

Formulation of Herbal Ointment by Using Neem and Turmeric Extract

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Abstract: *Even in areas where modern medicine is available, the interest on herbal medicines and their utilization have been increasing rapidly in recent years. Plant derived substances and herbal medicines have recently attracted the great interest towards their versatile application, as medicinal plants are the richest source of bioactive compounds used in traditional and modern medicine. The present work is to formulate and evaluate the herbal ointment containing Neem (Azadirachta indica) and Turmeric (Curcuma longa) extract. The ethanolic extracts were prepared by using maceration method. The ointment base was prepared and formulation of herbal ointment was done by incorporating the extract in the base by levigation method. After completion of formulation it was evaluated for its physicochemical parameters like colour, odour, pH, spreadability, extrudability, consistency, solubility, washability. Also the formulation was evaluated for its stability at various temperature conditions which shows no change in the irritancy, spreadability. Thus, it could become a media to use the medicinal properties of Neem and Turmeric effectively and easily as a simple dosage form.*

Keywords: Herbal medicine, Ayurveda, Holistic health, Anti-inflammatory, Anti-oxidant, Anti-bacterial, Anti-fungal, Skin health & hair health

I. INTRODUCTION

Introduction

What Are Ointments?

Ointments (also called salves or unguents) are semisolid preparations applied to the skin, eyes, and mucous membranes that usually have an oily or greasy consistency and can feel “stiff” when applied to the skin.

Ointments used for medical purposes contain medications that can either act on the skin or be absorbed through the skin for systemic action.

Common bases for ointments include:

Petroleum jelly
Anhydrous lanolin
Waxes

NEEM-

Azadirachta Indica

The Azadirachta Indica is a fast growing ever green popular tree found commonly in India, Africa and America.

It has been used in Ayurvedic medicine for more than 4000 yr due to its medicinal properties. Neem is called ARISTHA in Sanskrit, a word that means perfect, complete and imperishable.





Drug Name :

Azadirachta indica

Synonym :

Margosa, neem tree or Indian lilac

Biological Source :

It is obtained from leaves of Azadirachta Indica. Kingdom : Plantae

Family : Meliaceae Genus : Azadirachta Species : A Indica

These compounds may help fight skin infections, promote wound healing, and early signs of skin aging. Neem is used as a natural pesticide. Neem is widely used to treat skin problems like acne, eczema, psoriasis

BENEFITS OF NEEM

- Anti -oxidant Activity
- Anti -cancer Activity
- Anti –Inflammatory
- Anti- Viral
- Anti- bacterial
- Anti- fungal

IMPORTANT USE OF VARIOUS PART OF NEEM TREE :-

Part	Medicinal Uses
Leaf	Leprosy, eye problem, skin ulcer, worms.
Bark	Analgesic ,alternative and curative of fever.
Flower	Bile suppression and intestinal worms.
twig	Relieves cough
Gum	Wound and ulcers
Seed pulp	Leprosy and intestinal worms

Turmeric (curcuma longan L)

Drug Name : Curcuma Longa

Synonym : Haldi, Curcuma

Biological Source : It is obtained from dried rhizomes of plant Curcuma longa

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Kingdom : Plantae
Family : Zingiberaceae
Genus : Curcuma
Species : longa

Turmeric is rich in Antioxidants, helping to protect cells from damage caused by free radicals. Turmeric might decrease swelling, it is often used to treat conditions that involve pain and inflammation

Uses of turmeric

Since ancient times, turmeric has been used as a traditional medicine and for beauty care. In ayurvedic system of Indian medicine, turmeric is an important herbal medicine prescribed for various diseases. In fact, turmeric is even used in modern times to plug radiator leaks in water-cooled radiators. The various uses of turmeric are as follows.



METHODS OF PREPARATION OF NEEM OIL AND TURMERIC OIL OINTMENT

1) Collection of plant materials

Leaves of neem were collected from the local area of chikhali and dried rhizomes of turmeric purchased from local market of chikhali.

Preparation of neem extract

Leaves of the neem plant were collected and washed with distilled water and shade dried for 9 to 10 days. Dried leaves of neem were ground into powder form. 100 gm of was embedded with 350 ml of 90% ethanol for 3 hours. And transfer to perlocator with adding of 150ml of 90% ethanol for maceration for 7 days with occasional stirring to the mixture. Finally ethanolic extract was collected and concentrated to blackish green residue/remnants. The extract was stored in airtight container at cool and dark place (refrigeration (around 5-10°C) or room temperature (around 25°C)).

Preparation of turmeric extract

Firstly dried rhizomes of turmeric were ground. And the obtained powder was followed for extraction process same as neem extraction process. The extract obtained with crimson red colour was obtained and stored at cool and dark places in air tight container.



Formulation of ointments

Table 1:- formulation of ointment base

Sr no	Name of ingredients	Quantity to be taken
01	Wool fat	2.5 g
02	Cetostearyl alcohol	2.5 g
03	Hard paraffin	2.5 g
04	Yellow soft paraffin	42.5 g

Table 2:- formulation of herbal ointment

Sr no	Name of ingredient	Quantity to be taken
01	Prepared neem extract	0.24 g
02	Prepared turmeric extract	0.24 g
03	Ointment based q.s	98 to 99 gm [q.s to 100gm]

Procedure for preparation of ointment:-

I) first of all ointment base was prepared by weighing accurately grated hard paraffin which was placed in evaporating dish on water bath. After melting of hard paraffin remaining ingredients were added & stir gently to aid melting and mixing homogeneously followed by cooling of ointment base.

II) Herbal ointment was prepared by mixing accurately weighed neem and turmeric extract to the ointment base by levigation method to prepare smooth paste with 2 or 3 times it's weight of base , gradually incorporating more base until to form homogeneous ointment, finally transferred in a suitable container.

****Observation of Physicochemical evaluation of formulated 100 gm of neem oil & turmeric oil ointment :-**

Physico-chemical parameters	observation
colour	yellow
odour	characteristic
consistency	smooth
ph	5.4
Spreadability [sec]	7
Extrudability	0.4 g
Diffusion study [after 60 min]	0.7 cm
Loss on drying	30%
solubility	Soluble in boiling water , miscible with alcohol, ether, chloroform etc
washability	Good
Non Irritancy	Non – Irritant
Stability study	stable

II. CONCLUSION

Form the ancient time neem and turmeric is used for their various medicinal properties like antibacterial, antifungal ,& anti inflammatory etc . Thus this ointment could become a media to use these medicinal properties effectively as a simple dosage form

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