Management of Hepatitis B (Carrier stage) through Ayurved – A 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, Arogyaardhini Vati, Liv52 HB, Rohitakarishta 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: Arogyaardhini Vati, Hepatitis B, Kamala, Phalatrikadi Kwath, Rohitakarishta

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 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 akriti.

Dashavidha pariksha was within normal limit except aharshakti (abhyaavarana, 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.

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

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

Observation & Results

Table 1: Treatment given

Table 2: Observations of the study parameters

| Sr.No. | Parameter assessed | 0 day | On 30th day | On 60th day | On 90th day | On 180th 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 | | | | | |
| 4. Fibro scan | Median stiffness 8 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 an adhishthan. In Ayurveda various formulations are described for the management of kamala. In this case study formulations like Phalatrikadi kwath, Arogyawardhini vati, Rohitakarishta, Liv.52 HB, Triphala churna and Punarnava mandoor are used for the management of kamala. All these herbo-mineral formulations contain the drugs having tikta rasa, dipana, pachana, rechan, pittakaphashamaka, and yakrutottajaka 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 kurrooa Royle ex Benth.), Nimb (Azadirachta indica A. Juss) and Kairattikta (Swertia chirata Roxb . ex jkem). All these drugs are having Pitta-Kapha Shamaka, Yakriduttejaka, Shothahara, Rechana and Dipana properties hence it is indicated in Kamala and pandu. Being shothahar it may relives the shotha at the cellular level of liver, rechak properties acts as niyata virechak mainly indicated in kamala. Yakriddutejak and rasayan properties help to rejuvenate the liver cells.

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

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

2. Arogyawardhini Vati is rasashadadi mentioned in Ayurveda Formulary 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 (Picrorhiza kurrooa Royle ex Benth.), leaf juice of Nimb (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 shothahar, tridoshashamak properties. Being deepan and pachan it acts on mandagni in the yakrit which leads to agravardhan and formation of new cells in liver. Stotoshodhan relives the obstructed strotas occurred due to kapha and Pitta. Yakrit pliha shothahar property relives 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 vatamolokam properties. Hence it improves jaranahakti (digestive power) and ultimately absorption of nutrition and drug also. Trivrit (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. Rohitakarishta is a formulation for Yakrita and Plihaviddhi/Vikara mentioned in Bhaishiya Ratnavali. It has rakshodhak, 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. 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.

References

1. Hepatitis B Fact sheet; World Health Organization, August 2008, https://www.who.int/news-room/fact-sheets/detail/hepatitis-b dated 24-08-2019 time13:56 IST.
2. Kasper DL, Fauzi AS, Hauser S, et al, Harrison’s principles of internal medicine, 19th ed., New York: The McGraw-Hill Companies, Inc.; 2015, 2041p.
3. Mariamma K et al., An Investigation into the High Prevalence of Hepatitis B in a Rural Area of Kerala State, India: Hypothesis on Chrysops sp. (Diptera: Tabanidae) Transmission, BioMed Research International Volume, June 2018 (1),1-7p.
4. Anupam et al. Ayurvedic management of hepatitis b: a case report, World Journal of Pharmacy and Pharmaceutical Sciences, Vol 5, Issue 8, 2016, 862-871p.
5. Anonymous, Ayurved Sar Sangrah, Baidyanath Ayurved Bhavan Limited, Allhabad, 2015, 325p.
6. Nirmal Kumar et al. Phalatrikadi kvatha - an ayurvedic hepatoprotective drug, IJRPC 2013, 3 (3),591-594p.
7. Anonymous, Ayurvedic Formulary of India. Controller of publications, Ministry of Health and Family Welfare, Government of India, New Delhi, 2005
8. Anonymous, Ayurved Sar Sangrah, Baidyanath Ayurved Bhavan Limited, Allhabad, 2015,425p.
9. Santosh pal et al. Arogyavardhini Vati: A theoritical analysis, JSIR 2016; 5(6): 225-227p.
10. Anonymous, Ayurved Sar Sangrah, Baidyanath Ayurved Bhavan Limited, Allhabad, 2015,425p
11. Rajkumar JS, et al. World J Gastroenterol Safety and efficacy of oral HD-03/ES given for six months in patients with chronic hepatitis B virus infection,2007;13(30):4103-4107p.
12. Nicolas Laing, Henry Tufton, Emmanuel Ochola, Ojok Godfrey P’Kingston, Mala K Maini, Nicholas Easom, Hepatitis B assessment without hepatitis B virus DNA quantification: a prospective cohort study in Uganda Transactions of The Royal Society of Tropical Medicine and Hygiene, Volume 113, Issue 1, January 2019, 11–17p