

REVIEW ON KRISHNA VASA (*JUSTICA GENDARUSSA BURM*)

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ABSTRACT

Acharyas have mentioned Krishna vasa (*Justica gendarussa Burm.*) as one of the types of *Vasa* (*Adathoda vasica*). It is having properties like *Jwaraghna* (antipyretic), *Kaphanissarak* (antitussive) etc. *Vasa* (*Adathoda vasica*) which is of *Shita virya*, *Krishna vasa* (*Justica gendarussa Burm*) is having *ushna virya*. As the plant is therapeutically very important, it will be worthwhile to review its Ayurvedic uses, phytochemistry, research on its various activities. The available information on this plant is retrieved from various technical & scientific sources viz. books, websites, journals etc. & is presented under different sections. The review might be helpful for physicians to use this drug in different diseases & for scientists to do the further research for its claimed traditional uses.

Keywords: *Krishna Vasa, Justica gendarussa Burm.*

INTRODUCTION

Justica gendarussa is mentioned as one of the type of *Vasa*. Its references are not found in ancient classical texts of *Samhitas* or *Nighantus*, recent acharyas like Dr V G Desai in his book *Aushadhisamgraha*, Dr. K C Chuneekar in hindi commentary of *Bhava-prakasha*, Dr P V Sharma etc. have given reference of *Krishna vasa*. (*Justica genda-*

russa Burm), commonly known as willow-leaved *justicia*. It is a small erect, branched shrub, endemic to India. It is a native plant of china but is found wild or cultivated in Srilanka, India, Malaysia, Indonesia etc. It is botanically classified as follows:

SCIENTIFIC CLASSIFICATION:

Kingdom:	Plantae
Subkingdom:	Tracheobionta (Vascular plants)
Division:	Magnoliophyta (Flowering plants)
Class:	Magnoliopsida (Dicotylidons)
Subclass:	Asteridae (Sympetalous plants with 2 fused carpels)
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Order:	Lamiales (Flower Bilaterally symmetrical & 5 petals)
Family:	Acanthaceae
Genus:	<i>Justica</i>
Species:	<i>gendarussa Burm</i>

HABITATE

It is commonly found along streams at low and medium altitudes.

MORPHOLOGY: *Justica gendarussa* Burm. Is an erect, branched, smooth, undershrub, 1 to 1.5 meter tall.

Leaves: Lanceolate, 7 to 14 cm long, pointed at ends. Flowers: Small, in 4 to 12 cm long spikes, at the end of branches or in leaf axils. They are White or Pink coloured with purple spots.

Fruit: Capsule, club shaped, about 12mm long, smooth.

A- Plant of *Justica gendarussa* Burm

B- Flowers & Leaves of *Justica gendarussa* Burm

GUNA: Krishna vasa is having ushna virya¹ & is of Ruksha guna² The Rasa panchak(properties) is not mentioned in texts but by Anumana pramana(hypothesis) on considering its karmas(actions), we can say that it is having katu, tikta rasa & katu vipaka.

CHEMICAL COMPOSITION:

The leaves contain beta-sitosterol, an alkaloid, lupeol, friedelin, and aromatic amines³ The phytochemical screening also showed the presence of terpenoids, flavanoids, glycosides, tannins and saponins⁴

KARMA: It acts as Jwaraghna (antipyretic), Kaphanissarak (antitussive), Vamaka(emetic), Virechaka(purgative)⁵.

USES: In respiratory disorders 2 to 4 leaves of Krishna vasa is administered along with Apamarga(*Achyranthes aspera* Linn.) and madhu(honey). In pneumonia 4 leaves of Krishna vasa along with bark of Shigru(*Moringa pterigosperma*) and Madhu is to be given. In Jwara(fever) it produces sweating & in Aamavata (arthritis) external-

ly decoction is used to relieve pain. It is administered with sarshap taila (oil of Indian colza) for vamana (emesis)⁶. It is Febri-fuge, diaphoretic, emetic, emmenagogue. Infusion of leaves is given internally in cephalalgia, hemiplagia and facial paralysis. Fresh leaves are used topically in odema & rheumatism⁷. It is considered to have anti-dysenteric property⁸. The leaf juice is used in the treatment of earache. The bitter root is anodyne, diaphoretic, diuretic & laxative.⁹ Besides these mentioned uses large amount of research work is also carried out on *Justicia gendarussa* such as: The ethanolic extract of *Justicia gendarussa* showed significant anti-arthritis activity that was statistically similar to that of aspirin¹⁰

In Indonesia *Justicia gendarussa* has long been used in homeopathically to reduce stress, but more recently was found to have an alternate side effect as 'Male Infertility' Scientists worked to isolate the active substance 'Gandarusa' and distill it into pill form. Using the pill for 20 days resulted in just one pregnancy among 164 in the treatment group. It is all natural, reversible with almost no side effects. Gandarusa essentially de-activates two types of proteins on sperm head which are necessary for egg penetration thus the sperm becomes incapable for fertilization¹¹

Recent scientific studies have shown that the extract from the *Justicia gendarussa* leaf helps in providing immunity from the novel human influenza virus H1N1 (swine flu)¹² Further in animal experiments it was observed that ethanolic extract from leaves of *Justicia gendarussa* can decrease serum uric acid level in hyperuremic rats¹³ The alkaloid extract from leaves of *Justicia gendarussa* Burm. was found to be most signifi-

cant inhibitor of gram positive bacterial species¹⁴

DISCUSSION

Justica gendarussa burm. Is an erect under-shrub, leaf is lanceolate, bears white/pink flowers, it is of katu, tikta rasa, ushna virya, katu vipaka & ruksha guna. It is a good remedy for Jwara & Kaphavikaras. Recent researches have proven its efficacy in arthritis, male infertility, gout etc. its antibacterial potential was also observed.

RECOMMENDATION:

It is recommended to carry out toxicity studies & sufficient clinical trails along with *Justica gendarussa burm.*

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A- Plant of *Justica gendarussa Burm*



B- Flowers & Leaves of *Justica gendarussa Burm*



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