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A case study on Ayurvedic management on *Kamala* w.s.r. to Hepatitis E Virus

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ABSTRACT

Hepatitis is defined as liver inflammation that can be caused on by a number of conditions, including prolonged drug use, heavy alcohol consumption, autoimmune conditions, and exposure to toxins. The term "viral hepatitis" describes the most common type of hepatitis, which is caused by an infection with a virus. In this case, report effect of *Ayurveda* intervention in HEV is reported. A 55-year, old non-alcoholic, married male patient from an urban area, presented with yellowish discolouration of sclera, urine, upper and lower extremities, reduced appetite, nausea, fatigue with generalized weakness and experiencing upper abdominal pain to the National Institute of Ayurveda Hospital, Jaipur, Rajasthan. On examination, icterus was present, pitting edema present on both lower legs. Hematological examination revealed altered total bilirubin, SGOT, SGPT, Triglycerides, ESR, CRP. Also, sonographic examination revealed a mild hepatomegaly in the patient. The total duration of the treatment was 2 months. The patient was assessed for improvement in hematological parameters, viral markers, and signs and symptoms. after two months, significant improvement was observed in signs and symptoms, and all altered hematological parameters, and viral markers were within normal limits. Hence, presenting this case is evidence to demonstrate the effectiveness of two months of *Ayurvedic* treatment in managing HEV. The total duration of the treatment was 60 days.

Key words: Acute Viral Hepatitis, HEV, Hepatitis E virus, HAV, Hepatitis A virus, Kamala, Ayurvedic Management.

INTRODUCTION

Viral hepatitis is a condition characterised by inflammation and necrosis of the liver caused by hepatitis viruses, including hepatitis A, B, C, D and E.^[1] Viral hepatitis is responsible for 3% of the communicable diseases which impose the highest

burden in India. Hepatitis E virus (HEV) is transmitted via consuming contaminated food or water. Hepatitis E virus (HEV) is a leading cause of acute viral hepatitis in developing countries. HEV comprises four genotypes: genotypes 1 and 2 primarily infect humans, whereas genotypes 3 and 4 predominantly infect mammalian animals with sporadic cross-species transmission to humans. WHO estimates that, genotypes 1 and 2 are responsible for approximately 20.1 million HEV infections, 3.4 million symptomatic cases, 70,000 fatalities, and 3000 stillbirths every year.^[2] Antiviral therapy is the primary treatment modality of current hepatitis management.

In Ayurveda, Acute viral hepatitis (AVH) has symptomatic resemblance with *Kamala Roga* and is brought on by the imbalance of *Pitta Dosha* and *Rakta Dhatu*^[3] and also it is a disease of *Dushta Raktaja Roga*,^[4] where cardinal symptoms are *Haridra Netra*

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(yellowish discoloration of eyes), *Haridra Twaka Nakha-Aanana* (yellowish discoloration of skin, nails, and face), *Rakta Pitta Shakrita Mutra* (reddish yellow color of feces and urinals), *Hatendriya* (weakness of senses), *Avipaka* (indigestion), *Daurbalya* (generalized weakness) and *Aruchi* (anorexia).^[5] As *Kamala* is *Paittika Vyadhi* and *Mridu Tikta Aushadha* is mentioned in classics for the treatment principle.^[6] The action of *Shaman* drugs were *Pittahara* or *Pitta Rechana*, *Yakrutta Uttejaka* (Liver stimulant), *Deepana* (Appetizer), *Raktashodhana* (Blood purifier), *Strotoshodhana* (Channel purifier).

From the presenting features (constitutional symptoms) and investigation (hyperbilirubinemia, elevated hepatic enzymes, HEV IgM positive), the case was diagnosed as Hepatitis E.

CASE REPORT

The present case is about the *Ayurvedic* management of HEV i.e., *Kamala*. A 55-year-old, non-alcoholic, married male patient from an urban area known case of HTN since 3 years (not on regular medicine) visited KC OPD, NIA Jaipur, with the chief complaint of yellowish discoloration of sclera, upper and lower extremities, dark yellow urine with a clay stool colour, from last 1 month. The patient had also complained of anorexia, nausea, fatigue with generalized weakness, experiencing upper abdominal pain from last 2 months. the patient was 5 feet 5 inch tall, weighing 80 kg, and looking unwell and tired. Also, from the *Ayurvedic* perspective, this case was diagnosed as *Bahu Pitta Kamala* or *Ubhayaashrita Kamala*.

History of present illness

A 55 year old male patient was asymptomatic before May 2023, used to consume daily spicy food items, tea, coffee, paratha. Then he had developed complaint of anorexia, yellowish discoloration of urine, eyes, upper and lower extremities, upper abdominal pain. Initially, these symptoms were mild, but gradually severity increased. Meanwhile, on 29 May, 2023, doctors did him liver function test (LFT) and Anti-HEV IgM and USG. Through the test report, he was found to be hepatitis E positive. He opted for the *Ayurvedic* treatment for

better care and support. He was admitted in IPD-NIA, 5th June for 30 days.

Personal History

Name - ABC	Height - 5'5"
Age - 55 years	Bala - Avara
Gender - Male	Appetite - Reduced
Marital status - Married	Sleep - Sound
Occupation - Jeweler	Bowel habit - Clear, Semi-solid, clay coloured stool
Weight - 80kg	Bladder - Dark yellowish discoloration present
Addiction - Tea (6-8 times) since 20 yrs.	

History of Past Illness

He denied any personal or family history of liver disease and also denied taking any use of alcohol, tobacco, illicit drugs or any recent travel. He was sexually inactive from last 6 months and also not had any tattoos. He had a history of blood donation once 3 years ago and denied any previous surgeries.

Clinical Findings - General Physical Examination

At the presentation time, patient's icteric sclera was significant, pitting edema (Grade - 2) present on both legs and gynecomastia was also present. His pulse rate was 84 bpm, regular, blood pressure was 110/80 mm of HG, respiratory rate was 16/min. and temperature was 97.2°F. No any lymph node was enlarged at that time.

Systemic Examination

GIT examination on presentation was soft, non-distended abdomen. On palpation, mild hepatomegaly with nontender liver edge was observed and the right hypochondriac and umbilical region was tender. dull sound present during the percussion on the right hypochondriac and right lumbar region and bowel sounds were normal during auscultation.

No other any abnormal clinical findings for cardiovascular, respiratory and CNS systems was observed on systemic examination.

Ashta Vidha Pareeksha (Eight-fold examination of the patient)

Nadi: Pittaja Nadi, 84/min	Mala: Tilapishtha Nibha (clay-coloured)
Mutra: Peeta Varna	Jiwha: Kaphavrutta
Shabda: Prakrita	Sparsha: Samanya, Ruksha
Druk: Haridra Peeta Varna	Akriti: Madhyama

Dashavidha Pareeksha (Ten-fold examination of patient)

Prakriti (Physical constitution): Pitta Kaphaj	Dushya: Rakta and Mamsa
Aharaja Hetu: Pittavardhak Ahara Sevana, Amla, Lavana, Viruddha Bhojan	Pramana: Madhyama
Viharaja Hetu: Ativyayam	Satmya: Madhyama
Manasika Hetu: Krodha and Chinta	Ahara Shakthi A) Abhyavaharana Shakthi: Avara B) Jarana Shakthi: Madhyam
Dosha: Pitta and Rakta	Satva: Madhyama
Vyayama Shakthi: Avara	Desha: Anoop
Sara: Madhyam	Samhanan: Madhyamas
Vaya: Madhyama	Bala: Avara

Investigations: The baseline investigation report showed that liver enzymes were elevated.

Hematological investigations	4/6/2023	14/6/2023	4/7/2023	28/7/2023
Total bilirubin	17.34 mg/dl	11.00 mg/dl	4.30 mg/dl	2.746 mg/dl
Direct bilirubin	10.58 mg/dl	10.00 mg/dl	3.76 mg/dl	2.084 mg/dl
Indirect bilirubin	6.76 mg/dl	0.99 mg/dl	0.54 mg/dl	0.66 mg/dl
SGOT	162.6 u/l	214.8 u/l	98.4 u/l	68.1 U/L
SGPT	92.8 u/l	95.9 u/l	49.9 u/l	31.2 U/L

ALP	77.0 IU/L	134 IU/L	140 IU/L	151 U/L
Total protein	7.92 gm/dl	7.71 gm/dl	8.12 gm/dl	8.41 gm/dl
Albumin	2.95 gm/dl	2.91 gm/dl	3.05 gm/dl	3.75 gm/dl
Globulin	4.97 gm/dl	4.80 gm/dl	5.07 gm/dl	4.66 gm/dl
ESR	114 mm/hr	-	-	71 mm/hr
CRP	Positive	-	-	-
Triglycerides	450.5 mg/dl	-	-	152.8 mg/dl
HAV IgM	0.19	-	-	-
HBSAG (Rapid)	Non-reactive	-	-	Non-reactive
HEV IgM	120.839	-	-	12.78
Anti-HCV Antibody	Negative	-	-	Negative
ANA ELISA	47.38 Units	0.90 INDEX VALU	-	-
Urine analysis	6/6/23	14/6/2023	4/7/23	
Protein	Absent	Trace	Absent	
Bilirubin	Absent	Trace	Absent	
Nitrite	1+	Absent	Absent	
Ketone	Absent	Absent	Absent	
Urobilinogen	0.2 mg/dl	0.2 mg/dl	0.2 mg/dl	

Assessment Criteria of Ubhayaashrita Kamala

SN	Symptoms	Normal	Mild	Moderate	Severe
1.	Haridrata of Netra (yellowish discolouration of sclera)	0	1	2	3
2.	Haridrata of Tvaka (yellowish discolouration of skin)	0	1	2	3

3.	<i>Dourbalya</i> (weakness)	0	1	2	3
4.	<i>Peetata of Mutra</i> (yellowish discolouration of urine)	0	1	2	3
5.	<i>Aruchi</i> (Anorexia)	0	1	2	3
6.	<i>Hrillasa</i> (Nausea)	0	1	2	3

SN	Symptoms	Before Treatment	After Treatment
1.	<i>Haridrata of Netra</i> (yellowish discolouration of sclera)	3	1
2.	<i>Haridrata of Tvaka</i> (yellowish discolouration of skin)	2	0
3.	<i>Dourbalya</i> (weakness)	3	1
4.	<i>Peetata of Mutra</i> (yellowish discolouration of urine)	3	1
5.	<i>Aruchi</i> (Anorexia)	3	1
6.	<i>Hrillasa</i> (Nausea)	2	1

USG of the whole abdomen

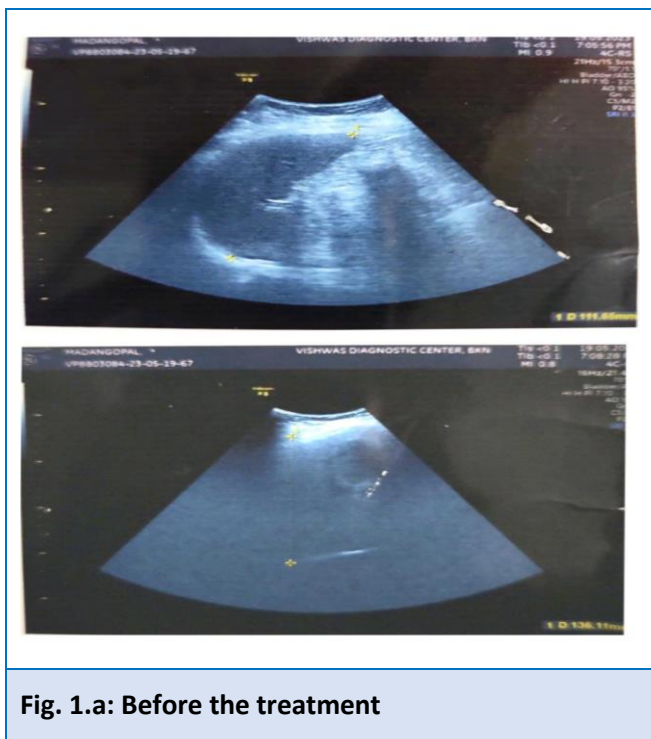


Fig. 1.a: Before the treatment

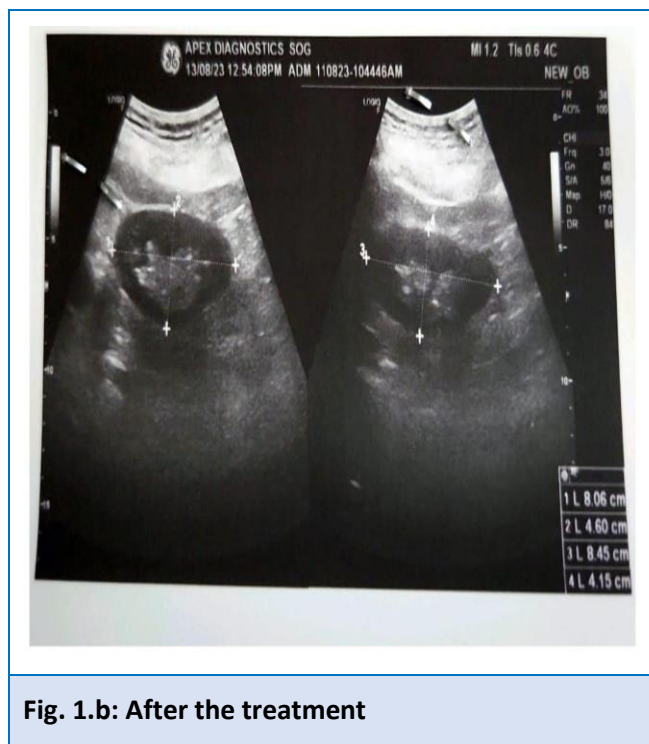


Fig. 1.b: After the treatment

Before treatment (25/05/2023), liver is enlarged in size (167mm) with increased echogenicity and altered echotexture and nodular wavy margins (Fig.1.a), after two months (13/08/23), there was a slight changes of liver is enlarged measuring about (145 mm) in size.

Treatment Schedule

The patient was given Ayurvedic medication for two months. the following drugs were prescribed to the patient are presented in Table 4. Throughout the treatment, as a part of *Pathya* the patient was advised to avoid spicy, oily and salty food. No adverse effect of the prescribed drugs also observed in the case.

Duratio n	Drug	Dose and frequency	Route of administr ation	<i>Anupana</i>
Day 1-10	<i>Avipattikara Churna,</i> <i>Pittantaka Yoga,</i> <i>Kutki Churna</i>	2 gm, 2gm, 1gm, twice a day, before food	Oral	<i>Sadharan a Jala</i>
	<i>Arogyavardhini Vati</i>	1 tab twice a day, after food	Oral	<i>Sadharan a Jala</i>

	<i>Bhringrajasava + Rohitakarishtha</i>	20 ml + 20ml, twice a day, after food	Oral	With Equal amount of water
	<i>Yakrutplihari Lauha</i>	1 tab twice a day, after food	Oral	<i>Sadharan a Jala</i>
	Cap. Phylcolil	1 cap twice a day, after food	Oral	<i>Sadharan a Jala</i>
Day 11-20	Previous medications continue and add- Syp Amlycure-DS	1 tsf twice a day, after food	Oral	-
Day 21-34	Previous medications <i>Rohitakarishtha, Arogyavardhini Vati</i> , was stopped and other medicine continue Add <i>Punarnavadi Guggulu</i>	2 tab twice a day, after food	Oral	<i>Sadharan a Jala</i>
Day 35-60	<i>Avipattikara Churna, Pittantaka Yoga, Kutki Churna</i>	2 gm, 2gm, 1gm, twice a day, before food	Oral	<i>Sadharan a Jala</i>
	<i>Bhringrajasava</i>	20 ml, twice a day after food	Oral	With Equal amount of water
	Syp Amlycure-DS	1 tsf twice a day, after food	Oral	-
	<i>Yakrutplihari Lauha</i>	1 tab twice a day, after food	Oral	<i>Sadharan a Jala</i>

	<i>Punarnavadi Guggulu</i>	2 tabs twice a day, after food	Oral	<i>Sadharan a Jala</i>
	Cap. Phylcolil	1 cap twice a day, after food	Oral	<i>Sadharan a Jala</i>

RESULT AND DISCUSSION

Oral medications were administered to the patient during their hospital stay for a month. Therefore, the patient had significantly improved in all symptoms after a month of medication. During a follow-up of 1 months, the patient is now progressively getting well and none of the symptoms have reoccurred.

In *Ayurvedic* scriptures, these medications are used to treat HEV (*Kamala*). both clinical and analytical parameters have improved in the present case study.

Mode of action of drugs

Arogyavardhini Vati - an *Ayurvedic* polyherbal formulation has been used for liver disorders. the drug contains ingredients like *Triphala* which is an astringent and laxative in nature. It is effective for relieving liver disorders and also useful in digestive disorders. it has antioxidative, antihepatotoxic and immunomodulator properties. The herb *Chitraka* is an effective agent in relieving symptoms like loss of appetite, indigestion, colitis and various liver disease.

Avipattikar Churna - It has *Agni Deepana, Ama Pachana* and *Mriduvirechaka* properties.^[7]

Kutaki Churna - It has *Pittavirechaniya, Deepana, Raktashuddhikara* and *Malabhedini* properties.

Bhringrajasava - It contains *Bhringraja, Chaturjata, Pippali, Haritaki, Lavanga* and *Jatiphala*. The main action of *Bhringrajasava* is observed on *Vata Dosh*a and *Kapha Dosh*a. It also detoxifies the *Pitta Dosh*a. It also improves bile flow from the liver and gallbladder. If a person requires *Pitta* detoxification or *Pitta Dosh*a is associated with *Ama Dosh*a, then it is the best medicine. It helps to excrete excess *Pitta* and heat from the body by stimulating gallbladder and liver functions, which leads to bile flow into the intestine. Thus, it

improves digestive functions, reduces *Ama Dosha* production and excretes excess bile in the feces.

Rohitakarishtha - It contains *Rohitaka, Panchkola, Trijata, Triphala, Dhataki*. *Rohitakarishtha* pacifies *Kapha Dosha* and *Pitta Dosha*. Hepatoprotective, Antidiuretic, Antitoxic, hepatic stimulant are also properties.

Tab. Amlycure DS - It has *Rasayana* effect on liver.

CONCLUSION

HEV (*Kamala*) patients had a significant improvement in both clinical and analytical parameters in the present case study. Neither during treatment nor the follow-up period were any unintended effects of therapy observed. Thus, it can be said that these medicines are very effective in managing, but further study including a larger sample size and a longer duration will be required to prove this impact.

Informed consent - Informed consent for the publication of the data was taken from the patient.

REFERENCES

1. World Health Organization. Hepatitis E. [Internet]. Geneva: World Health Organization; [updated Year Month Day; cited Year Month Day]. Available from: <https://www.who.int/news-room/fact-sheets/detail/hepatitis-e>
2. World Health Organization. Hepatitis E. [Internet]. Geneva: World Health Organization; [updated Year Month Day; cited Year Month Day]. Available from: <https://www.who.int/teams/health-product-policy-and-standards/standards-and-specifications/vaccine-standardization/hep->

e#:~:text=The%20virus%20can%20cause%20large,deaths%2C%20and%203000%20stillbirths%20annually

3. Agnivesha, Kashinath Shastri P. Charaka Samhita. Chikitsa sthana, chapter 16, verse 34. Vidhyotini Hindi commentary. Varanasi: Chaukhambha Bharati Akadami; 2016. p. 491.
4. Agnivesha, Kashinath Shastri P. Charaka Samhita. Sutra sthana, chapter 28, verse 11. Vidhyotini Hindi commentary. Varanasi: Chaukhambha Bharati Akadami; 2018. p. 571.
5. Agnivesha, Kashinath Shastri P. Charaka Samhita. Chikitsa sthana, chapter 16, verse 35-36. Vidhyotini Hindi commentary. Varanasi: Chaukhambha Bharati Akadami; 2016. p. 492.
6. Agnivesha, Kashinath Shastri P. Charaka Samhita. Chikitsa sthana, chapter 16, verse 40. Vidhyotini Hindi commentary. Varanasi: Chaukhambha Bharati Akadami; 2016. p. 493.
7. Sahu AK, Upadhyay A, Bhakuni H, Attanayake AMHS, Sharma P. Effect of Ayurveda interventions in non-alcoholic grade II fatty liver associated with obesity - A case report. J Ayurveda Integr Med. Year Month Day;13(3):100605. doi: 10.1016/j.jaim.2022.100605. PMID: 35868134; PMCID: PMC9307675.

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