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A Review Literature On Herbal Ointment

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ABSTRACT

The interest in and use of herbal treatments has grown significantly in recent years, even in locations where access to modern medicine is available.

The goal of the current effort is to create and assess an ointment containing extracts from neem (Azadirachta indica), turmeric (Curcuma longa), and tulsi (Ocimum Sanctum Linn).

An ointment including Neem (Azadirachta indica), Turmeric (Curcuma longa), and Tulsi (Ocimum Sanctum Linn) extract is being developed and evaluated in the current work.

Herbal ointments have gained considerable attention in recent years due to their potential therapeutic properties and minimal side effects compared to synthetic counterparts.

This review aims to provide an overview of the formulation and evaluation of herbal ointments containing neem (Azadirachta indica), turmeric (Curcuma longa), and tulsi (Ocimum tenuiflorum) extracts. These three herbs have long been recognized for their medicinal properties and have been extensively used in traditional medicine.The combination of these extracts in ointment formulations holds promise for various dermatological conditions. This review summarizes the current knowledge regarding the formulation techniques, phytochemical composition, and evaluation parameters of herbal ointments containing neem, turmeric, and tulsi extracts.

Keywords: Neem, Turmeric, Tulsi, Maceration, Levigation, Extrudability, Spreadability.

INTRODUCTION

Neem leaves are highly effective against both Gramme +ve and Gramme -ve germs, including M. tuberculosis and Vibrio cholera.Turmeric is used as a remedy.

Overall results of the study indicated that Turmeric ointment had greater antifungal activity than Neem ointment. Additionally, it was discovered that an ointment containing a blend of turmeric and neem had stronger antifungal effects than antibacterial effects.
The goal of the current study was to create and assess a polyherbal ointment with antibacterialentered

Herbal medicine has a rich history in traditional healing systems, and neem, turmeric, and tulsi have been widely used for their therapeutic properties. Neem exhibits antimicrobial, anti-inflammatory, and wound healing effects. Turmeric possesses anti-inflammatory, antioxidant, and anti-microbial properties. Tulsi demonstrates antibacterial, antiviral, and immunomodulatory activities. Incorporating these herbal extracts into ointments can enhancetheir topical application for various skin conditions.

Formulation Techniques:

The formulation of herbal ointments involves selecting suitable excipients, optimizing the concentration of active ingredients, and designing a stable and effective delivery system. Different techniques such as cold process, hot process, and emulsion-based methods have been employed to formulate ointments containing neem, turmeric, and tulsi extracts. The choice of technique depends on the physicochemical properties of the extracts and desired ointment characteristics.

Phytochemical Composition:

Neem, turmeric, and tulsi extracts contain several bioactive compounds responsible for their therapeutic effects. Neem extract contains nimbin, nimbidin, azadirachtin, and other triterpenoids. Turmeric extract contains curcuminoids, mainly curcumin, demethoxycurcumin, and bisdemethoxycurcumin. Tulsi extract is rich in eugenol, rosmarinic acid, ursolic acid, and flavonoids. These phytochemicals contribute to the pharmacological activities of the herbal ointments.

Evaluation Parameters:

The evaluation of herbal ointments involves various parameters to ensure their quality, stability, and efficacy. These parameters include physical appearance, pH, viscosity, spreadability, drug release profile, microbiological activity, antioxidant potential, and skin irritation potential. Additionally, in vivo studies and clinical trials are necessary to assess the safety and effectiveness of the formulated ointments.

Application in Dermatological Conditions:

Herbal ointments containing neem, turmeric, and tulsi extracts have shown promise in the management of various dermatological conditions, including acne, eczema, psoriasis, wound healing, and fungal infections. The synergistic effects of these herbal extracts enhance their therapeutic potential, making them suitable alternatives to conventional treatments.

Neem-

- Synonym-Melia azadirachta
- Family-Meliaceae

Neem is well-known for its durable wood. In addition, the non-wood products of neem In this study, a polyherbal ointment with antibacterial activity was created and evaluated

Neem has been utilised widely in Ayurveda, Unani, and homoeopathic treatment and has become a modern medicine hot topic due to its medicinal properties.

Neem (Azadirachta indica) is a versatile tree native to the Indian subcontinent and is known for its various medicinal properties. Almost every part of the neem tree, including the leaves, bark, seeds, and oil, has been traditionally used in Ayurvedic medicine for centuries. Here are some of the medicinal uses of neem:

- Skin Health: Neem has potent antibacterial, antifungal, and antiviral properties, making it beneficial for various skin conditions. It can help treat acne, psoriasis, eczema, and other inflammatory skin conditions. Neem leaves can be used to makea paste or added to bathwater for a soothing effect.

- Dental Care: Neem has been traditionally used for oral hygiene due to its antimicrobial properties. Neem twigs can be used as a natural toothbrush to prevent gum diseases, tooth decay, and bad breath. Neem oil can also be found in some toothpaste and mouthwash products.

- Hair Care: Neem oil is commonly used in hair care products due to its ability to nourish the scalp, promote hair growth, and prevent dandruff and scalp infections. It helps moisturize the hair and can be applied directly or mixed with carrier oils.

- Immune System Support: Neem contains compounds that boost the immune system and help the body fight off infections. Consuming neem leaves or extracts can support immune health and enhance the body's natural defense mechanisms.

- Digestive Health: Neem has been traditionally used to aid digestion and relieve gastrointestinal issues. Neem leaves can be consumed in the form of tea to help with digestion, treat stomach ulcers, and support liver function.

- Insect Repellent: Neem oil is a natural insect repellent and is commonly used to protect against mosquitoes, fleas, ticks, and other insects. It can be applied topically or used in the form of candles, incense, or sprays.

- Diabetes Management: Some studies suggest that neem may have antidiabetic properties and can help regulate blood sugar levels. Neem leaf extract or neem tea may be beneficial for individuals with diabetes, but it's important to consult a healthcare professional before using it as a treatment.

It's worth noting that while neem has been used for medicinal purposes, it's essential to consult with a healthcare professional before using neem or its derivatives for any specific medical condition or if you are taking any medications, as it may interact with certain drugs.

Uses & Effectiveness:-

There is insufficient data to rate the effectiveness of dental plaque. According to preliminary study, applying neem leaf extract gel twice daily for six weeks to the gums and teeth may lessen the production of When taken orally for up to 10 weeks, neem is POSSIBLY SAFE for the majority of adults.

SPECIAL PRECAUTION AND WARNING: -

Children: It is LIKELY UNSAFE for kids to consume neem seeds or oil. Within hours of taking a medication, infants and young children may experienceserious side effects.

DOSE: -

Neem dosage is based on a number of variables, including the user's age, health, and other conditions. There is currently insufficient scientific data to

USES OF NEEM: - Neem (Azadirachta indica) is a versatile plant known for its various uses in traditional medicine, agriculture, personal care, and more. Here are some common uses of neem:

1. Medicinal Uses: Neem has been used for centuries in traditional medicine for its numerous health benefits. It is known for its antibacterial, antiviral, antifungal, and anti-inflammatory properties. Neem is used to treat skin disorders like acne, eczema, and psoriasis, and it can also be used to alleviate symptoms of gastrointestinal issues,fever, and respiratory conditions.
2. Insecticide and Pest Control: Neem is widely used as a natural insecticide and pest repellent. The oil extracted from neem seeds contains compounds that repel and disrupt the growth of various pests, including mosquitoes, flies, aphids, mites, and caterpillars. Neem-based insecticides are considered safer alternatives to syntheticchemical pesticides.
3. Oral Health: Neem twigs or neem-based toothpaste are commonly used in traditional oral care. Chewing on neem twigs is believed to have antimicrobial properties that can help prevent tooth decay, gum diseases, and bad breath. Neem oil can also be used foroil pulling, a practice that promotes oral hygiene.
4. Agriculture: Neem-based products are extensively used in organic farming and agriculture. Neem oil is used as a natural pesticide to control pests and insects that harm crops, such as aphids, caterpillars, and beetles. It is also used as a fungicide toprevent fungal infections in plants.
5. Personal Care Products: Neem is a common ingredient in various personal care products, including soaps, shampoos, lotions, and creams. It is valued for its ability to soothe and nourish the skin, reduce

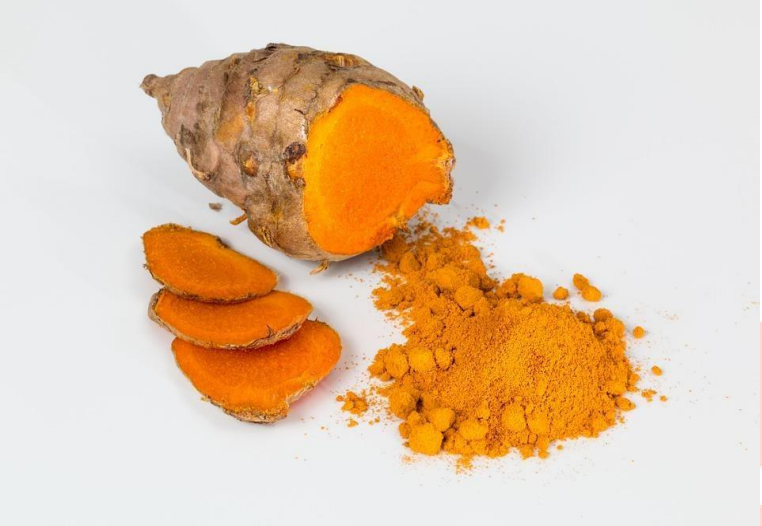
inflammation, and fight against microbial infections.

6. Animal Care: Neem oil and neem-based products are used in veterinary medicine for the treatment of various animal skin conditions, such as mange, ticks, fleas, and lice infestations. Neem oil can also be added to pet shampoos as a natural alternative to synthetic insecticides.

7. Environmental Benefits: Neem has environmental benefits as well. It is a drought-resistant tree that can be grown in arid regions, helping to combat desertification.

Neem trees also have the ability to enrich the soil with organic matter and enhancesoil fertility.

TERMERIC:-



- Synonym-Indian saffron
- Family-Zingiberaceae

Since turmeric is the main source of the polyphenol curcumin, it has drawn interest from both the medical and scientific communities as well as food enthusiasts. Turmeric has long been known for its medicinal benefits. It assists in the control of arthritis, the metabolic syndrome, oxidative and inflammatory diseases, anxiety, and hyperlipidemia.

USE & EFFECTIVENESS: -

Turmeric, scientifically known as Curcuma longa, is a popular spice commonly used in cooking, especially in Asian cuisine. It has been used for centuries in traditional medicine and is known for its potential health benefits. The effectiveness of turmeric can vary depending on the specific application and the individual's health condition. Here are some common uses and the potential effectiveness of turmeric:

- Anti-inflammatory properties: Turmeric contains a compound called curcumin, which has potent anti-inflammatory effects. It may help reduce inflammation in the body, which is beneficial for conditions like arthritis, joint pain, and inflammatory bowel disease. However, the bioavailability of curcumin is relatively low, meaning that the body absorbs and utilizes it poorly. Combining turmeric with black pepper or consuming it with fats can enhance its absorption.

- Antioxidant activity: Curcumin in turmeric acts as an antioxidant, helping to neutralize harmful free radicals in the body. By doing so, it may help protect cells from oxidative damage and contribute to overall well-being.

- Digestive health: Turmeric has traditionally been used to aid digestion. It can stimulate the production of bile in the gallbladder, which aids in the digestion of fats. Additionally, turmeric may help alleviate symptoms of indigestion, bloating, and gas.

- Potential anti-cancer properties: Some studies suggest that curcumin may have anti- cancer properties, as it can inhibit the growth of cancer cells and prevent the spread of tumors in animal and laboratory studies. However, more research is needed to determine its effectiveness in human cancer treatment.

- Skin health: Turmeric is sometimes used topically for various skin conditions. It may help reduce inflammation and irritation and has been used in traditional medicine for wound healing and treating skin infections.

- Brain Health-Curcumin has been studied for its potential benefits in brain health. It may cross the blood-brain barrier and has shown promise in animal studies for its neuroprotective effects. Some research suggests it may help improve memory and reduce the risk of neurodegenerative diseases like Alzheimer's disease, but more studies are neede

Side Effects of Turmeric-

When taken orally, turmeric is probably secure when administered briefly. Using turmeric products that contain up to 8 grammes of curcumin per day for up to two months and consuming up to 3 grammes of turmeric per day for up to three months both appear to be safe.

Turmeric is generally considered safe for consumption and has a low risk of side effects when used in moderation. However, some individuals may experience certain side effects or allergic reactions. Here are some potential side effects of turmeric:

- Allergic reactions: Although rare, some individuals may be allergic to turmeric. Allergic reactions can range from mild skin irritation, itching, or hives to more severe symptoms like difficulty breathing or anaphylaxis. If you experience any allergic reactions after consuming turmeric, it's important to seek medical attention immediately.

- Interactions with medications: Turmeric may interact with certain medications, including blood thinners like warfarin or antiplatelet drugs. It can potentially increase the risk of bleeding when combined with these medications. Additionally, turmeric may interfere with the absorption or metabolism of some medications. If you are taking any medications, it's advisable to consult with your healthcare provider before adding turmeric or curcumin supplements to your routine.

- Gallbladder issues: Turmeric stimulates the production of bile, which can be beneficial for digestion. However, individuals with gallbladder issues or gallstones may experience discomfort or exacerbation of symptoms due to increased bile production.

- Pregnancy and breastfeeding: While turmeric is commonly used as a culinary spice, its safety during pregnancy and breastfeeding is not well established. It is advisable to consult with a healthcare professional before using turmeric supplements or consuming large amounts during these period.

DOSEING:-

Adults have used turmeric most frequently, typically in doses of up to 1.5 grammes per day for up to 9 months.

The appropriate dosing of turmeric or curcumin can vary depending on various factors, including the specific health condition being targeted, individual tolerance, and the form of turmeric being used (powder, capsules, extracts, etc.). Here are some general guidelines for turmeric dosing:

- Turmeric powder: If you're using turmeric powder as a spice in cooking, there is no specific recommended dosage. However, including turmeric in your regular meals can contribute to overall health benefits.

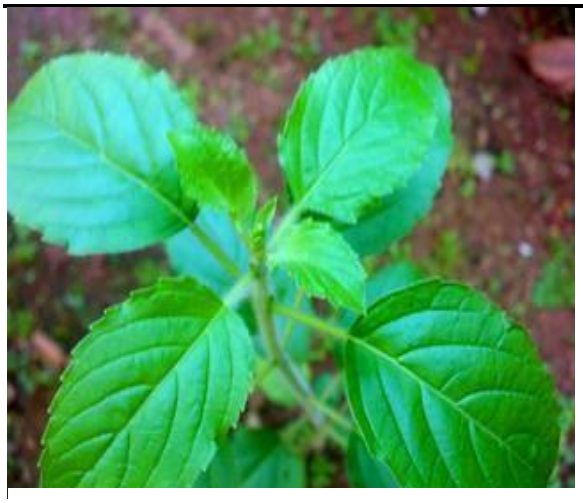
- Curcumin supplements: When taking curcumin supplements, it's important to follow the manufacturer's instructions and dosage recommendations. Dosages can vary widely depending on the concentration of curcumin in the supplement.

Common dosages range from 500 to 2,000 mg per day, divided into multiple doses. It's advisable to start with a lower dose and gradually increase if needed, while monitoring your body's response.

Tulsi-

- Bioavailability enhancers: Curcumin has relatively low bioavailability, meaning that the body absorbs and utilizes it poorly. To enhance its absorption, you can consume curcumin supplements or turmeric powder along with black pepper (which contains piperine) or fats, such as coconut oil or olive oil. These bioavailability enhancers can improve the absorption of curcumin in the body.

- Individual considerations: It's important to consider your individual health condition, medications you may be taking, and any existing medical conditions when determining the appropriate dosage of turmeric or curcumin. Consulting with a healthcare professional, such as a doctor or a registered dietitian, can help you determine the optimal dosage based on your specific needs.



- Synonym-Holy basil,Tulasi
- Family-Labiatae

1. Tulsi (Ocimum tenuiflorum): Tulsi, also known as holy basil, is a sacred plant in Hinduism. It is considered to be a manifestation of the goddess Tulsi and is highly revered in Indian culture. The leaves of the Tulsi plant are used in various religious rituals, Ayurvedic medicine, and culinary preparations.

2. Tulsi Gabbard: Tulsi Gabbard is an American politician and former member of the United States House of Representatives. She represented Hawaii's 2nd congressional district from 2013 to 2021. Gabbard, a Democrat, gained national attention during her campaign for the Democratic nomination in the 2020 presidential election.

3. Tulsi (name): Tulsi is also a given name, primarily used for girls, in various cultures, particularly in India. It has roots in Sanskrit and is often associated with the holy basil plantor the goddess Tulsi.

4. The plant tulsi (Ocimum sanctum Linn.), which is a member of the genus Ocimum, is well-known for its extensive therapeutic benefits.

5. aroma and a unique flavour. It can reach heights of three to five feet.[8], [9] Ayurvedic medications are frequently made with tulsi leaves.

USES OF TULSI:-

Tulsi is used medicinally for a variety of ailments. Some of these include: Antipyretic(relieves fever)

- Stress relief: Tulsi is considered an adaptogenic herb, which means it helps the body adapt to stress and promotes mental balance. It is commonly used to reduce stress, anxiety, and fatigue.
- Respiratory health: Tulsi has expectorant properties and can help relieve respiratory conditions such as coughs, colds, asthma, and bronchitis. It may also help reduce inflammation in the respiratory tract.
- Immune system support: Tulsi is known for its immunomodulatory properties, meaning it helps to regulate and strengthen the immune system. It can assist in fighting infections, allergies, and other immune-related disorders.

- Digestive health: Tulsi has carminative properties, which can aid digestion and relieve digestive problems like bloating, flatulence, and stomach cramps. It is also used to treat stomach ulcers and promote overall gastrointestinal health

SIDEEFFECT OF TULSI:-

No of the dosage, formulation, age, or gender of the volunteers, all of the Tulsi studies conducted to date have shown beneficial therapeutic results with few to no side effects.

- Stomach upset: In some cases, consuming tulsi may cause gastrointestinal discomfort such as nausea, vomiting, or diarrhea. This is more likely to occur in individuals with sensitive stomachs or those who consume large amounts of tulsi.
- Hypoglycemia: Tulsi has the potential to lower blood sugar levels. If you have diabetes or are taking medications to lower blood sugar, consuming large amounts of tulsi may cause hypoglycemia (low blood sugar). It's important to monitor your blood sugar levels closely and consult with a healthcare professional if you have anyconcerns.
- Interactions with medications: Tulsi may interact with certain medications, such as anticoagulants (blood thinners) or antiplatelet drugs, due to its antiplatelet and anticoagulant effects. It's essential to consult with a healthcare professional if you aretaking any medications to ensure there are no potential interactions.

Conclusion:

Formulating herbal ointments containing neem, turmeric, and tulsi extracts offers a natural and effective approach to treat dermatological conditions. The combination of these herbs provides a broad spectrum of therapeutic activities. However, further research is needed to optimize the formulation techniques, standardize the extraction processes, and conduct extensive clinical trials to establish their safety and efficacy.

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