

# A Case Study on the Ayurvedic Management of Koshta Shakashrita Kamala WSR Alcoholic Hepatitis

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**Abstract:** Kamala is pitta pradhana and raktapradoshaja vyadhi. Koshtashakhashrita kamala can occur as a sequel of pandu roga or it can also manifest as an independent disease. It is characterised by haridra netra, mootra, twak, rakta peeta varchas and bheka varna, daha, avipaka, dourbalya and aruchi.<sup>3</sup> Koshtashakhashrita kamala can be taken as hepatocellular jaundice. Hepatocellular jaundice caused by infection (viral infection being most common), chronic alcohol intake, acute or chronic hepatotoxicity caused by drugs. Abnormal liver function test value i.e. SGPT and SGOT RATIO 1:2. On physical examination and as per the liver functional test this case was diagnosed as Koshthaashrita Kamala which is very similar to Hepatocellular jaundice due to its resemblance. In Ayurveda, after dipana pachana and doshavasechana in terms of virechana, is the first line of treatment of Kamala. The treatment protocol included internal administration of herbomineral formulations i.e. DPACK VATI, and Drakshadi kashaya, for virechana Drakshadi ghrita and Trivrut leha showed effective in the management of koshtashakhashrita kamala. With Pathya palana protocol of 30 days. Further subsiding of symptoms was observed after sixteen days of treatment. Liver function test was improved by as compared to before after intervention significantly.

**Keywords:** Ayurveda, Hepatocellular Jaundice, Kamala, Virechana

## 1. Introduction

Kamala is pitta pradhana<sup>1</sup> and raktapradoshaja vyadhi.<sup>2</sup> Two types of kamala are mentioned in ayurvedic classics koshtashakhashrita kamala and shakhashrita kamala. Koshtashakhashrita kamala can occur as a sequel of panduroga or it can also manifest as an independent disease. It is characterized by haridranetra, mootra, twak, raktapeetavarchas and bhekavarna, daha, avipaka, dourbalya and aruchi.<sup>3</sup>

Koshtashakhashrita kamala can be taken as hepatocellular jaundice. Hepatocellular jaundice caused by infection (viral infection being most common), chronic alcohol intake, acute or chronic hepatotoxicity caused by drugs.

Government statistics show that 14 million Indians are heavy drinkers and may be considered as alcohol dependent.<sup>4</sup>

The signs and symptoms of alcoholic hepatitis are changes in appetite, dry mouth, weight loss, nausea, vomiting, pain and swelling in abdomen, yellowish discoloration of skin and eyes, changes in mental state, confusion and fatigue.<sup>5</sup>

There is no specific management of alcoholic hepatitis except abstinence is advised, good nutrition is ensured and micronutrients such as thiamine and foliate are substituted<sup>6</sup>

## 2. Case History

A 31-years-old male patient came to OPD on 2/1/2019 with complaints of chardi (vomiting), ajirna (indigestion), dourbalya (weakness) since last 3 days. Patient had ajirna (indigestion) since last 15 days.

There was found yellowish discoloration of sclera, nails and skin. Patient complained of dark yellow coloured

urination 4-5 times in a day. Patient did have addiction alcohol since 9 years. And he consumed more than 50 gm of alcohol every past 9 year she was not suffering from hypertension, diabetes, and any other major illness.

For this case patient was advised laboratory investigations and USG abdomen, Routine blood and urine investigation for CBC, RBS, HBsAG, and URINER-M were within normal limit except increased SGPT and Serum Bilirubin. Based on clinical findings, examination and laboratory investigation this patient was diagnosed as koshthaashritakamala (Hepatocellular jaundice).

### Intervention

- 1) Drakshadikwatha 50 ml in 2 equally divided doses after food for initial 20 days
- 2) DPACK vati 3gm in three equally divided doses after food with water for initial 20 days.

### Second Stage of Intervention:

- 1) Shodhananga Snehapana will be administered from 21<sup>st</sup> -23<sup>rd</sup> day with drakshadigritha till samyaksnidhalakshanas are attained
- 2) Abhyanga with ksheerabalataila followed by mrudusweda for 3 days.
- 3) Virechana given with trivrutlehya 30-50gm dose will be fixed according to the koshta and bala of the subject.
- 4) Samsarjanakrama will be followed according to the type of shuddhi.

**Table 1:** Lab Investigations at Baseline (2/1/2019)

Hemogram			
Hb	10.8g/dl	DLC	
Total RBC count	4.9 mill/cmm	Polymorphs	59 %
P.C.V	35.9 %	Lymphocyte	36 %
M.C.V	72.0femtolitre	Eosinophils	03 %
M.C.H.	66.8 pg	Monocytes	02 %
M.C.H.C.	31.6g/dl	Basophils	00 %
R.D.W.	17.4 %	Plateletcount	3, 36, 000 /cmm

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Total WBC count	6500 /cmm	Polymorphs	59 %
<b>Blood sugar</b>			
RBS	72.0mg/dl		
<b>Urine analysis</b>			
Physical examination		Microscopic examination	
Colour	Deep yellow	Red cells	Absent/H.P.F
Appearance	Clear	Pus cells	Occasional/H.P.F
Chemical examination		Epithelial cells	Occasional/H.P.F
Reaction	Acidic	Casts	Absent/H.P.F.
Sp.gravity	Q.I.	Crystals	Absent
Protein	Trace	Trichomonasvag.	Absent
Glucose	Absent		
<b>S.Bilirubin</b>			
S.Bilirubin (Total)	39.91mg/dl		
S.Bilirubin (Direct)	16.86mg/dl		
S.Bilirubin (Indirect)	23.05mg/dl		
<b>S.G.P.T (ALT)</b>			
S.G.P.T	183 U/L		

**Table 2:** USG Abdomen (9/3/2019);

Liver, Gall bladder, Pancreas, Spleen, Kidneys, Urinary bladder were found normal.
Impression: Pericholecystic & periportal cuffing & few enlarged periportal lymph nodes.

**Table 3:** Prescribed treatment with Dose and Duration;

Medicine	Dose	Duration
<i>Drakshadi kashaya</i> <sup>7</sup> (sitaram pharmacy)	25 mlBD in decoctionform	20days
<i>Daruharidra</i> <sup>8</sup> , <i>Pippali</i> <sup>9</sup> , <i>Ashwaganda</i> <sup>10</sup> , <i>Chitraka</i> <sup>11</sup> , <i>kalmegha</i> <sup>12</sup> DPACK VATI	2tablet TDS	20days
<i>Drakshadi Ghrita</i> <sup>13</sup>	for <i>Snehapana</i>	3-5days
<i>Trivrut lehua</i> <sup>14</sup>	for <i>virechana</i>	30gm

**Table 4:** Liver function tests before and after treatment

Liver function test (LFT)	Normal range value	On 2/1/2019	On 3/2/2019	On 9/3/2019
S.G.P.T.	05-45 U/L	183 U/L	35 U/L	27 U/L
S.bilirubin total	0.1-1.2mg/dl	39.91mg/dl	9.20mg/dl	2.09 mg/dl
S.bilirubin direct	0-0.3mg/dl	16.86mg/dl	4.91mg/dl	0.9 mg/dl
S.bilirubin indirect	0-0.9mg/dl	23.05mg/dl	4.29mg/dl	1.2 mg/dl

### 3. Results and Discussion

Treatment was advised for 30 days (Tableno.3). With this treatment liver function tests were repeated after six days of treatment. The patient had shown remission in vomiting and also in associated symptoms after three days of treatment. Patient has been made to follow *Pathya* (wholesome) strictly as described in classics. Further subsidence was observed in all symptoms after sixteen days of treatment (Tableno.4).

#### DPACK VATI-

The ingredients of formulation are *daruharidra*, *ashwagandha*, *chitraka*, *pippali*, *kalmegha*. In the study drugs were selected based on their targeted actions, like antioxidant, anti-inflammatory, hepatoprotective, antipyretic, choleric, chologogue actions.

#### DARUHARIDRA:

*Daruharidra* contains alkaloid named as berberine and berberine sulphates. The studies on *daruharidra* revealed

that it reduces lipid peroxides in hepatocytes and also minimize the effect of degeneration and necrosis of hepatocytes. It helps in regeneration of liver cells by stimulating nuclear polymerase A and increasing ribosomal protein synthesis. The Butanolic extract of *berberisaristata* is having hepatoprotective activity.

#### ASHWAGANDHA:

*Ashwagandha* contains with aferine, with asomnine and several other steroidal lactones. These steroidal contents relieved the complaints like insomnia, pyrexia and anxiety in the subjects.

#### CHITRAKA:

*Chitraka* contains alkaloid named as plumbagin. It acts as hepatoprotective, antioxidant and an effective agent in relieving symptoms like loss of appetite and indigestion. The methanolic extract of aerial parts of *plumbagozeylanica* has been proven for reduction of SGOT, SGPT and ALP levels in serum.

#### PIPPALI:

*Pippali* acts as hepatoprotective, antiinflammatory, antispasmodic by the action of alkaloid piperine.

#### KALAMEGHA:

*Kalamegha* contains deoxyandrographolide and neo andrographolide. Studies on *kalamegha* suggests that it increases the choleric activity. It blocks the toxic effect of enzyme GGT in serum as well as in isolated hepatic cells. It also act as immunomodulator.

#### DRAKSHADI KASHAYA

The ingredients present in the *kashaya* are having *tikta*, *kashaya* and *madhura rasa*. *Tikta rasa* is having *arochakaghna*, *deepana*, *pachana*, *jwaraghna* properties. *Tiktara* also facilitates the normal function of liver. *Tikta*, *kashaya* and *madhurarasa* of *kashaya* are having *pitta shamaka* property.

The above drugs in the form of *Kashaya* have definite action in the disease *Kamala*, according to various classical texts. It is seen that most of the formulations indicated in *Kamala* contain majority of these drugs. *kashaya is laghu* for digestion and it can be easily administered.

#### VIRECHANA KARMA

Hormonal Action: *Virechana* drugs causes irritation in intestinal mucosa, leading to excessive secretions from intestinal mucosa like hepatocrinin, secretin and cholecystokinin. This leads to irritation and stimulation of vagus nerve. Vagus nerve causes irritation of liver and pancreas which causes increase in small intestinal secretions.

Whenever a segment of large intestine is irritated, then mucosa secretes large quantities of water and electrolytes in addition to alkaline mucus. This leads to dilution of irritating factors and cause rapid movements of the feces towards rectal route. The mechanism by which marked secretion of watery fluid by crypts of Lieberkuhn occur is unknown. However, two active secretory processes occur. Active secretion of chloride ions (into the crypts) and bicarbonate ions. The secretion of chloride ions causes electrical transfer

of sodium ions through the membrane. All these factors cause osmotic movement of water and hence fluidity in the purgation increases.

Elimination of Bile: Hepatocinin stimulates liver to secrete bile. Cholecystokinin hormone causes contraction of gall bladder. This causes increased secretion of digestive enzymes from pancreas.

Gall Bladder is also stimulated by acetylcholine. Due to the relaxant action of sphincter of oddi, bile enters into duodenum which is eliminated at the time of purgation. This bile contains solids, bile salts, bile pigments, bile acids, cholesterol, lecithin, water, sodium, potassium, bicarbonate ions, fat and fatty acids.

In the present study subjects were advised fat free diet initially. So that hepatocytes acts on toxic products of alcohol and to do the proper conjugation. To relieve from hepatocellular dysfunction and interhepatocellular cholestasis.

Through virechana excess conjugated bilirubin can be excreted. Virechana relieved cholestasis by elimination of excess mala roopi pitta by cholagogue action.

#### 4. Conclusion

*Drakshadikashaya* has a role in countering withdrawal symptoms of alcohol. It mainly acts as a pitta shamaka due to the virtue of its main ingredient. It is indicated *indaha, trushna, kamala, visha, amlapitta, madatyaya*. *Draksha, usheera* had *pittakaphahara* properties which help in the reduction of nausea and vomiting. The drugs of DPACK vati have hepato protective activity, anti oxidant, anti inflammatory properties. *Daruharidra* has hepato protective activity and plays an important role in regeneration of hepatocytes. The drug *ashwagandha* have *rasayana* property and specifically act on the CNS manifestations in Alcoholic hepatitis like confusion, tremors, insomnia. *Chitraka* mainly acts as *adeepana and pachana* which helps in improving the appetite. *Kalamegha* has choleric action and specifically acts in reduction of elevated liver function parameters in Alcoholic hepatitis. It also acts as an immune modulator and increases the excretion of toxins from the liver. The combined effect of these formulations probably have resulted in hepato protective activity and helped in hepatic tissue regeneration. Hence this combination of DPACK vati, *drakshadikashaya* and *virechana* has probably has a significant role in the management of *koshtashkashrita Kamala*.

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