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> CASE REPORT August 2024

Ayurvedic management of Alcoholic Liver Disease : **A Case Report**

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ABSTRACT

Alcoholic liver disease (ALD) is one of the most prevalent types of liver disease worldwide. According to a 2023 study, the prevalence rate of alcoholic liver disease in India is 4.8%. This case report deals with a 51year-old male patient initially came to OPD with complaints of yellowish discoloration of eyes, skin, and urine, loss of appetite, anorexia, distention of the abdomen, bilateral pedal edema, easy fatiguability, weakness and weight loss. Liver function test shows-high bilirubin and high transaminase, USG of the abdomen shows-Moderate Hepatomegaly with signs of Hepatitis. It was diagnosed as Kostha-Shakhashrita/Bahupitta Kamala based on the etiopathology and investigations. The patient was treated with Ayurvedic interventions viz, NABB Swarasa, Arogyavardini Vati, Phalatrikadhi Kashaya with Katuki Churna, Patolakaturohinyadhi Kashaya, Laghusoothshekara Rasa and Tab Nirocil were prescribed. After 68 days of treatment protocol, there was marked relief in the symptoms and a reduction in bilirubin and transaminase levels. The above-mentioned oral medications have shown significant results in the present study.

Key words: Kostha-Shakhashrita Kamala, ALD, Shamana Chikitsa, NABB Swarasa, Phalatrikadhi-Kasahay, Katuki Churna, Arogyavardhini Vati, Tab Nirocil

INTRODUCTION

Alcohol is the major cause of liver disease. The severity and prognosis of alcohol-induced liver disease depend on the amount, pattern, and duration of alcohol consumption.^[1] There are mainly three histological stages of ALD they are Alcoholic fatty liver, Alcoholic cirrhosis.^[2] and Alcoholic ALD is hepatitis, characterized loss of appetite, by yellowish discoloration of eyes, skin, urine, and bilateral pedal edema mainly at the ankle area, and is associated with

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increased levels of bilirubin and transaminase in the blood.^[3] In Ayurvedic literature, it can be considered as Kostha-Shakhashrita/Bahupitta Kamala. Madya (alcohol) is considered as one of the Nidana for Kamala. Teekshna, Ushna, Vyavayi, Vikasi, Sukshma, Ruksha, and Vidhahi properties of Madya does Annarasa Utkleda and Vidagdha, ultimately it vitiates the Rakta and causes Kamala.^[4]

It is one of the *Pittaja Nanatmaja Vyadhi*^[5] and *Rakta* Pradoshaja Vikara.^[6] It has been classified into two types Bahupitta Kamala/ Kosthashakhashrita Kamala and Alpa-Pitta/Shakhashrita Kamala.^[7] This is due to the vitiation of Rakta and Mamsa by aggravated Pitta.

Common symptoms of Kamala include yellowish discoloration of the eyes, skin, and nails, skin colour resembling a frog in rainy season, loss of appetite, indigestion, and weakness.^[8]

CASE REPORT

A 51-year-old married male patient, belonging to the middle economic class, with no known history of any co-morbidities came to Kayachikitsa OPD, Government Ayurveda Medical College & Hospital, Mysuru with the

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chief complaints of *Peeta Netrata* (yellowish discoloration of eyes), *Peeta Mutrata* (yellow discoloration of urine), *Kshudha-Mandhya* (loss of appetite), *Adhmana* (Distension of abdomen), *Padashotha* (Bilateral pedal edema non-pitting in nature), *Daurbalya* (weakness), anorexia and weight loss since 2 months.

History of present illness

The patient was asymptomatic before 2½ months, since 2-months patient gradually developed a loss of appetite followed by vellowish discoloration of eyes & urine, since one and half month he developed distension of abdomen, bilateral pedal edema nonpitting in nature, associated with generalized weakness. The patient had a history of chronic drinking for 4-5 years, which included a daily intake of 180ml of alcohol (whisky) with non-vegetarian food at night and occasional smoking of 3-4 cigarettes per week. The patient had abstained from alcohol and non-vegetarian food for 6 months. Again the patient began consuming alcohol daily, along with frequent intake of nonvegetarian, spicy, and oily food. As a result, the patient gradually developed yellowish discoloration of eyes, urine, and skin, loss of appetite, bilateral non pitting pedal edema, distension of abdomen, anorexia and weight loss. For these complaints patient approached Government Ayurveda Medical College & Hospital Mysuru.

History of past illness - No Significant

Personal History

- Bowel constipation
- Bladder yellowish discoloration of urine
- Appetite poor
- Sleep altered
- Built Normal
- Habit addiction to Alcohol

Asthavidha Pariksha

Assessment of the general condition of the patient:

Nadi

Kaphaja (78/min)

Mala	Vibandha
Mutra	Peeta Mutratha
Jiwha	Liptatha
Shabdha	Prakruta
Sparsha	Peetavarniya, Anushnasheeta
Drik	Peeta Netratha
Aakriti	Madhyama

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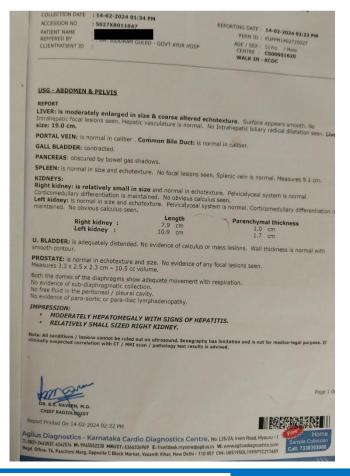
Systemic Examination

The patient was systematically examined for the central nervous system, cardiovascular system and Respiratory system, and no significant findings were found.

P/A - Mild tenderness over the right hypochondriac area and the epigastric area was elicited.

Urogenital system - yellowish discoloration of urine

Investigations



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USG Abdomen & Pelvis on 14/02/2024 Moderate Hepatomegaly with signs of hepatitis Relatively small Right Kidney

Government Ayun Sayyaji Rao Road, DEPAR	Govt of Karnataka veda Medical Vishweshwaraiah Cir TMENT OF ROGA	cle, Mysuru - 5700	ospital
NAME 51 Yrs / Mare Reference ev Dr. SIDDARAM GULED Reig Type OP / 6953			0810/24 14-02-2024 at 10:39 AM 14-02-2024 at 12:39 PM
EST PARAMETER	RESULT	REFERENCI	RANGE
	BIOCHEMISTRY		
JVER FUNCTION TEST (LFT)			
FOTAL BILIRUBIN	7.6 mg/dl,	0 - 1 mo/di	
DIRECT BILIRUBIN	6.5 mg/dl	0 - 0.25 mg/d	
NDIRECT BILIRUBIN	1.10 mg/al	u bleb nigu	
SPARATE AMINOTRANSFERASE (SGOT/AST)	110 U.A.	up to 40 U/L	
LANINE AMINOTRANSFERASE (SGPT/ALT)	19 UAL	up to 40 U/L	
LKALINE PHOSPHATASE	239 IU/L	44 - 147 IU/I	
OTAL PROTEIN	7.5 g/dl	6 - 8.5 g/di	
ERUM ALBUMIN	2.9 q/dl		
ERUM GLOBULIN	4.6 g/dL	3.5 - 5.2 g/d	
G RATIO	0.6	2.3 - 3.5 g/dl.	
	0.0	1 - 1.5	
	CUNICAL PATHOLOGY		
RINE BILE SALT (BS)			
RINE BILE SALT	PRESENT		
RINE BILE PIGMENT (BP)			
	PRESENT		
exceed by Satel Komp	**** End of Report ****		
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LFT (Liver function test) on 14/02/2024
Total Bilirubin - 7.6mg/dl
Direct Bilirubin - 6.5 mg/dl
Indirect Bilirubin - 1.10mg/dl
AST/SGOT - 110U/L
ALT/SGPT - 19U/L
Alkaline Phosphate - 239IU/L
Total protein - 7.5g/dl
Serum Albumin - 2.9g/dl
Serum Globulin - 4.6g/dl
A/G Ratio - 0.6

Sayyaji Rao Road, Vishweshwaraiah Circle, Mysuru - 570001 DEPARTMENT OF ROGANIDANA					
SEX S1 Yrs / Male CRHED BY Dr. SIDDARAM GULED CT TYPE OP / 9181		LABING DATE OF COLLECTION DATE OF REPORT	1043/24 28-02-2024 at 12:08 PV 28-02-2024 at 12:08 PM		
EST PARAMETER	RESULT	REFERENC	E RANGE		
	BIOCHEMISTRY				
IVER FUNCTION TEST (LFT)					
OTAL BILIBUBIN	3.9 mg/d	0 - 1 ma/dl			
RECT BILIAUBIN	3.6 mg/d	0 - 0.25 mu	di		
DIRECT BILIRUBIN	0.30 mg/dl				
SPARATE AMINOTRANSFERASE (SGOT/AST)	127 U/L	up to 40 U/I			
LATINE AMINOTRANSFERASE (SGPT/ALT)	78 U/L	up to 40 U/L			
ALKALINE PHOSPHATASE	242 IU/L	44 - 147 IU/			
TOTAL PROTEIN	6.8 g/dl	6 - 8.5 g/dl			
SERUM ALBUMIN	3.5 g/dl	3.5 - 5.2 g/d			
SERUM GLOBULIN	3.3 g/dL	2.3 - 3.5 g/d			
NG PATIO	1.1	1 - 1.5			
	CLINICAL PATHOLOGY				
JRINE BILE SALT (BS)					
HAVE BILE SALT	PRESENT				
JRINE BILE PIGMENT (BP)					
JRINE BILE PIGMENT	PRESENT				
	**** End of Report ****		nu by Sami Komar in 1949 - 194		

LFT (Liver function test) on 28/02/2024
Total Bilirubin - 3.9mg/dl
Direct Bilirubin - 3.6mg/dl
Indirect Bilirubin - 0.30mg/dl
AST/SGOT - 127U/L
ALT/SGPT - 78U/L
Alkaline Phosphate - 242IU/L
Total protein - 6.8g/dl
Serum Albumin - 3.5g/dl
Serum Globulin - 3.3g/dl

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NAME STORY MANA AVERSIX STORY MANA REFERED TV. SIDDARAM GULED REST TYPE (P) 6253		LAB NO 1376/24 DATE OF COLLECTORI 23/03-2024 at 10.32 DATE OF REPORT 23/03-2024 at 10.56	
EST PARAMETER	RESULT	REFERENCE RANGE	
	BIOCHEMISTRY		
JVER EUNCTION TEST (LET)			
TOTAL BILIBUBIN	1,4 mg/dl	0 - 1 mg/dl	
DIRECT BILIRUBIN	1.0 mg/dl	0 - 0.25 mg/dl	
NDIRECT BILIRUBIN	0,40 mg/dl		
ASPARATE AMINOTRANSFERASE (SGOT/AST)	67 U/L	up to 40 U/L	
ALANINE AMINOTRANSFERASE (SGPT/ALT)	52 U/L	up to 40 U/L	
ALKALINE PHOSPHATASE	137 IU/L	44 - 147 IU/L	
TOTAL PHOTEIN	6.3 g/dl	6 - 8 5 g/dl	
	3.0 g/dl	3.5 - 5.2 g/dl	
SERUM GLOBULIN	3,3 g/dL	2.3 - 3.5 g/dL	
VG RATIO	0.9	1 - 1.5	
	CLINICAL PATHOL	OGY	
IRINE BILE SALT (BS)			
JRINE BILE SALT	ABSENT		
JRINE BILE PIGMENT (BP)			
JEINE BILE PIGMENT	ARSENT		
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LFT (Liver function test) on 23/03/2024
Total Bilirubin - 1.4mg/dl
Direct Bilirubin - 1.0mg/dl
Indirect Bilirubin - 0.40 mg/dl
AST/SGOT - 67U/L
ALT/SGPT - 52U/L
Alkaline Phosphate - 137IU/L
Total protein - 6.3g/dl
Serum Albumin - 3.0g/dl
Serum Globulin - 3.3g/dl

Treatment Given

Table 1: Shows Shamanoushadhi were administeredduring the Hospital stay for the first 7 days.

Date	Treatment (Shamanoushadhi)	Dosage	Duration
15/2/2024 to 21/2/2024	NABB Swarasa (Nimba, Amrita, Bhrigaraja, Bhumyamlaki)	15ml BD B/F	7 days
	Arogyavardini Vati	500mg, 2BD A/F	7 days
	Laghusoothsekhara Rasa	250mg, 2BD B/F	7 days
	Phalatrikadi Kwatha + Katuki Churna	15ml BD+ 2gm of <i>Katuki</i> <i>Churna</i> as a <i>Prakshepaka</i> <i>Dravya</i> B/F with one cup of water	7 days
	Tab Nirocil	1000mg BD A/F	7 days

Advice on discharge

1. Arogyavardini Vati - 500mg, 2BD A/F

2. Laghusoothsekara Rasa - 250mg, 2BD B/F

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3. *Phalatrikadi Kwatha* - 15ml BD with 2gm of *Katuki Churna* B/F with one cup of water

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4. Tab. Nirocil - 1000mg, BD A/F

Pathya Ahara and Vihara

Ahara

Cereals - Purana Yava, Purana Godhuma, Purana Shali, Mudga.

Vegetables - Patola, Kushmanda, Karavellaka, Methika, Shigru.

Others - Amlaki, Ikshurasa, Grutha, Jangala-Mamsa Rasa etc.

Anupana - Drakshajala

Follow-up

Table 2: Shows 1st Follow-up details

1 st Follow- up	Sha	manoushadhi	Duration
1 st follow- up on	1.	Arogyavardini Vati - 500mg, 2BD A/F	1 month
28/02/2024	2.	Patolakaturohinyadhi Kashaya - 15ml BD with 2gm of Katuki Churna as a Pakshepaka Dravya B/F with one cup of water	
	3.	Laghusoothsekara Rasa - 250mg, 2BD B/F	
	4.	Tab Nirocil - 1000mg BD A/F	

Table 3: Shows 2nd Follow-up details

2 nd Follow- up	Shamanoushadhi	Duration
2 nd fallow- up on	1. Arogyavardini Vati - 500mg, 2BD A/F	1 month
23/03/2024	 Patolakaturohinyadhi Kashaya - 15ml BD 	
	3. Laghusoothsekara Rasa - 250mg, 2 BD B/F	
	4. Tab. Nirocil - 1000mg BD A/F	

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RESULTS

Objective outcome

during Treatment

23/03/2024 Assessment 14/02/2024 28/2/2024 Parameters 1.4mg/dl Sr. bilirubin 7.6mg/dl 3.9mg/dl Direct bilirubin 6.5 mg/dl 3.6mg/dl 1.0mg/dl Indirect bilirubin 1.10mg/dl 0.30mg/dl 0.40 mg/dl 127U/L 67U/L SGOT 110U/L 19U/L 78U/L SGPT 52U/L 239IU/L 242IU/L 137IU/L Alkaline Phosphate

Table 4: Showing Changes in Blood Investigation

Subjective outcome

After 68 days of treatment, the patient showed significant improvement in all symptoms. These included: the colour of the eyes and urine returned to normal, increased appetite, reduced abdominal distension and bilateral pedal edema. The patient gained strength and his liver profile returned within normal limits. The patient improved gradually during the treatment, and there has been no recurrence of symptoms during follow-up.

Positive results were significantly noticeable in both clinical and laboratory criteria.

DISCUSSION

Discussion on disease Samprapti

Patient indulging in heavy *Madya* and *Ahara* having *Ushna, Teekshna, Katu, Vidahi* and *Amla* properties results in vitiation of *Pitta*^[9] and *Rakta*.^[10] *Yakrit* being *Mulasthana* of *Raktavaha Srotas*^[11] gets vitiated by *Pitta* and *Rakta. Malarupi Pitta* of *Raktadhatu* increased in excess entering the *Shakha* leading to yellowish discoloration of eyes, skin, nails and urine, reduced appetite, anorexia, and generalized weakness.^[12]

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Discussion on the mode of action of drugs

NABB Swaras^[13]: Nimba, Amruta, Bringaraja, Bhumyamlaki all have Katu, Tikta Rasa, Katu Vipaka, Laghu and Ruksha Guna. These drugs have Pitta-Rechana, Rakta Shodhana and Yakrut-Uttejaka properties. Amrita itself is Pandu and Kamala Nashaka. It acts like hepatocellular regeneration, Antiviral activity, and immunomodulation. In reviewing the dissertation on the role of NABB Swaras in viral hepatitis, the results and conclusions show that there was a complete reduction in Twakpeetata after 14 days of treatment. Nakhapeetata was completely reduced after 21 days, while Mootra-Peetata, Netra-Peetata, and liver enlargement took 4 weeks for recovery. The changes in LFT values between pretest and post-test were highly significant.

Katuki^[14]: It is *Pittashamaka* because of *Sheeta Virya* and *Tikta Rasa*. It is helpful in *Yakrut Vikara*, *Agnimandya*, *Raktavikara*, and acts as *Malabedhini*.

Phalatrikadi Kashaya^[15]: It acts as *Pittahara*, *Pitta Rechana*, *Yakruta-Uttejaka*, *Deepana*, *Tridoshahara*, and *Rasayana*.

Tab. Nirocil^[16,17,18]: It contains *Tamalaki, Guduchi, Erandand Yashad Bhasma*, so it acts as *Yakrituttejaka*, immunomodulator, *Jwaraghana*, and *Rechaka*.

Arogyavardhani Rasa^[19]: Deepana. Pachana, Agnidipana, Malashuddhikara, Kshudhavardhaka & Sarvarogaprashamani. It balances & maintains liver Function as well as a healthy digestive system.

Patolakaturohinyadhi Kashaya^[20]: Ingredients of Patolakaturohinyadhi Kashaya are Tikta Rasa Pradhan and predominantly Ushna Veeryatmak which are useful Kapha-Pittahara and Tridoshahara property. which act on liver as Yakritottejaka and Yakrit Shodhana.

Laghusoothsekara Rasa^[21]: It acts as Mandagni-Nashaka, Shoola-Amayapaham and Tridosha-Shamaka. Nagavalli Patra Swarasa is Bhavana Dravya, *it* acts as gastroprotective and carminative properties and promotes healthy digestion.

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CONCLUSION

In the patient of *Kamala*, the elimination of *Sanchit Dosha* through *Mrudu Shodana* by using *Tikta Rasa Pradhana Dravyas. NABB Swarasa, Katuki Churna, Phalatrikadhi Kashaya, Patolakaturohinyadhi Kashaya* etc. are *Tikta Rasa Pradhana Dravyas* and act as *Mrudu Virechaka.* All the above-explained oral medicines and *Pathya Ahara* were beneficial in improving symptoms such as yellowish discoloration of skin, urine, and eyes, increased appetite, reduced bilateral pedal edema, weakness, and reduction in serum bilirubin level. So, these herbal formulations are effective in the management of *Kamala*.

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