

Screening of Anti-Toxic (Vishaghna) Property of Shirishabijadi Yoga: A Review

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ABSTRACT –

Agadtantra is the branch of AshtangAyurveda which deals with the study of Visha (poison), their types, signs and symptoms and treatment. Agad means Yoga (formulations) of VishaghnaDravyas. There are many Agada described in Samhita which can be use internally as well as externally. Shireeshabeejadi Yoga is one of the Kalpa explained by AcharyaVagbhat in AshtangHridayUttarsthan. In this review article, pharmacological and therapeutic action of each ingredient of Kalpa along with their antitoxic property will be discussed.

KEYWORDS – ShireeshabeejadiYoga, Visha, Antitoxic

I. INTRODUCTION

Ayurveda is ancient healthcare system of Indian medicine. Agadtantra is the branch of Ayurveda in which treatment of Visha has been described by different Acharyas. The properties of Dravyas which are against the properties of Visha (toxins) are known as Vishaghna (antitoxic) property. This article is about Shireeshabeejadi Yoga which is important Agad Kalpa. Potency and efficacy of AyurvedicKalpa depends upon the quality of drug, Desha (region), Kala (times), Ritu

(season), preparation method and route of administration.

Shireeshabeejadi Yoga is Agad Kalpa explained by Acharya Vagbhat for the treatment of poison.¹This article is based on textual review and descriptions related to Shireeshabeejadi Yoga which are collected from different Samhitas and research journals. This article reviews therapeutic screening of antitoxic (Vishaghna) properties of Shireeshabeejadi Yoga.

AIM -

To study the anti-toxic action ofShireeshabeejadi Yoga

OBJECTIVE –

- To study therapeutic and pharmacological action of each ingredientofShireeshabeejadi Yoga
- To study pharmacological and anti-toxic action ofShireeshabeejadi Yoga

II. MATERIALS AND METHODS –

The whole study based on literary review collected from Ayurvedic Samhitas.

Method of preparation of Shireeshabeejadi Yoga Shireesha Beeja Churna has given Bhavana of Arka Dugdha for 3 times. Then it is mixed with Pippali churna.

RASAPANCHAKA OF INGREDIENTS OF MANJISHTHADI YOGA

Sr. No.	Name	Latin Name	Rasa	Viry a	Vipak a	Guna	Karma
1	Shireesha ²	Albizzia lebbek	Kashaya, Tikta-Madhura	Ishat Ushna	Katu	Laghu, Ruksha, Ushna	Vishaghna, Raktashodhaka, Kushthaghna, Shothaghna, VedanasthapanaVar nya, Vrishya, Tridoshashamak, Shirovirechaka
2	Arkadugdha ³	Calotropis Procera	Katu Tikta	Ushna	Katu	Laghu, Ruksha, Ushna	Kushthaghna, Jantughna, Vishaghna, Kandughna,

							Vranashodhana, Shothahara, Kaphavatashamak, Vedanasthapana,,, Deepan, Pachana, Rechaka, Krimighna
3	Pippali ⁴	Piper Longum	Katu	Anus hnas heeta	Madhu ra	Laghu, Snigdha, Tikshna	Kaphashamaka, Vatashamaka, Medhya, Deepana, Truptighna, Shulaprashaman.

SHIRISHA

LATIN NAME - Albizzia lebbek

FAMILY - Leguminosae

CHEMICAL CONSTITUENTS⁵-

Stem bark – D-catechin, betulinic acid, lebbekanin A-C, leucocyanidin, melacacinidin, leucoanthocyanidin, lebbecacidin, frieddelin, b-sitosterol.

Leaves – Ethinocystic acid, flavonovicenin-2 and b-sitosterol, myricitin, quercetin, albigenin, albigenin, kaempferol, albizziahexoside.

Flowers – Lupeol, amyryl, benzyl acetate, benzyl benzoate, crocetin, different sterol-taxerol, cycloartemol, lupeol, campesterol and lebbekanin-D, F, G and H.

Pod and seeds – albigenin, albigenic acid, echinocystic acid and sitosterol in pods, seeds are rich in amino acids and fatty acids

PHARMACOLOGICAL ACTION⁶-

Antimicrobial –Glycosides, cardenolide glycoside and anthraquinone glycosides, isolated from stem bark are active against test culture.

Anti-fungal –The antifungal activity of lebbeckalysin is effective against Rhizoctonia solani (pathogenic fungus)

Anti-inflammatory – An experimental study on petroleum ether, ethyl acetate, the methanol extract of Albizzia bark is effective in inhibition of oedema volume.

Antiallergic –The extract of bark of A. lebbek suppress histamine signalling genes H1R and histidine decarboxylase (HDC).

Antioxidant – The bark extract possess free radical scavenging activity which indicates maximum antioxidant activity.

Antibacterial –The bark of A. lebbek has acrid taste and its extract showed antimicrobial activity

PHARMACOLOGICAL ACTION ACCORDING AYURVEDA⁷ –

Tridoshashamak, Vishaghna, Kandughna, Shothahara, Vedanasthapana.

THERAPEUTIC ACTION⁸ - Shothahara, Kushthaghna, Visarpa, Varnya, Gandamala, Shwas, Kasa, Pratishtyay, Twakroga, Sarpadamsha, Vrishchika Damsha

ANTI-TOXIC ACTION⁹-

Panchangas of Shireesha shows Vishaghna property and are used as Pana (internal medication), Nasya (Nasal inhalation), Lepa (ointment) and Anjana. ShireeshaBeeja is used in Dant Kshata (tooth brush twigs) and also as Pratisaran in Visha Chikitsa. In case of Vrishchika Damsha (Scorpion bites), Phala (fruit), Pushpa (flower) and Beeja (seeds) are used in the form of Pana(internal medication) and Lepa(ointment). In Mushika Damsha (Rat bite), Shireesha Beeja is considered to be best. Shireesha Beej is also used in Ghonasa Sarpa Damsha Chikitsa in the form of Kalka made in Gomutra.

ARKADUGDHA

LATIN NAME - Calotropis Procera

FAMILY - Asclepiadaceae

CHEMICAL CONSTITUENTS¹⁰- The latex is rich source of cardenolide. The important cardenolide found in plant are Voruscharin, uscharidin, uzarigenin, calotroposide, calactin, calotoxin, uscharine, ascleposide, calotropagenin, coroglaucigenin, Calotropin, proceroside, proceragenin and syriogenin.

PHARMACOLOGICAL ACTION¹¹ –

Antifungal – Fresh latex of C. Procera is effective against dermatophytes like Trichophyton spp. It is effective against pathogenic fungus, Candida albicans

Antioxidant – The ethanol extract of C. Procera has antioxidant property and free radical scavenging property.

Antimicrobial – Extract of latex of *C. Procera* has inhibitory effects against *Candida albicans*, *Staphylococcus aureus*.

Antiinflammatory – The Latex of *C. Procera* has been reported to have potent anti-inflammatory activity against carrageenan and formalin that are known to release inflammatory mediators.

PHARMACOLOGICAL ACTION ACCORDING TO AYURVEDA¹²

Vedanasthapana, Vishaghna, Kandughna, Shothahara, Twaka Vikara, Raktashodhaka, Vranashodhana, Kushthaghna, Jantughna, Deepana, Pachana, Vamanopaga

THERAPEUTIC ACTION

The latex of *C. Procera* is used as ointment in Kushtha, Charma, Shwitra, Granthi, Shlipada, Shotha, Gandamala, Dantashula, Arsha, and Khalitya¹³.

ANTI-TOXIC ACTION

The latex of *C. Procera* is used in the treatment of snake bite, rat bite, scorpion bite and insect bite.¹⁴ It is used in Sarpadamsha (snake bite) in the form of Pana (internal medication) with Kwatha (decoction) of *C. Procera*¹⁵.

PIPPALI CHURNA

LATIN NAME-Piper Longum

FAMILY - Piperacea

CHEMICAL CONSTITUENTS¹⁶ –

The main active constituent present in *P. Longum* plant is alkaloids which include piperine, piperlonguminine. The fruit part consists of volatile oil (1%), protein, starch, alkaloids, saponins, carbohydrates and amygdaline.

PHARMACOLOGICAL ACTION¹⁷ –

Antibacterial – The ethyl acetate extract of *P. Longum* fruit shows effective antibacterial activity against *Staphylococcus albus*, *E. coli*, *Salmonella typhi*, *Bacillus megaterium*.

Anti-amoebic – The root and fruit extract of the plant shows significant anti-amoebic activity against amoebiasis.

Antimicrobial – The methanolic extract of *P. Longum* fruit shows significant antimicrobial activity by inhibiting the severity of cecal wall ulceration in mice caused by *Entamoeba Histolytica*.

Anti- snake venom – The ethanolic fruit extract of *P. Longum* shows inhibition of venom lethal

action, venom defibrinogenating action, necrotizing action against Russell's viper venom.

Acaricidal – These are pesticides used to kill mites and ticks. The aqueous and ethanolic extract of *P. Longum* directly acts on reproductive physiology of ticks by restricting oviposition.

Antioxidant – Ethanolic extract of *P. Longum* leaves shows highest radical scavenging activity and less toxicity. Hence it shows antiviral, hepatoprotective and anticancer activities.

PHARMACOLOGICAL ACTION ACCORDING TO AYURVEDA¹⁸ –

Krimighna, Kaphashamaka, Vatashanulomaka, Rasayana, Medhya, Shulanashaka, Raktavardhaka, Mrudu Virechaka (mild laxative),

THERAPEUTIC ACTION

P. Longum is used as bio enhancer that helps in removing endotoxins from the body¹⁹. It has Rasayana Karma, so it is used in Twaka Roga (skin diseases)²⁰. It is mainly used to cure respiratory disorders. The roots of this plant help to cure bronchitis, spleen diseases, liver diseases, Kshaya (pulmonary tuberculosis), Urusthambha (Stiffness of thigh), Vishama Jwara, Vatavyadhi, Grahani, Arsha (piles), Nidranasha (insomnia)²¹

ANTI-TOXIC ACTION

Pippali Churna along with Koshna Jala (lukewarm water) used in Garavisha²². It is also used in snake bite, rat bite, scorpion bite and insect bite²³.

III. DISCUSSION–

Shireeshabeejadi Yoga consists of three Dravyas. In Agadtantra, Acharyas explained the concept of Dushivisha and Garavisha which manifest due to Asatmya Aahara-Vihar and Viruddha-Aahara. It remains in the body for long time and causes ill effect. Dravya of Shireeshabeejadi Yoga has various medicinal properties like antibacterial, antifungal, antioxidant, etc. These Dravya are specially Kapha-Vata Shamaka. Dravya of Shireeshabeejadi Yoga like Shireesha has Raktashodhaka, Kushthaghna, Vishaghna, Tridoshashamak properties. It also has antifungal, antioxidant, antimicrobial, anti-inflammatory properties. Arka Dugdha has Jantughna, Vishaghna, Vranashodhana, Kandughna, Kushthaghna properties. According to

modern science C. Procera has antifungal, antimicrobial, antioxidant and anti-inflammatory properties. Pippali has Deepana, Pachana antibacterial, anti-amoebic, antimicrobial, anti-snake venom, and Acaricidal and antioxidant properties. All ingredient of Shireeshabeejadi Yoga together helps in reducing toxic effects of Visha and acts as Vishaghna externally or internally. These drugs are Katu-Tikta Rasatmak, and Ushna Viryatmak, hence it can be use in Kapha - Vatajanya Vikara like Kushtha, Kandu, Shotha and Twaka Vikara.

IV. CONCLUSION –

Acharya Vagbhat described Shireeshabeejadi Yoga. This Yoga can be used in skin diseases, allergic condition, Garavisha, Agnimandya, Apachna, Shotha, Raktagat Vikara, fungal infections, snake bite, rat bite, and scorpion bite due to its Vishaghna, Krimighna, Deepana, Varnya, Shothaghna, antioxidant properties. But for this, further research and clinical trial s are needed. In present article, information on Pharmacological, therapeutic and anti-toxic use of Shireeshabeejadi Yoga has been collected.

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