

A Review On Veppampattai Thylam For The Management Of Skin Diseases

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ABSTRACT

Siddha system of medicine is well known for its contributions towards skin diseases through its ancient texts. *Veppampattai thylam* is one among the external medication which has been indicated for the treatment of chronic skin conditions like eczema, dermatitis, psoriasis, scabies etc. It is a herbal formulation containing *Melia azadirachta* bark (*Veppampattai*), *Hemidesmus indicus* root (*Nannari ver*), *Rubia cordifolia* root (*Manjitti ver*), *Eletaria cardomom* seeds (*Elarisi*). This herbal oil is being prescribed by Siddha physicians as it reduces the itching, burning sensations, skin lesions and inflammations that are common symptoms of the skin diseases. This paper deals with the scientific analysis on the pharmacological properties of these ingredients towards the treatment of chronic Skin diseases.

KEYWORDS: Siddha, Neem, Eczema, Psoriasis, scabies, Natural medicine.

INTRODUCTION:

Human skin is the biggest organ in the body and acts as a barrier between the organism and its environment. It constitutes the primary line of barrier. Skin health depicts the overall health of the body (1). The chemical composition and the physical structure of the skin is altered significantly from normal condition in certain diseases that affects the skin. Plants have served as man's most important weapon against pathogens since time immemorial. In recent years, there has been an emerging increase in the use of herbs due to increase in the side effects of synthetic drugs (2). Traditional medicines like Siddha system are currently gaining popularity among patients especially for the treatment of skin disease, as herbal medicines provide rational means for the treatment of many diseases that are obstinate and incurable in other systems of medicine (3). Therefore, therapeutic effect of the ingredients of *Veppampattai thylam* is discussed in the review.

Preparation of *vepampattai thylam*:

The preparation of *Veppampattai thylam* involves two processes, preparation of *kudineer* (decoction) and preparation of *karkam* (herbal paste). For the preparation of decoction, Neem bark-1.4kg, *Hemidesmus indicus* root-1kg, *Rubia cordifolia* root-1kg are to be coarsely grounded and mixed with water. To this decoction herbal paste is made of root of *Hemidesmus indicus*, *Rubia cordifolia* and Elettaria cardamom seeds each 12grams and they are to be mixed with water decoction to which 8 litre of coconut oil is added and mixture is boiled until it is reduced to 1/8 parts of mezhugu pakkuvam (wax consistency) (4).

Preparation of *Vepampattai thylam*

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consistency).^[4]



Fig 1: Veppampattai Thylam.

SCIENTIFIC REVIEW ON INGREDIENTS OF *VEPPAMPATTAI THYLAM*

Melia azadirachta (Neem bark)

The bark of Neem tree contains the alkaloid paraisine. The inner bark is bitter and contains yellowish-white resin which has anthelmintic activity. The outer bark is astringent, and contains 14% tannins.^[1] Polysaccharides G2A and G3A, which is responsible for its anti-inflammatory property. The phytochemical constituents present in *neem* are nimbidin, nimbin, nimbolide, Azadirachtin, gallic acid, epicatechin, catechin, and margolone. All these exhibit potent antibacterial activity. Besides these azadirachtin is reported to have effective

antimicrobial activity.^[4,5] Neem has also been traditionally used as a skin moisturizer.^[6] Therefore it is used to treat a variety of skin disorders.^[7] The root bark or dried stem bark of the plant is used to treat psoriasis, leprosy, dermatosis, inflammatory stomatitis and eruptive skin conditions.^[2] It is also effective in treating inflammations, allergies, acne, boils, eczema, scabies, yeast infections and warts.^[8]



Fig-2: *Melia azadirachta* (Neem bark).

An experiment was performed to evaluate the antibacterial activity of the bark extracts of *Azadirachta indica* (neem) on bacteria isolated from adult mouth and results revealed that bark showed antibacterial activity against all the tested bacteria used in the study.^[9] The results of a study revealed that the root bark extract exhibited higher free radical scavenging effect with 50% scavenging activity at 27.3 $\mu\text{g/mL}$ and total antioxidant activity of this extract was found to be 0.58 mm of standard ascorbic acid. Therefore the bark extracts have significant antioxidant properties.^[10,11] Kakai T & Koho JP et al, in their study extracted a polysaccharide from the bark, it inhibited carrageen induced inflammation in mouse. Two more polysaccharides, GIIa and GIIIa isolated from *M azadirachta* bark also showed significant anti-inflammatory effect on carrageenin-induced oedema in mice. The three tricyclic diterpenoids, margolone, margolonone as well as isomargolonone which is obtained from the stem bark poses antibacterial activity against *Klebsiella*, *Staphylococcus* and *serratiaspecies*.^[12]

Hemidesmus indicus (Root Bark)

The roots of *Hemidesmus indicus* contain phytoconstituents such as lupeol, its octacosanoate, α -amyrin, β -amyrin, hexatriacontane and sitosterol. It also contains new coumarino-lignoid-hemidesminine, hemidesmin I and hemidesmin II50, six pentacyclic triterpenes including two oleanenes, and three ursenes.^[13] It has been reported have anti-

inflammatory property. The aqueous ethanolic extracts of the roots demonstrated antiulcerogenic effects which promotes wound healing.^[14] It is indicated for all types of ulcers, skin diseases and urticaria. The antibacterial activity of the root extract supports the traditional use for ringworm, candidiasis and bacterial skin diseases.^[15]

Fig 3: *Hemidesmus indicus* (Root Bark)



***Rubia cordifolia* (Root)**

Rubia cordifolia is used for the treatment of various skin diseases.^[16,17] Ethyl acetate fraction of the root of *Rubia cordifolia* L. inhibits keratinocyte proliferation in vitro and promotes keratinocyte differentiation in vivo. It was found to have keratinocyte-modulating action when tested on mouse tail model and increased the number and thickness of granular layer and epidermal thickness on mouse tail skin in a dose-dependent fashion. All these were indicative of the keratinocyte differentiation-inducing activity. Hence it was assured as a promising antipsoriatic agent.^[18]

Rubia cordifolia, Linn. (Indian Manjistha), was studied for the anti-inflammatory effect in rats with carrageenan paw oedema. The plant showed significant anti-inflammatory activity at a dose of 10 and 20 ml/kg of the water extracts.^[19] It is used as a popular remedy for the relief of heat and itching in eczema, psoriasis, herpes, scabies and also reported successful in treatment of vitiligo when given with honey. Manjistha has been reported for the presence of glycosides, saponins, anthraquinones, tannins, hexapeptides, quinones, triterpenoids.^[20]

***Elettaria cardamomum* (Seeds)**

Elettaria cardamomum is commonly recognized as queen of spices for the multipurpose use in cooking and medicine. Cardamom is a perennial shrub with fleshy, thick and lateral roots and the plant grows to a height of eight feet (Kapoor, 2000). Cardamom is used in promoting skin complexion, and for the treatment of itching and pustules.^[21,22] The presence of various Phytochemical compounds such as flavonoids, tannins, aromatic compounds or secondary metabolites act as defense mechanism against many microorganisms.^[22]



Fig 4: *Elettaria cardamomum* (Seeds).

Activity of phyto-components identified in *Elettaria cardamomum* leaf extract by GC-MS revealed several compounds which showed the presence of 2-methoxy-4 Vinylphenol a phenolic compound which has Antibacterial, Antioxidant, Antiseptic, Antiviral, Fungicidal property, 9, 12,15-Octadecatrienoic acid which is a linolenic acid with antihistaminic and antieczemic property and vitamin E which has antiinflammatory and anti dermatitic property.^[23,24] Cardamom contains monoterpenes 1,8-cineol which were reported to stimulate immune response through increased phagocytic ability of macrophages.^[25]

CONCLUSION

From this review the herbal ingredients of *Vepampattai thylam* have been analysed scientifically through various previous research works. All the ingredients possess a diversified pharmacological action and can prove to be an effective remedy for skin diseases through their synergistic action. The results reveal that this medicine can be used as a multimodal external oil for the treatment of various skin diseases. Thus more such scientific research are warranted for traditional preparations at preclinical and clinical levels to substantiate its safety and efficacy.

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