

**BHUMYAMALAKI AS A HEPATOPROTECTIVE DRUG- A
CONCEPTUAL STUDY****Dr. Pawar Anuja Samindar^{*1} and Dr. Jithesh Chowta²**

^{*1}3rd year PG Scholar, Department of Kaumarbhritya, Alva's Ayurveda Medical College,
Moodbidri. 574227.

²Associate Professor, Department of Kaumarbhritya, Alva's Ayurveda Medical College,
Moodbidri. 574227.

Article Received on
23 April 2025,

Revised on 13 May 2025,
Accepted on 03 June 2025,

DOI: 10.20959/wjpr202512-37131



***Corresponding Author**

**Dr. Pawar Anuja
Samindar**

3rd year PG Scholar,
Department of
Kaumarbhritya, Alva's
Ayurveda Medical College,
Moodbidri. 574227.

ABSTRACT

Pediatric liver disease is common entity in children due to many causes. *Rasayana* is the therapy mostly used for promotion of strength. *Bhumyamalaki* is traditional *Ayurvedic* medicine which am going to prove as a hepato protective. Pediatric liver diseases is common entity in children resulting from different causes. Hepato biliary disorders are major cause of mortality and morbidity among Indian infants and children. It is having *tikta*, *Kashaya*, *Madhura rasa* along with *Madhura Vipaka* and *Sheeta Virya*. Uses- *Kamala- Bhumyamalaki patra swarasa*. And in *Yakrutodara-* Whole *patra swarasa*. *Bhumyamalaki* as Hepato protective, Bilirubin reduction- The active ingredient *Phyllanthin andrographolide* will help in reduction of bilirubin. Liver enzyme normalization. *Bhumyamalaki* is commonly used for treatment of several liver disorders particularly in HBV infection. It is having potent antioxidant effect characterized by modest increase in level of Ascorbic acid and Gallic acid. It is having appetite stimulant activity. *Bhumyamalaki* is one of the important liver protecting herb. It is having hepato protective activity due to having active contents like flavonoids, tannins, lignans and terpenes, which are having antioxidant effect. It improves liver detoxification, increase the bile secretion and has anti- inflammatory properties.

KEYWORDS: *Bhumyamalaki*, Hepatic disorders.

INTRODUCTION

Hepatology is a branch of medicine concerned with study, prevention, diagnosis and management of diseases that affect liver, gall bladder, biliary tree and pancreas. Hepato biliary disorders are major cause of morbidity and mortality among Indian infants and children. These disorders have genetic, familial, metabolic, infective, neoplastic and immuno mediated origin.^[2] Pediatric liver disease is common entity in children resulting from different causes including hepatocyte injury and cholestasis.^[1] According to WHO, 5 to 10% of children have non-alcoholic fatty liver diseases. Maximum incidence in age group of 6 to 12 years. The incidence of chronic liver diseases were 1.1% of total admissions. *Rasayana* is the therapy which is mostly used for promotion of strength including immunity and allievation of disorders. *Rasayana* means the way of attaining excellent *Rasadi* seven *dhatu*. The *dravya* which promotes the body tissues known as *Rasayana*. *Charaka* said that, “*Rasasya ayanam Rasayanam*.” There are two types of *Rsayana*, that is *Kutipravesika* and *Vatatpika Bhumyalaki* is a naturally occurring substances in *Ayurvedic* traditional medicines. It is herbaceous shrub with beautiful green leaves. *Bhui Amla* is a weed that grows arund 2 feet tall and has small leaves. The flowers are small and monoecious and are found in pairs with red colour. The fruits are tiny, smooth capsules containing seeds. It is known for its anti-inflammatory and prophylactic properties. I am going to discuss the *Bhumyamlaki* as a hepato protective.^[3]

MATERIALS AND METHODS

Bhumyamalaki- Latin Name- *Phyllanthus niruri*.

Family- Euphorbiaceae

Part Used- Whole plant

Rasapanchaka-

Rasa- *Tikta*, *Kashaya*, *Madhura*

Guna- *Laghu*, *Ruksha*

Virya- *Sheeta*

Vipaka- *Madhura*

Doshghnta- *Pitta*, *Kapha* *Shamaka*

Rogaghnta

Kamala, *Pandu*, *Kaphaja Kushta*, *Visha*, *Shwasa*, *Trishn*, *Daha*, *Hidhma*, *Kaasa*, *Pipasa*.

Aamayika Prayoga

- 1) *Kamala*- The Swarasa of *Bhumyamalaki patra* in empty stomach.
- 2) *Yak rutodara*- Whole plant Swarasa.
- 3) *Shotha*- *Patra* and *Moola Kalka* along with *Tandulodaka*.

Aushdha Matra^[4]**❑ For Kalka, Choorna, Avaleha**

- ✓ Birth to 1 month- 1 ratti(125mg)
- ✓ Every month till 12 months- increase by 1 ratti
- ✓ 2 year- 1 masha
- ✓ 2 year to 16 year-increase 1 masha every year.

❑ For Kwath

- ✓ 1 month- 4 ratti(480mg)
- ✓ Accordingly increased by the Kalka, Kwath and Avaleha.

Chemical Compositions

- 1) In Leaves, Stem and Roots- Biologically active components are Ligands, Glycosides, Flavonoids, Alkaloids, Ellagitans, Phenyl propanoids, Amino acids, Geraniin, Corilagin.
- 2) Plant- Common lipids, Sterols, Flavonoids
- 3) Leaves- Niranthin, Niretetrin, phyllanthin.
- 4) Roots- Kameferol 4 rhamnopyranoside and crotin 7 rhamnopyranoside, lup 20(29)-en-3 beta-ol and its acetates.

Pharmacological Actions

- ✓ Hepato protective- *Bhumyamalaki* extract protects the liver.
- ✓ Bilirubin reduction- It contains active ingredient like Phyllanthin and rogorpholide which help to reduce the bilirubin.
- ✓ Anti-viral- Its used as Anti-viral therapy, particularly against Hepatitis B.
- ✓ Other properties like Anti-bacterial, Hypo lipidemic, Hypoglycemic, Analgesic, Anti-inflammatory, Cardio-protective and more.
- ✓ Anti-oxidant- Decreased lipid peroxidation and increased anti-oxidant levels. It protect the hepatic cells from oxidative stress.

- ✓ Liver enzyme normalization- It aid in normalizing level of serum enzymes that are indicative of liver health. This help in restoring the livers function and improving the pathophysiological status of liver.

DISCUSSION

- ✓ *Bhumyamalaki* is an important liver protecting Ayurvedic herb and its known for its mechanical properties.
- ✓ The hepatoprotective activity is due to rich in content of flavonoids, tannins, lignans and terpenes which have antioxidant properties.
- ✓ The primary mechanism of action are oxidative, scavenging, pro-inflammatory cytokine inhibition suppression of N-fibrosis-cytokine(NF-KB) signaling, anti-oxidant enzyme upregulation and priliiferative pathways.
- ✓ Its anti-oxidant properties help to neutralize the free radicals and it reduces the oxidative stress.
- ✓ Hepato protective activities are mediated by modulation of multiple molecular pathways.
- ✓ It is associated with oxidative stress, inflammatory, and liver remodeling pathways.
- ✓ It improves the liver detoxification, increase bile secretion, and has anti-inflammatory properties.
- ✓ That helps to reduce the liver damage and improve the functions of the liver.

CONCLUSION

- ✓ *Phyllanthus niruri* is one of the traditional herbal medicine is commonly used for treatment of several liver disorders particularly in HBV infection.
- ✓ *Bhumyamlaki* is having potent anti-oxidant effect characterized by a modest increase in the levels of ascorbic acid and gallic acid along with increase in the level of super oxide dismutase (SOD), catalase, glutathione peroxidase and vitamin C.
- ✓ *P. niruri* cause a reduction in ALP levels.
- ✓ It also showed a modest reduction in level of total cholesterol and triglycerides.
- ✓ It is also having appetite stimulant activity.

REFERENCES

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10130973/>
2. GUIDELINES FOR COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMM FOR DM IN PEDIATRIC HEPATOLOGY <https://www.nmc.org.in/wp-content/uploads/2019/09/DM-Pediatric-Hepatology.pdf>

3. Chaithra L. N., Mahalakshmi K. S.* and Dr. Kavitha P. N.: BHUMYAMALAKI IN THE MANAGEMENT OF JAUNDICE: A COMPREHENSIVE REVIEW: World Journal of Pharmaceutical and Life Sciences: ISSN 2454-2229. SJIF Impact Factor: 7. 409, Article received on 28/03/2024, Article revised 18/04/24, Article accepted on 08/05/24, Vol-10, Issue 6, 2024. ISO 9001:2015 Certified journal.
4. *Vidyotini* Hindi tika by Vidyalakshmipati Shastri, *Yogaratnakara* Chowkambha Sanskrita Sanstana, *Balarogadhikara and Karshyarogadhikara*. Page number 1186.