



# Ayurvedic Management of Hepatocellular Jaundice – A Case Report

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## Abstract

Jaundice is a yellow discolouration of the skin, another mucous membrane and the conjunctival membrane surrounding the sclera. It is a clinical symptom of either underlying hepatocellular dysfunction biliary obstruction or anomalies of bilirubin metabolism. This clinical entity can be compared with *Kamla* as described in *Ayurveda*. The strength of *Ayurveda* in treating jaundice should be emphasised. This is a case report of a 24-year-old male patient who visited *Kayachikitsa* out-patient department with the chief complaints of *Agnimandya* (reduced appetite), *Chardi* (vomiting), *Udarashool* (pain in the abdomen), *Hrullas* (nausea), *Peet varniya Netra* (yellow discolouration of eyes), *Daurbalya* (lassitude), *Vibhandha* (constipation) for seven days. The patient was effectively treated with mild *shodhana* (bio-purification) with *Nitya virechana* (purgation therapy) followed by medicinal treatment for 30 days. After 4-5 days, there was a significant improvement in all clinical features and a substantial improvement in liver function. The treatment was given by considering the vitiation of *Pitta* and *Rakta*. It can be concluded that this disease was managed and liver functions were improved by ayurvedic management.

**Keywords:** Hepatocellular Jaundice, *Kamala*, *Nitya virechan*, *Shamana*, *Shodhana*

## 1. Introduction

Jaundice, is sometimes referred to as hyperbilirubinemia. It is characterised by the yellowing of the skin, mucous membranes and the sclera of the eyes. Jaundice occurs due to an increased level of bilirubin, a yellow pigment produced during the breakdown of red blood cells in the blood<sup>1</sup>. Bilirubin only residues when there is an excess of it, which indicates either unnecessary production or inadequate excretion. In today's era, most people are abusing alcohol and junk food and dependence on fats is the main cause of the occurrence of hepatic disorders. There is an increased prevalence of hepatitis due to the consumption of unsanitary food, polluted water, poor sanitation, etc. The prehepatic, hepatic and post-hepatic phases of bilirubin metabolism are used to describe the pathophysiology of jaundice<sup>2</sup>. Unconjugated bilirubin levels in the serum rise due to prehepatic phase dysfunction, whereas conjugated bilirubin levels rise due to post-hepatic

phase dysfunction. Unconjugated and conjugated bilirubin levels can both increase due to hepatic phase impairment<sup>3</sup>. The relief for hepatic illnesses can be achieved with very little help from current therapeutic approaches. Only symptomatic treatment is available for the causes and consequences of jaundice. According to *Ayurveda*, *Kamala* can be correlated with clinical features of jaundice. *Kamala* is primarily caused by an imbalance in the *Pitta dosha*, one of the three fundamental energies believed to govern the body<sup>4</sup>. *Pitta dosha* represents the elements of fire and water and is responsible for various metabolic processes in the body, including digestion and liver function. According to *Ayurveda*, it is a condition characterised by pitta-dominant diseases caused by excessive consumption of *pittavardhak* substances<sup>5</sup>. *Kamala* is classified as *Shakhasrita* (*Ruddhapatha Kamala* i.e. obstructive jaundice) and *Koshtasrita* (*Bahupitta Kamala* i.e. hepatocellular jaundice)<sup>6</sup>. "*Kamala tu virechana*" is *Kamala's "chikitsa sutra"*. Jaundice must be treated with

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*virechna* (purgation) as the first measure. According to the fundamental belief, *Yakrutta* (liver) is *Rakta's Mulstana*, and *Raktadushti* is responsible for *Kamala*. It is recommended to undergo a purgation considering *Rakta* and *Pitta* have *Ashrya Ashrayisambhanda* (inter-related)<sup>7</sup>. This case of *Bahupitta Kamala* is presented here because with the help of the treatment principle of *Kamala*, all the parameters of liver function were completely normalised within 30 days.

## 2. Case Report

This is a case report of a 24-year-old male patient who visited *Kayachikitsa* out-patient department with the chief complaints of *Agnimandya* (reduced appetite), *Chardi* (vomiting), *Udarashool* (pain in the abdomen), *Hrullas* (Nausea), *Peet varniya netra* (yellow discolouration of eyes), *Daurbalya* (lassitude), *Vibhandha* (constipation) for 07 days.

The *Asthavidha Pariksha* regarding the patient is mentioned in Table 1. On detailed observation, it was found that the patient was a college student and was consuming food that contained fried and spicy food items including non-vegetarian food and alcohol consumption two to three times a week for one year. He had no history of blood transfusion. The patient was clinically examined as follows.

## 3. Clinical Examination Findings

The patient was afebrile, abdominal examination showed distention of the abdomen, tenderness at the epigastric region, no hepatomegaly and tympanic sound present all over the abdomen. Other systemic examinations had no significant findings.

**Table 1.** *Asthavidha Pariksha*<sup>8</sup> (evaluation of the patient's general wellness)

<i>Naadi</i> (Pulse)	74/ min, <i>Pittaj-Vataj Regular</i>
<i>Mala</i> (Stool)	<i>Vibandha</i> (constipation)
<i>Mutra</i> (Urine)	<i>Pitavarniya</i> (yellow discolouration)
<i>Jivha</i> (Tongue)	<i>Saama</i> (coated tongue)
<i>Sabada</i> (Speech)	<i>Sapastha</i> (clear voice)
<i>Spersha</i> (Touch)	<i>Anushnasheet</i> (normal body temperature)
<i>Druka</i> (Eyes)	Sclera Icterus
<i>Aakriti</i>	<i>Madhyama</i> (medium built)

The patient was advised CBC, LFT and USG abdomen to specify the diagnosis. The findings of the blood investigations are mentioned in Table 2.

**Table 2.** Shows the findings of the blood investigations

S. No.	Name of investigation	Values in patient
1	Hb	14.4g/dl
2	Total Serum Bilirubin	3.4mg/dl
3	Direct Serum Bilirubin	2.1mg/dl
4	Indirect Serum Bilirubin	1.3mg/dl
5	SGOT	3440U/L
6	SGPT	3920U/L
7	ALP	103U/L
8	USG abdomen	No demonstrable abnormality

## 4. Treatment Plan

This case was diagnosed as *Bahupitta Kamala* and treatment was planned as per the treatment principle of *Kamala*.

“तत्र पाण्डुवामयी सनगिधस्तीक्ष्णैरूध्वानुलोमकैः  
संशोधयो मृदुभसितकितैः कामली तु वरिचनैः॥४०॥”

In the above shloka “*Kamalatu virechana*” In *Kamala*, *pitta dosha* is vitiated and accumulated. Hence there is a need to eliminate *accumulated pitta*, *mrudu virechan* (mild purgation) is useful in *Kamala*<sup>9</sup>.

1. *Nitya Virechana* (Purgation Therapy): *Nitya Virechana* was given with 5gm of *Chitrak Haritaki* with lukewarm water at bedtime for the first 07 days of the treatment.
2. *Shaman chikitsa* (Internal Medication).

## 5. Pathyaahara (Do's and Don'ts)<sup>10</sup>

### 5.1 Advised Food

Dalia made up of wheat and cereals were advised at day time. Boiled milk with *Shunthi* powder at night time. Fruits like oranges, watermelons, grapes, carrots and papaya.

The patient was advised to avoid fried, spicy and fatty food.

## 6. Observations and Results

Improvement in the symptoms is shown in Table 4.

**Table 3.** Internal medications

S. No.	Medicine	Dose	Frequency	Anupana	Duration
1	<i>Aarogyavardhani Vati</i>	2 tablets	Twice a day after a meal.	With lukewarm water.	For consecutive 30 days.
2	<i>Livomyn Tablet</i>	1 tablet	Thrice a day before a meal.	With lukewarm water.	
3	<i>Phaltrikadi kwath</i>	20ml	Twice a day after a meal.	With an equal amount of water.	
4	<i>Syrup Dipya</i>	20ml	Twice a day after a meal.	With water.	

**Table 4.** There was an improvement in the following symptoms

Assessment Parameters	30/08/2023	18/09/2023	29/09/2023
<b>Agnimandya (Anorexia)</b>	3	1	Nil
<b>Chardi (Vomiting)</b>	2	Nil	
<b>Daurbalya (Lassitude)</b>	3	1	Nil
<b>Hrullas (Nausea)</b>	3	Nil	Nil
<b>Udarashool (Pain in the abdomen)</b>	2	Nil	Nil
<b>Peet varniya Netra (Yellow discoloration of the eye)</b>	3	1	Nil
<b>Vibhandha (Constipation)</b>	3	Nil	Nil

\*The gradings of symptoms are measured as per the gradations given in the study<sup>11,12</sup>.

**Table 5.** Changes in blood investigation during treatment

Assessment Parameters	30/08/2023	18/09/2023	29/09/2023
<b>Sr. Bilirubintotal (mg/dl)</b>	3.4mg/dl	2.1mg/dl	0.80mg/dl
<b>Direct (mg/dl)</b>	2.1mg/dl	1.2mg/dl	0.16mg/dl
<b>Indirect (mg/dl)</b>	1.3mg/dl	0.9mg/dl	64mg/dl
<b>SGOT (U/L)</b>	3440U/L	111U/L	27U/L
<b>SGPT (U/L)</b>	3920U/L	191U/L	25U/L

The changes in blood investigation during treatment are shown in Table 5.

## 7. Discussion

The ancient Acharyas of *Ayurveda* considered *Pitta dosha* and *Agnimandya* as the primary aetiologic aspects of *Kamala*. In the above patient, due to the frequent intake of *Lavan, katu* and *Amla Ahara*, there was *Pitta* 's vitiation which led to dysfunction of *Jatharagni* followed by the production of *Amavisha*, causing *Kamala*<sup>13</sup>. The vitiated *pitta* later affected the liver, blood and muscle tissue, obstructing the liver's channels and the release of *Pitta* back into the blood, resulting in nausea, pain in the abdomen, vomiting, and eye and skin discoloration. Both single drugs and compound drugs have been mentioned in our ancient classics for *Kamala*. These medications have '*Kamalahara*' characteristics. These

Ayurvedic remedies treat the symptoms of loss of appetite, weakness, nausea, vomiting and discoloration of urine and pain in the abdomen.

### 7.1 Mode of Action of *Virechana*

*Virechana* means the administration of purgative to alleviate *doshas* from the body. *Pitta dosha* becomes vitiated as a result of ingesting *Pittakara aahara* (hot and spicy food) repeatedly and *Virechana* (purgation) is the first line of treatment for *Pittadushti* i.e "*Kamalatu virechana*". In *Kamala*, *pitta dosha* is vitiated and accumulated, so there is a need to eliminate accumulated *pitta*. *Mrudu virechan* (mild purgation) is useful in *Bahupitta Kamala*<sup>14</sup>.

#### 7.1.1 *Arogyavardhini Vati*<sup>15</sup>

It contains *Shuddha Parada*, *Shuddha Gandhaka* (Herbal, *Loha Bhasma*, *Abhraka Bhasma*, *Tamra*

*Bhasma*, *Triphala*, *Shilajatu*, *Guggulu*, *Chitramool*, *Kutki* and juice extract of *Nimba* leaf). The main ingredient of *Aarogyavardhini Vati* is *Kutki*, which has *Kapha pittaghana dosha karma* and *Tikta Rasa*. It works in reducing the *Pitta dosha* and promotes liver regenerating activities by restoring cytochrome.

### 7.1.2 Livomyn Tablet<sup>16</sup>

It contains herbs like *Bhumiamalki*, *Kutak*, *Guduchi*, *Daruharidra*, *Aloe vera* and *Triphala*. These drugs are well-known hepato-protectives to ensure the protection of liver cells from various toxins, viruses and bacteria and help in reducing free radical activity and preventing oxidative stress and damage to hepatic cells.

### 7.1.3 Syrup Dipya

It contains herbs like *Shatavari*, *Amalaki*, *Draksha*, *Ashwagandha*, *Bhringraj*, *Haritaki*, *Vidarikand*, *Jeera*, *Shunthi*, *Pippalimula*, *Chitraka*, *Yavni*, *Yashtimadhu*, *Pippali*, *Marich*, *Tamalpatra*, *Twak*, *Ela* and *Lavang*. These drugs stimulate digestive enzymes and relieve flatulence, promote digestion, prevent nausea and help regulate stomach acid secretion.

### 7.1.4 Phalatrikadi Kwath<sup>17</sup>

It is an herbal formulation mentioned in the *Siddhasara Nighantu* for the management of *Kamala*. It contains eight herbs namely *Amalaki*, *Amruta*, *Bibhitaka*, *Katuka*, *Nimb Haritaki*, *Vasaand* and *Kairattikta*. All these drugs are having *Yakriduttejaka*, *Pitta-Kapha Shamaka*, *Shothahara*, *Rechana* and *Dipana* properties. Hence it is indicated in *pandu* and *Kamala*. Being *shothahar* may relieve the *shotha* at the cellular level of the liver.

## 8. Conclusion

This case study mentioned above leads to the following conclusion that there is a significant improvement in liver function and symptoms in a very short duration by following the *Ayurveda* treatment principle.

## 9. Declaration of Patient Consent

The authors ensure that they have all necessary patient consent documentation on file. The patient has indicated on the form that he is comfortable with

the writing of his clinical information. The patient is aware that while reasonable efforts will be taken to protect their identity and to prevent their name and initials from being published, anonymity cannot be guaranteed.

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