

Formulation And Evaluation of Herbal Pain Relief Balm

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Abstract- There has been an increasing focus on progress of new routes of drug administration to provide tailored Treatments for patients, without declining efficacy of analgesia, in proportion to the progression of the Knowledge of pain mechanisms. The present research study is about to formulate the topical herbal balm for Analgesic and antiinflammatory activity. This present research showed a good effect of herbal balm as Compare with marketed preparation. In this pain balm we used all ingredients are herbs which is very potent And effective and there is no any side effect. The herbs used such that Eucalyptus oil, Camphor, Peppermint.

Keywords- Herbal balm, antiinflammatory activity, Eucalyptus oil, Camphor, Peppermint.

I. INTRODUCTION

Eucalyptus globulus was discovered in island of Tasmania in 1792 by French explorers. Eucalyptus tree are quick growers and many species reach height . Eucalyptus Is an Evergreen, tall tree, or shrub, belonging to Myrtaceae family. Although it is native to Australia And Tasmania, it has extensively spread to other countries. The genus eucalyptus contains About 700 species; among them, more than 300 contains volatile oil in their leaves. Essential Oils of various eucalyptus species are used in the pharmaceutical, toiletries, cosmetics and food Industries Eucalyptus globules commonly known as blue gum was introduced into India as A fuel tree in 1843.[1]

Peppermint essential oil can be extracted from the leaves of the peppermint plant and is used for a variety of purposes. It has a sharpodour that's cool and refreshing, and the taste is similar. You may be familiar with the coolness in your mouth after you consume something with a peppermint .The main chemical components of peppermint oil are menthol and menthone..A topical application for relief from itching, muscle pain, and headache.[2]

Camphor has a wide variety of topical uses due to its antibacterial, antifungal, and anti-inflammatory properties. It can be used to treat skin conditions, improve respiratory

function, and relieve pain. Continue reading to learn more about the different uses for camphor and its supporting scientific evidence. Applying camphor to the skin helps to relieve pain and inflammation. A small 2015Trusted Source study found that a spray containing natural ingredients such as camphor, menthol, and essential oils of clove and eucalyptus was effective in relieving mild to moderate pain.[3]

Drug Name	Eucalyptus	Peppermint	Camphor
Synonym	Eucalyptus camphora	Mentha piperita	Camphora
Biological Source	Obtained by hydro distillation of fresh leaves of eucalyptus.	Extracted from the stem,leaves,flowers,mentha piperita L. plant	From the tree cinnamomum camphora
Family	Myrtaceae	Lamiaceae	Lauraceae
Colour	Smokey toned green	Mint green	Colourless or white
Odour	Myrtales	Cool and refreshing	Laurales
Taste	Spicy with undertones of mint and citrus	Warm pungent taste with a cooling aftertaste	Woodsier
Uses	Joint pain,cough ,cold	Treat headaches, skin irritation, nausea	Cough,pain and itching

In common region common cold it seen the symptoms of nose getting block with mucous. For the common Cold is arising to exposure to the environmental factor such as cold, dryness, dampness. By this our body Affected by joint pain, headache, toothache etc. Many

Scientists discovered many drugs but the present Invention shows a different category herbal based balm which is used for the reduction of pain in in-vitro model.

What is Pain?

Pain is an unpleasant feeling often caused by intense or damaging stimuli, such as stubbing a toe, burning a Finger, putting alcohol on a cut, and bumping the “funny bone.” The International Association for the Study Of Pain’s widely used definition states, “Pain is an unpleasant sensory and emotional experience associated With actual or potential tissue damage, or described in terms of such damage”. Pain motivates the individual To withdraw from damaging situations, to protect a damaged body part while it heals, and to avoid similar Experiences in the future. Most pain resolves promptly once the painful stimulus is removed and the body has Healed, but sometimes pain persists despite removal of the stimulus and apparent healing of the body; and Sometimes pain arises in the absence of any detectable stimulus,damage or disease.[4]

II. MATERIALS AND METHODS

Composition:

Formulation of 10ml pain relief Balm

Sr.No	Nameof excipients	Uses	Concentration/ Quantity
1	Petroleum jelly	Moisturizer, Relieves dry skin, healing	5ml
2	Bees Wax	Base	0.2gm
3	Eucalyptus oil	Antioxidants, Pain reliever	1ml
4	Peppermint oil	Headache,muscle aches, joint pain, and itching	0.5ml
5	Turmeric	Joints pain	0.1gm
6	Camphor	Effective in relieving pain, inflammation	0.2gm

III. PLANT PROFILE

- **Petroleum jelly:**

Petroleum jelly has been used for years to help with skin moisturizing and healing. However, some types could

contain carcinogenic ingredients.Petroleum jelly (also called petrolatum) is a mixture of mineral oils and waxes, which form a semisolid jelly-like substance. Petroleum jelly’s benefits come from its main ingredient petroleum, which helps seal your skin with a water-protective barrier. This helps your skin heal and retain moisture.[5]

- **Bees wax :**

Beeswax is a product obtained from honey and other bees. Mixing egg yolk with wax turns white wax yellow or black. Candles are used for high cholesterol, pain, fungal skin infections and other conditions.[6]

- **Eucalyptus oil :**

Eucalyptus trees, native to Australia, are grown and used medicinally all over the world. Its healing power comes from eucalyptus oil extracted from eucalyptus leaves. The leaves are dried, crushed and crushed to release the essential oil. Once the oil is extracted, it must be filtered before it can be used as medicine. Here are nine benefits of eucalyptus oil. Research shows that eucalyptus oil relieves pain. Many popular creams and oils used to relieve pain caused by osteoarthritis and rheumatoid arthritis contain this essential oil. Eucalyptus oil helps relieve pain and inflammation associated with many conditions. It may also help people suffering from back pain or recovering from an injury or sprain. [7]

- **Peppermint oil:**

Peppermint oil is very effective and relaxes the muscles. It is also cooling, stimulating and antispasmodic. Peppermint oil is especially useful in relieving headache.Topical peppermint oil has benefits in reducing pain associated with fibromyalgia and myofascial syndrome. Researchers have found that peppermint oil, eucalyptus, capsaicin, and other herbal preparations may help by acting as a topical solution. To use peppermint oil to relieve pain, simply apply two to three drops to the affected area.[8]

- **Turmeric:**

Curcumin, the main active ingredient of turmeric, gives the spice its yellow colour. Curcumin has anti-inflammatory properties, making it useful in treating a variety of health conditions, including pain, asthma, and decreased function in people with osteoarthritis . There are various studies on the benefits of turmeric; Among these, there are several studies showing that turmeric is as effective as

ibuprofen in reducing inflammation, swelling, and pain. However, more research is needed to confirm these effects.[9]

- **Camphor**

Camphor is a stimulant that relieves symptoms such as pain and itching when applied topically. Camphor can also be used to treat severe pain. When applied to the skin, it activates nerve impulses and provides warmth. It also helps relieve muscle and joint pain.[10]

IV. FORMULATION OF HERBAL PAIN RELIEF BALM

- Take one container in that weigh and add 5 ml of petroleum jelly, place the container in a water bath and boil it until all the amount of petroleum jelly completely dissolved.
- Take camphor in the mortar and pestle crush into small powder add that powder form into the solution stir the solution until powder get uniformly dissolve.
- In the dissolved petroleum jelly solution weigh and add 0.2 gm of bees wax stir it and boil until the bees Wax added completely dissolve in the petroleum jelly.
- after that, measure and add all oils in the above mixture up to the homogeneous mixture form
- Add a pinch of turmeric in the solution.
- When all the added ingredients were completely dissolved and turn in to the liquid form then take the Solution out of the hot plate and keep the herbal balm solution for cooling. Finally the prepared solution Cools down and turns into a semi solid herbal balm.[11]

V. EVALUATION OF PREPARED HERBAL FORMULATION

1. Colour and odour

Colour and odour were examined by visual inspection.

2. Consistency

Smooth and no greening is observed.

1. Spreadability

The test for spread ability was performed by applying the Product on glass slide at room temperature repeatedly to Observe uniformity in the formulation of protective layer and Whether the stick fragmental deformed or broke during Application for appropriate result.

2. Washability

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This test is also used to check quality of balm. In this first of All we have to add small amount of balm which was applied On the hand. After that we have to washed with tap water.

3. No-irritancy

This is used to check the quality of materials as well as Chemicals and whether it is harmful to skin / mucosal or not. First of all, we have to mark area on left hand (dorsal Surface). After that we have to applied formulation of balm To that area and time was noted. Then we have to leave formulation for few minutes by this We can checked for irritancy.[12]

VI. RESULT AND DISCUSSION

In the presence study, eucalyptus pain relief Balm were apply to patients under various conditions. And was evaluated according to the following criteria and was found satisfactory in appearance And style. Easily spread by hand without causing any damage. It turned out that the smell of the drug Is characteristic.[13]

- **Physical parameters of herbal pain relief balm**

Sr. No.	Organoleptic Characters	Herbal balm	Market balm
1	Formulation	Pain relief	Pain relief
2	Colour	Light yellow	White
3	Appearance	Good	Smooth
4	State	Semisolid	Semi solid

- **Evaluation result of herbal pain relief Balm**

Sr. No.	Parameters	Results
1	PH	6.5
2	Spreadability	7.4g. cm/sec
3	Phase separation	No phase separation
4	Viscosity	39010 cps
5	Patch test	Non allergenic

VII. CONCLUSION

In recent times, herbal remedies are considered safe because artificial and herbal remedies are most in demand in the global market. Overall to conclude with, as the main Objective of the study was to formulate and evaluate the Basic physical parameter and stability check for pain Balm

containing eucalyptus and menthol formulation are having good compatibility without any significant changes. The Eucalyptus oil has relieving pain property, and menthol has cooling sensation. Based on the study research it can be concluded that herbal components can be effectively formulated as in the form of balm. The prepared formulation showing good physical characteristics. Further evaluated by various evaluation parameters such as PH, Extrudability, Spreadability, Viscosity, Patch test and gives good result.

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