



**CONCEPTUAL STUDY ON ANTI TOXIC EFFECT OF  
BILWADIAGADA. (A.H.U.36/84-85)**

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**ABSTRACT**

As per the Ayurvedic treaties, *Visha* means the *dravya*(substance) which causes *vishaad* (sorrow or depression) is known as *visha*. Drugs which act against toxic substances are called as *vishghna*(Anit-toxic). According to Ayurvedic literature, the potency and efficacy (*Saviryata awadhi*) of Ayurvedic classical preparations depend upon quality of each drug (having *Rasa panchak*), *desh* (region), *Kal* (time), *Ritu*

(season), their preparation method and route of administration. Here we describe the claims of *Bilwadi yoga* in toxicity. As per *Acharya Vagbhagta*, *Bilwadi agad* is useful for the treatment of following toxicity:- sarpa, luta, vruschika and undoor visha. It includes *Bilw a*, *Surasa*, *Karanja*, *Tagara*, *Surahwa*, *Amalaki*, *Haritaki*, *Vibhitaki*, *Shunthi*, *Maricha*, *Pippali*, *Haridra*, *Daruharidra*. The all contents of *Bilwadi yoga* have been evaluated according to the various literatures and have tridoshghna property especially kaphvatghna in action. The efficacy has been also tested according to the *Rasa*, *Guna*, *Virya*, *Vipaka* described in Ayurvedic text. All the drugs in this yoga are krimighna and vishghna. And their pharmacological actions revealed as anti microbial, antiviral, antiseptic, antifungal, anti diarrheal and anti protozoal. The main objective of this review article is to discuss the therapeutic uses of *Bilwadi agad* and to discuss the different pharmacological properties of its

contents as respect to toxicity. In this research paper we are try to establish the claims of old Ayurvedic text on the recent research parameters.

**KEYWORDS:** *Bilwadi agad, vishghna.*

## INTRODUCTION

*Ayurveda* has a vast treasure of drugs for the treatment of various disorders mentioned in our renowned treaties. *Visha* is having many definitions indicating its mythological origin and action such as speedy spreading and separation of *prana* from body. Drug is the most important part in treatment. The fundamentals of Ayurvedic pharmacology based on the theory of *Rasa, Guna, Veerya, Vipaka* and *Prabhava* are capable to give a better scientific lead in mode of drug action. *Vilwadi agad* described by *acharya vaghbhatta* is usefull in the treatment of various poisoning like.<sup>[1]</sup>

- snake, spider, rat, scropian poisoning
- *visuchika,*
- *ajiran*
- fever

## MATERIALS USED

This article is based on personal experiences and textual review. Material related to bilwadi agad and its indications, properties was collected. All the Brihatrayi, laghutrayi and available commentaries of those has been reviewed. Modern texts and various websites to collect information on the relevant topics were referred.

Ayurvedic properties, chemical composition and medicinal properties of ingredient drugs of *Bilwadiagad* are as follows:

Table no. 1: Ingredients and pharmodynamic properties of *Bilwadiagada*<sup>[2]</sup>

S. n.	Drug	Botanical name	English name	Rasa	Guna	Veerya	Vipaka	Doshaghata
1.	Bilwa	<i>Aegle marmelos</i> Corr.	Bael tree	Kashaaya, Tikta	Laghu, Rooksha	Ushna	Katu	Kapha Vaata Shamana
2.	Surasa	<i>Ocimum sanctum</i> Linn.	Indin Basil/ Holy basil/ Sacred basil.	Kashaaya, Kat'u, Tikta.	Laghu, Rooksha.	Ushna (Seed-Sheeta).	Katu.	Vaata Kaphaghna.
3.	Karanja	<i>Pongamia glabra</i> Pierre	Indian beech.	Tikta, Kat'u, Kash'aaya	Laghu, Teekshan'a , Snigdha	Ushna	Kat'u	Kapha Vaataghna
4.	Tagara	<i>Valeriana wallichii</i> DC.	Indian valerian.	Tiktam, Kat'u, Kash'aaya, Madhura	Laghu, Snigdha, Sara.	Ushna	Katu	Kapha Vaataghna
5.	Surahwa	<i>Cedrus deodara</i> Roxb.	Himalayan ceder deodar.	Tikta, Kat'u	Teekshn'a, Laghu	Ushna	Katu	Kapha Vaataghna
6.	Amalaki	<i>Emblica officinalis</i> Gaertn.	Indian goose berry.	Kash'aaya, Amla, Madhura, Tikta, Kat'u	Guru, Rooksha, Sheeta.	Sheeta	Madhura	Tridosh'aghna.
7.	Haritaki	<i>Terminalia chebula</i> Retz.	Chebulic myrobalan.	Kash'aaya, Tikta, Madhura, Amla, Kat'u	Laghu, Rooksha	Ushna	Madhura.	Tridosh'aghna.
8.	Vibhitaki	<i>Terminalia bellerica</i> Roxb.	Belleric myrobalan.	Kash'aaya, Tikta	Rooksha, Laghu	Ushna	Madhura	Tridosh'aghna.
9.	Shunthi	<i>Zingiber officinale</i> Rosc.	Ginger.	Kat'u	Laghu, Snigdha	Ushna	Madhura	Kapha vaataghna
10.	Maricha	<i>Piper nigrum</i> Linn.	Black pepper.	Kat'u	Laghu, Teekshn'a	Ushna	Katu	Vaata Kaphaghna
11.	Pippali	<i>Piper longum</i> Linn.	Long Pepper.	Kat'u	Laghu, Snigdham, Teekshn'a	Anushnasheeta	Katu	Kapha Vaataghna
12.	Haridra	<i>Curcuma longa</i> Linn.	Turmeric	Tikta, Kat'u	Laghu, Rooksha	Ushna	Katu	Kapha Pittaghna
13.	Daruharidra	<i>Cocinium fenestratum</i> Gaertn & Colber	Indian berbery.	Tikta, Kash'aaya,	Laghu, Rooksha	Ushna	Katu	Kapha Pittaghna

**Antitoxic property**

The ten qualities of *Visha* are light, dry, quick acting, clear, spreading without digesting, sharp, muscle relaxant, minute, hot, undetectable taste. *Visha* has *ruksha, suksham, ashukari guna, ushna veerya, katu vipaak* and it also aggravates *tridosha*.<sup>[3]</sup> *Katu rasa and vipaak* are *vishaghna, kandughna and varnaprasadana*. In *Bilwadi drug*, among the 13 ingredients of yoga, most of the drugs having *kapha vata hara* property. Also 3 ingredients have *Tridoshaghna* property. The combination of this *agad* has special action as *vishaghna in sarpa, luta, vruschika* and undoor *visha* as per the classical reference. In the *phalasaruti* it is said that the usage of this *agad* removes all the toxicity of *Sarpa visha, luta visha, vrishik visha* and also it is indicated in various ailments like *visuchika, ajiran and jwar*.<sup>[4]</sup>

**Table No. 10 Chemical composition of ingredients of Bilwadiagada.**<sup>[5]</sup>

S.no.	Drug	Chemical constituents
1.	<i>Bilwa</i>	It contains 6,7-dio-Mecoumarin, Scopoletin, Tembamide, Umbdliferone, Marmesin, Skimmin, Skimmianine, Xanthotoxin, Decursol and Haplopine, Furoquinoline, Aegelin, Aegelenin.
2.	<i>Surasa</i>	It contains volatile oil, Bornyl acetate, Cadinene, Camphene, Camphor, Carvacrol, caryophellene, Eugenol, Limonene, Methyl chavicol etc.
3.	<i>Karanja</i>	It contains Karanjin, Pongamol, Pongol, Glabrin, Neoglabrin, 3 - methoxy pongapin.
4.	<i>Tagara</i>	It contains valrianic acid, Irovaleaic acid, Caproic acid, Hydroxy valeranon, etc.
5.	<i>Surahwa</i>	It contains sesquiterpene (himoachalene, himacholol), P- methylacetophenone, Atlantone, Deodarin.
6.	<i>Amalaki</i>	It contains Galic acid, Lupeol, Oleanolic aldehyde, Ellagic acid, Tannic acid, and cellulose.
7.	<i>Haritaki</i>	It contains Chebulogic acid, Chebulinic acid, Anthraquinone, Terchebin, Vit. C, Sugar, 18 amino acids, Phosphoric succenic and tannin.
8.	<i>Vibhitaki</i>	It contains Tannin, galic acid and eugalic acid, Mannitol, Rhamnose, chebulogic acid, glucose and fructose.
9.	<i>Shunthi</i>	It also contains special alkaloids & chemicals and Zingiberol, oleo mresin, gingerin, gingerol shogaol and zingerone.
10.	<i>Maricha</i>	It also contains Piperine, Piperidine, caryophyllene, alanine, Pipecolic acid, cryptone, Piprttine, Chavicine, and some volatile oils.
11.	<i>Pippali</i>	It contains Piperine, 4-5 dioxoaporphines, Pipericide, Piperlongumine, Piplartine and Sesamin.
12.	<i>Haridra</i>	It contains Curcumin, Curcumenone, Cineole, Camphene, Vit. A, Protein and carbohydrate.
13.	<i>Daruharidra</i>	It contains Berberin, Karachine, Taxilamine, Palmatine, Oxyacanthine, starch and glycosides etc.

**Antitoxic property of *Bilwa*:** *Bilwa* has *Kashaya Tikta ras, Laghu Rooksha Ushna guna, Katu vipaka, Kapha Vaata Shamana* property. And has immunomodulatory, antioxidant, anti-inflammatory, antipyretic, anticancerous property helps in rejuvenating and reducing burning sensation which helps in reducing various ill effects of *visha*.<sup>[6]</sup>

**Antitoxic property of *Sursa*:** *Surasa* has *katu, tikta ras laghu, ruksha, teekshna guna, katu vipaka* and *ushna veerya*. balances *vata kapha dosha, krimihar*, antitoxic property and also can be used for treating urticarial rashes due to *visha*. It also acts as antihistaminic and antibacterial, drug is also proved for its anti toxic effect.<sup>[7]</sup>

**Antitoxic property of *Karanja*:** *Karanj beeja* having *katu vipaka, katutikta rasa, laghuruksha guna, ushnaveerya, vatakaphashamaka* property and *kushthaghna karma Katu rasa* and *vipaak* are *vishaghna, kandughna* and *varna prasadana*. *Tikta rasa* has the property of *raktaprasadana, vishaghna, kushthaghna*.<sup>[8]</sup>

**Antitoxic property of *Tagara*:** *Tagara* has been described in *sarpvisha* and *sarpdandh* with *ghrit* and *madhu* as described by *chakradutta* in *vish chikitsa*. It can be used in various toxic conditions. *Tagara* has *tikta, kashya, madhura rasa* which helps in decreasing *tikshna* effect of *visha* and is a *vishghna* drug.<sup>[9]</sup>

**Antitoxic property of *Pippali*:** *Pippali* is also having the properties like anti allergic, antipyretic, analgesic and anti-inflammatory effect by virtue of its all properties helps in reducing ill effects of *visha*.<sup>[10]</sup>

**Antitoxic property of *haridra*:** *Haridra* has various properties like *Tvakvikara hara, Varnya, Visodhana, Vishahar, kandughna, kushthaghna, dahahar* Anti-inflammatory effect, Immuno modulatory effect, Antioxidant effect Antiallergic effect. These all the properties of *haridra* helps in treating *visha* and it also works due to their *raspanchak* antagonist to *vish*.<sup>[11]</sup>

#### **Antitoxic property of *Haritaki***

*Haritaki* possesses *Tridoshashamaka* property, especially *Vatashamaka* property and brings *anuloma gati* of *vayu*, which is a prime mode of action for the breakage of *samprapti of sotha* and *vedana, Raktavikara, Vranashodhana, Vranaropana*. Antimicrobial, antifungal, antibacterial property which helps in improving the detrious effects of *visha*.<sup>[12]</sup>

**Antitoxic property of Surahwa, Daruharidra, maricha, Vibhitaka, Amalaki, Shunthi:** *Surahwa* has anti-inflammatory effect and anti-itching, *varnshodhan*, *varnropan* property, and also in skin diseases.<sup>[13]</sup> is described by *Shodal* in *sarpvisha* by its *raktshodhak*, *vednasthapna*, *varnshodhna*, *varnropna* and *kandughna* properties *Maricha* has *shothshamaka* and *vataanulomaka* property, antidermatosis action and also clean channels.<sup>[14]</sup> *Vibhitaka* can be used in snake bite and scorpion sting acts as purgative, antiseptic, anthelmintic property.<sup>[15]</sup> Due to *sheeta virya* *amalaki* has been used as anti inflammatory, antidermatosis property.<sup>[16]</sup>

## DISCUSSION

*Bilwadi agad* contain 13 drugs. These drugs possess various medicinal properties and hence used in the various poisons. Most of drugs of *bilwadi agada* has *ushna veerya*, *vaatghna* and *kaphghna* property. By these properties the drug *bilwadi agada* may give relief in various sign and symptoms produced due to *visha* like swelling, itching and urticarial actions. It contains *tagar* which is considered as a *vishghna* drug. A drug like *Bilwa* is a proven anti inflammatory drug. By virtue of its *ushna virya*, *katu vipaka* and *kashaya*, *tikta rasa* it is *kapha vata shaman* and is suitable for treatment of pain and swelling. *Pippali* is also having the properties like anti allergic, anti pyretic, analgesic and anti inflammatory. It also contains *Haritaki* that brings *anuloma gati of vata*. Another content like *surasa*, *karanja*, *haridra*, *daruharidra* have antiitching agent and reduces the allergy and has *varnya* property.

## CONCLUSION

From the present review it can be explained that *bilwadi agad* described by *vaghbhatta* contains many drugs which possess anti-toxic property along with *raktpittshamak*, *tvachaya*, *krimighan*, *kanduhar*, *anti allergic* properties. In the present review an attempt has been made to provide a collective knowledge on therapeutic, pharmacological and medicinal applications of *bilwadi agad* and its constituent drugs. This collective knowledge on these drugs would motivate to researchers and provide lead to further exploration of pharmacological activities of these ingredients as the demand for Ayurvedic products is growing exponentially due to its fewer side effects as compare to other systems of medicine.

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