse				
		4.	Fibro scan	Median stiffness 8 kPa, IQR- 0.8 kPa,	Median stiffness 6.0 kPa, IQR- 0.8 kPa,		

Discussion

Hepatitis B is mainly caused due to Hepatitis B virus and can be correlated with *kamala*. *Kamala* is a disease which occurred due to vitiation of the *pitta dosha* dominantly. *Samprapti ghatak* includes *Pitta dosha*, *Rakta*, *Mansa dushya*, *mahastrotas* as a *adhishtan*. In Ayurveda various formulations are described for the management of *kamala*. In this case study formulations like *Phalatrikadi kwath*, *Arogyavardhini vati*, *Rohitakarishtha*, *Liv.52 HB*, *Triphala churna* and *Punarnava mandoor* are used for the management of *kamala*. All these herbomineral formulations contain the drugs having *tikta rasa*, *dipana*, *pachana*, *rechan*, *pittakaphashamaka*, and *yakruttojaka* and *rasayana* properties.

Probable mode of action of medicines

1. Phalatrikadi kwath is herbal formulation mentioned in the *Siddhasara Nighantu* for the management of *Kamala*. It contains eight herbs namely *Haritaki* (*Terminalia chebula* Retz.), *Bibhitaka* (*Terminalia bellirica* Roxb.), *Amalaki* (*Emblica officinalis* Gaertn.) *Amruta* (*Tinospora cordifolia* Thunb.), *Vasa* (*Adhatoda vasica* Nees), *Katuka* (*Picrorhiza kurroo* Royle ex Benth.), *Nimb* (*Azadirachta indica* A. Juss) and *Kairattikta* (*Swertia chirata* Roxb. ex flem). All these

drugs are having *Pitta-Kapha Shamaka*, *Yakriduttejaka*, *Shothahara*, *Rechana* and *Dipana* properties hence it is indicated in *Kamala* and *pandu*.⁰Being *shothahar* it may relieves the *shotha* at the cellular level of liver, *rechak* properties acts as *nitya virechak* mainly indicated in *kamala*. *Yakriduttejak* and *rasayan* properties help to rejuvenate the liver cells.

Various research studies conducted proved its hepatoprotective, immune modulatory, anti-allergic, anti-inflammatory and choleric action.

Hence *Phalatrikadi kwath* have hepato-cellular regeneration capacity, Cholegogue and choleric activity, Membrane stabilizing effect, Antiviral and antioxidant effect, Molecular nutrient effect and property to correct metabolic activities due to enzymatic action.⁰

2. Arogyawardhini Vati is *rasaushadhi* mentioned in *Ayurveda Formulary*⁰ it is mainly indicated in treatment of jaundice, liver disorders, and various skin disorders. It consists of *Haritaki* (*Terminalia chebula* Retz.), *Bibhitaka* (*Terminalia bellirica* Roxb.), *Amalaki* (*Emblica officinalis* Gaertn.), *Silajatu Suddha* (*Asphaltum*), *Guggulu Shuddha* (*Commiphora wightii*), *Eranda* (*Ricinus communis* Linn.), *Katuka* (*Picrorrhiza kurroo* Royle ex Benth.), leaf juice of *Nimba* (*Azadirachta indica* A. Juss) and minerals like *Shuddha Rasa* (*purified*

mercury), *Shuddha Gandhaka* (purified sulfur), *Lauha Bhasma* (iron compound in ash form), *Abhraka Bhasma* (mica in ash form), and *Tamra Bhasma* (copper compounds in ash form). *Vati* has *deepan*, *pachan*, *stotoshodhan*, *yakrita pliha shothhar*, *tridoshashamak* properties.⁰ Being *deepan* and *pachan* it acts on *mandagni* in the *yakrit* which leads to *agnivardhan* and formation of new cells in liver. *Stotoshodhan* relieves the obstructed *strotas* occurred due to *kapha* and *pitta*. *Yakrit pliha shothahar* property relieves the *shotha* in *yakrit*. Research conducted on it proves its choleric, anti-inflammatory and antiviral action. Hence this drug is widely used in the hepatic disorders.⁰

3. Triphala contains *Haritaki*, *Vibhitaki* and *Amalaki*. It has antioxidant properties. It is hepatoprotective in nature and protects liver from free radical damage.

4. Punarnava mandoor According to Ayurvedic literature, most of the drugs in *Punarnava Mandoor* contents *Triphala*, *Trikatu*, *Chitraka* (*Plumbago scandens* L.), *Vidanga* (*Embelia ribes* Burm.f.) and *Pippalimul* (*Piper longum* L.) are *deepan*, *pachan* and *vatanulomak* properties. Hence it improves *jaranshakti* (digestive power) and ultimately absorption of nutrition and drug also.

Trivrita (*Operculina turpethum* (L.) *Silva Manso*), *Haritaki* and *Danti* (*Baliospermum montanum*) acts as a *nitya virechak*. Other drug like *Amalaki*, *Danti*, *Pippali*, *Punarnava*, *Kushtha* (*Aplotaxis lappa* Decne.) and *Daruharidra* (*Berberis aristata* DC.) are immunomodulator and antioxidant properties.

5. Rohitakarishtha is a formulation for *Yakrita* and *Plihavridhi/Vikara* mentioned in *Bhaishhya Ratnavali*. It has *raktashodhak*, *pachak*, *deepan* properties. Its Contents *panchkol*, *dalchini* (*Cinnamomum verum* J.Presl), *tejpaan* (*Cinnamomum tamala* T.Nees), *bruhat ela* (*Cardamom*), and *triphala*. most of drugs are *deepan* and *pachan* properties.⁰ Being *Rakta shodhak* removes impurities in *rakta dhatu* which involved in disease manifestation, *deepan* and *pachan* properties helps in correction of *manda dhatuvagni* at *yakrit* level.

6. Liv52 HB

LIV52 HB contains *Mustaka* (*Cyperus rotundus* Linn.) 125 mg, *Nagaramustaka* (*Cyperus scariosus* R.Br.) 125 mg. *Mustaka* being *kashay*, *tikta*, *katu*, *rasatmak* acts on *jathar Agni* and improves digestion. These drugs are having antiviral, anti microbial and hepatoprotective activity. It renormalizes liver functions which improves the appetite and liver enzymes.

In this case study HBV Viral Load was not performed and where HBV DNA is unavailable, patients with hepatitis B can be assessed by liver ultrasound and routine laboratory tests.¹²

In this case the improvement was assessed on the basis of reduction in symptoms and value of LFT with improvement in USG abdomen & fibro scan of liver after completion of treatment. All these parameters showed

significant improvement hence, it can be stated that these drugs helps in improving the condition of patient suffering from hepatitis B.

Conclusion

Formulations used in this case study helps in improving symptoms, causes reduction in values of liver function test with improvement in USG and fibroscan of patient. Hence it can be concluded that Hepatitis B can be successfully treated with formulations described in *Ayurveda*. They mainly contain drugs which act on liver and helps in improving the functioning of liver.

This single case study hence to prove the efficacy of these drugs further study on large sample size is recommended.

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