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<u>Review Article</u>

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BAUHINIA PURPUREA (KANCHANARA): A CRITICAL REVIEW ON THE MEDICINAL PLANT USED IN AYURVEDA

Patra Gajendra Singh^{*1}, Gupta Rakshapal², Joshi Pravin Kumar³ and Rout Om Prakash⁴

¹Lecturer, Post Graduate Department of Dravyaguna, Govt. Ayurvedic College, Raipur, Chhattisgarh. India.

²Professor and Principle, Under Graduate of Dravyaguna, Govt Ayurvedic College Bilaspur Chhattisgarh. India.

³Professor, Post Graduate Department of Dravyaguna, Govt. Ayurvedic College, Raipur, Chhattisgarh. India.

⁴Reader, Post Graduate Department of Dravyaguna, Govt. Ayurvedic College, Raipur, Chhattisgarh. India.

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*Corresponding Author Patra Gajendra Singh Lecturer, Post Graduate Department of Dravyaguna, Govt. Ayurvedic College, Raipur, Chhattisgarh. India.

ABSTRACT

Medicinal plants are a importance in the primary health care of individuals and communities in many developing countries. Indian medicinal plants and their derivatives have been an invaluable source of therapeutic agents to treat various disorders Bauhinia purpurea is the original name of Kanchanara (Kovidara) vedic and samhita. The plant belongs to ceaselpinaceae family. this review articale is collect the detailed description on synonyms, vernacular name, botanical description, habitet, properties, chemical constituents ethanomedicinal uses, pharmacological uses of different classical ayurvedic literature as well as modern litureture research journals.

KEYWORDS: Kachanara, Ayurveda, Bauhinia, ethano-medicine

INTRODUCTION

This fast-growing orchid-tree will ultimately reach 35 feet in height and width, the slender trunks topped with arching branches clothed in large, two-lobed, deciduous leaves. In fall, before the leaves drop, orchid-tree is festooned with many showy and delightfully fragrant, 5-inch-wide blossoms, the narrow purple, pink, and lavender petals arranged to closely resemble an orchid. These flowers appear on the trees from September through November

and are a beautiful sight to see, creating a vivid splash of color in the autumn landscape. The flowers are followed by 12-inch-long, slender, brown, flat seedpods which usually persist on the tree throughout the winter, then fall to create a mess to clean up. The spectacular flower display makes orchid-tree a favorite for specimen plantings. Kanchanara (*Bauhinia purpurea*) is one of the highly valued vine useful in a wide range of diseases. It is commonly used and prescribed Ayurvedic medicine in Apaci, Gandamala, Krimiroga, Vrana, Gudabhramsa. It contained many secondary metabolites which are suitable to be used as medicines. The phytochemical screening revealed that Bauhinia purpurea contained terpenoids, flavonoids, and tannins, saponins, reducing sugars, steroids and cardiac glycosides. The pharmacological studies showed that Bauhinia purpurea exerted anticancer, antioxidant, hypolipidemic, antimicrobial, anti-inflammatory, nephroprotective, hepatoprotective, antiulcer, immunomodulating, molluscicidal and wound healing effects. Numerous reports had been published on active chemical constituents and several biological activities of Bauhinia *purpurea* without taking into consideration the seasonal impacts.

IN AYURVEDIC LITERATURE

Vedic Period

In *Vedic period* we can't find *Kanchanara* as an internal and external medicine. *Kovidara* is the original name of *Kanchanara* during *Vedic* and *Samhita period*. In *Vedic* literatures references of *Kovidara* flowers are seen in *Ayodhyakanda*, *Sundara kanda*, *Yuddakanda* of *Valmiki Ramayana*. In *Harivamsa Kovidara* is described as a tree with beautiful flowers. *Vedic* literature considers it stem as forbidden for rituals. The *Rig-veda* dates back to BC 1500 in the *Vedic period*. Much reference was given to *daiva-vyapasraya chikitsa* than *yukti-vyapasraya chikitsa*. *Vedic* Literature concider its stems are forebidden for rituals (Jai.Gr.1/1;Kou.Sou.21/3/20 & Pa.Ga.4/2/80).its utility is relativity less is the *Brhat Trayi* period.

Samhita Kala

Kanchanara is classified in *Ayurvedic* literature in different context, because of its several valuable uses. It's utility is relatively less in the *Brihat- trayi period* when compared to *Nigantu period. Charaka* considered it as *Vamanopaga* while *Susruta* descried it as *Vamana* (*Urdhvabhagahara*). *Susruta* also clarified that the root is the useful part of *Kovidara* etc. (S.S.Su.39/3), while the practice at present is to use the stem bark. Another aspect about *Kovidara* is that it is described along with *Karbudara* i.e. – white variety of *Kovidara*. The

white variety is identified as *Bauhinia alba*. *Karbudara* is described only one by *Vagbhata* (A.H.Ka.1/7).

Charaka Samhita (2-3rd BC)

Acarya Charaka has described Kanchanara in the different ganas as Vamnopaga Mahakashaya, Kashay skandha, Shakvarga etc. Charaka has mention a Kanchanara in valuable medicinal yogas like Chandanadi tail, Kovidara puspha curna, Kanchanarguggul etc.Kovidara was mentioned in Vamanapoga desaimani, in sutrastana.-Kovidara and Karbudhara are described in Samhitas and Chakrapani quoted that Kovidara and Karbudhara flowering occurs in sarad ritu and vasanta ritu respectively. Regarding Kanchanara, Charaka Samhita contains nearly 12-14 referances.

Susruta Samhita (2nd BC)

Acarya Susruta has described Kanchanara in Nyogrodhadi gana. According to action and uses of Kanchanara Acarya Susruta has described Kanchanara in pitta Samsamana varga and Rakta Samsamana varga.

Kovidara was mentioned in, Kashaya varga and Urdwabhagahara gana. Tender leaves of Kovidara are used in raktapitta chikitsa. In kalpastana devakanchanara was mentioned for sarpa vishachikitsa. He also prescribed Kovidara flowers for internal hemorrhage. Dalhana treated Karbudhara as a variety of Kanchanara or slesmataka. Karbudara i.e Kanchanara (Bauhinia variegata) and Kovidara of later texts-its tender leaves and flowers are used as vegetables. In Susruta Samhita nearly 9- 10 reference of this plant.

Samgraha kala

The Samgraha kala denotes the breakthrough in 'Ayuveda'it being represented in total 8 parts (angas) and hence the granthas are named 'Astang'.

Acarya Vagbhata

According to Astanga Hrdaya and Astanga Samgraha, Kanchanara is stated in pitta Samsamana as well as Vamnopaga Varga also.

In Astanga Hrdaya about 3-5 and Astanga Samgraha 10 referances given of this drug.

Astanga Hridaya (7th centuary AD)

Root powder of *Kovidara* was mentioned for *arsha chikitsa*. *Kovidara picchabasti* was used for rectal prolapse. The decotion of *Kovidara* flowers are indicated in diseases like *Fever*, *Anoerexia*, *Goitre*, *Malignant tumours* and *Eenlargement of abdomen*.

Sarangadara Samhita

Sarangadara mentioned some of its preparations like *Kanchanaraguggulu* and indicated in disease like *Apachi, Grandhi, Gulma, Kushta* etc.

Other Samhita

Acharya Bhavaprakasha and Cakradatta had stated 30 references each approximately.

Nighantu Kala

In the Nighantu Kala *Kanchanara* became very famous and popular. So all The Nighantu have described its Botanical background property and therapeutic uses.

All the Nighantu have mentioned the valuable properties of Kanchanara like Sita (cold), etc.

Dhanvantari Nigantu, Raja Nigantu, Bhavaprakasa Nigantu, Kaiyadeva Nigantu, described in detail about the guna, karma of Kanchanara but with slight differences.

Dhanvantari Nighantu

In this Nighantu synonyms and properties of Kanchanar is described in Guducyadi varga. Svetapushpa was said as *Kanchanara* and *rakta pushpa* as *Kovidara*.

Shodhala Nighantu

In this text, Kanchanara is described under the Guducyadi varga.

Madanpala Nighantu

In this text Kanchanara is include in Haritkyadi varga. Synonyms given in this Nighantu as Kanchanara, Kuddala, Kovidara, Chamarika, Swalpakesara, Asphotala, Kuli, Uddala, Kachanak, Pakari, Rakatapushapak, Kuhali and Dallaka.

Kaideva Nighnatu

In this Nighnatu *Kanchanara* is described in *Aushadhi varga*. It has Kashaya Flower Laghu, ruksha sheeta and Guru guna. it is useful in *Kasa, Swasa Rakatapradar, Gndamala, Gudabharns* etc.

Raj Nighantu

In this context, *Kanchanara* has described under the *Karaviradi varga*. Pt. Narahari described 14 name of *Kanchanara*. He also described the guna of *Kanchanara*.

Bhavaprakash Nighantu

Bhavamisra has described this in *Guduchyadivarga* and given the description of *Kanchanara* and *Kovidara* seperately but attributed some properties to them.

Acharya denotes the properties of Kanchanara like Sothahara, Swasa, Kasa, Rakatapradar, Gndamala, Gudabharns, Krimighan, Kushathagn etc.

Nignatu Adarsha

In this Nighantu Vaidya Bapa Lal describe the Kanchanara in Putikaranjadi Varga.

Varga or Gana

Depending upon the drug origin *morphology*, *property*, *pharmacodynamics* and *therapeutic* value ancient texts have classified the drug into Ganas, Vargas and Skandha. Different Acharya have described Kanchanara in different Ganas, which are described as follows-Charak samhita - Vamnopaga mahakshaya Varga, Supaya shak varga Susruta Samhita -Kashayamadhura shaka varga, Nyogradhadi gana, Urdhvabhagahara Pushapa varga. Astanga Hridaya -Vamnopaga Astanga sangarha -Vamnopaga Bhela Samhita -Sakavarga, Kashaya varga Madanpala Nighantu -Haritkyadi varga Raj Nighantu -Karaviradi varga Dhanwantari Nighantu -Guduchyadi varga Bhavaprakash Nighantu -Guduchyadi varga Saligram Nighantu -Guduchyadi varga Kaiyadeva Nighantu -Oushadi varga Nigantu adarsha -Kovidara varga, Putikaranjadi varga Gunaratnamala -Guduchyadi Varga Sabdachandrika -Vrichhadi varga Sarasvati nighantu -Pittakaphaghana varga Siddhamantra -Pittakaphaghana varga Abhidhanaratnamala -Kashaya skandha Nighantushesha -Vrichha-kanda Madhavadravyaguna -Vividha aoushadhi Varga

SYNONYMS

In the past days, the *Ayurvedic system* of Description of a medicinal plant was through various synonyms which are indicative of its *physical, characters, habitat, actions, properties, therapeutic uses, specific characteristic* etc. so the knowledge of synonyms of the drugs has much importance in *dravyguna vigyana*. Description of *Kanchanara* can be well traced in different text and presented in follow:- Kachanara Kundali Kuddala Kovidara

Gandari Chamarika Tamrapuspa Yugamapatraka Swalpakesara Marika Mahayamalapatraka Asphotala Kuli Uddala Kumbara Kachanak Pakari Rakatapushapak Kuhali Dallaka Kanchana Kanchana Kantara Kanakaprabha Suvarnari Girija Karaka Kachanaraka Mahapushapa Yamalachhanda Kachhaka Sodapushapaka Kuddara Uddalaka Rakatakanchana Champavidala Kanakaraka Kantapushapa Pitapushapa Kumbhar Asmantak Kundala Koliyasha Bhramreshto Manohar Aacchandana Swambhau Paro Yamalapatrak Kamalu Kachano Bhadradaru Yugachanda Karbudar Sita Kachnar Kachnal Kularh Koral Koral Kapakati Mandare Devakanchanamu.

MEANING OF SYNONYMS

Kachanara - Its flowers are golden yellow in colour.(i.e. B.X.).

काच्चनारः–काच्चनं तटवर्णंऋच्छति पुश्पैः ।(श.क.दू.)

Kundali Its flowers resemble the shape of kundali.

कुण्डली– कुण्डली सदृशाकार पृश्पाणि अस्याः ।(स्व.)

Kuddal It germinates while forcefully piercing through the soil.

कुद्दालः – कुमुद्दालयति इति कुद्दालः। 'दल विदरणे'। (अ.को.)

Kovidara Its germinates forcefully piercing through the soil. कोविदारः – कोभूमेर्विदारणाम् कोविदारः।

कोविति,कुं भूमिं विदृणाति। दृ विदारणे ।(भा.दी.)

Gandari Its effectively cures lymph node disorders / swelling.

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गण्डारि – गण्ड गलगण्डगण्डमालादीनां रोगाणां, अरिः इति ।(स्व.)
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Chamrik Iit will have smooth and beautiful flower.like chamer flower.

चमरिकः – चमरोऽस्यास्तीति चमरिकः। (नि.आ.)

Tamrapushpa It has copper or red coloured flowers. (i.e. B.V.)

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ताम्रपुश्पः, शोणपुश्पः – ताम्रवर्णं पुश्पं अस्यास्यीति (स्व.)
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Yugmapatrak Its leaf is bifid.

युग्मपत्रक – यमलपत्रत्वात् युगपत्रकः ।(नि.आ.)

Swalpkeshari Its stamens are very few in number.

स्वल्पकेसरी –स्वल्पं अल्पसंख्यानि केसराणि सन्त्यस्याः ।(स्व.)

Karbudar coloured flowers and leaf is bifoliade.

Vernacular name

Sanskrit :-	Raktapuspa, Kovidara
Botanical name:-	Bauhinia purpurea Linn.

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Hindi :-	Gairal, Kaliar, Kandan	
Malayalam:-	Savannamandaram	
Oriya:-	Boroda, Debokanjora	
Marathi :-	Devakanchana, Atmatti	
Bengali :-	Devakancha	
Malayalam:-	Suvannamandaram	
Punjabi :-	Karalli, Kanchanal, Kularh, Kolar, Koiral, Karalla.	
Telugu:-	Devakanjanamu	
Tamil :-	Kalavilaichi	
Kannada :-	Basavanapadu	

English :- Butterfly Tree, Orchid tree, Mountain Ebony, Buddhist bauhinia, Camel's foot tree, Wild champak.

Used Part

Though barks is the most commonly used part, the *leaves, fruit, stem* and *flowers* are also being used in various accessions. According to different *acharya* the useful part used in Raj nighntu leaves flower and root bark, Dhanvantari nighntu stem barkand flower uses, Madanpal and kaiydev nighntu flowers ues and Classical use medicinal plant used in flower and root bark.

Action

Action of *Kachanara* on is largely accepted as *Kaphapittaghna*. The opinion of difeerent authors have been comment by *Dhanvantri nighnatu* are Slashamapittahara, Sangarhi, dipana, Rajnighantu are Kaphavataghana and Mutrasangrahaniya *Madanpal nighntu* are Pittaghana, Sangarhi, *Bhavprakash nighntu* are Slashamapittahara, Pittaghana, Sangarhi, *kaiydev nighntu* are Rochana, Slashamapittahara, Pittaghana, Sangarhi, *Dravyagunsangrah* are Sangarhi, *Nighatu ratanakar* Agnidipak, Sarak, Slashamapittahara, Pittaghana, Sangarhi, *Shaligram nighatu* Pittaghana, *shodhal nighatu* are Vatakopak, Slashamapittahara.

Prayoga^[15]

The bark are bitter, sweet oleaginous, cooling, and contain large amount of tannine, digestion properties.

1. Intrinsic Heamorrhage

- 1. Flowers of Kovidara, Kasmarya and Salmali should be used as vegetable in case of intrinsic haemorrhage. (c.s.ci.4.39)
- 2. One suffering from intrinsic haemorrhage should take powedered flowers of Khadira, Priyangu, Kovidara and Salmali.(c.s.4.70)

2. Piles

Powder of the Kovidara root (bark) should be taken with buttermilk.(AH.chi. 8.31)

3. Snake- poisoning

Kovidara, Sirisa, Arka and Katabhi should be taken.(s.s.ka.5.18), Part used :- Flowers root. Dose :- Powder 3-5gm ;Decoction 50-100ml.

Prayoga (Uses)

According to different authors comment have been Dhanvantri nighnatu are Gudabranshnashana, Kusthaghna, Gandamalanasana, Vranasodh-ana, vranaropana Madanpal nighntu are khayahara, kasaghna, Gudabranshnashana, Raktapradaranasana, Krimighna, Vranasodh-anavranar-opana, Kusthaghna, Gandamalanasana Bhavprakash nighntu are comment khayahara, kasaghna, Gudabranshnashana, Raktapradaranasana, Kasahara, Krimighna, Kusthaghna Kaiydev nighntu are Swasahara, khayahara, kasaghna, Gudabranshnashana, Raktapradaranasana, Kusthaghna, Vranasodh-ana, vranaropana, Gandamalanasana, Nighatu ratanakar Raktapittahara, khayahara, kasaghna, Gudabranshnashana, Raktapradaranasana, Krimighna, Vranasodhana, vranaropana Shaligram nighatu Krimighna, Kusthaghna, Vranasodhana, Vranaropana, Gandamalanasana Charak samhita Raktapittahara Susruta samhita Raktapittahara Dravyguna vigyana Raktapittahara

Guna (Properties)

Kanchanara has been said to have *kashaya, katu Rasa, katu Vipaka, Sheeta Veerya* and *laghu, rukha, Sheeta Gunas*. There is a difference of opinion about the pradhana rasa whether it is *kashaya* or *katu*. All the properties attributed to, by different acharyas have been different said Raj nighntu, Nighantu ratanakara and Dhanvantari nighntu rasa have been kashaya, madanpal nighntu comment rasa kashaya, Sheeta virya, guna of flower Laghu, ruksha, Bhapakash nighntu said kashaya rasa Sheeta virya Flower -Laghu ruksha, Katu vipaka Flower Madhura vipak, Shaligram nighntu comment kashaya rasa, guna- laghu, ruksha.

Kaiyadev nighntu rasa kashaya, flower madhura rasa, flower guru guna bark laghu ruksha, katu vipakflower- madhura vipak.

Stem Bark

1.	Rasa	-	Kasaya
2.	Guna	-	Ruksa, Laghu
3.	Veerya	-	Sheeta
4.	Vipaka	-	Katu
5.	Karma	-	Kapha-pittahara, Grahni, Dipana
6.	Prabhava	- Gano	lamalanashana

Flower

The flowers of *Bauhinia purpurea* are used in *Ayurvedic* system of medicine. In terms of rasa panchaka theory of *Ayurveda*, the properties of *kovidara* are as follows

Rasa (taste) -	Madhura, Kasaya(astringent).	
Guna (quality) -	Laghu(light for - digestion), Ruksha(Creates dryness)	
- Veerya	Sheeta(Conserves energy during digestion & metabolism).	
Vipaka (Digestive effect)-	Madhur	
Karma (action) - Gandmalanashana, Vrana Shodhana-Vrana ropana		
Doshagnata (effect on doshas) - Pittahara (mitigates pitta).		
Vyadhiharatva (indications) - Arshas (hemorrhoids), Kasa (cough), Rakta pradara		
(menorrhagia), Ruksa (creates dryness), Grahi/Kostabaddhata (constipation).		

Farmulation

5:1	Kachanarguggulu
	(Sharangdhar Samhita, Gandamala- Apachi Rogadhikar,100, P-206)
1:8	Usirasava
	(Bhaisajyaratnavali, Raktapittaadhikara,137-141,P63)

Asavaandarista

Usirasava, Chandanasava, Vidangarista, Kanchanararishta

Bhasma

Kanchanaradrava

Gajendra et al.

Guggulu

Kanchanara Guggulu, Triphaladi guggulu, Vyoshadi guggulu

Guti

Kanchana gutika

Kvatha

Kanchanaradi kvath

Rasayoga

Gandamala kandan rasa

Sneha

Ajamodadhya tail, Chandanadya taila,Amrita ghrita, Mahamayura ghrita Kanchanara Ghana, Gulakanda Kanchanara.

Dose

Bark Churna	:	3-6 gm
Bark Kwatha	:	40-80 ml
Flower Swarasa	:	10-20 ml
For Decoction	:	20-30 gm

Botanical Description

A medium size, evergreen ornamental tree, found through out India ascending to an altitude of 1300m in the sub-Himalayan tract. bark is ashy dark tobrown, nearly smooth, young parts brown-pubescent. Leaves 0.75-1.5 cm long, rather longer than broad, cleft about halfway down into 2 acute or rounded lobes very minutely pubescent beneath. when young base usually cordate,9-11nerved,petiole 2.5-3.8 cm long. Flowers: large, rosy purple, in few flowered terminal, brown tomentosa panicles. Pedicels: 5-13mmlong, stoout, tomentose, tube7-5-10mm long, oblanceolate, long clawed, spreading veined. Stamens usually 3 fertile, the others reduced to antherlessfilaments, stigma-large, oblique. Ovary-downy, long stalked, style-long-Flowers in september-november -Pod15-25 by 1.5-2cm on a tomentose, stipe 1.5-2.5cm long,linear, flat, pointed, greenish tinged with purple till ripe, late indehiscing. Seeds:12-15,sub orbicular,flattened,1.3cm diametre, dark brownand smooth.

Flower

Type - Terminal, panicules, Pedicel -5-13 mm long, Calyx -Tube-7.5-10 mm long, splitting into two reflexed segments, 1 emarginate, the other three toothed, Size -3.8 mm in length, Petals -3.8-5cm long, veined, Stamens -Usually 3 fertile, Ovary -Long stalked, Style -Long, Ovules -Long, oblique, Flower color-blue; purple; red, Flower characteristics- fall flowering; very showy; winter flowering,

Foliage

Leaf arrangement-alternate, Leaf type-simple, Petiolate, Leaf margin-Cleft about halfway down into two acute or rounded lobes Base Petiole Usually cordate 2.5-3.8 cm long, Leaf shape-orbiculate, Size -7.5-15 cm in length, very prominent pubescent. Leaf venation-palmate, 9-11 nerved, Leaf surface -Very prominently pubescent. Leaf type and persistence-deciduous, Leaf blade length-2 to 4 inches, Leaf color-Glossy green above and paler beneath, Fall color-no color change, Fall characteristic-not showy.

Bark -Ashy to dark brown

Fruit

Fruit shape-elongated, pod or pod-like, Fruit length-6 to 12 inches, Fruit covering-dry or hard, Fruit color- brown, Fruit characteristics-does not attract wildlife; showy; fruit/ leaves a litter problem.

Seeds Number 12-15

Trunk, bark and Branches

droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinel grown with, or trainable to be grown with, multiple trunks; not particularly showy, tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns.

Botanical Classification of Bauhinia Purpurea

Kingdom		Plantae
Subkingdom	•••••	Tracheobionta (vascular plant)
Super division	1	Spermatophyta (seed plant)
Division	•••••	Magnoliophyta (floewering plants)
Class	•••••	Magnoliopsida (Dicotyledones)

Subclass		Rosidae
Order	•••••	Roseales
Family	•••••	Fabaceae (pea family)
Sub family	•••••	Caesalpinaceae
Genus		Bauhinia -L-Bauhinia
Species	Bauhinia purpurea - L(Butterfly tree)	

Habitat

Sub-himalayan tracts upto 4000 feet.-Assam, khasi hills, chittagong, western peninsula.- It is often cultivated sparingly throughout india. Often cultivated in china. Sparingly throughout india. – china. often cultivated. Its occurs almost throughout India ascending to about 5000 ft. elevation. In the sub- Himalayan tract from the Indus east wards ; also in dry forests of central, Easterm and Southern India.

Chemical constituent

stem bark consitiuents major lupeol minor 5,7-dihydroxy flavanone; 4'-O-a- Lrhamnopyranosyl; Beta-D-glucopyranoside; 5,7- dihydroxy and 5,7-dimethoxy flavanone; hentriacontane; octacosanol; sitosterol; stigmasterol; neringenin; 5,7-dimethylether; 4'rhamnoglucoside; 5,7,3',4'-tetra hydroxy-3-methoxy-7-O-alpha-L-rhamnopyranosyl (1 \square 3) -O-beta-galactopyranoside; 2,7-dimethoxy-3-methyl-9,10-dihydrophenanthrene; 1,4-dione named as **bauhinione**. Five flavonoids isolated from the different parts of Bauhinia variegata was identified as quercetin, rutin, apigenin and apigenin 7-O-glucoside. root consitiuents Flavonone; dihydrodibenzoxepin; flavonol glycoside ; 5, 7, 3', 4' - tetrahydroxy-3-methoxy-7-O—alpha- L- rhamnopyranosyl (1] 3)- O-betagalactopyranoside; (2S)-5,7dimethoxy-3',4',-methylenedioxyflavanone; 5,6,-dihydro-1,7,dihydroxy-3,4,-dimethoxy-2methyldibenz [b,f] oxepin together with three known flavanoids. flowers constituents Quercitroside; isoquercitroside; rutoside; taxifoline rhamnoside; kaempferol; 3-glucoside; myricetol glycoside; apigenin; 7-O-glucoside; quercetrin; ascorbic acid; aspartic acid; glutamic acid; octadecanoic acid; keto acids; amino acid; tannins; cyaniding-3-glucoside; malvidin-3-glucoside; malvidin-3-diglucoside; peonidin-3-glucoside; peonidin-3-diglucoside; 3-galactoside; 3-rhamnoglucoside of kaempferol. seeds consitiuents Carbohydrayes; proteins; amino acids; ascorbic acid; flavonoids; alkaloids leucoanthocyanines; aspartic acid; glutamic acid; arginine; glycine; alanine; histidine; isoleucine; lysine; methionine; phenylalanine; proline; serine; threonine; tyrosine; valine; 5-hydroxy 7, 3', 4', 5',-tetra-methoxyflavone; 5-O-

beta-D-xylopyranosyl – $(1 \Box 2)$ - alpha- L- rhamnopyranoside. leaves constituents reducing sugars, vitamin C (146 mg %).

Ethnomedicinal Uses Of Bauhinia Purpurea

The rural people of Chhattisgarh use its vagetable in kachanar buds. the buds (dried) anthelmintic usefull in pile and blood dysentery. The stem bark is used in the treatment in diarrhoea. Root-bark used in mixed with curd found efficacious in heamarrhoids. Flowers are laxative its paste with dried ginger applied internally in the treatment of goitre. Stems of Bauhinia is also used in constipation, flatulence, liver complaints and primmary tumor. Root are carminative. It helps in wound cleaning and healing properties, It cures skin disorders and inflammations. The bark ground in a paste is useful in lymphadenitis. Decoction made from its bark, pods of babool (Acacia) tree and flowers of pomegranate is used for gargles in oral disorders. Decoction is used for fomentation in rectal prolapsed. Leaves ground in paste are applied over the wound. Paste of the seeds is applied in migraine.Paste of bark is applied on Gandamala. Paste of stem bark, roots and flowers is used in haemorrhagic disorder. it is fat reducing. Used in lipid disorders.

Therapeutic utilities of the plant

- 1. The decoction of bark added with sunthi powder is given in gandamala.
- 2. Masurika Svarnamaksika bhasma is given with decoction of Kachanara bark (B.P.)
- 3. Decoction of bark added with three myrobalans or triphala(Terminalia chebula, Terminalia belerica and Embelica officinalis) and pippali churna(fruits powder of Piper longum Linn.) is recommended in gandamala as well as galaganda(goiter).
- 4. Bark is pounded in rice water (tandulodaka) and given to patient of gandamala.
- 5. The bark is astringent, tonic and anthelmintic. It is also used for ulcers and leprosy. A decoction of the bark is taken for dysentery. It is used to give tone and vitality to body. It is used against tuberculosis and skin ailments.
- 6. Dried buds are used in haemorrhoids.
- 7. The dried buds are used for the treatment of diarrhoea, dysentery, worms, piles and tumours.
- 8. A decoction of the buds is given in cough, piles, haematuria and menorrhagia.
- 9. Gum is useful in pravahika and arsha.
- 10. The infusion of the leaves is used as a laxative and for cure of diarrhoea, dysentery and piles.

- 11. Decoction of flower-buds is given to treat cough, piles and menorrhagia.
- 12. An extract of its buds, flowers and barks is considered as a strong antibacterial.

Substitute and adulteration (Prati-nidhi Dravya)

As this plant is grown all over India and can be stored, there is no necessity of substitution. Acharya have mentioned the substitute drugs for Kachanara in case of its non – availability.

- karbudar (bauhihia purpurea linn.)
- Sweta kachara (bauhinia racemosa)
- Bauhinia tormentosa,
- Bauhinia variegate

CONCLUSION

This review article reveals that Bauhinia purpurea is a very important medicinal plant. It is kovidar (kachanar)plant in ethnobotany used in vegatable kachanar buds in rural area. Bauhinia purpurea have some medicinal properties including anti tumer antispasmodic, antidiabetic, antimicrobial, antiviral, antihypertensive, muscle relaxant, antioxidant, antipyretic and antitumor. As evident by a number of studies cited above. Different parts are used to treat different diseases and have important place in the Ayurveda. The plant needs to be explored more so that more formulations can be proposed and used practically for treatment of diseases.

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