

Pharmacological Activities of *Arka Dwaya*- A Literary Review

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ABSTRACT

The word *Dwaya* means two, *Arka Dwaya* means two types of swallow wort or Madar. The one which is white variety and the other is red variety. The white variety is named as *Calotropis Procera* and the red variety is *Calotropis gigantea*. Both belong to *Asclepiadaceae* family. In the mythologically the *Arka* plant is used to worship Lord *Soorya* the Sun God. The *Arka* is having *Katu*, *Tikta Rasa*, *Katu Vipaka* and *Ushna Virya*. *Acharya Sushruta* and *Acharya Vagbhata* enumerated this drug under *Arkadi Gana*. *Acharya Bhavmishra* described this drug depending upon the colour of the flower. In fact two species of the genera *Calotropis* are available and in each species, both white and red coloured flowers are seen which are because of eco types. But the *Calotropis procera* appears very rarely with white flowers. The *Arka* alleviates *Kapha*, *Meda*, and *Visha*, *Krimi*, *Kustha*. The specific action of this drug is *Vrina shodhana* i.e. wound healing property. The present study of two types of *Arka* reveals the morphology, pharmacological actions, *Rasa panchakas*, therapeutic application, etc. according to different *Ayurvedic* and modern texts.

Key Words- *Ayurveda*, *Arka dwaya*, *Calotropis procera*, *Calotropis gigantea*, Pharmacological actions.

INTRODUCTION

Just as most Gods and Goddesses in India are associated with some tree, shrub or creeper, similarly all the nine planets which are believed to control the destiny of man are associated with plants. Planet *Ravi* the Sun after whom *Ravivara* the Sunday is named is offered of *Arka* plant. The swallow wort or *Madar* ^[1] plant is of two varieties according to their eco types. The one is white variety and the other is red variety. The white variety is named as *Calotropis Procera* and the red variety is *Calotropis gigantea*. Both belong to *Asclepiadaceae* family. The *Moola*, *Twak*, *Patra*, *Pushpa*, *Beeja*, and *Kshira* are used in the various treatment. It is one of the *Upavisha*. The *Arka* alleviates *Kapha*, *Meda*, and *Visha*, *Krimi*, *Kustha*. The specific action of this

drug is *Vrina shodhana* i.e wound healing property.

DISCUSSION-

Arka- ^[2]

1. Its leaves have corrosive constituents.
2. It is known with the names of Sun.
3. This plant is fully decorated with flowers.
4. This plant grows everywhere and in groups.
5. Its latex will cause blindness. Hence the name *Pratapasa*.
6. It is a plant which is found commonly growing at many places.
7. It cures even most incurable diseases.

Arka - ^[3]

As per *Dhanwantari Nighantu*. the synonyms are *Suryavhaya*, *Pushi*, *Vikshira*,

Vikirana, Jambhala, Kshiraparni, Asphota, Bhaskara, Ravi,

Guna-Karma-

Katurasa, Ushna virya, Vatahara, Agnidipana, Saraka, Shothagna, Vrinahara, Kandughna, Pleehavridhi hara, Krimighna.

Rajarka- Vasuka, Adhyrka, Mandar, Ganarupaka, Ekasthila, Sadapushpi, Alarka, Pratanana.

Guna-karma-

Rajarka is Katu-Tikta rasa, Ushna Virya, Kapha, Medoroga, and vishagna property. It is vata, Kustha, Vrna, Shopha, Kandu, and Visarpahara.

As per Shankara Nighantu [4]

Arka is Kriminashaka, Tikshna, Kasahara, and Kapha shamaka property. Its flowers are Krimidoshahara, Shoolaghna, and Udara roga shamaka.

As per Madanapala Nighantu [5]

Synonyms are;

Arka, Suryahvaya, Kshiri, Sadapushpa, Vikirana, Mandara, Vasuka, Alarka, Rajahva and Dirghapatraka.

The specific actions are laxative, alleviates Vata and Kapha.

Therapeutically it cures Kustha, Kandu, Visha, Vrana, Pliha, Gulma, Arsha, Yakrit, Udara, and Krimi rogas.

As per Raja Vallabha Nighantu Arka [6]

Possesses Krimi nashaka, teekshna, Saraka, and Kapha nashaka properties. The Kshira of Arka is Krimidoshanashaka, Shwitra nashaka, Udara roga and Arsha rog nashaka.

As per Chandra Nighantu [7]

Suryavha, Arka, Sadapushpa, Kshatakshiri, Rupika, Shuklaphala, Dugdhanika, Savita, Pratapavan.

It is Kapha-Vatahara, KrimiKustha Nashaka, Dushta Vrrinahara, Sarameya Vishanashaka, Tikta and Teekshna.

The Shetarka is Alarka, Shwetapushpa, Mandara, Ganarupika, Rajarka, Suryavriksha, Vikirnaphalaka. The Sheatrka

is Teekshna, Vishagna, Bhutaghna, Kaphavatahar, Plihaghna, Raktagulma Nashaka.

Calotropis procera and Calotropis gigantean- [8]

Calotropis procera is the smaller of the two, preferably grows in drier climate of the Deccan, the upper provinces of Bengal, Punjab and Sindh.

The *Calotropis gigantea* lower Bengal, Chennai, and Malayan Ceylone regions. The root bark promotes the secretions and to be useful in skin diseases, enlargements of the abdominal viscera, intestinal worms, cough, ascites, etc. The milky juice is regarded as drastic purgative, and caustic and is generally used as in combination with the milky juice of *Euphorbia neriifolia*. The flowers are digestive, stomachic, tonic, and useful in cough, asthma, catarrha, and loss of appetite.

The leaves mixed with rock salt are soaked within closed vessels, so the the fumes may not escape. The ashes thus produced are given with in ascites, and enlargements of the abdominal viscera.

Soak the powdered root bark of Arka in its own milky juice and dry. Bougies are prepared with this powder and their fumes inhaled. The root bark reduced to a paste with sugar cane, is applied to elephantiasis of the legs and scrotum. The milky juices of *Calotropis gigantea* and *Euphorbia neriifolia* are made into tents with the powdered wood of *Berberis aristata* for introduction into sinuses, and fistula in ano. The milky juice is applied to various teeth problems.

Arka Taila- Take of prepared Tila Taila, four seers, juice of Arka leaves, sixteen seers and turmeric reduced to a paste one see, boil them together in the usual way. This oil is said to be useful in eczema and other eruptive skin diseases,

Mandar-Arka- [9]

Mandara is also called as Rajarka and Alarka. It is of white variety .

Arka Patra is Saraka, Bhedaka, Teekshna, Kaphavata shamaka, alleviates

Charma roga, Gulma, Arsha, Shwasa, Yakrit pliha Vriddhi, and Krimi. Arka Kshira is Vamaka and Virechaka. Its lepa cures in Charmaroga and Shwitra kustha.

As per Bhavaprakasha Nighantu- [10]

The synonyms of white variety of Arka are, *Ganarupa, Mandara, Vasuka, Shwetapushpa, Sada pushpa, Alarka, Pratapa*. And the red variety of Arka are, *Arkaparna, Vikirana, Raktapushpa, Shukla Phala, Asphota*.

Both Varieties of Arka are laxative, and reduces Vata diseases, Skin diseases, Itching sensations, Poisonous effects, and heals the wounds and ulcers. Both alleviates splenic disorders, intestinal growths, haemorrhoids, *Kapha* diseases, visceral diseases and worms present in large intestines.

The flowers of these plants are aphrodisiac, light in action, appetizers and digestants. They cure distaste, nausea, cough, and dyspnoea.

The red variety flowers are sweet and bitter in taste, cure skin diseases. Worm infestations and *Kapha* diseases. They cure haemorrhoids, poisonous effects and haemorrhages. They are useful as absorbents, and in intestinal tumours and edematous conditions.

The latex derived from this plant is bitter and salty, hot in potency, demulcent, and light in action. It cures skin diseases, intestinal tumours, and visceral organ diseases. It is considered as one of the best purgative drug.

1. Calotropis proera (Ait) f.-

Morphology-

It is a shrub growing upto 2.5 meter height. Leaves 10-20 cms long, ovate-ovovate or ovate-oblong, acute, thick, and tomentose, Flowers are terminal and axillary corymbose cymes, purplish red. Fruits are follicles, 10-14 cm long, recurved. Seeds are numerous with silky hair.

Chemical composition-

Alpha and Beta amyryns, calactin, calotoxin, calotropagenin, calotropin, calotropain, proceroside, proceragenin.

2. Calotropis gigantea (Linn). R. BR. Ex Ait-

Morphology-

It is a shrub, growing up to 3 mt. Height. Leaves are 10-15 cms long, sessile or sub sessile, obovate or obovate oblong, base cordate. Flowers are axillary pedunculate, corymbs, purplish lilac or white. Fruits are follicles, 8-10 cm long, recurved. Seeds numerous with silky hair.

Chemical composition-

Laurane, saccharose, Beta- amyryn, Alpha and Beta calotropeols, holarrhetine, cyanidin-3-Rhamnoglucoside, taraxa-sterol isovalerate, giganteol, calotroposide, calactin, calotoxin, calotropins, gigantins.

Therapeutic application-

1. Flowers are grind with black pepper and given in small doses in bronchitis.
2. Arka Kshara is given in obesity in very small doses.
3. Arka and Lavana are made in to ash and given in splenic diseases.

Dosage- Kshara- 250 mg. Flowers 100-200 mg.

CONCLUSION

The literary review reveals that both varieties of Arka are having *Katu-Tikta Rasa, Ushna Virya* and *Katu Vipaka*. As both Arkas have *Vatahara, Agnidipana, Saraka, Shothagna, Vrinahara, Kandughna, Pleehavridhdihara, Krimighna, Charmarogahara, Medorogahara* properties can be selected for various therapeutic applications. Further scope of study is to evaluate its therapeutic applications with the Modern standard drugs.

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