



# AKARKARA A REVIEW ON BENEFITS OF AKARKARA.

**DAINE SAKSHI KHANDU, GAIKWAD PRIYANKA DATTATRAY, CHAVHAT APEKSHA NARAYAN.**

Matoshri Institute Of Pharmacy, Dhanore, Yeola Maharashtra, India

## **Abstract:-**

The actual purpose of Ayurveda is to live the life with physical, mental, social and spiritual wellbeing. In Ayurveda numerous plants are described for fulfilling its purpose. One of those plants is Akarkara (*Anacyclus pyrethrum* L.). Basically, Akarkara is described in Unani system of medicine as an amazing drug used in various ailments. Later on, due to its multidimensional uses, it also has been included in the Ayurvedic text written in & after the medieval era. Shodhal Nighantu has described firstly Akarkara as one of the potent aphrodisiac drug. Here, an attempt is made to review its scattered multi-dimensional health benefits quoted in Ayurvedic and Unani treatises and validated through scientific researches in laboratories.

**Keywords:** Akarkara, *Anacyclus pyrethrum*, Aphrodisiac drug

## **INTRODUCTION:-**

*Anacyclus pyrethrum*, commonly known as Akarkara in Hindi and Pellitory in English, is an important medicinal plant belonging to the Asteraceae family. It is also called Akkirakaram in Marathi. The roots of the plant have good therapeutic value as per the traditional systems of medicine. It is also known as the African pyrethrum. The species is indigenous to Morocco, Spain, and Algeria and has two varieties: *Anacyclus pyrethrum* var. *pyrethrum* (L.) and *Anacyclus pyrethrum* var. *depressus* (Ball) Maire. Some varieties can be found in Jammu and Kashmir, and Bengal. It is imported to India from Algeria. Akarkara is an herb (*Anacyclus pyrethrum*) used in traditional medicine that contains many phytochemicals, including phenols and flavonoids. Its extracts are claimed to have antimicrobial, anti-inflammatory, anticonvulsive, analgesic (painkilling), and aphrodisiac properties. Supplements derived from *Anacyclus pyrethrum* are often sold under the name Akarkara, but other names like pellitory root are also used.

## **Chemical Constituents:-**

Phytochemicals like alkaloids, coumarins, flavonoids, and tannins are present in the *Anacyclus pyrethrum* variety. The root extract contains free fatty acids, sterols, and unsaturated amides. Pellitorin, anacyclin, phenylethylamine, inulin, polyacetylenic amides, and sesamin. Phytochemical screening of Akarkara shows the presence of carbohydrates, proteins and amino acids

## **Therapeutic Uses:-**

The therapeutic uses of Akarkara are due to the presence of phytochemicals like Flavonoids and terpenoids. The roots and leaves of the Akarkara have a therapeutic role in the traditional Unani and Ayurvedic systems of medicines as well as the herbal medicine of the East.

The plant is used as an-

Anti-inflammatory  
 Antibacterial  
 Aphrodisiac  
 Antiviral  
 Carminative  
 Diuretic  
 Emmenagogue (stimulate menstrual flow)  
 Vermifuge (anthelmintic)  
 Febrifuge (reducing fever)  
 Sialagogue (stimulate saliva)  
 Analgesic (pain reliever)  
 Antiarthritic  
 Nerve tonic

### 1. BENEFITS OF AKARKARA:-

#### A. What are the benefits of Akarkara for Arthritis?

Scientific Modern Science view Akarkara may be useful in managing arthritis. Akarkara is rich in antioxidants and is useful in improving blood circulation. As a result of this, it helps manage pain and inflammation in arthritis. ayurvedic Ayurvedic View Akarkara is useful to manage pain in arthritis. According to Ayurveda, arthritis occurs due to an aggravation of Vata dosha. It causes pain, swelling and joint immobility. Akarkara has Vata balancing property and gives relief from the symptoms of arthritis-like pain and swelling in the joints.

•Tips:-

- Take 2-4 pinches of Akarkara powder.
- Have with plain water or honey once or twice a day after meals.
- Repeat this to manage the symptoms of arthritis.

#### B. What are the benefits of Akarkara for Indigestion?

-Scientific modern Science View Akarkara stimulates the secretion of saliva and other digestive enzymes thereby aiding digestion.

ayurvedic View Akarkara helps manage indigestion. According to Ayurveda, indigestion means the state of an incomplete process of digestion. The main reason for indigestion is aggravated Kapha that causes Agnimandya (weak digestive fire). Akarkara helps improve Agni (digestive fire) which helps digests the food easily. This is because of its Ushna (hot) nature.

•Tips:-

- Take 2-4 pinches of Akarkara powder.
- Have with plain water or honey once or twice a day after meals.
- Repeat this to improve your digestion.

#### C. Benefits of Akarkara in Diabetes:-

Oral administration of the root extract of Akarkara was beneficial in bringing down spiked blood glucose levels in diabetic animal models.

Akarkara could show antidiabetic benefits in animal studies.

Further trials on humans are awaited to make it available as mainstream anti-diabetes medication.

#### D. Benefits of Akarkara on Central Nervous System (CNS):-

Akarkara root extract produced significant antidepressant effects in animal studies.

Akarkara also showed muscle relaxant benefits in animal models.

Extract of Akarkara enhanced memory and showed improvement in cognitive processes by increasing the brain levels of enzyme cholinesterase.

Extract of Akarkara also showed anticonvulsant activity.

The extract reduced seizures associated with cognitive impairment and reduced oxidative stress in an experimental model of seizures. Animal studies have confirmed the CNS activities of Akarkara.

However, the same activities are yet to be established on humans through trials.

#### **E. Benefits of Akarkara for Immunity:-**

Akarkara extract showed immunostimulatory activity in rat models.

There was a huge improvement in the humoral as well as the cellular component of the immunity.

The results suggest the potential use of Akarkara as an immunomodulator in the Ayurvedic system of medicine.

#### **F. Benefits of Akarkara in Wound Healing :-**

Akarkara plant extract showed wound healing benefits in rats which were evident by the improvement in the wound diameter.

The wound healing activity of Akarkara could be attributed to the antibacterial property of Akarara.

The wound healing benefit could also be attributed to the anti-inflammatory activity of Akarkara.

#### **G. Benefits of Akarkara as a Fertility Enhancer:-**

The root extract of the Anacyclus pyrethrum improved the sexual potential of rats in an animal trial.

Extract of Anacyclus pyrethrum also showed a potent libido enhancing ability, along with its fertility-enhancing effects in several animal trials.

Akarkara extract has shown promising results as a fertility enhancer in animal trials, but these activities are yet to be confirmed in humans.

#### **How to Use Akarkara?**

Akarkara can be used in powdered form. The powder can be taken with honey.<sup>6</sup>An ayurvedic physician will better guide on the dose and frequency of taking the powder.

##### **1. Akarkara Capsule**

a. Take 1-2 capsules of Akarkara.

b. Have with plain water once or twice a day after taking food.

##### **2. Akarkara Powder**

a. Take 2-4 pinches of Akarkara powder.

b. Have with plain water or honey once or twice a day after meals.

#### **Interactions With Other Drugs:-**

There is a lack of data regarding the interaction of Akarkara with other drugs. Therefore, patients are advised to talk to a doctor about its usage if using any other medication or supplement.

#### **Precautions to Take with Akarkara:-**

There are no safety studies about its usage in pregnant and breastfeeding women. Therefore, it should be used with the doctor's advice and supervision.

There are no safety studies about its usage in children.

Improve your digestive health with Akarkara. Akarkara roots might aid in increasing and stimulating the secretion of saliva and other digestive juices which help in improving digestive health. Additionally, they might facilitate gas flatulence due to their carminative property.

- Allergy

Scientific modern Science View People sensitive to chrysanthemums, marigolds, daisies and other members of the same family may be allergic to Akarkara. So it is advisable to consult your doctor before taking Akarkara if you are allergic to members of the Asteraceae.

### References:-

1. Usmani A, Khushtar M, Arif M, Siddiqui MA, Sing SP, Mujahid M. Pharmacognostic and phytopharmacology study of *Anacyclus pyrethrum*: An insight. *Journal of Applied Pharmaceutical Science*. 2016 Mar 1;6(3):144–50.
2. Jawhari FZ, el Moussaoui A, Bourhia M, Imtara H, Mechchate H, Es-Safi I, et al. *Anacyclus pyrethrum* (L): Chemical Composition, Analgesic, Anti-Inflammatory, and Wound Healing Properties. *Molecules* [Internet]. 2020 Nov 23 [cited 2022 Feb 24];25(22):5469. Available from: /pmc/articles/PMC7700217/
3. Estimation Of Total Phenolic, Total Flavonoids And Total Protein Content Of Hydroalcoholic Extract Of *Anacyclus Pyrethrum* | Request PDF [Internet]. [cited 2022 Feb 24]. Available from: [https://www.researchgate.net/publication/333746572\\_ESTIMATION\\_OF\\_TOTAL\\_PHENOLIC\\_TOTAL\\_FLAVONOIDS\\_AND\\_TOTAL\\_PROTEIN\\_CONTENT\\_OF\\_HYDROALCOHOLIC\\_EXTRACT\\_OF\\_ANACYCLUS\\_PYRETHRUM](https://www.researchgate.net/publication/333746572_ESTIMATION_OF_TOTAL_PHENOLIC_TOTAL_FLAVONOIDS_AND_TOTAL_PROTEIN_CONTENT_OF_HYDROALCOHOLIC_EXTRACT_OF_ANACYCLUS_PYRETHRUM)
4. Sujith K, Darwin CR, Sathish, Suba V. Memory-enhancing activity of *Anacyclus pyrethrum* in albino Wistar rats. *Asian Pacific Journal of Tropical Disease*. 2012 Aug 1;2(4):307–11.
5. Pahuja M, Mehla J, Reeta KH, Joshi S, Gupta YK. Root extract of *Anacyclus pyrethrum* ameliorates seizures, seizure-induced oxidative stress and cognitive impairment in experimental animals. *Epilepsy Research*. 2012 Feb 1;98(2–3):157–
6. Pandey S, Rani Kushwaha G, Singh A, Singh A. Chemical Composition And Medicinal Uses Of *Anacyclus Pyrethrum*. 2018; Available from: <https://www.researchgate.net/publication/324042819>
7. The Ayurvedic Pharmacopoeia Of India. Part 1 Volume 1.
8. Kumar KV, Lalitha KG. Pharmacognostical studies on the root of *Anacyclus pyrethrum* DC. *Indian Journal of Natural Products and Resources*. 2012;3(4):518-526.
9. WebMD. Pellitory: Uses, Side effects, Doses, Interactions [Internet]. Atlanta [last updated in 2016].  
Usmani A, Khushtar M, Arif M et al. Pharmacognostic and phytopharmacology study of *Anacyclus pyrethrum*: an insight. *J Appl Pharm Sci*. 2016;6(3):144-150.
10. Chandrasekar R, Chandrasekar S. Natural herbal treatment for rheumatoid arthritis-a review. *International journal of pharmaceutical sciences and research*. 2017;8(2):368-384.
11. Sujith K, Darwin CR, Suba V. Antioxidant activity of ethanolic root extract of *Anacyclus pyrethrum*. *International Research Journal of Pharmacy*. 2011;2(12):222-226.
12. Jalayer Naderi N, Niakan M, Khodadadi E. Determination of antibacterial activity of *Anacyclus pyrethrum* extract against some of the oral bacteria: an in vitro study. *J Dent Shiraz Univ Med Scien*. 2012;13(2):59-63.
13. Gautam OP, Verma S, Jain SK. Anticonvulsant and myorelaxation activity of *Anacyclus pyrethrum* DC. (akarkara) root extract. *Pharmacologyonline*. 2011;1:121-125.
14. Naderi NJ, Niakan M, Khodadadi E, et al. The antibacterial activity of methanolic *Anacyclus pyrethrum* and *pistacia lentiscus* L. extract on *Escherichia coli*. *IJM*. 2016;8(6):372-376.



15. Canli K, Yetgin A, Agata I, et al. Antimicrobial activity and chemical composition screening of Anacyclus pyrethrum root. *Indian journal of pharmaceutical education and research*. 2017; 51(3):244-248.
16. Kapoor LD. *CRC Handbook of Ayurvedic Medicinal Plants*. CRC Press. 2018.
17. Sharma V, Thakur M, Chauhan NS. Evaluation of the Anabolic, Aphrodisiac and Reproductive Activity of Anacyclus Pyrethrum DC in Male Rats. *Sci Pharm*. 2009; 77; 97–110.
18. Sujith K, Darwin CR, Sathish. Memory-enhancing activity of Anacyclus pyrethrum in albino Wistar rats. *Asian Pacific Journal of Tropical Disease*. 2012; 2(4):307–311.

