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Bibliometric Analysis of Mallotous Phillipensis Plant for Healing of Skin Problem

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ABSTRACT
Mallotus philippinensis (Lam.) M. Arg., commonly known as Kampillaka, is a valuable medicinal plant with a rich history of use in traditional medicine systems, particularly Ayurveda. This review explores the ethnomedicinal significance, phytochemistry, and pharmacological properties of M. philippinensis. The plant is known for its broad range of therapeutic applications, including the treatment of parasitic infections, inflammation, and skin disorders. Key bioactive compounds such as rottlerin and flavonoids have been identified and are responsible for their notable pharmacological effects, including anti-helminthic, anti-inflammatory, anti-cancer, and wound-healing activities. Given its endangered status, there is a critical need for sustainable utilization and continued research to fully realize and preserve the medicinal potential of M. philippinensis.

Keywords*: Mallotus philippensis extract, Emulsification, Controlled release, targeted drug delivery, Antipsoriatic activity.*

INTRODUCTION
Overview Lam.'s Mallotus Philippines In the central ecoregion of India, M. Arg., often referred to as kampillaka, is a critically threatened plant. Mallotus philippinensis (Lam.) Muell. Arg. is a large, woody species of multifunctional medicinal tree in the Euphorbiaceae family (Wealth of India 2003). In India, there are approximately 20 different shrub species, the majority of which may be found in tropical and subtropical regions around the globe. The glandular pubescence on the outside of fruits is favourable for anthelmintic activity and hook, round, and soil worms. It was determined that the drug is 100% effective against tapeworms[1].

Scientific Classification
Plantae, Filipinonsis is a Mallotus species of the genus Euphorbiales, family Euphorbiaceous, division Magnoliophyta, and class Magnoliopsida.

Vernacular Names
Informal Titles. Here are the colloquial names: Hindi: Kamala, Sindur, Rohini; English: Kamala tree Plant parts are used to treat diabetes and aid the healing of wounds. Using a mouse model, our research has shown that ethanol extract of Mallotus philippinensis bark

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(EMPB) enhanced remodelling throughout the wound healing process and encouraged the migration of mesenchymal stem cells (MSCs) to the wound sites[2].

Traditional Uses

Ayurveda recommends leaves as a bitter, cooling appetizer. The entire plant is used as a maturant, carminative, purgative, anthelmintic, vulnerary, and heating agent. It also treats spleen enlargement, bronchitis, and gastrointestinal ailments. This includes the glands and hairs from the capsules and fruits. When mixed with milk or curd (yoghurt), the plant can completely get rid of tapeworms[3].

Oral contraceptives such as kamala and kampillakah are also utilized. The powder is used in conjunction with a few other Kamala substances to help cure wounds and ulcers externally. They are used to treat skin conditions caused by parasites, including scabies, ringworms, and herpes[4].

Ecology

Tropical and subtropical regions across the world, such as Singapore, Assam, Burma, Bengal, Uttar Pradesh, Punjab, Mumbai, and Ceylon, are home to this plant. There are further reports of growth in China, Pakistan, Australia, the Malayan Islands, and the Andaman Islands. In a natural process, plants procreate by releasing seeds into the ground at the start of the hot season, which then grows during the rainy season. In April, you can sow new seeds for artificial propagation. When the first year has passed, the more robust seedlings are prepared for planting, while the smaller ones can spend an additional year in the nursery. Root suckers are how the tree reproduces even if it grows slowly. tolerant of drought and frost[5].

M. philippensis, a common perennial shrub with high medicinal efficacy, is used in Native American medicine systems. Little to medium-sized monoecious trees can reach up to 25 meters in height and have 50 centimetre-long boles in their natural habitat, even though there are many fewer trees in the wild. India's average girth gain each year is 0.65 cm, which is a low growth rate. At 16 years old, the average girth is less than 15 cm. Within the diameter class of 10–20 cm, M. philippensis trees in the Philippines show an average yearly diameter increment of 1.4 cm. M. philippensis is a well-known plant in India that produces root suckers, and coppices swiftly, and can withstand hard winters and droughts[6].

Biophysical Limits

The temperature ranges from 16 and 28 degrees Celsius. Rainfall: 800-2000 mm per year Soil: It thrives in a variety of conditions, including rocky, limestone, and fertile soil[7].

MORPHOLOGY

Trees

In the wild, monoecious trees range in size from tiny to medium, reaching heights of 25 m and diameters of up to 50 cm in their boles, though they are typically far fewer in number. Branchlets are reddish brown glandular, with the slash turning a deep red colour.

Leaves

Simple, alternating, cuneate to rounded, ovate to lanceolate, and with two glands at the base are the leaves. And they're a little leathery. Petioles are puberulous, reddish-brown in colour,

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and range in length from 1 to 4 cm. The bulk of leaves are reddish glandular underneath, conspicuously 3-nerved, hairy, and with an acute or acuminate apex.

Flowers
Flowers are single-flowered and small. With solitary or fascicled paniculate spikes, male flowers are terminal and axillary, ranging in length from 2 to 10 cm. Each flower has several tiny stamens and three ovary stigmas, each of which has three papillae on a called ovary.

Fruits
Fruits are sad and globose; a puberulous, stellate, triplobed capsule with three seeds that are between 5.7 and 10 mm in length. It is brimming with glandular granules that are orange or reddish[8].

Seeds
The seeds are 4 mm in diameter, subglobose, and black[9].

Biology
Mallotus philippensis fruits ripen in July and August, whereas flowers in this genus mature in March and April. Ants are drawn to the additional blooming nectarines on Mallotus philippensis.

PHYTOCHEMICAL CONSTITUENTS

Fruits
Fruits possess Rottlerin is a resin with a constant oil content of 47.80% that has a reddish yellow colour. Together with them, it also contains tannins, octa casanol, citric acid, oxalic acid, rhamnose, kamalin, oleic lauric acid, myristic, palmitic acid, and crotoxigenin[10-11].

Stem bark
The following substances were discovered to be present in the stem bark: Tannic acid, botulin, friedelin, lupeol, 2β-hydroxy-D-A-friedooleanan-3-one, 3αhydroxy-D-A-friedooleanan-2-one, and kamaladiol-3-acetate[12-15].

Seed
The seed contains the following: fixed oil, camel oil, betulin-3 acetate, lupeol acetate, rottlerin resin, solid hydroxy acid, linoleic, oleic, lauric, myristic, palmitic acid, stearic acid, crotoxigenin, rhamnoside, coroghcignin, octa cosanol, iso rottlerin, rottlerin, homorottlerin, tannins, citric and oxalic acid[16].

CHEMICAL CONSTITUENTS

The primary phytochemicals found in this genus include phenols, diterpenoids, steroids, flavonoids, cardenolides, triterpenoids, coumarins, isocoumarins, and a host of other naturally occurring compounds that are still being discovered. There is currently a dearth of knowledge regarding the phytochemistry and biological function of this endangered species of medicinal plant. Yet, some researchers have made progress in identifying and characterizing certain unique elements. The chemical structure, primary biological activity, and additional phytochemicals of rottlerin, one of the main chemical constituents of M. philippinensis, are mentioned here.

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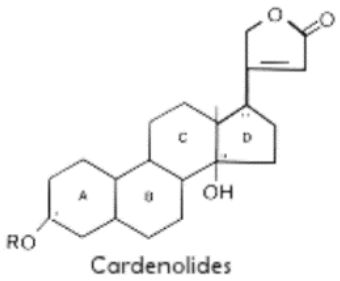
Cardenolides

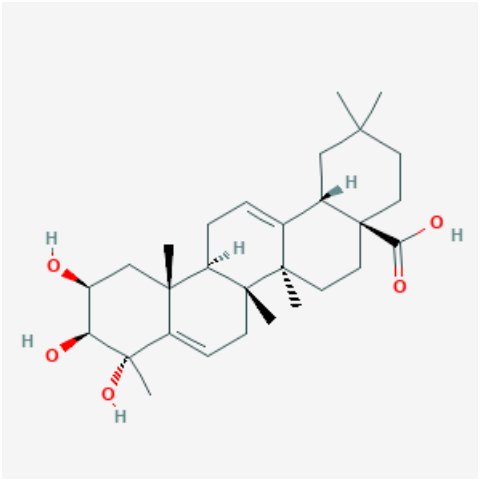
Cardenolides such corotoxigenin L rhamnoside and corogl-aucigenin L rhamnoside are found in M. philippinensis seeds[17].



Cardenolides

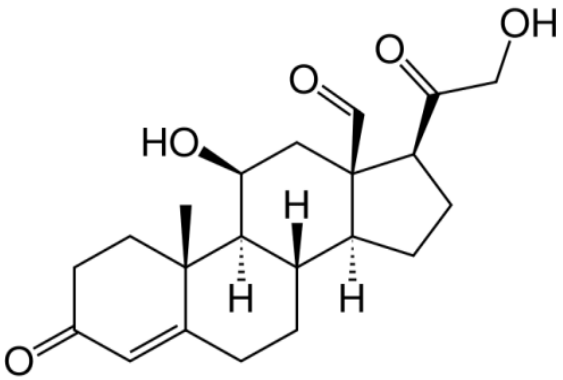
Triterpenoids

Triterpenoids pentacyclic, betulin-3-acetate[18-20].



Steroids

Petroleum ether preparations were utilized to extract the common steroid b-sitosterol from the heartwood and bark of M. philippinensis (Figure 6). Ether was extracted from the bark of M. philippinensis to generate dubocreterol[21].



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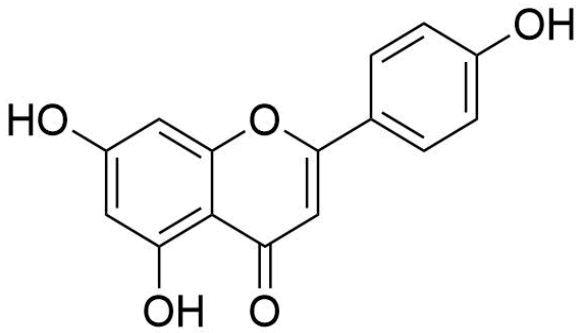
Phenolic Compounds

M. philippinensis[22] fruits yielded lignans, isocoumarins, chalcones, and derivatives of dimeric chalcones. Kamalachalcones A and B demonstrated distinct ring systems that resulted from the dimerization of a phenoxy group and a dimethylchromene ring[23].

From M. philippinensis[24], Four derivatives of phloroglucinol (kamalins), isorallorottlerin, and rottlerin have been identified. M. philippinensis also mentioned isorottlerin[25].

It is known that plants that contain condensed tannins in their fruit and bark have antioxidant properties. Using column chromatography to analyze the ethanol and acetone water as the mobile phases in a methanolic bark extract of M. philippinensis, the tannins and phenols were measured. The bark extract has a total phenolic content of 541 mg/g. Condensed tannins are present in fractions II through VI, whereas fractions I through VI have values ranging from 54 mg/g to 927 mg/g[26-27]. In 1989, Saijo et al. found that the leaves of M. philippinensis contained tannins and other related compounds[28].



Other Compounds

In addition to other fatty acids and glycerides, unsaturated fatty acids include kaolinic acid, a triple unsaturated hydroxy from Kamala's seed oil (M. philippinensis) has been confirmed. Rottlerin and isorottlerin's active components are present in a resinous-colored substance. Additionally, it has 2% manure, 50% red role, 5% yellow role, gum, tannin, citric acid, and oxalic acid in addition to homorottlerine.

Pharmacological Activity

Scientific testing and validation of this herb's therapeutic potential have been conducted by pharmacologists. As a result, this section contains a review of around 84 publications relevant to various biological processes. Furthermore, if information is available, the active compounds in issue have been researched in terms of their activity and mechanism of action. Approximately half of all pharmacological research has focused on the antibacterial, antioxidant, and antiparasitic properties of this particular plant species, as seen by the way these studies are categorized under biological activity[29].

Anthelmintic Activity

As said earlier, the only way to treat helminthic diseases in humans and animals is to eat fruits[30]. Of course, using a variety of extracts, scientists have tested and assessed its effectiveness against several worms. The majority of the extracts have demonstrated promise in the treatment of intestinal worms such as filariasis and fascioliasis. More specifically, both in vitro and in vivo, fruit extracts containing ether and alcohol have demonstrated anticestodal activity against the rat tapeworm (Hymenolepis diminuta) and the dwarf tapeworm (Hymenolepis nana). The trematode fasciolosis buski was also lethally sensitive to

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the extracts[31]. A resin derived from ethanolic capsule extracts had a substantial effect on rats' small intestine tapeworms, which were purgative and anthelmintic. In albino rats, an oral dose of 120 mg/kg of the resin eliminated over 78% of the tapeworms[32]. I.e. In another study, the aqueous and alcoholic leaf extracts were used to prevent the worm's spontaneous movement and the nematode Setaria cervi Rudolphi, 1819 (Filarioidea) from preparing its nerve-muscle. The results demonstrated the extracts' potent anti-filarial properties. After 6 hours, 90% of the filarial worm was suppressed at a MIC of 20 ng/mL for the aqueous extract and 15 ng/mL for the alcoholic extract[33-34] Similarly, by removing the hooks and suckers, methanolic fruit extract (10 and 20 mg/mL) has been shown to have significant suicidal efficiency with almost no concurrent bad effects in halting the propagation of cestodal tapeworm (Echinococcus granulosus Batsch, 1786)[35]. Its effectiveness against certain worms has been questioned by some writers, who assert that using it as an anthelmintic is useless. Ascaris lumbricoides Linnaeus (1758)[36] was shown to be resistant to fruit extracts, including alcoholic and ethereal ones, in vitro. Additionally, It says that although Kamala is a purgative for these intestinal worms, in experiment goats, it does not significantly reduce the amount of nematode eggs per gram of feces[37]. A single oral administration of the powdered fruits and a single dosage of fenbendazole does not appreciably alter the goats' ability to remove any direct life-cycle gastrointestinal nematodes. Thus, although this plant is well known, scientific validation of its traditional anthelmintic activity is still in its infancy and has only been accomplished against a small number of worms.

Table 1. Anthelmintic Activity

Part of plant	Fruit
Treatment	Helminthiasis
Mechanism	Inhibition of enzymatic activity, neuromuscular blockade
Chemical constituent	Phenol derivatives

Antifertility Activity

On many reproductive indices in female rats, the extract from the seeds of M. philippinensis shows negative effects. The extract, in experimental animals, lowers blood levels of LH and FSH, presumably through an effect on the hypothalamic/pituitary axis. This reduced quantity in rats may affect the quality of ovulated eggs, corpus luteum development, estrus cycle, and pregnancy maintenance[38]. It is believed that the antifertility effect of plant extract stems from rottlerin, a byproduct of phloroglucinol. Isomorottlerin is either somewhat active or inactive, whereas acetyl rottlerin could be active. Phloroglucinol derivatives' potential can be better understood by investigating the effects of pure rottlerin. Can acetyl rottlerin be active? Isorottlerin can be inert or very marginally active. To shed light on the potential of phloroglucinol derivatives, more research on the effects of pure rottlerin is possible.[38] Tested on rats, according to Gujral et al.[39], M. philippinensis has antifertility properties. The active ingredient was rotten. Moreover, several studies showed that fruit powder lowers albino rat fertility.

Table No 2. Antifertility Activity

Part of plant	Seeds
Treatment	Antifertility
Mechanism	Hormonal modulation, disruption of mitochondrial function, apoptosis of germ cell
Chemical constituent	Acetyl rottlerin, isorottlerin

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Anti-inflammatory Activity

As mentioned before, some aboriginal people treat rheumatism and related joint discomfort with powdered herbs and seeds. This application highlights the tree's potential for anti-inflammatory and immunoregulation effects. Tests using a variety of rat experimental models have shown that fruit methanol, ethanol, and acetone extracts work well.between[40-42] For example, the rat paw oedema generated by formalin and carrageenan was significantly reduced by the ethanolic extract of fruit hairs[43], and the ethyl acetate fraction of methanol extract decreased the granuloma-forming process in the granuloma method formed by cotton pellets and carrageenan[44]. For the antiallergic properties of compositions containing phloroglucinol obtained from the fruit pericarps of this tree, a patent application has been submitted[45]. The fruits' acetone extract includes mallotophilippens (A, B, C, D, and E) that prevent interferon-γ (IFN-γ)[46–47] from causing nitric oxide (NO) to develop and histamine to be released from rat peritoneal mast cells. Mallotophilipensis C and D also suppress the mRNA expression of cyclooxygenase-2 (COX2), interleukin-6 (IL-6), interleukin-1β (IL-1β), and inducible nitric oxide synthase (iNOS). Additionally, a flavanone [7, 4'- Dihydroxy-3", 3"-Dimethyl - (5, 6-Pyrano-2''- One) - 8- (3''', 3'''-Dimethyl Allyl- flavanone] that was isolated from the plant showed notable anti-cytokine effects (TNF-α, IL-6, and IL-1) as well as increased glutathione peroxidase and catalase activities in paw tissue[48-49].

Another anti-allergic chemical produced from plants is called rottlerin, which blocks the fast release of β-hexosaminidase from mast cells mediated by IgE in a concentration-dependent manner. It also increased mast cell cytosolic Ca2+ levels and suppressed IP3 synthesis and IgE-induced protein phosphorylation[50]. A small dose of 10 mg/kg of 11-O-galloylbergenin significantly decreased the paw oedema caused by carrageenan, however its precise route of action is yet unclear[51].

Table 3. Anti-inflammatory activity

Part of plant	**Leaves and seeds**
Treatment	Anti-inflammatory
Mechanism	Inhibition of enzymes (COX, LOX)
Chemical constituent	Flavonoid

In Vitro Cytotoxicity against Human Cancer Cell

When the glandular hair extract of Mallotus fruit powder was tested against 14 human cancer cell lines in various fractions, it was shown that the 95% ethanolic extract had a greater cytotoxic impact than the 50% ethanolic and aqueous sections. Additionally, the polyphenolic compound rottlerin in the Mallotus plant[52] was revealed by chromatographic examination of the aforementioned fraction.

Condensed tannins found in the plant's fruit and bark are what give them their antioxidant properties. The fruits of M. philippinensis yielded three new chalcone derivatives: M. philippensis C, D, and E. Rottlerin, also known as mallotoxin, is a powerful anti-cancer substance. Of all the anticancer medications, rottlerin appears to hold the most potential as a chemotherapeutic agent. Because it impacts the cell machinery involved in autophagy, survival, and apoptosis, rottlerin has the potential to be a therapeutic drug for cancer. This lends credence to the theory that this species could work well as a chemotherapeutic agent[53].

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Table 4. In Vitro Cytotoxicity against Human Cancer Cell

Part of plant	Fruit and bark
Treatment	anti-cancerous
Mechanism	Cell apoptosis
Chemical constituent	Tannins

Anti-Leukemia Activity

Tests on human promyelocytic leukaemia HL-60 cell proliferation, cell cycle regulators, and apoptosis were carried out to investigate M. philippinensis's potential as an antileukemic drug. The upregulation of the protooncogenes Cdc25A and cyclin D1 within 24 hours of the fraction's promising toxicity against p53-deficient HL-60 cells (IC50 1.5 mg dry roots equivalent/mL medium) after 72 hours is another intriguing finding regarding the hexane fraction's potential antileukemic effect in HL-60 cells. Following separation, the primary components of the hexane extract that induced apoptosis and reduced proliferation were determined by GC-MS analysis. These constituents were polyphenols[54].

Table 5. Anti-Leukemia Activity

Part of plant	Root
Treatment	Anti-Leukemia
Mechanism	Inhibited proliferation and induced apoptosis
Chemical constituent	Polyphenols

Antiproliferative Activity

4-hydroxy rottlerin showed a 54% growth inhibition when the antiproliferative impact of the separated components of M. philippinensis fruit extract was assessed against Thp-1 cell lines.[55] Additionally, several isolated compounds with very high IC50 values were evaluated against other fungi. Additionally, several isolated compounds with very high IC50 values were evaluated against other fungi.

Table no. 6 Antiproliferative Activity

Part of plant	Fruit
Treatment	Antiproliferative
Mechanism	Mitigation of oxidative stress-induced damage and cellular proliferation
Chemical constituent	Rottlerin

Analgesic Activity

As mentioned before, numerous ethnic groups use the tree's fruit, leaves, and bark as a pain reliever; however, very few research have looked into this possibility. For example, in the tail flick method and hot plate test, it has been found that the ethanolic extract of fruit hairs significantly lengthens the pre- and post-drug pain response durations. Additionally, the extract demonstrated a significant decrease in writhes induced by acetic acid, suggesting potent antinociceptive action[57]. Given that rats have demonstrated the effectiveness of 11-O-galloylbergenin at dosages of 20 and 40 mg/kg[58] in the formalin test, it is most likely the active component in charge of the analgesic effect that has been observed. These experiments provide a fairly compelling analgesic effect, but more current in vitro and in vivo testing may provide more trustworthy evidence for the development of this as a novel medication.

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Table 7. Analgesic Activity

Part of plant	Bark, fruits and leaves
Treatment	Analgesic
Mechanism	Inhibition of pain mediators, modulation of neuronal activity
Chemical constituent	11-O-galloylbergenin

Anti-viral Activity

For example, after being extracted in methanol from the bark, the human poliovirus-1 and the Sindbis virus were substantially less infectious at 200 µg/mL and 50 µg/mL, respectively. However, the same Nonetheless, at 100 µg/mL in the dark, it has been demonstrated in one study that was published in the literature to inactivate the Herpes simplex virus-1. Only at doses of 50 µg/mL in the presence of UV-A radiation and 25 µg/mL in both dark and visible light has the plant extract been demonstrated to be somewhat active[59]. The tree may be able to treat viral infections, a theory that needs more research based on the study's first findings.

Table 8. Anti-viral Activity

Part of plant	Bark
Treatment	Anti-viral
Mechanism	Inhibition of viral entry, inhibition of viral replication, modulation of host immune response
Chemical constituent	Phenols, triterpenoids

Wound Healing

The efficacy of Mallotus philippinensis bark extract to heal wounds was evaluated in vitro by tracking MSC migration and proliferation. At dosages of 0.16-4 μg/mL, KUM6 cells promote proliferation and migration in wounded tissues by remodelling them and secreting cytokines from the bone marrow that de-regulate MSC activity [60].

Table 9. Wound Healing

Part of plant	Bark
Treatment	Wound healing
Mechanism	Anti-inflammatory, antioxidant activity, antimicrobial properties, astringent properties
Chemical constituent	Phloroglucinol derivatives

Table 10. Mechanism

Plant part used	Treatment	Mechanism	Reference
Fruit	1) Anti-Helminthiasis 2) Anti-cancerous 3) Antiproliferative 4) Analgesic	1) Inhibition of enzymatic activity, neuromuscular blockade. 2) Cell apoptosis. 3) Mitigation of oxidative stress-induced damage and cellular proliferation. 4) Inhibition of pain mediators, modulation of neuronal activity	31. 10. 55. 26.

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Bark	1) Analgesic 2) Anti-viral 3) Wound healing	1) Inhibition of pain mediators, and modulation of neuronal activity. 2) Inhibition of viral entry, inhibition of replication, modulation of host immune response viral. 3) Anti-inflammatory, antioxidant activity, antimicrobial properties, astringent properties	31. 26. 59. 60.
Leaves	1) Anti-inflammatory 2) Anti-HIV 3) Analgesic	1) Inhibition of enzymes (COX, LOX). 2) Direct inhibition of virus, modulation of the host cell antioxidant	47. 51.
Root	1) Anti-cancerous 2) Anti-Leukemia	1) Cell apoptosis 2) Inhibited proliferation and induced apoptosis.	54.
Seeds	1) Antifertility 2) Anti-inflammatory	1) Hormonal modulation, disruption of mitochondrial function, apoptosis of germ cell. 2) Inhibition of enzymes (COX, LOX)	39. 46.

Psoriasis

All skin illnesses, including psoriatic arthropathy, and psychiatric, cardiovascular, and hepatic disorders, are related to psoriasis, which is an immune-mediated inflammatory skin disease and lifelongThe World Health Organization acknowledged psoriasis as a severe non-communicable illness in 2014, bringing attention to the misery caused by the incorrect diagnosis, insufficient treatment, and the stigma attached to the ailment[61]. Psoriasis is at least three times more common than inflammatory bowel disease (IBD) in terms of disability-adjusted life years (DALYs), with 5.6 million cases across all age groups in 2016, according to the Global Burden of Disease Study62[62].

Epidemiology

Psoriasis can affect both men and women, but it tends to strike women and people with a family history earlier. The bimodal distribution of its onset age shows that it peaks 10 years earlier in women and 30–39 and 60–69 years older in men[63]. The prevalence of psoriasis varies by nation, ranging from 0.05% in Taiwan to 1.88% in Australia. This illness is expected to affect 60 million people throughout the world. It is more common in communities with older populations and greater incomes. It has an impact on 1.52 per cent of people in the UK[64].

Etiology

Genetics has a major role in the complex pathophysiology of psoriasis, particularly in cases with early-onset (less than 40 years) plaque psoriasis. Twin, family-based, and large-scale population-level research revealed an estimated 60–90% heritability. It has now been possible to identify over 60 susceptibility loci thanks to genome-wide association studies. NF-kappa B signalling (TNIP1), type 1 interferon pathway (RNF113 and IFIH1), antigen presentation (HLA-C and ERAP1), interleukin (IL)-23/Th17 axis (IL23R, IL12B, and TYK2), and skin barrier function (LCE3) are among the genes that are most likely to be responsible[65]. Since the IL-23/Th17 axis is the main cause of immunological activation, chronic inflammation, and keratinocyte proliferation, it is hypothesized that psoriasis is caused by a complicated

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interaction between T cells, dendritic cells, and keratinocytes[66]. Research indicates that some environmental variables, including but not limited to stress, beta-blockers, smoking, obesity, and lithium, may exacerbate psoriasis[67]. Research indicates that some environmental factors, including but not limited to stress, beta-blockers, smoking, obesity, and lithium, may exacerbate psoriasis [68-69].

CLINICAL PRESENTATIONS

There are several types of psoriasis, such as erythrodermic, pustular, flexural, guttate, and plaque. Plaque psoriasis is the most prevalent kind. It affects the extensor surfaces, especially the knees and elbows, as well as the scalp and extensor muscles. It first appears as unique salmon pink plaques with a silvery-white scale. (Figure 1)[70]. If there are areas of bleeding, scale removal can be observed (Auspitz). Flexural psoriasis in the vagina, axillae, and submammary region can manifest with little to no scaling. Guttate psoriasis is characterized by an abrupt, symmetrical eruption of drop-like papules or plaques that mostly affect the trunk and limbs. Plaque psoriasis can develop in patients with guttate psoriasis. Erythroderma, a broad erythematous rash, can cause life-threatening complications in rare cases of severe untreated psoriasis, including hypothermia, infection risk, acute kidney impairment, and high-output heart failure. Skin injuries that develop psoriasis are referred to as the Koebner phenomenon.

Fig. 1. Clinical Presentations

In as many as 50% of patients, nail abnormalities might show up as subungual hyperkeratosis, oil patches, nail pitting (a separation of the nail plate from the nail bed), and other symptoms.

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TYPES OF PSORIASIS

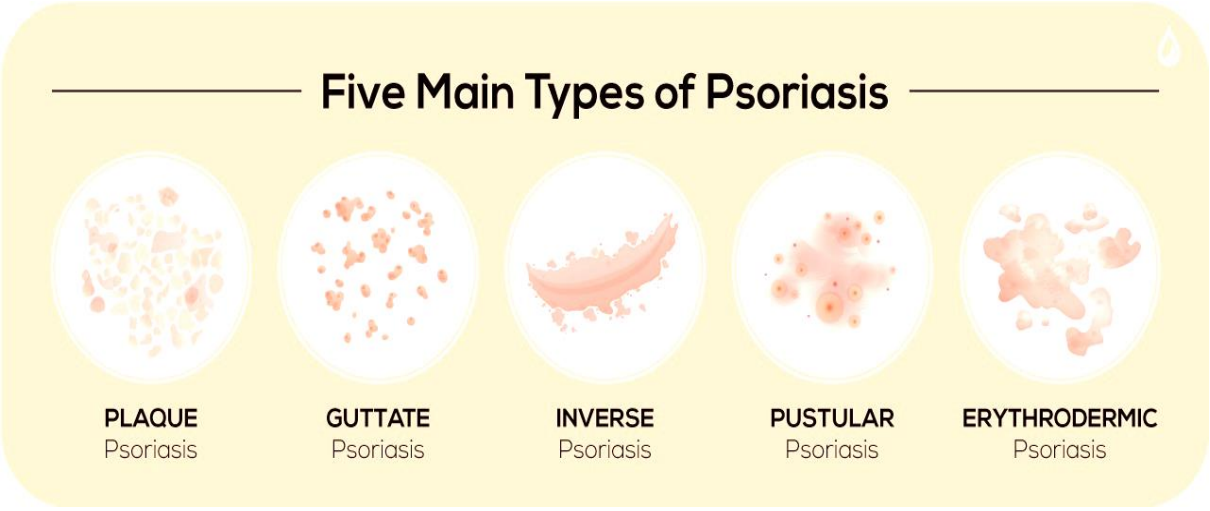

Fig. 2. Types of Psoriasis

CONCLUSION

Mallotus philippinensis (Lam.) M. Arg., often known as Kampillaka, is a medicinal plant with a variety of therapeutic applications. Traditional medical systems such as Ayurveda have traditionally used the plant's components to treat several ailments, including skin diseases, inflammation, and parasitic infections. Its pharmacological effects, which include anti-helminthic, anti-inflammatory, anti-cancer, and wound-healing advantages, are ascribed to key bioactive substances discovered via scientific research, such as flavonoids and rottlerin. To properly use and safeguard M. philippinensis's medicinal potential, long-term use and more research are required, especially given its endangered status.

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