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Traditional Uses, Phytochemistry and Pharmacological Activities of Root of *Anacyclus pyrethrum* DC (*Āqarqarḥa*): A Comprehensive Review



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ABSTRACT

Anacyclus pyrethrum DC, popularly known as *Āqarqarḥa* or Pellitory, is a well-known plant in herbal medicine systems for its remarkable potential against numerous ailments. It belongs to the Asteraceae family. It's a perennial herb with a long, vertical, brown, tapering, slightly branched root and numerous spreading, prostrate or ascending, branching roots, hairy at the top and virtually smooth at the bottom. *Āqarqarḥa* is a plant that has biological and pharmacological properties including Abortifacient, Insulin-Sparing, Lacrimator, Lipoxygenase Inhibitor, Molluscicide, Neuro Tonic, Rubefacient, Sialagogue, Stimulant, Anesthetic, Anti-Inflammatory, Antimutagenic, Cyclooxygenase Inhibitor, Hypoglycemic, Insecticide and Tonic properties. The importance of species from the perspective of both Unani and contemporary medicine, taxonomic categorization, morphology, botanical name, chemical contents, phytochemistry, and pharmacological activity are all highlighted in this review paper. Future scholars will benefit greatly from this wealth of knowledge.



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INTRODUCTION

Medicinal plants are a great source of undiscovered compounds. Plant sources are an important resource in the traditional medical system for curing ailments. Because of the polyvalent action and fewer adverse effects of plant products, medicinal plants are attracting the attention of most researchers for the assessment of novel medications.^[1] *Anacyclus pyrethrum* DC is a perennial herb with a tall, vertical, brown, tapering, slightly branched root and numerous spreading, prostrate or ascending, branched roots, hairy in their upper positions, nearly smooth below. It looks a lot like Chamomile in terms of ecology and appearance; the root is brown and rough, and the shriveled surface has bark that's tightly adhered to the wood. It has a mildly aromatic scent with a pungent flavor that lingers.^[2]

Leaves: The ones at the root crown are long-stalked, ovate or oblong, strongly bipinnatisect, segments straight, acute, sometimes 2 or 3 fids, hairy or nearly glabrous. Head terminal, high, 1-1 1/2 inch or broader, with a thick disc; involucre in width, blunt or subacute, flat, pale green, bordered with a brown edge; receptacle slightly convex, with massive ovate rounded transparent scales beneath the flowers; receptacle slightly convex, with massive ovate rounded transparent scales beneath the flowers; receptacle slightly convex, with massive ovate rounded transparent scale.^[3]

Flowers: anthers apiculate, not tailed at the base, included in corolla; style exerted, stigma bifid, with two linear branches; disk-flowers bisexual, corolla tubular, contracted below, with 5 equal triangular spreading teeth, yellow; anthers apiculate, not tailed at the base, included in corolla; anthers apiculate, not tailed at the base, included in corolla Ray flowers are female, with a single row of flowers, a ligulate corolla, a long oval limb with a trifid apex, white above and bright pink below.^[3]

Root: The root is simple, 3-4 inches long by 3/8 - 4/8 inch thick, tapering or cylindrical, often terminated at the top by bristly remaining parts of leaves, and has only a couple of hair-like rootlets, externally it has a rough, brown shriveled surface, is brittle and compact, the fractured surface is radiate and barren of pith which is almost eliminated, and internally it has a rough, brown shrivelled surface, brittle.^[2,4,5] The bark is tightly attached to the wood, which has a radiating structure with narrow yellowish wedges of vascular tissue alternated with whitish medullary rays of equal or larger width. Yellow or brown oleo-resin glands are distributed throughout the latter, as well as the bark. When

sliced, the medication has a horny, not starchy, or fibrous texture. The root has a pungent, floral odor and a persistent pungent flavor that causes a large amount of saliva to flow. [2,12]



Figure No. 1: Root of *Anacyclus pyrethrum* DC

Geographical Distribution:

It's native to North Africa, where it's been imported to southern Europe. It does not grow wild in Europe, but it is widespread in Algeria's higher elevations, some distance from the coast, and it is also cultivated there. It can be found in India during the rainy season in the eastern districts of Uttar Pradesh, especially in PeeliBheet, and it can also be found in Africa, Algeria, and Syria (Sham). [4,6] The Mediterranean area is home to this species. Algeria is where it is grown. It is commonly propagated through seeds, cuttings. [6,7]

Taxonomy: [8,9]

Kingdom	: <i>Plantae</i> ,
Division	: <i>Spermatophyta</i> ,
Subdivision	: <i>Angiosperms</i> ,
Class	: <i>Dicotyledons</i> ,
Sub class	: <i>Metachlamydae</i> ,
Order	: <i>Companulatae</i> ,
Family	: <i>Compositae or Asteraceae</i> ,

Genus : *Anacyclus*,

Species : *Pyrethrum*.

Botanical Name : *Anacyclus pyrethrum* DC

Vernaculars Names of *Anacyclus pyrethrum* DC: [2,4,6-8,10,11,13-16]

Arabic : *Aquarqarha, Ood-ul-qaraharh, AqerQarha*

Bengal : *Akarkara*

Berber : *Tagendaste, Tafand*

Damashqi : *Ood ul qarah*

English : *Pellitory, Spanish Pellitory*

French : *Racine de pyrethre d" Afrique, Anacycle*

German : *Franzosenwurzel, RomischeBertramwurzel, Speichelwurzel, Zahuwurzel*

Greek : *Tarkhoon, Forusoon, Forsoon, Qoos, Qoobrun, Foriyun, Formad*

Gujrati : *Akorkaro, Akarkaro*

Hindi : *Kotrah, Akarakara*

Italian : *Piretro*

Kannada : *Akkal-kare, Akkalkara, Akkalakari*

Malayalam : *Akkalkara, Akkalkaruba, Akkalakaram, Akkikaruka*

Marathi : *Akkirakaram, Akarkara, Akkalkadha*

Oriyāḥ : *Aakarokara*

Persian : *Kakrah, Kalu, Kalooh, Bekhe Tarkhoon, Āqarqarḥa, Kartakhoom, Kazdam*

Portuguese : *Pyrethro da Africa, Parietaria de Espanha*

Punjabi : *Aaqarqara*

Sanskrit	: Agragrahi, Akarakarabha, Akarakarava, Akaarkarha
Sinhalese	: Akkarakkara, Akrapatta, Jallpattan
Sheerazi	: Akloona
Spanish	: Raiz de pelitrepyrethro, Salivaria
Tamil	: Akkirakaram, Akkalkadha
Telugu	: Akarakaram, AkkalaKarhah, Akkarakaramu
Unani	: Forusoon, Forsoon, Qosdarah, Qobroon
Urdu	: Āqarqarḥa

Āqarqarḥa (Root of *Anacyclus pyrethrum* DC.) in Unani System of Medicine:

Mahiyat (Morphology)

Āqarqarḥa is the root of the plant known as *Udul Qarah Jabli* in Damishq and is openly found in Shaam (Syria), not the root mentioned by Dioscorides under the Unani name *Quryoon*. It has traits that are similar to *Āqarqarḥa*, but it is as tall as humans and has yellow flowers. *Saunf* and *Soya* plants seem to be present. It has a longer root than *Āqarqarḥa* and produces fruit. The original *Āqarqarḥa* is *Āqarqarḥa Maghribi*, also known as *Tagandast* in Barbar and *Baboona Hispani* (Spanish Chamomile), to which Egyptians refer to as *Karkas*. Its branches have white hairy structures and are scattered on the ground. Most of the branches originate from the base, and every branch has a flower similar to Chamomile, with red petals facing the ground and white upper petals. The root is as long as the index finger and as large as the thumb. [2]

Part Used:Root [2,4,10,11,13,17]

Mizāj (Temperament): *Hārr³ Yābis³* (Hot and dry in the third degree) [2,4,11,36]

Nafa'e Khas (Main action): *Muqawwīwa Muḥarrik-i-bāh* (Aphrodisiac), [2,4,6,11,13]

Qate Balgham (Phlegmangogue), [4,6]

Munaqqi-i-dimāgh (Brain tonic) [4,6]

MuḍirAtharāt (Adverse effects): *Muḍir-i-Riyāḥ* (Harmful for Lungs), *Anacyclus pyrethrum* is a mucus membrane irritant that causes Malena and tetanus-like spasms as well as deep stupor, Contact Dermatitis. [2,4,13,15,18]

Muṣliḥ(Corrective): *Rubb-ul-soos* (*Glycyrrhiza Glabra*), *Samage Arabi* (*Acacia arabica*), *Kateera* (*Astragalus Gummifer*), *Munaqqa* (*Vitus vinifera*). [2,4,6,13]

Badal (Substitute): *Dare Filfil* (*Piper Longum*), *Daroonaj Aqrabi* (*Doronicum hookeri*), *Sonth* (*Zingiber Officinale*), *Asl* (Honey), *Sheetraj Hindi* (*plumbago zeylanica* Linn). [2,4,6,13,37]

Miqdār e khurāk (Dose): 1 to 3 gm [2,4,6,11]

Physicochemical standardization:

Complete ash, not more than 6.5%, acid insoluble ash not more than 2.5%, water-soluble ash 1.31%, and weight loss of 3.75% is found using physicochemical criteria in terms of ash values. The foreign matter must not exceed 2%. Value of Extraction: Extractives soluble in alcohol must be at least 4%, and extractives soluble in water must be at least 16%, 0.9% ether, 0.44% chloroform, 4.8% ethanol, 44.03% distilled water. [7,11]

TLC Behavior of Petroleum ether (60-89⁰) extract: [11,19]

Solvent System- Benzene: Petroleum ether (2:3);

Spray/Reagent treatment- I₂ vapors;

Number of spots- 1 having R_f value- 0.94.

Pharmacological actions:

Abortifacient, Insulin-Sparing, Lacrimator, Lipoxygenase Inhibitor, Molluscicide, Neuro Tonic, Rubefacient, Sialagogue, Stimulant, Anesthetic, Anti-Inflammatory, Antimutagenic, Cyclooxygenase Inhibitor, Hypoglycemic, Insecticide, Tonic. [22-35,38-40]

Therapeutic uses:

It is used in certain ailments like Ague, Apoplexy, Bruise; Cancer, Caries, Catarrh, Cerebrosis, Congestion, Dermatoses, Diabetes, Gout, Headache, Hemorrhoid, Epilepsy, Palsy, Paralysis, Rheumatism, Sciatica, Sore throat, Splenosis, Stomatosis, Tonsillitis, Typhus, Uvulosis, Xerostomia, Cordial, Stimulant, Sialagogue, Rheumatism, Epilepsy,

Sciatica, Toothache, Hemiplegia, Fever, Gastrosis, Glossosis, Hyperglycemia, Inflammation, Ischiosis, Lethargy, Lumbago, Mange, Neuralgia, Pain, Diabetes, Hoarseness of Voice And Amenorrhoea. [2,4,7,10]

Chemical constituents:

Anacycline, pellitorine, entering alcohol, hydrocarbon, inulin, the residue of volatile oil, and sesamin are all found in the roots, as well as tyramine amides, which are isobutyl amides and polyacetylene compounds.^[41] It produces an extremely acrid, resinous substance that is insoluble in potassium hydroxide (this is said to contain pelletonin), dark brown, fixed oil, very acrid, soluble in potassium hydroxide; yellow acrid oil, traces of tannin; bits of gum; potassium sulphate and carbonate, calcium phosphate, potassium chloride, and carbonate, silica, alumina, etc., It has lignin in it.^[5] R. Buchheil appears to have found an active concept in the crystalline alkaloid pyrethrin, which breaks into piperidine and pyrethrins acid when combined with alcoholic potassium hydroxide.^[5,20] It's made up of resin and acrid fat. The cortical part of the root, according to Thompson, comprises 5% pyrethrin. The volatile oil is found in the same amount as pyrethrin. Dunstan and Garnet isolate crystallizable pelletonin from resin, which is insoluble in water, diluted acids, and alkalis but soluble in alcohol and resembles piperovatin (C₁₆H₂₁NO₂).^[5] Mn (24.7 1.51 g/g), Zn (22.01 1.3 g/g), Cu (9.5 0.7 g/g), Na (20.13 4.09 g/g), and K (12.13 0.2 g/g) are all contained in *Anacyclus pyrethrum*'s dried root. Other compounds include 30–50% inulin, tannins, resin, and essential oil (traces).^[5,20]

N-Alkylamides are detected in the ethanolic solution extract of *Anacyclus pyrethrum* as follows: Undeca 2E, 4E-diene-8, 10-diyonic acid IBA, Undeca 2E, 4E diene-8, 10-diyonic acid N-Me IBA, Undeca 2E, 4E diene-8, 10-diyonic acid N-Me IBA, Undeca 2E, 4E diene-8, 10-diyonic acid N-Me IBA, Undeca 2-PEA Undeca 2E, 4E-diene-8, 10-diyonic acid Undeca 2E, 4E-diene-8, 10-diyonic acid Undeca 2E, 4E-diene-8 IBA for deca 2E, 4E-dienoic acid (Pellitorine), (Pellitorine), (Pellitorine), IBA Tetradeca-2E,4E-diene-8,10-diyonicacid, Tetradeca-2E,4E-diene-8,10-diyonic acid (anacycline), 4-OH PEA, Deca 2E, 4E-dienoic acid N Me IBA, Deca 2E, 4E-dienoic acid Tetradeca-2E,4E-diene-8,10-diyonic acid N-Me IBA, Tetradeca-2E,4E, XE/Z-trienoic acid 4-OH PEA, Tetradeca-2E,4E, XE/Z-trienoic acid 4-OH PEA Deca 2E, 4E dienoic acid IBA, Tetradeca-2E,4E, XE/Z-tetraenoic IBA. ^[21]

Pharmacological Activities of *Āqarqarḥa* (*Anacyclus pyrethrum* DC.):

1. Spermatogenic activities

Vikas Sharma *et al.* found a significant increase in Sperm count, motility, viability, and body weight, as well as serum testosterone, follicle-stimulating hormone, luteinizing hormone concentrations, and spermatogenic act in a 28-day randomized control study using Wistar rats treated with Alkyl amide rich ethanolic solution extract of *Anacyclus pyrethrum* DC. Vikas Sharma *et al.* performed a 28-day randomized animal trial to assess the effects of *Anacyclus pyrethrum* DC. On the sexual activity of 32 Wistar albino rats. *Anacyclus pyrethrum* DC. Petroleum Ether Extract (PEE) showed potency in rats studied after 7 days and 15 days of therapy discontinuation, indicating that the medication has a long-lasting impact and allows the treated rats to improve their sexual capacity. [22,23]

2. Anti-diabetic effect

In research performed by Tyagi *et al.* to test the anti-diabetic activity of aqueous extract of the root of *Anacyclus pyrethrum* DC. On alloxan-induced diabetic rats, the elevated blood glucose level in diabetic rats reverts to near normal when they were orally administered aqueous root extract of *A. pyrethrum* DC in doses ranging from 150 to 300 mg/kg b. wt. [24]

In patients with insulin-dependent diabetes mellitus, it lowers the insulin dosage. It lowers serum glucose and cholesterol levels when combined with the plant *Helleborus nigar* and taken orally for 3-6 weeks in a 1:3 ratio. It also decreases cholesterol level & serum glucose level. [25]

3. Immuno-stimulating activity

Bendjeddou *et al.* investigated the immune-stimulating role of hot water polysaccharide extracts of *Anacyclus pyrethrum* in mice. The fractions stimulated the reticuloendothelial system (RES) and increased the number of peritoneal exudate cells (PEC) and spleen cells in mice. The findings of the *in vivo* effect at 50 and 25 mg/kg for *Anacyclus pyrethrum* and *Alpinia galanga*, respectively, showed an incentive index higher than that of the *in vitro* effect at 50 and 25 mg/ml. [26]

4. Antidepressant activity

The antidepressant function was determined by Badhe *et al.* Root extract increased ambulatory activity, showing a stimulant function of the actophotometer; it has a major antidepressant effect in both the Forced swim test (FST) and the Tail suspension test (TST) by reducing immobility; it was successful in reversing hypothermia caused by clonidine and reserpine, and it inhibited haloperidol-induced catalepsy. [27]

5. Anti-convulsant activity

Suganya S, *et al.* evaluated the anticonvulsant activity of ethanolic extract of *Anacyclus pyrethrum* DC root (EEAP) in electrically and chemically induced seizure in mice and found that EEAP significantly delayed the onset of convulsions and minimized the time taken for recovery, significantly reducing the number of convulsions investigated in Maximal Electroshock induced seizure. The findings indicate that the EEAP root has a strong anticonvulsant activity when used to treat Pentylentetrazole-induced seizures. The permeation of pellitorine via (1) a Caco-2 cell monolayer, (2) the rat gut after oral administration, and (3) the blood-brain barrier in mice after intravenous and intracerebroventricular administration was studied using an *Anacyclus pyrethrum* extract and pure pellitorine. Pellitorine has a high gut permeation rate and quickly crosses the blood-brain barrier while in the blood, suggesting that it may be used to treat central nervous system diseases. In electroconvulsive shock, Kamalinejad *et al.* discovered anticonvulsant action, causing Hind limb tonic Extension (HLTE) in 99% of the animals. [28]

6. Myorelaxation Activity

When compared to diazepam, Jayasree *et al.* find that AP has a strong dose-dependent muscle relaxant activity in the rotarod apparatus. [29]

7. Memory-enhancing activity

The memory-enhancing activity of the *Anacyclus pyrethrum* was studied by Ronald Darwin *et al.* [30]

8. Local anesthetic effect

Anacyclus pyrethrum has a local anesthetic function in vivo, according to Devasankariah *et al.*, The penetration of the long buccal nerve by *Anacyclus pyrethrum* caused a pterygo

mandibular block. 90 out of 100 patients had a deeper level of anesthesia (Xylocaine: 80 out of 100 patients); the two drugs had identical anesthetic effects. [31]

9. Insecticidal and molluscicide effects

The alkyl amides from *Anacyclus pyrethrum* have insecticidal and molluscicidal properties, according to Gnadinger *et al.* [32]

10. Anticancer Activity

The cytotoxic and apoptotic effects of *Anacyclus pyrethrum* plant extract in KB cancer cell lines were studied in a report. MTT assays were used to calculate cytotoxic effects, and TUNNEL assays and DNA fragmentation were used to demonstrate induction of apoptosis by this plant. Cancer cells were significantly destroyed by the extract. TUNNING A study looked at the effects of *Anacyclus pyrethrum* extract on a human colorectal cancer cell line (HCT). According to the results, *Anacyclus pyrethrum* extracts successfully induced apoptosis in HCT cells. In *Anacyclus pyrethrum* extract-treated cells, the L test and DNA Fragmentation assay revealed apoptotic characteristics. As a result, ethanol extracts of *Anacyclus pyrethrum* are involved in inducing apoptosis in KB cancer cells, suggesting that they may be useful in cancer therapy. [33]

11. Antioxidant activity

Sujith *et al.* investigated the antioxidant activity of an ethanolic extract of *Anacyclus pyrethrum* *in vivo* and *ex vivo* using various laboratory models at concentrations of 25, 50, 100, 200, and 400 micrograms/ml. The antioxidant capacity of *Anacyclus pyrethrum* root may be due to phytochemical constituents such as Phenol, Flavonoids, Tannins, and Alkaloids, according to the findings. [34]

12. Hepatoprotective activity

A study has been conducted to assess the hepatoprotective activity of “extract of *Anacyclus pyrethrum* L.” (APE) against anti-tubercular drug-induced hepatotoxicity (for 28 days). The results of the study showed a substantial decrease in SGPT, SGOT, LDH, ALP, serum bilirubin, cholesterol, liver weight, and relative liver weight, as well as a significant rise in final body weight, total protein, and albumin levels. The restored hepatic marker was equivalent to the hepato-protective function of APE (400 mg/kg/day) and silymarin (100 mg/kg/day). The histopathological observations corroborated these findings. In rats,

Anacyclus pyrethrum L. root has hepatoprotective function against isoniazid plus rifampicin-induced hepatotoxicity, according to the report. [35]

13. Toxicity Study

Sujit K *et al.* performed a study in Albino rats to assess the subchronic toxicity of an ethanolic extract of *Anacyclus pyrethrum* at a dosage of 1000 mg/kg per day for 90 days through oral gavages and found that the ethanolic extract of *A. pyrethrum* had no drug-related toxicological anomalies and could be used as a stable long-term treatment. The root extract had an LD50 of 750 mg/kg i.p. in mice. [34]

Afa'al (Therapeutic actions) of Āqarqarḥa (*Anacyclus pyrethrum* DC.) in Unani system of medicine: [2,4,6,7,10,11,12,13,17,36]

- *Muqawwī-i-Bāh* (Aphrodisiac)
- *Muqawwī-i-aam* (General Tonic)
- *Mukhrīj-i-Balgham* (Removes Phlegm from Body)
- *Munaqqi-i-Fuzlat-i-Dimāgh* (Removes Wastes from Brain)
- *Mudirr-i-Bawl* (Diuretic)
- *Mudirr-i-ḥayḍ* (Emmenagogue)
- *Muḥarrīk* (Diaphoretic)
- *Muḥammīr* (Rubefacient)
- *Mudirr-i-laban* (Galactagogue)
- *Mumsik-i-Man ī* (Retentive of Semen)
- *Muḥallīl* (Resolvent)
- *Musakkin-i-Alam* (Analgesic)
- *Mufattiḥ-i-Ṣudā ‘d* (Deobstruent)
- *MukhaddirKharji* (Local Anesthetic)

- *Mulayyin-i-shikam* (Laxative)
- *Mufarriḥ* (Cordial)
- *Jādhib* (Absorbent)
- *Mutib-i-dahan* (Sialogogue)
- *Dentifrices*
- *Musakkhkhin* (Calorific)
- *Jālī* (Detergent)
- *Qātil-i-pissa* (Pesticides)

***Istemaal* (Therapeutic uses) of *Āqarqarḥa* (*Anacyclus pyrethrum* DC.) in Unani system of medicine:** [2,4,6,7,10,11,12,13,17,36]

- *Waja' al-asnān* (Toothache)
- *Taḥarruk al-asnān* (Tooth mobility)
- *Istirkhā' al-Litha* (Odontogenesis and Spongy Gum)
- *Istirkhā' al-Lihāt* (Relaxed Uvula)
- *Istirkhā' al-Lisān* (Relaxed Tongue)
- *Khunāq* (Ludwig's Angina)
- *Luknat* (Speech Disorder)
- Nasal Congestion
- Recurrent Cold
- *Fālij* (Hemiplegia)
- *Surfa* (Cough)
- *Ṣar'* (Epilepsy)
- *Umm al-Ṣibyān* (Infantile epilepsy)

- *Ṣudā* ‘‘*d-al-Misfat* (Obstruction of The Bone of Nose)
- *Khasham* (In Which Patient Is Unable to Distinguish Between the Good and Bad Odour)
- *Amrād-i-BāridahBalghamīyya* (Cold Phlegmatic Disorders)
- *Laqwa* (Facial Palsy)
- *Istirkhā* ‘ (Atony or Flaccidity)
- *Khadar* (Numbness)
- *Ra’sha* (Tremor)
- *Kuzāz* (Tetanus)
- *Darde sena* (Pleurisy)
- *Waja’ al-Maḡṣil* (Polyarthritis)
- *‘Irq al-Nasā* (Sciatica)
- *Istisqā* ‘ (Ascites)
- *ḤummāNā’iba* (Intermittent fever)
- *Ḥummā-I-Nafīza* (Fever with Chills and Rigor)
- *Du’f al-bāh* (Sexual Debility / Reduction in Libido)
- *Istirkhā’-i-qaḍīb* (Flaccidity of Penis)
- *Sur’a al-Inzāl* (Premature Ejaculation)
- *Buḥḥa al-Ṣawt* (Hoarseness of voice)
- *Ta’akkul al-Asnān* (Dental caries)
- *‘Uṣr al-Bal’* (Sore throat)
- *Waram al-Lawzatayn* (Tonsillitis)
- Red Iodide & Mercury Poisoning



- *Dhayābītūsshakrī* (Diabetes mellitus)
- *Da ul raqs* (Chorea)
- *BalghamīAmrād* (Phlegmatic disorders)
- *Yabusat al-ḥalaq* (Dryness of the throat)
- *Sakta* (Syncope)
- *Waram al-Litha* (Gingivitis)
- *Ṣudā'* (Headache)
- *Shaqīqa* (Migraine)

Compound Unani formulations containing *Āqarqarḥa* (*Anacyclus pyrethrum* DC.) as an ingredient: [4,6,7,11]

ArastūnKabīr; ArastūnṢaghīr, Bad Mahraj, Ma'jūneAsfarSalīm, Ma'jūne Aswad Salīm, Ma'jūn Abi Muslim, Faloonyae Roomi Tarsoosi, Faloonyae Farsi, Ma'jūne Feeroznosh, Dawa Atiyatullah, Ma'jūn Ameerī, Ma'jūn Ustūkhūdūs, Barshasha, Tiryāqi-Aqrab, Tiryāqul Isnān, Jawārish-i-Buqrat, Jawārish-i-Qaisar, Ambari Ba Nuskha Kalan, Jawārish Bakarmajit, Jawārish Zafran, Jawārish Hazrat Suleman, Jawārish Luluwi, Jawārishbuqrat, Anqaroya-e-Kabīr, Labūb Sagheer, Ma'jūn-e-Baladur, Ma'jūne Salab, Roghan-e-Seer, Raughan-e-Ṣudā' 'b, Tilae-Mulazziz, Sunoo-e-Muluk, Habb-e-Fālij Mulayin, Ma'jūn-e Zabeeb, Jawārish-i-Zarooni Sada, Raughan-e-Qust, Qairooti-e-Arad-e-Karsana Ḥabb-i-Mumsik Qawi, Ḥabb-i-mulazziz, Ma'jūn Buqrat, Sunoon-e-Mujalli e dandān, Sunūnmukhrīj e rutubat.

CONCLUSION

The taxonomic classification, botanical name, morphology, phytochemistry, pharmacological activity, and traditional applications of *Anacyclus pyrethrum* DC were summarised in this review paper. According to this review, the *Āqarqarḥa* is a significant medicinal root derived from the fern *Anacyclus pyrethrum* of the *Asteraceae* family, which is used by Unani physicians to cure a variety of diseases. From the preceding review study, it is obvious that the new studies verified the use of rhizome in *amraz e dimagh wa asab* (Brain and Nervine illnesses) and other ailments listed in Unani Classical literature.

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