



A REVIEW OF THE LITERATURE ON ERANDA(RICINUS COMMUNIS LINN.) AND ITS THERAPEUTIC APPLICATIONS AND PHYTOCHEMICAL COMPO- NENTS

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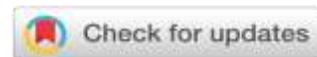
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ABSTRACT

Ayurvedic Vaidyas often suggest Eraanda therapies from the Ayurvedic tradition. Castor plant, or RICINUS COMMUNIS Linn., has a significant place among medicinal plants used to treat a number of disorders worldwide due to its enormous therapeutic potential. The field of herbal medicine has experienced exponential expansion during the last few decades. It contains a large variety of phytochemicals with various pharmacological characteristics. The plant has historically been used as a laxative, purgative, etc. It is reported that the plant is said to have anti-inflammatory, antioxidant, and anti-diabetic qualities. Pharmacological action on dosas reveals a predominance of vatahara properties, followed by kaphahara and pittakara effects. Bhedana, Dipana, Grahi, Rechana, Sara, Shodhana, Vayasthapana, Vatahara, and Vrshya are only a few of its many attributes. **Objective-** Studying in depth the phytochemical components and therapeutic uses of eranda is the goal. **Study Materials and Methods-** For this study, only textual evidence was employed, and specific references were obtained from the text of Nighantus. **Conclusion:** Attempts have been made to critically collect material about Eranda from six samhitas, seven samgraha granthas, nine Nighantus, and seven other published texts in this article. It has been noted that

357 formulations, which are successful in treating more than 45 illness problems, contain the root, root bark, leaves, seeds, and oil of Eranda as an ingredient.

Keywords: Eranda, RICINUS COMMUNIS. Vatahara, Bhedana, Dipana

INTRODUCTION

A considerable portion of our population receives medical care from Ayurveda. The Indian government actively promotes the use of Ayurvedic treatments, which have been part of our culture for hundreds of years. The majority of medications used in Ayurveda are of botanical origin, with some also having animal, metal, and mineral origins¹. All around the world, ayurveda is experiencing a renaissance. In contrast to allopathic manufactured medications, ayurvedic products are safe. There is an abundance of therapeutic plants throughout the world². Ayurvedic doctors have utilised Eranda, one of the traditional herbal medications whose botanical name is RICINUS COMMUNIS Linn, to treat a variety of illness conditions.

RICINIUS COMMUNIS Linn. is an annual or perennial bush that can grow to be up to 6 meters tall or more, and it is almost entirely cultivated up to a height of 2000 meters. For its seeds, which produce the well-known castor oil, it is commonly planted in the tropics and other warm climates. One of India's main oilseed crops is castor, and the country is really the world's second-largest producer of castor seed (around 110,000 tons annually)³. The varieties, synonyms, parts used, pharmacological characteristics, effects, and indications of Eranda were methodically described in the relevant Ayurvedic books according to their presentational style.

Both samhitas (treatises) and samgraha granthas mention their use as a component of compound preparations (compendia of Ayurveda). Reviewing the situation reveals that there is no one source of information regarding Eranda's usage and indications as described

in old Ayurvedic literature. Consequently, an effort has been made to present the same in this post.

1) Erand Gana, Varga, Mahakashaya-Review-

Family- Euphorbiaceae

Latin Name -Ricinus Communis.

Synonyms⁴- Erand, Gandharvahasta, Panchangul, Vardhman, Uttanpatrak, Vyaghrapucch, Urubuk, vyadmbak,

Regional Names⁵ –

1. Hindi – Erandi, Rendi
2. Gujarati - Erand, Diwelo
3. Kannada - Haralu, Audala
4. Marathi – Erandi
5. Malayalam – Chittamanakku
6. Telugu – Amudamu
7. Tamil - Amanakku, Chittamani
8. Bengali – Bherenda
9. English - Castor Oil Plant

Taxonomical classification:

Kingdom: Plantae

Order: Malpighiales

Family: Euphorbiaceae

Sub Family: Acalyphoideae

Tribe: Acalypheae

Subtribe: Ricininae

Genus: Ricinus

Species: Communis⁶

Physical properties

Rasa:-Madhur, Anurasa- katu, kashaya.

Vipaka:- Madhur

Virya:-Ushna.

Doshaghna:-Tridoshaghna.

Guna:- Snigdha, Tikshna, Sukshma

Effect on Tridosha -Because of its Ushanguna, it balances Vata and Kapha Doshas.

Classical Categorization

Sr. No.	Granthkarta	Gana, Varga, Mahakashaya
1.	Charakacharya	Bhedniya Ch.Su.4 Marutaghna Ch. Su. 2/12 Svedopaga Ch.Su.4/13(22) Angamardaprasamana Ch.Su.2/17(44) Sneha varga Ch. Su. 13/90 Madhuraskandha Ch.vi. 8/139 Anuvasanopagagana
2.	Sushrutacharya	Samsamana Su. Su. 39/9 Vidarigandhadi Su. Su. 38/4 Vata Samshamana Su. Su. 39/7 Sleshamasamshamana Su. Su. 39/9 Adhobhaghar
3.	Astanga Hrdaya	Madhyamapancamula A.H.Su.6/57 (Vagbhata) Tailavarga A.H.Su.6/57 Sakavarga A.H.Su.6/85 Vidaryadigana A.H.Su.15/9 Vatanasana A.H.Su.15/5 Slesmap Rasamana A.H.Su.15/9

Reported phytoconstituents:

By utilizing capillary electrophoresis with amperometric detection, the disaccharide glycosides rutin, gentistic acid, quercetin, and gallic acid in the dried leaves of *R. communis* L. are identified. The leaves have been separated for their flavonoids (kaempferol-3-O-beta-drutinoside and kaempferol-3-O-beta-dxylopyranoid) and tannins. Ricin A, B, and C are three poisonous proteins that are present in seeds, together with one ricinus agglutinin. From the roots, indole-3-acetic acid was isolated. Fruits of *R. communis* contain the alkaloid ricinine in the pericarp. Castor bean seedling cell-free extract yields ent-kaur-ene, ent-beyerene [(+)-stachene], ent-trachylobane, ent-sandaracopimaradiene, and casbene (anti-fungal)⁷; a combination of five diterpene hydrocarbons.

Karma: It has multiple properties like Bhedana, Dipana, Grahi, Rechana, Sara, Shodhana, Vayasthapana, Vatahara, Vrshya

Rogagnata:

It is primarily used in vatavyadhi, but it is also used in a variety of illnesses, including Amavata, Anaha, Antravrdhhi, Arochaka, Arsa, Grdhrasi, Gulma, Jvara, Krimi, Kustha, Mutrakriccha, Pandu, Pliharoga,

Prameha, Pravahika, Slipada, Sula, Sotha, According to Brahatrayi Acharya, certain medications have different effects depending on their taste, characteristics, potency, post-digestive effects, and specialised actions. Vagbhata also remarked that although Rasadi is antagonistic to one another, they act on various dosas and Dusyas without affecting the other qualities (Ch. Su.26/17; Su. Su.40/17; A.S.Su.17/30). (A.S.Su.17/34).

The fact that the Taste of Eranda is stated by the majority of authors leads us to believe that the plant mostly contains Madhura Rasa. However, some of the Acharyas also refer to Katu & Tikta Rasa. Only Suhruta can explain Kasaya Rasa. While Tikсна & Suksma Guna were referenced by Susruta, Guru Guna of Eranda is explained by the majority of the author there. The Usna Virya of Eranda is vividly shown in the above table. Eranda's Vipaka is referred to as Madhura. None of the Samhitas made a point of mentioning Prabhava of Eranda. Eranda's pharmacological action on dosas shows that it has primarily vatahara properties, followed by kaphahara and pit-takara effects.

Vishishta yoga

1. Chitrakadigutika (Ch.S.Chi.15)
2. Chitrakadileha (Ch.S. Chi.18)

3. Chitrakadighrita (Chakradatt 4)
4. Chitrakarasayana (Shu.S.Chi 28)
5. Chitrakadichoorna (Sharandharmadhayamkand 56)
6. Chitrakadilep (Ch.S.Chi 7)
7. Punarnavamandur (Chi.S.Chi.16)
8. Yograaj (Ch.S.Chi. 16)
9. Vyoshadigutika (Sha.S.Madhayamkhand 7)
10. Aryogyovardhinivati (Rasratnsamucchayakusthe)

Chemical Constituents:

Inorganic substances such as potassium, sodium, magnesium, chloride, nitrate, iron, aluminium, manganese, calcium, carbonate, and phosphate, as well as gallotannins, were found in the root and root bark.

(CRU, D) The root exhibits the presence of phenolic elements. The powdered root extract does not include any derivatives of autraquinone. When powder and water are combined, shaken, and allowed to stand for

a while, a mucilagenous substance is produced. This substance is light yellow in colour and turns dark when heated. When combined with water, the powder doesn't foam, which excludes saponins. (Singh, 1956). When Shah (1972) looked at the T.L.C. pattern for the presence of steroids, he noticed six different areas with Rf values of 0.00, 0.25, 0.33, 0.43, and 1.0. According to Seshadri et al., 1968, the root bark exhibits steroid presence with m.p.159°C.

The drug includes fibres (23–28%), involatile oil (37–61%), amylase (and invertase), and other ingredients. In the albumin recess of seeds is ricin. Ricinine, which is water soluble, is found on the seed, leaves, and stem covering. Ricinolic Acid is another ingredient.

STANDARDIZATION OF ERANDMOOL DRY SAMPLE, KWATHA, KALKA

1) Standardization of Dry Sample of Erandmool

Sr.No.	Parameters	Eranda Mool
1.	Description	Yellowish brown colour cut pieces of roots having Characteristic Odour
2.	Ash	6.10%
3.	AIA	0.57%
4.	WSE	9.73%
5.	ASE	8.68%

2) Standardization of Erandmool Kalka

Sr.No.	Parameters	Eranda Mool Kalka
1.	Description	Yellowish white colour semisolid having a characteristic odour
2.	Ash	1.06%
3.	AIA	0.15%
4.	LOD	84.14%

3) Standardization of Erandmool Kwatha

Sr.No.	Parameters	Eranda Mool Kwatha
1.	Description	A dark brown colour turbid liquid having a characteristic odour
2.	Total Solid	1.03%
3.	Brix	1.90%
4.	Ph	6.18%
5.	Wt/ml	0.9956 gm/ml

ACTION OF ERANDMOOL ON SANDHIGATA VATA

Sampraptivighatan by Erandmool

An ageing condition called sandhigatavata exists. Disease results from the dhatukshaya, or degenerative

changes, caused by the vitiated dosh vata localizing in the asthi and majjavahastrotas or sandhi where khavaigunya had previously created. This diminishes all of the attributes of sandhistakapha. The creation of samprapti is caused by sandhigatavata in Nirupstambhitavstha and upstambhitavata Aama. The

most effective treatment for both Nirupstambhit and Upstambhitvatavyadhi is erandmoola. The superiority and capability of dravya for vikarprashamana in vyadhitavstha and swasthyaparipalana in avyadhitavstha is what siddhantachakrapani explained regarding Agrayadravya in the charaksamhita sutra. The Ashtangasangrahakara defined agrya as the best medication among similarly acting substances (A.S.Su.13/1, Indutika), and the chakrapanitika explained to us what the shreshta and prashasta for vikarprashamana and swatharakshan are (chakrapani tika.ch.su.25/41-44).

It is possible to understand how Erandamoola has a vatahara effect by noting that it has the qualities of Katu-Kashay rasa, Tikshna-Sukshma Gunas, and Ushnavirya, which are effective to treat Upstambhitvatavyadhi, as well as the properties of Madhura rasa, Ushna, and Guru gunas, which are exactly opposite to vatadosha According to Acharya Charakacharya (Ch. Su.26/13.68, Ch. Vi.1/12), drugs precisely function on the basis of Rasa prabhav, dravya prabhav, Dosh prabhav, gunaprabhav, and Vikarprabhav. Erandmoola is a medication that also has vrushya and vayasthapana qualities that reduce joint wear and tear and inhibit degenerative processes, especially in older people.

DISCUSSION

Eranda is very effective in treating a wide range of common and chronic diseases. The plant is very widely distributed and can be observed growing erratically in forests. Eranda thaila, a straightforward, safe purgative, can be administered after taking the severity of the illness, the patient's digestive fire, and their physical stamina into account. Due to its Teekshna and Ushnaguna property, Eranda (predominant of qualities of Tejasbhuta). Although Teekshna, Ruksha, and Ushna gunamitigate Kapha, Ushna and Snigdha gunamitigate Vata. Because of its Sookshma guna function, it can enter tiny pores and use its Srotovishodhana property to clear the channels. The Medha Kanti Bala Arogya Smriti Sukla is improved (improves cognitive and memory functions and aug-

ments general health and heartiness). Moreover, Eranda Thailapossess Rasyana Property.⁸

CONCLUSION

In ayurveda, unani, and many other cultures, the medicinal plant plumbagorosea Linn is frequently used. The majority of the literature review points to its effectiveness against a variety of ailments and as a rejuvenator (Rasayana). From ancient times, R. communis has been employed as a possible vata dosahar plant because of all of these anti-vata (stabilising vata dosha) characteristics. It is regarded as a reputable treatment for colic, lumbago, and all forms of rheumatic illnesses⁹. Despite being regarded as a hazardous plant, Rakta Chitraka has been purified and utilised for thousands of years in Ayurvedic medicine. Plumbagozeylanica has been the subject of numerous experimental research, which have revealed a variety of bioactive actions, including antiviral, antifungal, anticancer, hypolipidemic, hypoglycemic, antiplasmodial, and antioxidant effects. It appeases Rasayana, Sookshma, Srotosodhsana, and Kaphadosa as well as Vata and Kaphadosa. Erandataila has a significantly greater medicinal value and can be used to treat a variety of illnesses.¹⁰

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