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# PHALATRIKADI KWATH – A BOON FOR LIVER DISORDERS

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# ABSTRACT

Non-alcoholic Fatty Liver Disease (NAFLD) is a global problem affecting a wide range of population associated with co-morbidities. Management of NAFLD is aimed both at managing liver disease and also its co-morbidities. This is followed with an umbrella of therapeutic modules including lifestyle modifications, diet and the medications. Though both modern medicine and Ayurvedic medicine follow the comprehensive approach in managing the disease, physicians will be very cautious with medications prescribed as those are associated with adverse effects. In this particular situation, Ayurvedic medicine such as Phalatrikadi kwath plays a vital role in relieving the liver disorder, maintaining its health and also the health of digestive system thereby improving the overall health and the quality of life of the patient that is greatly disturbed with the liver disorders. Phalatrikadi Kwath that is considered one of the best for liver disorders, is critically reviewed in this study.

Keywords: Phalatrikadi Kwath, NAFLD, Liver disorders, Ayurveda.

## INTRODUCTION

Non-alcoholic fatty liver disorder (NAFLD) is one of the leading causes of chronic liver disease and has gained international attention [1]. Regardless of age, sex, geography or ethnicity, chronic liver disease is prevalent globally [2]. According to UK National Statistics, liver illnesses are on the rise and are now the fifth most prevalent cause of death [3]. Additionally, they have been ranked as the second most

common cause of death in the US among all disorders [4]. In India, incidences of diabetes mellitus (DM), obesity, insulin resistance, and dyslipidemia have increased during the past 20 years [5, 6]. Due to the scarcity of statistics on prevalence in India, this can be directly linked to an increase in NAFLD [7, 8]. Non-alcoholic steatohepatitis (NASH), simple fatty infiltration (steatosis), fat and inflammation, and cirrhosis are all included in the category of nonalcoholic fatty liver disease (NAFLD). CKD, osteoporosis, extra hepatic malignancy, and increased liver-related morbidity and mortality have all been linked to NAFLD, which is now acknowledged as a multisystem disorder [9]. The treatment of NAFLD follows the standard protocol for dealing with metabolic conditions brought on by liver disease. Potential treatment modalities for NAFLD include dietary and lifestyle changes, the management of risk factors, the use of insulin sensitising agents, antioxidants, and other hepatoprotective medications [10].

The pandemic Covid-19 has made people precious the significance of immunity, wellness and the importance of ancient and alternative medical sciences such as Ayurveda. About 70-80% of the world population relies mainly on the herbal sources also called as non-conventional medicines in the healthcare according to the world Health Organization [11]. Ayurvedic science has been treating liver disease for centuries and thereby proved its safety and efficacy. Research work on Ayurveda have shown that Ayurvedic herbs and Products comprises bioactive molecules that protect liver from oxidative stress antiinflammatory, immense modulating, liver regenerating, promotes viros eliminate block fibrogenesis and infibit tumor growth in vitro and in vivo studies [12]. In this study, an attempt has been made to evaluate the efficacy of a formulation of ayurveda classics.

### YakritRoga/Liver Disorders in Ayurveda :

Ayurveda has immense potential in the management of non-common. In Ayurveda NAFLD may be understood as "Yakrit Roga" and "Medo Roga". Among Brihat Trayees as early as 1500 BC Charak Samhita described this condition as Sthoulya (obesity) and Medo Roga (disease state of fat metabolism) and mentioned sthoulya as one of the Astaninditiya Purusha [13]. Acharya Charaka also speaks about this condition with Pleehodara and Yakritodara [14]. Both Charaka Samhita and Astanga Hridayam have correlated Yakrit Roga with Santarpanjanya Vyadhi [15]. According to Yogaratnakar, Vidahi (spicy food) and abhisyandiahāra (food which block the channels leads to raktakaphaduṣṭi which may lead to Yakritodara) [16]. In Sushruta Samhita it is mentioned that Yakrit is the seat of Ranjaka Pitta which transforms Apya rasa Dhatu to rakta dhatu [17] also the moolasthana of Raktavahasrotasa [18]. The detailed description of YakritRoga is found in Bhavaprakash as Yakritvridhi along with its classification and symptomology.

# PHALTRIKADI KWATH : [19]

In the context of Pandu and Kamala, PhaltrikadiKwath has been referenced in Chakradutta (8/8), Sharangdhar Samhita's (2/75), Yoga Ratnakar's (5th sloka) Pandu roga and Bhaisajya Ratnavali (12/22) writings. Eight medications are found in PhalatrikadiKwath, which is mostly effective in treating Koshtashrita kamala/ Hepatocellular jaundice, cirrhosis, alcoholic hepatitis, fatty liver, and other conditions of the liver. The eight herbs Haritaki, Vibhitaki, Amalaki, Amrita, Katuki, Nimba, Kiratikta, and Vasa make up the most popular and potent mixture, which was first mentioned in the 11thcentury work Chakradutta, written by Chakrapanidutta. I attempted to comprehend and describe the qualities, method of action on dosa (physiological entities of the human body), mechanism of action on contemporary medical parameters, and research activities carried out at various institutions in the current review study. Each herb's description is discussed in terms of the aforementioned factors.

## 1. HARITAKI

Botanical Name: Terminalia chebula Retz.						
Family:		Combretaceae				
Ayurvedic properties						
Rasa:	Pancha	Rasa	(Lavana	Varjita,	Ka	
shaya Pradhana	.)					
Guna:	Laghu,	Ruksh	a			
Veerya:	Ushna					

# Vipaka: Madhura

### **Chemical Composition:**

18-Amino acids and sugar in abundant quantity. Tannin, Chebulagic acid, Chebulinicacid, Corilagin. Phosphoric, Succinic, Kwinic, Shikimicin less quantity.

#### **Main Actions:**

Diuretics and Cardiotonic, Immunosuppressive effect on Carbon Tetra Chloride (CCl4) mediated toxicity and Anti-microbial effect.

#### Actions on Tridosha: Tridoshahara

#### 2. VIBHITAKI

Botanical Name:Terminalia bellerica Roxb.Family:Combretaceae

#### **Ayurvedic properties:**

Rasa: Kashaya Guna: Ruksha, Laghu Veerya: Ushna Vipaka: Madhura

#### **Chemical composition:**

Tannin, Citosterol, Gailic acid, Chebulagic acid, Mannitol, Glucose, Ethyl gylete, Eolegic acid, Galactose, Fructose and Raimanose.

#### Main actions:

Antioxidant, Hepato protective action of fruits and Anti-microbial Property.

Actions on Tridosha: Tridoshahara, especially Kapha Shamak.

#### 3. AMLAKI

Botanical Name:Emblica officinalis Gaertn.Family:Euphorbiaceae

#### Ayurvedic properties:

Rasa: Pancha Rasa (Lavana Varjita, Amla Rasa Pradhan)

Guna: Laghu, Ruksha Veerya: Sheeta Vipaka: Madhura

#### **Chemical Composition:**

Fruits and leaves – Tannins, Polyphenolic compounds, lite Terchedin. Leaves and stem – Lupeol. Roots – ellagic acid.

#### Main actions:

Anti-inflammatory, Anti- Oxygen, Membrane stabilizing action, anti-viral etc. Action on Tridosha: Tridoshahara especially Pitta Shamak.

# 4. AMRITA Botanical Name: Tinospora cordifolia(Wild) Hook Family: Menispermaceae Ayurvedic Properties: Rasa: Tikta, Kashaya Guna: Guru, Snigdha

Veerya: Ushna Vipaka: Madhura

#### **Chemical Composition:**

Fresh stem bark contains Giloin, Giloinin, gilosteroland also it contains Berberine etc.

#### **Main Actions:**

Antioxidant action of roots (Reduce Cyclophosphamide induced toxicity). Adaptogenic properties. Immunotherapy in the treatment of obstructive jaundice. Immuno modulating agent, Extracts reducing the Chemotherapy induced by radicals. Phagocytic activity suppresses the Kuffer cells (causes liver injury).

#### Actions on Tridosha: Tridoshahara.

#### 5. NIMB

Botanical Name:Azadirachta indica L.Family:Meliaceae

#### **Ayurvedic Properties:**

Rasa:	Tikta Kashaya			
Guna:	Laghu			
Veerya:	Sheeta			
Vipaka:	Katu			
Chemical Composition:				

linolic acid, palmitic acid etc.

Flowers - kaempferol, quarcetin and myricetin. Bark – Nimbinine, nimbin, nimbidine. Oil – olic Acid,

# Main actions:

Anti-inflammatory, analgesic, Anti Pyretic, Antibacterial, anti-viral, Hepato protective and immuno potentiating effect etc.

Action on Tridosha: Tridoshahara especially Kapha Pitta Shamak.

#### 6. KATUKI

**Botanical Name:** Picrorhiza kurroa Royle Ex. Benth.

Family:	Scrophularoaceae	Main Actions:			
Ayurvedic Properties:		Shothahara, Jantughna, Vedanasthapana, Hridya,			
Rasa:	Tikta	Sleshmahara, Kasahara, Mutrajanana, Swedajanana,			
Guna:	Ruksha, Laghu	Jwarahara.			
Veerya:	Sheeta	Actions on Tridosha: Tridoshaharaespecially Kapha			
Vipaka:	Katu	Pitta Shamak.			
<b>Chemical Con</b>	nposition:	8. KIRATIKTA/BHUNIMB			
Glycosides, De	extrose, Acetone, Ethyl, acetate, Chlo-	Botanical Name: Swertia chirata Buch Ham			
rophorm, Benzene and Ether, Picrorhizin, Picro- hizetin, kutkin and Cathertic acid.		Family: Gentananceae			
Main Actions: Antioxidant, Stimulation of liver regeneration.		Ayurvedic Properties:			
Actions on	Tridosha: Tridoshahara especially	Rasa: Tikta Kashaya,			
Kapha Pitta Shamak		Guna: Laghu			
		Veerya: Sheeta			
7. VASA		Vipaka: Katu			
Botanical Name: Adhatoda vasica Nees.		Chemical Composition:			
Family:	Acanthaceae	Mangiferin,Swetiamarin,Swertianin,Chiratanin,			
Ayurvedic Properties:		Enicoflvine,Gentianine,Chiratin,Swertenol,Glutamic			
Rasa: Tikta, Kashaya		Acid, Chiratenol etc.			
Guna: Ruksha, laghu		Main Actions:			
Veerya:	Sheeta	Laxative, hepatoprotective, anti-inflamatory, anti-			
Vipak:	Katu	cancer, immunostimulant etc.			
Chemical Cor	-	Actions on Tridosha: Tridoshahara specially Kapha			
Alkaloids like Vasicine, adhatodine, Vasicol, Tannins,		Pitta Shamak			

# Pharmacological Characters of PhaltrikadiKwath :

Flavonoids, Terpenes, Sugars and Glucosides.

Sl	Ingredient	Rasa	Guna	Veerya	Vipaka	Dosa Karma
No.						
1	Amalaki	Pancharasa	Laghu, Ruksha	Sheeta	Madhura	Tridoshahara
		(Alavana Amla				
		Pradhan)				
2	Haritaki	Pancharasa	Laghu, Ruksha	Ushna	Madhura	Tridoshahara
		(Alavana Kashaya				
		Pradhan)				
3	Vibhitaki	Kashaya	Ruksha, Laghu	Ushna	Madhura	Tridoshahara
4	Amrita	Tikta, Kashaya	Guru, Snigdha	Ushna	Katu	Tridoshahara
5	Vasa	Tikta, Kashaya	Ruksha, Laghu	Sheeta	Katu	Kapha Pitta
						Shamak
6	Katuki	Tikta	Laghu	Sheeta	Katu	Kapha Pitta Shamak
7	Kiratatikta	Tikta	Laghu	Ushna	Katu	Kapha Pitta Shamak
8	Nimba	Tikta, Kashaya	Laghu	Sheeta	Katu	Tridoshahara

Phalatrikadi	Pancharasa (Alavana Amla	Laghu, Ruksha Guru, Snigdha	Anush- nasheet	Madhura/Katu	Tridoshahara
	Pradhan)				

On the Ayurveda Parameters these Drugs are Tikta, Kashaya ras predominant and madhur in Vipaka so these are most effective and efficient to pacify the Pitta dosha, the main cause of many liver disorders.

## DISCUSSION

We can therefore conclude that Phaltrikadi, a wellknown decoction/ Kwath that contains the eight herbal medicines described in vivid detail, is a common and effective preparation for the treatment of Koshtashrita/Kamala Hepatocellular Jaundice, pandu/Anemia, and other liver disorders. It is significantly safer and more effective than any other herbmineral combination because it is only an herbal preparation. In a nutshell, these drugs have the qualities listed below, namely Pittahara. Pittarechak, Yakriduttejak, Deepan, Rechan, Pachak, Shothhara, Jwarahara, Kamala and Panduhara, Yakrit and Raktvikarhara, Tridoshahara, Rasayan, Mutrajanana, Pittasarák, Anulomak, Swedak, Dahaprashaman, and Raktapittahara are some of the other names for these people. According to current standards, it is possible to state that herbal hepatoprotective preparations have the following qualities: cholecystectomy and choleretic action, hepatocellular regeneration, antiviral, antioxidant, enzyme and metabolic correction, digestive, membrane stabilising effect, immunomodulating action, anti-inflammatory action, and antipyretic.

# CONCLUSION

Phalatrikadikwath is a herbo-mineral formulation, it is free from adverse and toxicological effects as it will be prepared according to the classical method and principles without compromising the qualities. It is considered as the best medicine for liver disorders as it maintains the health of the liver and thereby a healthy digestive system apart from relieving liver disorders. Though it has proved its efficacy through few animal experimentations, case studies and case series, larger clinical studies are needed to be conducted with a larger sample size to validate its efficacy and to make it applicable to the larger population .

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