Moringa oleifera along with other herbs, the best remedy for heel pain

A Proved Ayurvedic Remedy for Heel Pain

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***Abstract*: The present research on *Moringa oleifera* is to prepare topical ointment for patients suffering from heel pain. The authors after intensive research and studies proved that an ointment made up of Moringa, ginger, turmeric along with small quantities of boswellia, nirgundi, menthol, dalchini oil and camphor in specified proportion is the best suitable external application in the treatment of heel pain.**

***Keywords:* Moringa, Boswellia, Ginger, Turmeric, Nirgundi, Dalchini oil,Menthol, Camphor.**

I. INTRODUCTION

Modern Studies show Moringa leaves[3-5] or Moringa oleifera may lead to modest reductions in blood sugar and cholesterol. It may also have antioxidant and anti-inflammatory effects and protect against arsenic toxicity.Now the authors propose that the leaves of moringa can be used to treat heel pain.

Ginger is a popular spice. It is high in gingerol, a substance with powerful anti-inflammatory and antioxidant properties.

Turmeric contains curcumin, a substance with powerful anti inflamatory nature.

Boswellia, also known as Indian frankincense, is an herbal extract taken from the *Boswellia serrata* tree. Studies show that boswellia may reduce inflammation and may be useful in treating Osteoarthritis (OA) and Rheumatoid arthritis (RA).

Nirgundi,the five-leaved chaste tree is used in Ayurveda, Unani, Sidhdha, Homeopathy and Allopathy to treat a number of ailments, like headaches, venereal diseases such as syphilis, rheumatism, sprains, fever, cough and urinary problems. Nirgundi is an effective analgesic, anti-inflammatory.

Menthol is an organic compound made synthetically or obtained from peppermint or mint oils with flavoring and local anesthetic properties. Additionally, it is also used as an analgesic to treat problems like headaches, sprains and other such minor pains.

Dalchini, *Cinnamon* is a potent anti-inflammatory agent, and it helps to reduce the stiffness of muscles and joints. People with arthritis and other inflammatory disorders should consume *cinnamon* essential oil to get relief.

Camphor is used topically to increase local blood flow and as a "counterirritant," which reduces pain and swelling by causing irritation. People use camphor topically to relieve pain and reduce itching. It has also been used to treat fungal infections of the toenail, warts, cold sores, hemorrhoid, and osteoarthritis.

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II. MATERIALS AND METHODS

Two tea spoons of Moringa powder one tea spoon of ginger and turmeric are mixed in a mixture of three tsp of coconut virgin oil, two tsp of olive oil, and one tsp of castroil. The Mixture is heated in water bath or double boiler under stirring till the contents are dissolved completely.Mix one tsp of bees wax and stirr its dissolution.

Add one tsp of Boswellia,Nirgundi and Dalchini oil followed by menthol and stirr well till its dissolution. 10 tablets of pure camphor are added and gently heated and dissolved. The contents are filtered twice and transferred into steril bottle. This bottle is cooled at room temperature which forms ointment of moringa.

III. RESULTS & DISCUSSION

The mechanism of involved herbs in curing pains can be explained as follows.

Moringa[1] reduces inflammation by suppressing inflammatory enzymes and proteins in the body, and moringa leaf concentrate can significantly lower inflammation in the cells and enhances wound healing. *Moringa oleifera*[2] hydroethanolic bioactive leaves extract significantly inhibited the secretion of NO production and other inflammatory markers such as prostaglandin E_2, tumor necrosis factor alpha, interleukin (IL)-6, and IL-1β. Meanwhile, the bioactive extract has induced the production of IL-10 in a dose-dependent manner. In addition,*Moringa oleifera* hydroethanolic bioactive leaves extract effectively suppressed the protein expression of inflammatory markers.

Curcumin[11] is strongly anti-inflammatory which blocks[12] NF-kB, a molecule that travels into the nuclei of your cells and turns on genes related to inflammation. NF-kB is believed to play a major role in many chronic diseases.

Gingerol[13] is the main bioactive compound in ginger, responsible for much of its medicinal properties. It has powerful anti-inflammatory and antioxidant effects. Ginger may reduce muscle pain and soreness.

Boswellia, also known as Indian frankincense, is an herbal extract taken from the *Boswellia serrata* tree. Studies show that boswellia may reduce inflammation due to the formation of leukotrienes in the body and may be useful in treating Osteoarthritis (OA) and Rheumatoid arthritis (RA)

Menthol is an organic compound with a characteristically minty smell. Menthol alleviates the hot, painful sensation that overexposure to the sun can trigger and can also found in products that can be applied topically to the forehead to ease the pain associated with headaches, such as cooling patches. . Instead, it produces a cooling effect by blocking the calcium current along the nerves responsible for detecting temperature.

Dalchini oil[15] has the ability to dilate blood vessels like cinnamon bark oil. *Cinnamon* bark can help enhance nitric oxide function, which causes increased blood flow and lower levels of inflammation.

Camphor[16] seems to stimulate nerve endings that relieve symptoms such as pain and itching when applied to the skin. Camphor is also active against fungi that cause infections in the toenails.

FiguresandTables

Table 1 The below values are in 100 g per plant material of moringa

Part of tree	Medicinal uses	Nutritive properties
Leaves[3-5]	Moringa leaves are used to treat asthma, and acts as antimicrobial, Antioxidant, antidiabetic and anti-atherosclerotic agents, neuroprotectant.	Moringa leaves contain fiber, fat proteins and minerals like Ca, Mg, P, K, Cu, Fe, and S. and Vitamin-A.
Seeds [3,6,7]	Seeds of moringa help in treating hyperthyroidism, Chrohn's disease, antiherpes-simplex virus arthritis.	Contains oleic acid (Ben oil), antibiotic called pterygospermin, and fatty acids like Linoleic acid, linolenic acid, behenic acid.
Root Bark [8,9]	Root bark acts as a cardiac stimulant, anti-ulcer and anti-inflammatory agent	Alkaloids like moriginine, minerals like calcium, magnesium and sodium
Flower[5,10]	Moringa flowers act as hypocholesterolemic, anti-arthritic agents can cure urinary problems and cold	It contains calcium and potassium and amino acids. They also contain nectar
Pods[5]	Moringa pods treat diarrhea, liver and spleen problems, and joint pain	Rich in fiber, lipids, non-structural carbohydrates, protein and ash.

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