

A REVIEW ON THE ROLE OF GARAVISHA CHIKITSA IN THE MANAGEMENT OF DRUG INDUCED LIVER DISEASES W.S.R TO BILWADI AGADA

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ABSTRACT

Introduction: Liver diseases accounts for approximately 2 million deaths worldwide out of which 18.3% happens in India. Since liver is the primary organ for metabolism of drugs and other metabolites, exposure to chemicals by means of food, drugs etc. leads to liver injury. During organogenesis, *Yakrit* is considered to be formed from *Rakta*. *Gara Visha* results in *Agnimandya*, leading to improper *Dhatuparinama*. The subsequent *Rakta Dhatu dushti* is the main reason of *Yakrit Roga* which is one among the symptom of *Garavisha*. The *Srotovaigunya* which manifests in *Yakrit* as inflammatory changes by repeated exposure to chemicals and toxins, infections etc. can be cured with *Agada yogas*, especially formulations with *Garavishahara* property. **Materials and methods:** *Bruhatrayee*, *Keraliya Vishachikitsa Granthas* and published articles on *Garavisha* and *Bilwadi Agada* were referred. **Results:** *Alpagni* is a major symptom of *Gara Visha*. As a result, *Ama Sanchaya* occurs and the *Dhatuparinama* will be affected. *Bilwadi Agada* is mentioned by Acharya Vagbhata. It

is indicated in the treatment of *Gara visha*, *Vishuchika*, *Ajirna* and *Jwara*. Hence, the drug is effective in correcting the *Agni Vaishamy* and *Garavishajanya Yakritroga*. **Discussion:**

Correcting *Agni* is the first line of management in liver diseases. *Garavishahara Chikitsa* can remove the *Srotovaigunya* in *Yakrit* thereby bringing it back to normalcy. *Bilwadi Agada* contains 13 drugs and the hepatoprotective activity of *Bilwadi Agada* is proven against various hepatotoxic agents. *Basta Mutra* is the *Bhavana Dravya* of *Bilwadi Agada* which helps in penetrating the channels and remove the *Srotosanga* in liver pathologies. In this paper, a conceptual study is proposed to evaluate the effect of *Bilwadi Agada* in liver disorders.

KEYWORDS: *Garavisha, Yakrit, Garavisha janya Yakrit vikara, Agada Yogas, Bilwadi Agada*

INTRODUCTION

The idea of *visha*, or poison, has been around since antiquity. *Visha Chikitsa* was one of the *Ashtangas* of *Ayurveda* that *Brihatrayi* included. Anything that enters the body and causes *Rasadi dhatu dushti*, sickness, and death is called *Visha*.^[1] *Sthavara, Jangama, and Kritrima Visha* are the three basic categories into which *Visha* is divided.^[2] Artificial poisons known as *Gara Vishas* are created by mixing poisonous and non-toxic materials, and they have extremely negative effects on the body.^[3] There are two subcategories of *Gara*; *Nirvisha Samyoga (Gara)* and *Savisha Samyoga (Kritrima Visha)*. In *Keraliya Visha chikitsa Granthas*, *Kritrima Visha* and *Gara Visha* are considered interchangeable terms.^[4]

Gara Visha encompasses several of the substances to which we are constantly exposed. One of the principles that can be associated to *Gara Visha* is the xenobiotic mechanism. The kidneys and liver are the primary organs where toxicity is predominantly manifested. Although the liver has an incredible capacity for regeneration, it is severely damaged during the metabolism of numerous chemicals.^[5] Its interposition between the gut and systemic circulation makes it the first pass recipient of xenobiotics absorbed from gastrointestinal tract into portal vein.^[6]

Any *Visha* affects the body by primarily altering the *Rakta Dhatu*.^[7] The liver, being the *Moola Sthana* of the *Raktavaha Srotas* and an organ derived from *Rakta Dhatu* during foetal development, will be the primary target organ. The liver is the organ responsible for detoxification. Based on these considerations, one may infer that the anti-poisonous formulations of *Agada Tantra* possess hepatoprotective properties. *Bilwadi Agada* is first mentioned by *Acharya Vagbhata*. The references are also available in *Keraliya Chikitsa*

Granthas as well as Visha chikitsa Granthas. In practice, the drug is often given in various infections, skin diseases, gastrointestinal diseases owing to its *Vishaghna*, *Rakta shodhaka* and *Amapachana* properties.

MATERIALS AND METHODS

Ayurvedic Concept of *Garavisha* and Hepatotoxicity

Toxins impact liver because it is the organ in the body responsible for detoxification. Since the liver is responsible for cleansing the body and metabolizing drugs, it is vulnerable to the harmful effects of these harmful substances, which can lead to liver ailments. Diseases such as alcoholic liver disease, hepatic encephalopathy, drug and toxin caused liver disease, and hepatic failure are prominent in modern times; these conditions share symptoms with *Gara Visha* and share this idea as an aetiology for hepatopathy. More than 900 drugs, toxins, and herbs have been reported to cause liver injury. Approximately 75% of the idiosyncratic drug reactions result in liver transplantation or death. The sages have employed two words—*Virudhaaushdhi bhasmanam* and *Vividhoaushdhai*—to describe the *Gara Visha*. The commentator defined *Virudhaaushdhi bhasmanam* as "the medicine which are having opposite attribute to that of individual's body and exhibits adverse reaction in form of *Vishaktata*".^[8] Thus, may be considered as metabolic idiosyncratic mechanism, one of the modes of action used to explain mechanism of hepatotoxicity. Moreover, *Yakrit Vikar* is listed as one of the forms of *Garavishajanya vikriti*. Again, hepatomegaly, which is common in drug-induced liver toxicity, can be linked to '*Mahodara Yakrit Pleehi*.' *Udara/* ascites is a complication of liver damage particularly in cirrhosis. The *garavisha badhita lakshanas* involve *Pandu*, *Krishata*, *Alpagni*, *Jwara* etc, where derangement of *Agni* can be seen.

Yakrit and *Pleeha* are formed from *Rakta* during *Garbhavakranti*. Also, *Raktavahasroto moola* is *Yakrit* and *Pleeha*. *Visha* affect *Rakta dhatu* first, then *Tridoshas*, *Dhatu*s along with its *Ashayas* and finally reaching *Hridaya*, takes away the *Ojas* and cause death.

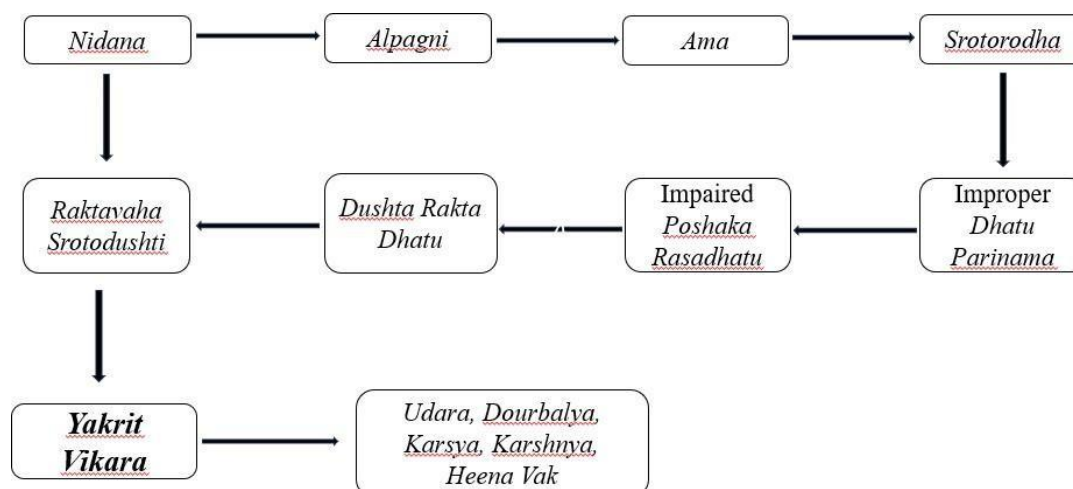
Because of its *Ushna*, *Teekshna*, *Sukshma*, etc., qualities, *Visha* initially impacts *Rakta dhatu*. It progresses from *Rakta dhatu dushti* to *Rakta vaha Srotodushti* and then to *Yakritdushti*. The fact that *Yakrit* is formed from *Rakta* means that any vitiations in *Rakta* can impact the normal physiological functions of *Yakrit*. *Tikshna Guna* of *Visha* cause damage to vital organs.

Demographical Rationale of Liver related issues- Prevalence

Liver cirrhosis is included under the top 10 causes of death by WHO since 2000. Liver

diseases accounts for approximately **2 million deaths worldwide**. It is responsible for 4% of all deaths (1 out of every 25 deaths worldwide). In this 2 million, 18.3% was in India only i.e., **1/5th of the total deaths globally**.

Probable Samprapti of Garavishajanya Yakritvikara



Hence, medicine with *Ama pachana*, *Kleda soshana*, *Srotosodhana* and *vishaghna* property will be more suitable here.

Composition of Bilwadi Agada^[9]

No.	Drug	Scientific name	Family	Parts used
1.	<i>Bilwa</i>	<i>Aegle marmelos</i> Linn.	Rutaceae	Root
2.	<i>Tulasi</i>	<i>Ocimum sanctum</i> Linn.	Lamiaceae	Flower
3.	<i>Karanja</i>	<i>Pongamia pinnata</i> Linn.	Fabaceae	Seed
4.	<i>Tagara</i>	<i>Valeriana wallichii</i> Linn.	Valeriaceae	Root
5.	<i>Devadaru</i>	<i>Cedrus deodara</i> roxb.	Pinaceae	Heartwood
6.	<i>Haritaki</i>	<i>Terminalia chebularetz.</i>	Combretaceae	Pericarp
7.	<i>Bibhitaki</i>	<i>Terminalia bellericaroxb.</i>	Combretaceae	Pericarp
8.	<i>Amalaki</i>	<i>Embica officinalis</i> Linn.	Euphorbiaceae	Pericarp
9.	<i>Sunthi</i>	<i>Zingiber officinale</i> roscoe	Zingeberaceae	Rhizome
10.	<i>Maricha</i>	<i>Piper nigrum</i> Linn.	Piperaceae	Fruit
11.	<i>Pippali</i>	<i>Piper longum</i> Linn.	Piperaceae	Fruit
12.	<i>Haridra</i>	<i>Curcuma longum</i> Linn.	Zingeberaceae	Rhizome
13.	<i>Daruharidra</i>	<i>Berberis aristate</i> Linn.	Berberidaceae	Stem
14.	<i>Basta Mutra</i>	-		-

Bilwadi Agada is explained in *Ashtanga Hridaya*, *Ashtanga Sangraha*, *Kriya Kaumudi*, *Jyotsnika* (*Visha Vaidyam*), *Prayoga Samucchaya*, *Sahasra Yogam*. The drug is advised to perform bhavana in *Basta Mutra*. *Basta mutra* increases the *Sukshma* and *Tikshna Guna* of *agada*, making it easier to enter the minute channels. The drug is indicated in *Vishuchika*, *Ajirna*, *Gara* and *Jwara*.^[10] All these diseases, *agnivaishamya* and *ama* is the main cause,

which shows the efficacy of the drug in *amapachana* and *srotosodhana*.

The drugs are predominantly *Katu Tikta Kashaya rasa*, *Laghu Ruksha Guna*, *Ushna virya* and *Katu Vipaka*. *Katu Tikta* and *Kashaya rasa* helps in *Ama Soshana* and *Srotosodhana*. *Tikta Rasa* alleviates *Visha* and does *Rakta Sodhana*. *Laghu Ruksha Guna* relieves *Srotorodha* and *Kleda* and helps in *Ama pachana*. All these along with *Ushna virya* and *Katu Vipaka* properties helps in correcting the *Agni Mandya* in the pathogenesis of *Gara visha* thereby removing the *Mala sanchaya* and improves *Dhatu Parinama*.

Literature reveals that, various ingredients of *Bilwadi Agada* having Antioxidant, immuno modulatory, Anti-inflammatory, Anti ulcerative & Hepatoprotective actions^[11,12,13,14,15,16,17,18 19,20,21,22,23]

DISCUSSION

The sort of combination can determine whether *Gara visha* is a slow-acting or fast-acting toxin. The ideology of *Garavisha* can be used to address the majority of illnesses that occur nowadays. *Yakritdushti* (illness related to liver) has been quoted as one of the manifestations of *GaravishajanyaVikara* which is speculated as one of among the most serious health condition in the current scenario. *Rakta shodhana*, *vishahara* and fast acting property of the agada formulations can be effective in the better management of liver diseases. The hepatoprotective and nephroprotective qualities of *Bilwadi Agada* have already been demonstrated by pharmacological research.

Usually, the medicine has *Srotosodhana* and *Ama pachana* properties in addition to *Kapha Vata hara*. Detoxification therapy is crucial because the majority of diseases that arise nowadays are brought on by exposure to different types of toxins through food, medications, pesticides, occupational exposure, etc.

CONCLUSION

Gara Visha is any artificial poison that can cause deleterious effects in the human body including organ toxicities. *Bilwadi Agada* is indicated in *Gara Visha*.^[10] *Katu tikta Kashaya rasa* of the drugs will be efficient in removing the *Srotorodha*. *Tikta rasa* and *rakta prasadana* property of the drug will be helpful in correcting the *Raktavaha Srotodushti* and thereby helping the rejuvenation of liver cells. Moreover, the *Garavishaghna* property of the *Agada* will correct the *samprapti* of *visha* involved in the manifestation of disease. Considering the

Rasapanchaka, along with individual drugs, its pharmacological properties and the researches done over *Bilwadi Agada*, for its hepatoprotective effect, the selected drug can be effective in *Garavisha Janya Yakrit Vikara*.

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