

YAKRITROGAHARA DRUG: ROLE IN HEPATIC DISORDERS AND SYSTEMIC PRODUCTIVITY***Dr. Vijayalakshmi D.**

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ABSTRACT

The liver is a vital organ indispensable for survival and homeostasis. It plays a central role in metabolism, detoxification, digestion, haematopoiesis, nutrient storage, hormonal regulation, and immune defence. In Ayurveda, the liver is described as *Yakrut* and is functionally associated with *Ranjaka Pitta*, *Rakta Dhātu*, and *Jatharagni*. Impairment of hepatic function may manifest as jaundice, hepatomegaly, fatty liver disease, hepatitis, cirrhosis, oedema, dermatological disorders, fatigue, and reduced immunity. Classical Ayurvedic literature including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and Bhavaprakasha Nighantu describes several herbs indicated in liver disorders under the concept of *pandu*, *kamala* and *Yakrit-pleeha chikitsa*. These drugs possess *Deepana*, *Pachana*, *Rechana*, *Pittahara*, *Raktashodhaka*, *Shothahara*, and *Rasayana* properties, along with antioxidant and hepatoprotective activities. Their therapeutic utility extends beyond management of hepatic diseases and may contribute to improved systemic productivity by enhancing digestion, energy generation, immunity, blood quality, hormonal balance, cognitive efficiency, and physical performance. This review explores the Ayurvedic concept of *Yakrut*, important *Yakritrogahara* drugs, their probable pharmacological actions, and their significance in hepatic health and overall well-being.

KEYWORDS: *Yakritrogahara*, Liver disease, Hepatoprotective herbs, *Agni*, *Ranjaka Pitta*.**INTRODUCTION**

The liver is the largest glandular organ in the human body and one of the most metabolically active tissues. Its physiological functions include bile secretion, metabolism of carbohydrates, proteins, and lipids, detoxification of xenobiotics, storage of glycogen, vitamins and minerals, synthesis of plasma proteins, regulation of endocrine activity, and maintenance of immune responses. Owing to its central metabolic role, hepatic dysfunction can produce multisystem disorders.

Although Ayurveda does not describe the liver in modern anatomical terminology, its functional relevance is clearly recognized through concepts such as *Yakrut*, *Ranjaka Pitta*, *Rakta Dhātu*, *Agni*, and *Ama*. The liver is regarded as a principal seat of *Pitta* and a site of transformation where nutrients are converted into biologically useful forms. Proper functioning of *Yakrut* supports healthy blood formation, efficient digestion, optimal complexion, vitality, and longevity.

According to the World Health Organization, liver diseases account for nearly 2 million deaths annually worldwide, arising from conditions such as viral hepatitis, alcoholic liver disease, non-alcoholic fatty liver disease (NAFLD), and drug-induced hepatotoxicity.^[1] The prevalence of liver disorders has increased considerably due to changing dietary habits, sedentary lifestyle, obesity, alcohol consumption, environmental toxins, stress, and prolonged use of medications. Common conditions include non-alcoholic fatty liver disease, hepatitis, jaundice, and cirrhosis. These disorders adversely affect physical capacity, mental performance, immunity, and quality of life. Ayurveda offers a comprehensive approach through dietary regulation, lifestyle modification, purification procedures, and herbal therapeutics. *Yakritrogahara* drugs are therefore important not only in disease management but also in health promotion.

Ayurvedic Concept of Yakrut(Liver)

The term *Yakrut* denotes the liver and is considered an important visceral organ involved in transformation, nourishment, and maintenance of vitality.

Functional Significance of Yakrut

Yakrut is considered an important organ in Ayurveda due to its vital role in transformation, nourishment, and maintenance of health. It is regarded as the seat of *Ranjaka Pitta*, which is located in *Yakrut* and *Pleeha* and is responsible for imparting colour to *Rasa Dhatu* and converting it into *Rakta Dhatu*.^[2] The liver is therefore closely associated with the formation, purification, and

maintenance of healthy blood, as *Raktavaha Srotomoola* is described as *Yakrut* and *Pleeha*.^[3] Disturbances in its function may manifest as anaemia, discoloration, itching, and bleeding tendencies. *Yakrut* also plays an important role in *Agni* and metabolic transformation, being one of the *Kosthangas*^[4] that supports digestion and metabolism. Hepatic dysfunction may be correlated with *Agnimandya*, leading to indigestion and accumulation of toxins. Proper liver function also facilitates *Ama Pachana* and detoxification by processing incompletely metabolized substances. In addition, a healthy *Yakrut* promotes stamina, lustre, enthusiasm, vitality, and physical resilience.

Concept of yakrut vikara and liver disorder

<i>Kamala</i> ^[5]	<i>Kamala</i> is the main disease of liver. Yellowish discoloration of sclera, skin, face, nails, and urine associated with constitutional symptoms like anorexia, debility, indigestion, loss of physical strength is called <i>Kamala</i>. <i>kamala</i> is consequence of <i>pandu</i> or <i>pandu</i> is essential causative factor for <i>kamala</i>. This shows the relation of jaundice originated due to haemolytic anemia. But <i>Kamala</i> can occur without <i>pandu</i>. 2 types of <i>kamala</i> are there.	
	<i>Shakhashrita Kamala</i>	In <i>Shakhashrita Kamala</i>, the normal passage of <i>Pitta</i> to the <i>Kostha</i> is obstructed by aggravated <i>Kapha</i>, causing accumulation of <i>Pitta</i> in peripheral tissues. This condition closely resembles obstructive jaundice. Since bile does not reach the gastrointestinal tract, stools become pale or clay-coloured, while urine appears yellow or dark due to excretion of conjugated bilirubin. The Ayurvedic description of retained <i>Pitta</i> and altered stool–urine colour parallels the modern pathophysiology of biliary obstruction. Common causes include gallstones in the common bile duct, carcinoma of the head of pancreas, biliary atresia, cholangiocarcinoma, pancreatitis, cholestasis of pregnancy, pancreatic pseudocysts, and parasitic infestations such as liver flukes.
	<i>Kosthashrita Kamala</i>	<i>Kosthaashrita Kamala</i> closely resembles pre-hepatic and hepatocellular jaundice. Pre-hepatic jaundice results from excessive haemolysis and increased breakdown of red blood cells, leading to excess bilirubin production. Common causes include severe malaria, sickle cell anaemia, hereditary spherocytosis, thalassemia, pyruvate kinase deficiency, and glucose-6-phosphate dehydrogenase (G6PD) deficiency. Hepatocellular jaundice occurs due to direct liver cell damage, as seen in acute or chronic hepatitis, hepatotoxicity, cirrhosis, drug-induced hepatitis, and alcoholic liver disease. Thus, <i>Kosthaashrita Kamala</i> reflects both excessive bilirubin production and impaired hepatic metabolism.
<i>Haleemaka</i> ^[6]	<i>Haleemaka</i> is considered an advanced stage of <i>Pandu</i>, associated with severe depletion of strength and reduced functional capacity due to impaired blood quality and diminished oxygen-carrying ability (<i>Jeevana Karma Hani</i>). Clinically, it resembles chronic cholestatic liver disorders or progressive hepatic dysfunction. Bile stasis and prolonged hepatic impairment may lead to features such as marked fatigue (<i>Bala-Utsaha Hani</i>), jaundice, dark urine, body ache, reduced libido, hepatomegaly, cirrhosis, and portal hypertension. Thus, <i>Haleemaka</i> represents a severe metabolic and hepatic disorder with systemic manifestations.	
<i>Panaki</i> ^[7]	<i>Panaki</i>, described in the context of <i>Haleemaka</i>, represents a condition of impaired digestion and malabsorption, particularly of fats, due to inadequate bile secretion or biliary obstruction. As bile is essential for fat digestion, its deficiency leads to steatorrhea (<i>Bhinna Varcha</i>), characterized by fatty stools. Chronic fat malabsorption may further result in deficiency of fat-soluble vitamins A, D, E, and K, causing additional nutritional and systemic complications.	
<i>Kumbha Kamala</i> ^[8]	<i>Kumbha Kamala</i> represents an advanced and severe stage of <i>Kamala</i>, particularly of <i>Kosthaashrita Kamala</i>, and is considered difficult to treat. The term <i>Kumbha</i> denotes abdominal distension, indicating the presence of ascites, a major feature of chronic liver disease. It clinically resembles decompensated liver failure with systemic complications. Due to severe hepatic dysfunction, protein synthesis is reduced, leading to generalized oedema and fluid accumulation. Portal hypertension may further contribute to ascites. Coagulation defects can cause bleeding manifestations such as hematemesis, rectal bleeding, and haematuria. Retained bile	

	pigments may produce yellow or dark urine, while gastrointestinal bleeding may result in black stools (<i>Krishna Shakrita</i>). Neurological features such as drowsiness, confusion, altered consciousness, and coma resemble hepatic encephalopathy. Skin dryness, pruritus, weakness, and progressive debility are also characteristic features. Thus, Kumbha Kamala corresponds to advanced chronic liver disease such as ascites with portal hypertension which probable end stage of cirrhosis.
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Table 1: Important Yakritrogahara Drugs and Their Actions.

Commonly accepted hepatoprotective Ayurvedic herbs include the following.

<i>Dravya</i>	<i>Rasa</i>	<i>Guna</i>	<i>Virya</i>	<i>Vipaka</i>	<i>Karma</i>
<i>Bhumyamalaki</i> ^[9]	Tikta, Madhura, Kashaya	Laghu, Ruksha	Sita.	Madhura	Kamala Yakrit vikara Amlapitta Rasayana Kapha-pitta Shamaka.
<i>Katuki</i> ^[10]	Tikta	Ruksha, laghu	sheeta	Katu	Kapha-pittahara, Kushtaghna, Kamlahara, Bhedniya, Dipana
<i>Kalmegha</i> ^[11]	Tikta	Laghu, ruksha	Sita	Katu	Kapha-pittahara, Dipana, Kamala Pandu, sotha, Jvara
<i>Punarnava</i> ^[12]	Madhur, Tikta, Kashaya	Laghu, Ruksha	Ushna	Katu	Rasayana, Mootrala, Deepan, Lekhana, Shotha, Pandu, Kamala, Udar roga
<i>Guduchi</i> ^[13]	Tikta	Guru	Ushna	Madura	Rasayana, Vatapitta hara, dipanam, rakthadosahara
<i>Sharpunkha</i> ^[14]	Tikta, Kashaya	Laghu, Ruksha, Tikshna	Ushna	Ushna	Kapha-Vata Shamak, Shothahara Deepana-Pachana Mutrala, Vishaghna Raktashodhaka
<i>Bhringaraja</i> ^[15]	Tikta, katu	Laghu, Ruksha	Ushana	Katu	Kaphavata samana, Rasayana, Raktashodhaka, Shothahara Deepana-Pachana
<i>Daruharidra</i> ^[16]	Tikta, Kashaya	Laghu, Ruksha	Ushna	Katu	Kapha-Pitta Shamaka Raktashodhaka Deepana-Pachana Vrana sodhana ropana
<i>Haritaki</i> ^[17]	Pancharasa predominantly Kashaya	Laghu, Ruksha	Ushna	Madura	Tridosahara. Anulomana, Rechana, Deepana, Pachana, Rasayana Kushtaghna Mutrala Jwaraghna, Vrana Ropana
<i>Nimba</i> ^[18]	Tikta, Kashaya	Laghu, Ruksha	Sheetha	Katu	Kapha pitta samaka Kushtaghna, Kandughna, Raktashodhaka Jwaraghna Deepana-Pachana Vrana Shodhana & Ropana Daha Shamaka. Vishaghna

Table 1A

Dravya	Botanical Name	Family Name	Action
<i>Bhumyamalaki</i>	<i>Phyllanthus niruri</i> Linn.	Euphorbiaceae	Antioxidant anti-inflammatory antiviral antifibrotic hepatoprotective activities
<i>Katuki</i>	<i>Picrorhiza kurroa</i>	Plantaginaceae	hepatoprotective activities
<i>Kalmegha</i>	<i>Andrographis paniculata</i> Wall.ex Nees	Acanthaceae	anti-inflammatory, anti-oxidant, immunostimulant, hepato-renal protective,
<i>Punarnava</i>	<i>Boerhavia diffusa</i>	Nyctaginaceae	Hepatoprotection activity Anti-inflammation action Anti-stress and immune - modulatory activity Anti-viral property
<i>Guduchi</i>	<i>Tinospora cordifolia</i>	Menispermaceae	antioxidant, hepatoprotective
<i>Sharpunkha</i>	<i>Tephrosia purpurea</i> (L.) Pers.	Fabaceae	Hepatoprotective, Anti- inflammatory and antioxidant activity
<i>Bhringaraja</i>	<i>Eclipta alba</i> (L.)	Asteraceae	Hepatoprotective and antioxidant activity
<i>Daruharidra</i>	<i>Berberis aristata</i> DC.	Berberidaceae	Hepatoprotective and antioxidant activity, Anti-inflammatory
<i>Haritaki</i>	<i>Terminalia chebula</i> Retz.	Combretaceae	Antioxidant and antimicrobial activity
<i>Nimba</i>	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Anti-inflammatory, antioxidant and immunomodulatory activity

The liver is continuously exposed to toxins, alcohol metabolites, drugs, free radicals, and inflammatory mediators; therefore, preservation of hepatic function is essential for overall health. Ayurvedic herbs such as *Katuki*, *Bhumyamalaki*, *Kalmegha*, and *Bhringaraja* are traditionally recognized for their hepatoprotective potential. These drugs may help protect hepatocytes by stabilizing cellular membranes, enhancing endogenous antioxidant defence mechanisms, reducing oxidative stress, and minimizing cellular degeneration. Through these actions, they contribute to maintaining structural and functional integrity of the liver.

Fatty liver disease has become increasingly common due to obesity, diabetes, dyslipidaemia, and sedentary lifestyle. In Ayurvedic understanding, this condition may be correlated with *Medo dushti*, *Kapha* aggravation, and *Agnimandya*. Herbs like *Punarnava*, *Katuki*, *Haritaki*, and *Guduchi* may support lipid metabolism, improve digestive fire, reduce inflammatory changes, and enhance metabolic efficiency. Their use may therefore be beneficial in preventing or managing fatty infiltration of the liver and associated metabolic disturbances.

Jaundice (*Kamala*) arises from impaired bilirubin metabolism, viral hepatitis, or biliary obstruction. Ayurveda considers it primarily a disorder of aggravated *Pitta* affecting *Rakta* and *Mamsa Dhatu*. *Bhumyamalaki*, *Kalmegha*, and *Daruharidra*, are traditionally employed in such conditions to support bile flow, stimulate appetite, improve digestion, and assist hepatic recovery.

Their therapeutic role is especially valued in restoring normal complexion, strength, and appetite after jaundice.

Persistent inflammation of the liver, as seen in hepatitis, may eventually progress to fibrosis and chronic liver damage. Herbs such as *Guduchi*, *Kalmegha*, *Daruharidra*, and *Bhringaraja* possess notable anti-inflammatory and antioxidant properties that may help reduce inflammatory mediators, protect hepatic tissue, and promote repair processes. By improving appetite and energy levels, they may also support the patient's general recovery during chronic inflammatory liver disorders.

Chronic liver injury can culminate in fibrosis and cirrhosis, conditions characterized by irreversible structural damage and compromised hepatic function. *Rasayana* herbs including *Guduchi*, *Bhringaraja*, *Katuki*, and *Punarnava* may help in reducing oxidative stress, improving microcirculation, and supporting regeneration of residual healthy tissue. Although advanced cirrhosis requires comprehensive management, these herbs may serve as supportive agents in slowing progression and enhancing quality of life.

Hepatomegaly and hepatic congestion may occur due to fatty infiltration, infection, venous stasis, or inflammatory disorders. Classical Ayurvedic texts mention *Sharpunkha* and *Punarnava* in conditions involving enlargement of the liver and spleen. Their anti-inflammatory, decongestive, and diuretic properties may

assist in reducing swelling, improving circulation, and controlling associated fluid accumulation.

Liver disorders commonly produce symptoms such as anorexia, nausea, bloating, heaviness, and poor digestion. Herbs possessing *Deepana* and *Pachana* actions are especially valuable in such situations, as they help stimulate appetite, improve digestion, enhance assimilation of nutrients, and relieve gastrointestinal discomfort. Restoration of digestive function is considered central to successful management of hepatic diseases in Ayurveda.

Since hepatic function is intimately connected with metabolism, detoxification, nutrient transformation, and energy production, improvement in liver health may lead to broader systemic benefits. Better hepatic performance may translate into improved stamina, stronger immunity, enhanced cognition, balanced hormonal function, healthier skin, and increased work capacity. Thus, *Yakritrogahara* therapy contributes not only to liver care but also to overall systemic productivity and wellbeing.

Table 2: Ayurvedic Correlation of Liver Disorders (*Yakrut Vikara*), Line of Treatment and Choice of Medications.

Liver disorder	<i>Yakrut vikara</i>	Line of treatment	Choice of medication
Obstructive jaundice	<i>Shakhashrita Kamala</i>	<i>Katurasa tiksna usna oushada, srothosodhanam</i>	<i>Kulattathi kasayam</i> <i>Saptasaram kashayam</i> <i>Varanadhi kashayam</i> <i>Panchakola choornam</i> <i>Sivakuliga</i> <i>Arokyavarthini vati</i> <i>Ichhabhedi ras</i> <i>Mandura vatakam etc</i>
Hepatocellular jaundice, hepatitis	<i>Kosthashrita Kamala</i>	<i>Tikta rasa, Ruksha virechanam</i>	<i>Patolamuladi kasayam</i> <i>Patolakatukurohinyathi kasayam</i> <i>Nimbatvakadi kashayam</i> <i>Vasa guduchyathi kasayam</i> <i>Tiktaga kashayam etc</i>
<i>Hepatic disorder with systemic complication</i>	<i>Haleemaka</i>	Iron supplement & symptomatic management	<i>Mandura vatakam</i> <i>Datri loha</i> <i>Punarnavathi maduram</i> <i>Saptamrutha loham</i> <i>Navayasa choornam etc</i>
	<i>Panaki</i>		
Cirrhosis liver	<i>Kumbha Kamala</i>	<i>Tikta Madhura rasa, agni dipanam, yakrut vishesha rasayan drugs</i>	<i>Guduchyathi kasayam</i> <i>Pachanamrutha kashayam</i> <i>Drakshadi kashayam</i> <i>Bhrungaraja choornam</i> <i>Pippali sarapunga choornam</i> <i>Pippali rasayanam etc.</i>

The above-listed *Yakritrogahara Dravyas* such as *Bhumyamalaki*, *Katuki*, *Kalmegha*, *Punarnava*, *Guduchi*, and others constitute the major therapeutic components of the formulations mentioned.

DISCUSSION

The present review highlights the importance of *Yakritrogahara Dravyas* in the management of hepatic disorders and promotion of systemic productivity. The liver is a key organ responsible for metabolism, detoxification, digestion, storage, and immune regulation; therefore, impairment of hepatic function affects multiple systems of the body. Ayurveda recognizes this significance through the concepts of *Yakrut*, *Ranjaka Pitta*, *Rakta Dhatu*, and *Agni*. Disturbance in these factors may lead to conditions such as *Kamala*, *Pandu*, *Halimaka*, and *Kumbha Kamala*,

which can be correlated with jaundice, anaemia, chronic liver disease, fatty liver, and cirrhosis.

Classical Ayurvedic herbs such as *Bhumyamalaki*, *Katuki*, *Kalmegha*, *Punarnava*, *Guduchi*, *Sharpunkha*, and *Bhringaraja* possess properties like *Deepana*, *Pachana*, *Pittahara*, *Shothahara*, *Raktashodhaka*, and *Rasayana*. These actions indicate their role in correcting impaired digestion, clearing metabolic toxins, reducing inflammation, supporting bile metabolism, and improving tissue nourishment. Modern pharmacological studies also support many of these drugs for hepatoprotective, antioxidant, anti-inflammatory, immunomodulatory, and antifibrotic effects.

The management of fatty liver disease, hepatitis, jaundice, hepatomegaly, and cirrhosis requires both disease-specific treatment and correction of underlying

metabolic dysfunction. In this regard, Ayurvedic therapy offers a holistic approach through dietary regulation, lifestyle modification, detoxification procedures, and herbal medicines. The use of appropriate formulations according to the stage of disease may improve liver function and reduce complications.

Another important observation is the relationship between liver health and systemic productivity. Efficient hepatic function supports proper digestion, nutrient utilization, blood quality, hormonal balance, skin health, mental clarity, stamina, and immunity. Hence, restoration of liver function may positively influence overall wellbeing and work capacity. This broader perspective makes *Yakritrogahara Dravyas* valuable not only in disease management but also in preventive and promotive healthcare.

CONCLUSION

Yakritrogahara Dravyas occupy an important place in Ayurvedic therapeutics for the prevention and management of liver disorders. Herbs such as *Bhumyamalaki*, *Katuki*, *Kalmegha*, *Punarnava*, *Guduchi*, and others possess significant traditional and pharmacological properties that support hepatic protection, digestion, detoxification, and tissue regeneration. Their benefits extend beyond liver care by enhancing immunity, vitality, metabolism, and systemic productivity. Therefore, these drugs represent a valuable and holistic approach for maintaining hepatic health and improving overall quality of life resilience. Contemporary experimental studies on herbs such as *Phyllanthus niruri*, *Picrorhiza kurroa*, *Andrographis paniculata*, and *Tinospora cordifolia* have reported antioxidant, anti-inflammatory, antifibrotic, and hepatoprotective effects, thereby offering plausible scientific support to classical indications.

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