



Review Article

Systemic Review Of *Biawadi Agad* -A Detoxifying Ayurveda Formula

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ABSTRACT

Prevention is better than cure is a universal saying and Ayurveda is the highest example for that had given solution in scientifically and practically. Ayurveda incorporates all forms of lifestyle in therapy. Agada tantra or subject of toxicology deals with all kinds of poisoning, its actions, biological effects and treatments. The spectrum of Agada tantra was parallel and overwhelming with modern toxicology and its maneuvers. Bilwadi agada is ancient formula that described to indication of detoxification due to chemical induce toxicity. The formula consists of 14 ingredients and containing detoxification property and it can use for several indication other than the visha such as Jwara (Hyperthermia), Ajeerna (Indigestion), dadru (Skin diseases with itching and patchers), Visuchika (dysentery). Mainly this drug can be given most of the jangama visha such as lutha (honey bite) vrishvika (scorpion), insect bite. The present study aimed to review the various study on Bilwadi agada and summarize for further study and found 16 published research papers on Bilwadi agada. As per the summary analysis Bilwadi agada is a anti toxic drug with common use and mentioned in the classical Ayurveda text including Ashthanga Hrudaya. It has broad spectrum of indication in animate, inanimate poison and infectious disease due to 13 plant ingredients which are presented in equal quantity. Though gara visha or chemical poisoning is clearly mentioned indication of Bilwadi agada in classical reference no any clinical publication had been published related to this fact. Hence in this study firmly suggest to initiate more clinical studies on Gara visha that related to chemical poisoning

INTRODUCTION

Bilwadi agada is a composition formulation of drugs under the category of agada which is specially mention for detoxification. As the name itself demonstrates, this herbal preparation compromise number of ingredients mention in

Agada Tantra wing that deals with toxicology in Ayurveda. The spectrum of Agada tantra was parallel and overwhelming with modern toxicology and its manoeuvres. Though the Ayurveda treatment and procedures are classical, clinical evaluation and approach are similar with

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modern initiatives. Agada is the specific drug that specially mention for detoxification.

OBJECTIVE

MATERIALS AND METHOD

Selected formula (17)

<i>Bilva</i>	<i>Aegle marmelos</i>	<i>Suraasa</i>	<i>Ocimum sanctum</i>
<i>Karanja</i>	<i>Pongamia pinnata</i>	<i>Nata</i>	<i>Valerina jatamansi</i>
<i>Surahva</i>	<i>Cedrus deodara</i>	<i>Haritaki</i>	<i>Chebula terminalia</i>
<i>Vibhitaki</i>	<i>Terminalia bellirica</i>	<i>Amalaki</i>	<i>Embllica officinalis</i>
<i>Shunti</i>	<i>Zingiber officinalis</i>	<i>Maricha</i>	<i>Piper Nigrum</i>
<i>Pippali</i>	<i>Piper longum</i>	<i>Nisha</i>	<i>Curcuma longa</i>
<i>Daru haridra</i>	<i>Berberis aristata</i>	<i>Basta Mutra</i>	<i>Capra indica</i>

Search method

Published research papers on Bilwadi agada in various databases of research journals and search engines like google scholar, Research gate, Science directory and NIH

Inclusion Criteria-

Articles exclusively included Bilwadi agada as a testing formula.

RESULT -

Summaries of published research works

Review article – 05

1. Review on Bilwadi Agada and Its Indications (5)

Bilwadi agada is a polyherbal ayurvedic formulation and choice of drug in acute toxicopathological conditions. It is indicated in Unduru Visha (rat bite), Vrischika Visha (scorpion sting), Visuchika (food poisoning with pain / Cholera), Ajirna (indigestion), Gara Visha (artificial poison), Jwara (fever) & it has also got Bhutaghna properties (antimicrobial, antiviral). Ayurveda is indicating various drugs for external or internal use, condition of acute or chronic and poisonous and non- poisonous cases. Different methods of administration of Bilwadi Gutika are Anjana (collyrium), paana (internal administration), nasya (nasal instillation. Ingredients of Bilwadi agada shows number of action such as shoolaghna,

To review the various study on Bilwadi agada and summarize for further study

sthambana, shothaghna, shwasa, kasa, hikka hara, deepana, pachana, shoolaprashaman, vatahara, nadibalya, vranahara, ropaka, vatahara, chardighna, and mootrala . These kinds of actions effectively work on releasing symptoms of snake bite. Majority of the ingredients are tikta (bitter), katu (pungent) rasa (taste) prominent which acts as kapha-vatahara (pacifies kapha & vata). Most drugs are ushna veerya (hot potency), and katu vipaka hence can act as quickly as antidote. Hence the formulation of Bilwadi agada can be used as anti-inflammatory, analgesic, antioxidant, antibiotic and also useful in conditions like gastroenteritis and allergic conditions.

2. A Critical Review on Bilwadi Agada (2)

Among eight clinical branches of Ayurveda, Agad tantra is one of therapeutic divisions that focuses on the study of poisons. explains toxicity from an Ayurvedic perspective and had mentioned a number of Vishaghna yogas, or antitoxic compositions, which are useful for managing toxicity and may be suggested in a number of pathological situations, including infectious disorders. Bilwadi Agada, is one of those with primary medication of choice in acute toxicopathological situations. It is mentioned in the scriptures of Jwara, Bhoota bhada, Loota visha, Unduru visha, Vrischika visha, Visuchika,



Ajeerna, Gara visha, and Sarpa damsha. In preparation mentioned as Susukshma Pishtam (Very fine in consistency) as sidda lakshana. Regarding duration of bhavana (trituration) it is opined that 6 yaama (1 yaama is approximately 3hours). In general practice 3-4 hours/day for 6 months is done for prepsrtion. There are thirteen medications in Bilwadi agada which mentioned in Ashtang Hrudya and all medications are utilized in diverse poisons because they all have distinct medical qualities in addition to the crucial Vishaghna property. It possesses Tridoshghna property, especially when it is Kaphvatghna in action, according to several literatures. Other than these anti-microbial, antiviral, antiseptic, antifungal, anti-diarrheal, and anti-protozoal are present in formula. Further Bilwadi agad, as described by Vagbhata and Shastrayogam, comprises a variety of medications with anti-allergic, anti-toxic, and Tvak Doshahara, Rakta Shodhaka, Kushtaghna, Jwaraghna, and Krimighna qualities. Due to the actions and properties of its ingredients, it can be useful in poisoning conditions to give symptomatic relief.

3. Conceptual Study on Bilwadi Agada- A Review (8)

The substance which caused sadness to the world is called as “Visha”. The term is “Visha” derived for causing “Vishad” which means severe depression of speech, body and mind. Ayurvedic classical preparations depend upon quality of each drug, region, time, season, their preparation method and route of administration. As per the study drugs of Bilwadi agada has Ushna Veerya & 77% of drugs having Vaatghna and Kaphghna property. The review was mentioned as demand for Ayurvedic products is growing due to its lesser side effects as compare to other medicine.

4. A Review of Bilwadi Agada and Apamarga Moola on Vrishchik Damsha Chikitsa, an Ayurvedic Management for Scorpion Bite(15)

Agada tantra is the branch in ayurveda that deals with sudden fatal situations and emergency care. The Scorpio (Vrishchik) is the oldest poisonous animal on Earth. This eight-legged creature causes more than 5,000 fatalities worldwide each year. The most hazardous scorpions to encounter in India. Apamarga Panchanga contains several Vishaghna characteristics, moola contains a unique Vishaghna property for Vrischika Damsha as per Indian traditional practice. Symptoms of scorpion sting are excessive sweating, vomiting, increased salivation, bradycardia, priapism, cold extremities, or transient hypertension, which may be followed by the emergence of severe cardiovascular symptoms. Bilwadi agada is Tikta (bitter), Katu (pungent), Rasa pradhan, which serve as Kapha-vatahara (calms the Kapha and Vata). The majority of medications are Katu Vipaka, which means they have a high strength and may function just as rapidly as an antidote or Visha. The remedy has anti-inflammatory, analgesic, antioxidant, and antibacterial properties. Therefore, it can be used in scorpion bite treatment rather than others.

5. Role of Bilwadi Agada in Prevention of Covid – 19 (12)

There are numerous Agada Yogas which are unique because of their potent ingredients and its fast action. Bilwadi Agada or Bilwadi Yoga is the first drug of choice in acute toxico - pathological conditions. Severe Acute Respiratory Syndrome Corona Virus-2, is a pandemic disease that declared by the World Health Organization. Among the indication of Bilwadi agada disease due to microorganisms is mentioned with cholera, indigestion & dyspepsia., artificial poisoning., fever, and infectious conditions other than the snake bite. SARS-CoV-2 was originally started via a zoonotic transmission and earliest symptoms of the disease are fever, fatigue, myalgia, cough, sore throat, runny nose, sneezing or digestive disorders like nausea, vomiting, abdominal pain and



diarrhea. These symptoms and the indications of Bilwadi Agada show similarities. Therefore, there is a possibility to be given Bilwadi agada for control symptom and prevent the COVID 19. Dose of the drug has to be 2000 mg/day in divided doses.

Analytical studies 03

1. Analytical Profile of Bilwadi Agada (10) (Pawade & Patkar, 2023)

Ayurvedic drugs are mainly prepared from plants, minerals and some animal products. Analytical profile of the drug is essential to assure the drug's safety, quality and efficacy hence study aims to develop an analytical profile of Bilwadi Agada. is a classical vishaghna yoga. On study is examined Colour as brown, odour is characteristic (Goat urine) and taste is characteristic. Macroscopical characteristics is observed with the naked eye, dried parts of organized and unorganized crude drugs were found as fine particles. Microscopical characteristics volatile oil globules, fibres, calcium oxalate crystals, lignified xylem vessels, starch grains, parenchyma and sclerenchyma were found. Physicochemical evaluation was done on pH value was 3 and acidic. Loss on drying 0.068%. Total ash value of the sample is 18.5% and water-soluble ash value of drug is 4.5%. Alcohol soluble extractive is 19.2% water soluble extractive 44%. In microbial load determination microbial growth was observed after 24 hours. Under the gas chromatography aflatoxins detection was carried out and resulted as not present. Detection of heavy metal was done on Cobalt, Copper, Mercury, Nickel, Silver and Zinc all are absent in tested sample. Hardness of tab is 3.6 kg/cm² and Friability is 0.33%. Disintegration test done with 6 tablets and all six were disintegrated within 15 minutes. The Analytical profile of Bilwadi Agada was studied as per the Ayurvedic Pharmacopoeia of India and WHO guidelines for medicinal plants. Organoleptic characteristics, physicochemical parameters and physical properties of Bilwadi Agada pass all the tests. The absence of aflatoxins,

heavy metals and no microbial contamination in BA prove the drug's safety. In conclusion these values can be used as reference value of Bilwadi Agada in future studies.

2. Standardization of Bilwadi Agada Through Hp TLC (3)

Ayurveda Pharmaceutics comprises of formulations that have multiple ingredients. To maintain the quality, standardization is needed as it has been said that the indigenous system of medicine too. This study carried out to evaluate the phytochemical standard for Bilwadi agada using the chromatography technique. High-performance thin layer chromatography (HPTLC) is sophisticated instrumental techniques and is a powerful analytical tool for chromatographic information for various samples. One gram of Bilwadi agada powder was extracted with 20 ml of alcohol kept for 24hrs for cold maceration then was filtered. 3, 6 and 9 μ l of the above extract were applied on a pre-coated silica gel. The plate was developed in n-hexane: Ethyl acetate (6.0: 4.0). The developed plates were visualized in short UV, long UV, and then derivatised with vanillin sulphuric acid and scanned under UV 254nm, 366nm and 620nm. TLC photo documentation of BA showed 13, 12 and 11 spots under short UV, long UV and under white light after derivatization respectively. Spot with Rf 0.24 and 0.39 were commonly detected in all the three detection methods. Rf, colour of the spots and densitometric scan were recorded. The constituents of Bilwadi agada have varied chemical constituents that add up to the therapeutic effect of the drug. The goat's urine (liquid media) used for trituration will also enhance the formulation and add other constituents to the formulation.

3. Standardization of Bilwadi Gutika through Physicochemical Analysis, phytochemical Analysis and GC-MS(13)

World Health Organization, pointed out more than 80% of people in developing countries depend on



traditional Medicine for their primary health needs. In traditional medicine, quality assurance plays a crucial role in ensuring the delivery of appropriate dosages of standard medications. The formulation Bilwadi Gutika is a commonly used Agada formulation in clinical practice. Aqueous extract and hydro-alcoholic extract of the formulation Bilwadi Gutika prepared based on API (Ayurveda Pharmacopoeia of India) standards. Extraction was done using the Soxhlet apparatus. The Physicochemical parameters and organoleptic characteristics of Bilwadi Gutika includes colour, odour, taste, shape, consistency, pH, loss on drying, friability, hardness, and disintegration time and total Ash value. Which were conducted according to Laboratory guide for the analysis of Ayurveda and Siddha formulation. Phytochemical analysis of Bilwadi Gutika includes tests for the presence of Alkaloids, carbohydrates, Tannins, Glycoside, Steroids, Saponin, Flavonoids and Mucilage. Tests were conducted according to standard guidelines. Color in blackish- brown, and odour as Ajamutra smell and taste is Tikta and Katu. Rough in touch and solid. pH 1.64, while loss on drying 0.068% total Ash value is 8.1% friability 0.1% hardness 4.3 and disintegration time is 27 mins The present study used aqueous extract and hydro-alcoholic extract bioactive compounds from Bilwadi Gutika. Results showed that both solvents resulted in various extraction yields, which could cause variations in the level of bioactive compounds in the extract. In GC-MS analysis total 40 peaks were recorded, among which Propanamide, 2-hydroxy was found to be in highest percentage of 33.4%.

Experimental studies 04

1. Nephroprotective activity of Bilwadi agada in gentamicin induced nephrotoxicity in male Wistar rats (6)

Gentamicin (GM) nephrotoxicity accounts for 10–30% of the acute renal failure (ARF) among drug-

induced ARF. In Ayurveda such side effects are considered as the poisonous effects of low potent poisons called gara viṣa. Bilwadi agada, a classical formulation is indicated in gara viṣa and most of its ingredients have proven for their nephroprotective activity. Study aim was to evaluate the effect of Bilwadi agada in GM-induced nephrotoxicity in male Wistar rats. Eighteen male Wistar rats were randomly divided into three groups, viz. Control group which received normal saline intraperitoneal (i.p.) daily for 8 days; toxic group received GM 80 mg/kg/day i.p. for 8 days, and trial group received both Bilwadi agada 80 mg/kg/day i.p. and Bilwadi agada 216 mg/each rat weighing ~200 g orally 1 h after administration of GM. Bilwadi agada treated group showed a significant change ($P < 0.05$) in levels of serum creatinine, urine creatinine, and urine potassium. There was no significant change ($P > 0.05$) seen in serum potassium, sodium, chloride, calcium and phosphorus and urine sodium, chloride in all three groups. Glomerular congestion, interstitial edema, tubular necrosis, interstitial hemorrhage was reduced in Bilwadi agada treated group. The results of this study indicate that Bilwadi agada reduces GM-induced nephrotoxicity and it may be due to anti-inflammatory, immunomodulatory, diuretic and anti-oxidant properties of drugs. Further studies are necessary to explore the exact mechanism of BA in nephroprotection.

2. Nephroprotective activity of Bilwadi Agada in Cypermethrin Induced Nephrotoxicity in Wistar Rats (1)

One of the most potent and widely used formulations of Agadatantra is Bilwadi Agada mentioned multiple ailments like poisoning from other animals or insects and even is general conditions of fever other than gara visha. Nephroprotective activity has been demonstrated by Bilwadi Agada and the same was evaluated in this experiment in Wistar rats induced by



cypermethrin. Study aimed to evaluate the nephroprotective activity of Bilwadi Agada in toxicity induced by cypermethrin in Wistar albino rats. According to OECD guidelines 407, the induction of sub-acute toxicity was done and effect of Bilwadi Agada was evaluated in Wistar albino rats. Degenerative changes in kidneys were found to be increased in lower dose level but moderate reversal was observed in higher dose. The thorough analysis of the results shows that the test drug at double the therapeutic dose causes moderate reversal of toxicant induced changes, thereby providing evidence for presence of nephroprotective activity against cypermethrin toxicity. Thus, therapeutic effects of Bilwadi Agada along with suitable cytoprotectant will be beneficial in the management of Cypermethrin toxicity.

3. In-Vitro Evaluation of Bilwadi Agada (Herbo-Mineral Compound) For Anti-Microbial & Anti-Fungal Activity¹² (V, R, N, & Rajendra, 2013)

Bilwadi agad is one formulation mentioned in Asthang Hridayam chapter 36/84-85 and Asthang Sangrah chapter 42/87-88. This formulation has been found useful in the treatment of poisonous conditions of toxicity like sarpa, luta, vrischik, mushak dansa, jwar, visuchika, ajeerana, gar visha etc. The aim of the study was to assess the antimicrobial activity by calculating the zone of inhibition on some pathogenic bacterial strains for two different extract which aqueous and alcoholic of bilwadi agad. Sample were prepared and analysed in lab with different concentration (5%,10%,15%) of extract on different bacterial strains. Antimicrobial study was seen on total 10 bacterial strains i.e Escherichia coli (MTCC: 40), Staphylococcus aureus (MTCC: 3160), Pseudomonas aeruginosa (MTCC: 424), Salmonella typhimurium (MTCC: 3231), Enterobacter aerogenes (MTCC: 2822), Klebsiella pneumoniae (MTCC: 39), Salmonella paratyphi B

(ATCC: 10719), Vibrio cholera (MTCC: 3906), Shigella dysenteriae (ATCC: 13313) and Clostridium botulinum (NCTC: 3815). Antimicrobial activity of Bilwadi agad was performed using “well diffusion method” against human pathogenic bacteria. By observing the samples, the activity index of bilwadi agad was found to be greater than 0.5 and this indicates a significant antimicrobial against defined microbes. Standard antibiotic was used as positive control in this study.

4. Screening of Bilwadi Gutika for Its Anticancer Action Against Gastric Carcinoma Cell Lines⁽¹⁴⁾

Cancer is a group of diseases that occurs when abnormal cells grow uncontrollably or spread to other parts of the body. Despite the fact that contemporary science has developed powerful anticancer medications like cisplatin, there are many negative side effects. Bilwadi Gutika is an herbal drug possessing thirteen ingredients in it, among which are proven to anticancer activity. Therefore, the goal of the current study is to use the MTT assay to screen Bilwadi Gutika's anticancer potential on gastric carcinoma cell lines. Bilwadi Gutika was prepared by powdering thirteen ingredients and subjecting them to Bhavana (trituration) using Goat's urine. Aqueous and hydro-alcoholic extracts were prepared. MTT assay was performed to investigate the cell viability in AGS (Gastric carcinoma) cells after sample treatment. % of viable cells = [(Test sample-blank) / (Control-blank)] x 100 was used to determine the percentage of viable cells. Both aqueous and hydro alcoholic extracts showed the presence of a bioactive compounds that has anti-cancer properties. Hydro alcoholic extract of Bilwadi Gutika at 2000 µg/ml concentration was found to have the highest cytotoxic activity on AGS (Gastric carcinoma) cell line.

Case studies 03



1. A Case Study of Applicability of Bilwadi Agada in Visuchika (11)

Cholera precisely to distinguish it from many other diseases associated with diarrhoea and vomiting. A 36-year-old woman Charter Accountant by profession visited the OPD with present complaints of drava mala pravrutti, udarshula, brahma, aanaha, thirst, jwara and, chardi. She had tried with Allopathic medicine but relief was depended only during treatment taking. Patient had a history of Type 1 diabetes and on fair blood sugar level control. Disease was diagnosed as Visuchika. The given treatment is Bilwadi gulika 2 tablets twice a day before food 8am & 6pm with lukewarm water and advised to the patient which has yielded good and quick response. Bilvadi Agada is an antitoxic medicine (viṣaghna aushadhi), indicated in all animate and inanimate poisoning (Keeta Visha, Sarpaviṣa, Lootaviṣa, etc., Dushiviṣa and Garaviṣa) and is mentioned as Bhutaghna (perhaps considered as antiviral), Rakshoghna, kandughna. The symptoms of the patient Brahma, Drava mala pravrutti (phena yukta), Udarshula, Aanaha, Thirst, Jwara and Saana Chardan was absent after 30 days of treatment. The samyoga visheshata (unique mixture) that gives Bilwadi agada its action is what gives it a particular effect. The majority of medications have a kapha-vatahara effect because they are tikta (bitter), katu (pungent), and rasa pradhan (pacifies kapha & vata), many medications are ushna veerya (hot potency), the bulk of which are katu vipaka, and can therefore operate as rapidly as an antidote or visha. The mixture has anti-inflammatory, analgesic, antioxidant, and antibacterial properties. It can also be used to treat allergy disorders.

2. Molluscum contagiosum: A novel Ayurvedic approach (4)

Molluscum contagiosum (MC) is a self-limiting viral skin infection most commonly seen in children and is an epidermal popular condition

caused by a large deoxyribonucleic acid poxvirus with the prevalence of 8-12%, respectively. The typical clinical presentation consists of small, umbilicated, skin-colored, pearly papules with a predilection of the trunk, axillae, antecubital, and popliteal fossae and genital area. Ajagallika is described in the context of kṣudraroga (the diseases which have less or no symptoms, with less pain or without pain) in the classics which is presented as snigdha (unctuous), savarṇa (of the same color), grathita (firm), niruja (painless) and mudga sannibha piḍakas (papules resembling green gram) which analogues with MC. No specific etiology and details regarding the disease are mentioned. Three cases of 3 yrs, 9yrs female children and 24 yers male molluscum contagiosum (MC) approached outpatient Department of Dermatology complaining of umbilicated, skin-colored, firm, painless papules over the neck and face. All of them were immune competent. The medical, social, and family history was insignificant. The lesions were, numerous and recurrent. However, MC in healthy people is a self-limiting disease, but it will take about 18 months to resolve by its own. Hence, the treatment becomes necessary to accelerate the healing process, preventing its spread and for cosmetic reasons. Most of the contemporary treatment methods such as cryotherapy, curettage, and topical application of caustic agents are effective but produce local side-effects such as erythema, tenderness, itching, burning sensation, and pain. The present study reports the efficacy of external application of Pratisaraṇīya Kṇara (the type of Alkali used for smearing over the affected area) and Bilvādi Agada tablet orally in three cases, which yielded encouraging results.

3. Agada Prayoga in The Management of Keeta Visha (Insect Bite) – A Case Report(9)

A 15 yrs old female OPD visited patient with the complaints of itching and burning sensation over



face and reddish rash over face since morning, on history taking, it was noted that at early morning patient had some insect crawl on her face and immediate she started developing the reddish rash, intense itching and burning sensation. Based on sign and symptoms and dosha predominance diagnosed it as Vata Pitta keeta visha and she was treated with agada principles which includes rakshoghna, vishagna, krimigna, kandugna etc. On local examination found skin of face was reddish but discharge with pain. The treatment is carried out with Bilwadi Agada one tablet with warm water 3 times after food. Bilwadi agada triturated with Tulasi swarasa for local application. Itching and burning sensation was completely reduced after immediate application of medicine and reddish rash was disappeared after 5-6 hours of the treatment leaving no scar marks. Based on the history, the condition was diagnosed as Keeta Visha (insect bite). The treatment plan adopted was based on the etiology and dosha predominance. Vishghna oushadha pana and lepa has advised to the patient which has yielded good and quick response. Tulasi swarasa was used as it is having Krimighna and Jantughna actions and is told as Vishaghna. The medicinal properties of tulasi have been studied in hundreds of scientific studies including in vitro, animal and human trials. These studies reveal that Tulasi has a unique combination of actions that include antimicrobial activities. (including antibacterial, antiviral, antifungal, antiprotozoal, antimalarial, anthelmintic). Bilwadi Agada is an antitoxic medicine (vişaghna aushadhi), indicated in all animate and inanimate poisoning (Keeta Visha, Sarpavişa, Lootavişa, etc., Duşivişa and Garavişa) and is mentioned as Bhūtaghna (perhaps

considered as antiviral), Rakshoghna, kandughna, Vishaghna. Patient of Keeta visha have shown encouraging results when treated with Bilwadi Agada

Clinical study 01

1 Efficacy of Two Ayurveda Regimen in Mild Scorpion Sting: An Open-Label, Two-Arm, Clinical Trial (7)

Scorpionism is an endemic and highly prevalent public health predicament causing severe cardio or neurotoxic effect. Ayurveda proposes a range of medicinal preparations (internal & external) in the management of Vrishchika Damsha (Scorpion sting). Among them, Hingwadi and Jeerakadi lepa are topical anti-inflammatory medications, and Bilwadi Gutika is a potent vishahara medicine. The study aimed to evaluate the comparative effect of Hingwadi Lepa against Jeerakadi Lepa with Bilwadi Gutika pana in the management of manda vrishchika damsha 30 subjects satisfying inclusion and diagnostic criteria. There are two groups with randomly selected subjects. Group I received Hingwadi lepa, and Group II was given Jeerakadi Lepa twice daily & Bilwadi Gutika pana (1gm) t.i.d. was administered orally in both groups for 7 days. Standard scoring of cardinal symptoms was used to measure the efficacy of treatment before and after treatment. Statistical analysis was done within the group by using student's paired t-test and in between the groups by using an unpaired t-test. The study showed highly significant improvement within the group in reducing the three cardinal symptoms with $P < 0.05$. Hingwadi lepa is more effective when compared to Jeerakadi Lepa along with Bilwadi Gutika pana in mild scorpion sting.

Data Analysing

Table 01 Reviewed article comparison

Type of Research	Publish title of the research	Indication			Total number of research
		Animate poison	Inanimate poison	Infectious disorders	



Review	Review on Bilwadi Agada and Its Indications	√	√	√	05
	A Critical Review on Bilwadi Agada	√	√	√	
	Conceptual Study on Bilwadi Agada- A Review	√	√	√	
	Review of Bilwadi Agada and Apamarga Moola on Vrishchik Damsha Chikitsa, an Ayurvedic Management for Scorpion Bite	√	√	√	
	Role of Bilwadi Agada in Prevention of Covid - 19	-	-	√	
Analytical studies	Analytical Profile of <i>Bilwadi Agada</i>	-	-	-	03
	Standardization of <i>Bilwadi Agada</i> Through Hp TLC	-	-	-	
	Standardization of <i>Bilwadi Gutika</i> through Physiochemical Analysis, phytochemical Analysis and GC-MS	-	-	-	
Experimental studies	Nephroprotective activity of <i>Bilwadi agada</i> in gentamicin induced nephrotoxicity in male Wistar rats	-	√	-	04
	Nephroprotective activity of <i>Bilwadi Agada</i> in Cypermethrin Induced Nephrotoxicity in Wistar Rats	-	√	-	
	In-Vitro Evaluation of <i>Bilwadi Agada</i> (Herbo-Mineral Compound) For Anti-Microbial & Anti-Fungal Activity	-	-	√	
	Screening of Bilwadi Gutika for Its Anticancer Action Against Gastric Carcinoma Cell Lines	-	√	-	
Case Record	A Case Study of Applicability of <i>Bilwadi Agada</i> in <i>Visuchika</i>	-	-	√	
	Molluscum contagiosum: A novel Ayurvedic approach	-	-	√	
	<i>Agada Prayoga</i> in The Management of Keeta Visha (Insect Bite) – A Case Report	√	-	-	
Clinical study	Efficacy of Two Ayurveda Regimen in Mild Scorpion	√	-	-	

	Sting: An Open-Label, Two-Arm, Clinical Trial				
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DISCUSSION

In present review found 16 published research papers on Bilwadi agada including 05 review papers, 03 analytical studies, 04 animal research with 3 case report and one clinical trial. As per the summary analysis Bilwadi agada is a anti toxic drug with common use and mentioned in the classical Ayurveda text including Ashthanga Hrudaya. It has broad spectrum of indication in animate, inanimate poison and infectious disease due to 13 ingredients which are presented in equal quantity. Bilwadi agada is a drug that contain characteristic colour and odour and acidic in pH value. Quality and Safety of the drug was proved in scientifically and experimentally found out nephroprotective activity against Gentamycin and Cypermethrin induced nephrotoxicity and found anti -cancer effect. Clinically Bilwadi agada was used on mild toxic condition such as insect bite and commonly considered its Bhutaghna property in clinical practice in reviewed publication in this study.

CONCLUSION

In accordance to literature Bilwadi agada is commonly use specific drug preparation that use in Agada tantra perfective, only one clinical trial was found in this study. Further most of the clinical applications were on infectious disease and animate poison. Though gara visha or chemical poisoning is clearly mentioned indication of Bilwadi agada in classical reference no any clinical publication had been published related to this fact. As the context on present era artificial or chemical poisoning is eye opening health issue. Hence in this study firmly suggest to initiate more clinical studies on Gara visha that related to chemical poisoning

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