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LITERATURE REVIEW ON SIDDHA POLYHERBAL FORMULATION *"ELATHY CHOORANAM"* FOR THE MANAGEMENT OF KALANJAGA PADAI (PSORIASIS) – A DRUG REVIEW

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ABSTRACT

Siddha system of medicine is an ancient and traditional system of medicine that considers the body, mind, and spirit to be equally significant. When the three humors (Vatham, Pitham, Kabam) are in proper balance then the person experiences good health; any imbalance leads to disease. Medicines, Diet, meditation, Pranayamam and yoga are all together contribute to maintaining the balance of three humors. Siddha system plays a wide ranged role in treating the illness as well as in rejuvenation. Psoriasis, which is common chronic skin disorder is 1st evidenced in ~ 30 % of affected individuals within the 1st and 2 decades of life. The disease is more common among families with an affected member, a multifactorial inheritance is proposed. In our Siddha system, Symptoms of Psoriasis may be correlated with *Kalanjaga padai* and it can be managed by Siddha herbal formulation *Elathy Chooranam* is in powder form that possess Immunomodulatory and Anti-inflammatory activities. Hence, this article gives an insight on the efficacy of Elathy chooranam for Kalanjaga padai (Psoriasis) based on review of various literatures and scientific studies.

KEYWORDS: Psoriasis, Siddha system, Elathy chooranam, Kalanjaga padai.

INTRODUCTION

Siddha system is an ancient system of medicine and was found by Siddhars who have attained siddhi (spiritual perfection). Siddhars who really discovered something for the good of humanity are seers, thinkers and men of action. They are creative genius. Siddha system plays a wide ranged role in the field of pediatrics. It ensures the health of the children with its astonishing herbal formulations right from their conception, to prevent the illness. Children's health reflects the Nation's health and wealth and they are the most vulnerable group in the society. They can become ill easier since they aren't built with a good immune system and they are exposed to several pathogens from the surrounding environment.

Psoriasis is a common, chronic inflammatory disorder which is immune mediated that affects the skin, nails & joints of children and adults among ~ 2.0% - 3.5% of the general population.[1,2] It begins in childhood in almost one-third of the cases[3,4,5], and the issued incidence rates in children have more than doubled since 1970. Childhood psoriasis is a well-recognized entity, but its true prevalence is not known. Psoriasis begins in childhood in approximately one – third of the cases. Incidence in the age group of 0–9 years is ~0.55% and in the age group of 10–19 years is 1.37%.[6] Age of onset ranged from 4 days to 14 years, male and female incidence was equal & plaque type of psoriasis was the most common type in children. Psoriasis has a greater impact on physical, emotional & social functioning & overall QOL in children.

Siddha system describes 4448 diseases and its treatment. The skin diseases are classified as 18 in Siddha system of medicine.

The clinical features of Kaalanjaga padai may be correlated to Psoriasis as described in Modern science. Psoriasis is a lifelong disorder subjected to unpredictable remissions and relapses. Single episode is uncommon and in childhood the episode is followed by a series of attacks, each lasting approximately for 3 – 6 months.

Kalanjaga Padai is a dermatological problem associated with joint disease as mentioned in the Siddha system of medicine. This condition is expounded by Sage Yugi in his treatise Yugi Vaithiya Chinthamani. It is equivalent to Psoriasis vulgaris in modern classification of diseases.

The cause of this disease is unknown. As per Siddha, sometimes hereditary reason is one of

the causes. Other causes include depression or stress, seasonal variations, menstrual disorders, allergy, drugs or medicines which may aggravate the azhal humour.

The Elathy chooranam is a Polyherbal formulation which is indicated for Kalanjaga padai in the Siddha text book Siddha vaithiya Thirattu. The ingredients of Elathy chooranam contains immune modulatory and anti-inflammatory activities. Elathy chooranam is used effectively for the management of Kalanjaga padai (Psoriasis).

DRUG DETAILS

Trial drug: Elathy chooranam.

PREPARATION OF THE TRIAL DRUG

1. Elam	*(Elettaria cardamomum)*	- 64 parts (640 grams)
2. Chukku	*(Zingiber officinale)*	- 32 parts (320 grams)
3. Koogaineeru	*(Maranta arundinacea)*	- 16 parts (160 grams)
4. Thalisam	*(Abies spectabilis)*	- 8 parts (80 grams)
5. Sirunagappoo	*(Mesea nagassarium)*	- 4 parts (40 grams)
6. Milagu	*(Piper nigrum)*	- 2 parts (20 grams)
7. Kirambu	*(Syzygium aromaticum)*	-1 parts (10 grams)
8. Sarkkarai	*(Sugar)*	-120 parts (120 grams)

Purification of the Ingredients

All the ingredients mentioned here were purified as per the Siddha Literature.

Method of preparation

The required quantity of the purified drugs was taken and grinded into fine powder and sieved by vasthrakayam procedure and mixed with sugar.

Dosage : 5-7 Years- 500 Mg (Bd).
8-12 Years- 750 Mg (Bd)

Vehicle : Ghee

Duration : 1 Mandalam (45 days)

Pharmacological action of the ingredients of Elathy chooranam formulation used for the treatment of kalanjaga padai.

S.no	Plants	Botanical Name	Images	Parts used	Action
1	Elam	*Elettaria cardamomum*		Dried Fruit	Stimulant Carminative Stomachic Antispasmodi c Tonic
2	Chukku	*Zingiber officinale*		Dried rhizome	Stimulant Stomachic Carminative
3	Koogaineeru	*Maranta arundinacea*		Root powder	Refrigerant Demulcent Nutrient
4	Thalisam	*Abies spectabilis*		Dried leaves	Carminative Stomachic Expectorant Tonic
5	Sirunagappoo	*Mesea nagassarium*		Dried fruit	Astringent Carminative Anti-inflammatory Anti-pyretic
6	Milagu	*Piper nigrum*		Dried fruit	Carminative Pungent Anti-inflammatory Cyclo oxygenase inhibitory activity

7	Kirambu	*Syzygium aromaticum*		Flower bud	Anti- spasmodic Carminative Stomachic Anti-septic Local anesthetic
8	Sarkarai	*Saccharum officinarum*		Crystallised sugar	Antiseptic Demulcent Cooling Preservative

SCIENTIFIC REVIEW

Plants	Phytochemicals	Scientific Review
Elam *(Elettaria cardamomum)*	It has fixed oil, essential oil. Volatile oil of the seeds – the active principle 4 to 8%. It contains Terpinyl acetate, Linalyl acetate, Limonen, Linalorl, Cineole, Citrinellol, Nerol, Transnerolidol, free terpinol.	• *E. cardamom* oil have anti-inflammatory activity in dose-dependent manner asthey inhibit the levels of pro-inflammatory cytokines such as tumor necrosis factor interleukin (IL) 1, and IL 6 levels in the serum.[7] • In an *in vitro* skin disease model, *E. cardamom* oil significantly inhibited the production of VCAM-1 and M-CSF. This study gives the important evidence of anti-inflammatory and immunomodulatory potential of *E. cardamom* oil.[8]
Chukku *(Zingiber officinale)*	It contains an aromatic volatile oil that containing camphene, phellandrene, zingiberene, cineol, borneol. An oleo resin-Gingerin (an active principle), High flavonoid contents, polyphenols, tannin, isovanilin, adenine.	• Ginger may act as an anti-inflammatory agent by suppressing the proinflammatory cytokine, TNF-α.[9] • Ginger acts as suppressor of lymphocytic proliferation which was mediated by decrease in IL-2 and IL-10 production, found in in-vitro study.[10]
Koogaineeru *(Maranta arundinacea)*	Rhizome of Maranta arundinacea contains various chemical components such as alkaloids, glycosides, phenolic compounds, terpenoids, saponins, flavones and tannins in methanolic extract. Aqueous extract of M. arundinacea rhizome consists of alkaloids, glycoside, terpenes, saponins and phenols.	• Saponins Present in Maranta arundinacea are also used for its anti- inflammatory activity.[11] • Terpenoids in Maranta arundinacea have been found to be useful in the prevention and treatment of several diseases including cancer, and also it has anti- inflammatory and immunomodulatory properties.[12]
Thalisam *(Abies*	B-sitosterol as a steroid, taxusin,	• A study suggests that, the taxol present in

spectabilis)	baccatin VI, baccatin III, 1B-hydroxybaçcatin I and taxol as toxoids and conifer-aldehyde as a phenylpropanoid andlariciresinol, isolariciresinol, 3'-demethylisolariciresinol-9'- hydroxy-isopropylether, taxiresinol and 3,dimethyl isolariciresinol lignans were determined from Taxus baccata by using extensive spectroscopic methods.	ethanol extract of *Abies spectabilis* is having potential anti-inflammatory effect which has antagonist or blocking effects on mediator like histamine, serotonin and kinins.[13]
Sirunagappoo *(Mesua nagassarium)*	Mesua ferrea contains mesuaferrin A & C, caloxanthone C and macluraxanthone which are identified by column chromatography. Mesua ferrin B identified from the dichloromethane extract. The ethyl acetate extract gave two xanthones which were 1,5-dihydroxyxanthone and tovopyrifolin C.[14]	Mesua ferrea bark extracts have most promising anti-inflammatory activity due to the presence of secondary metabolites such as flavonoids, terpenoids, glycosides, cardiac glycosides, steroids/ phytosterols, quinones and coumarins. The secondary metabolite flavonols from Mesua ferrea bark extracts such as quercetin, morin and kaempferol were found to have 5-LOX inhibitory activities.[15] A study reported that the methanolic and aqueous extracts of *Mesua ferrea* suppresses the T-cell proliferation induced by Con A. These results show anti-inflammatory and immuno-suppressive potential of methanolic and aqueous extract of mesua ferrea.[16]
Milagu *(Piper nigrum)*	A volatile alkaloid piperine or pipirine 5-9%, piperidine or piperidin 5%, balsamic volatile essential 1-2%, fat 7%. Mesocarp contains chavicin, a balsamic volatile oil, starch, gum, piperrettine, pipericide, sarmentine, eugenol.	• Piperine has been proven effective indirectly, but its mechanism of action remains unknown. In a study, it has been evaluated the anti-inflammatory and antiarthritic effects of piperine to determine whether it had therapeutic potential for the treatment of arthritis and chronic inflammatory conditions.[17]
Kirambu *(Syzygium aromaticum)*	Ethanolic extract of flower buds contains isobiflorin and biflorin. Leaves contains Eugenol glucoside gallate, galloyl. Eugenniin, ellagitannins, syzyginsA and B are the major phenolic constituents of cloves. Essential oils mainly contain acetyl salicylate, chavicol, acetyleugenol and humulenes.	• An in vitro study found that the chemical compositions of clove extract and of the oil were inhibit the macrophages to produce both IL-1beta and IL-6. • An in vitro study of essential oil of clove showed the inhibition of the production of these cytokines. • Clove extract and essential oil contains Eugenol as a major component that might be the causative agent of cytokine inhibition. These results suggest an anti- inflammatory action of clove.[18] • Bachlega, de Sousa, Bastos *et al. have* experimented the immune-modulatory and

		anti-inflammatory effects of clove, by inhibiting the production of IL-1 β, IL-6 and IL-10.[19]
Sarkarai *(Sugar)*	-	-

CONCLUSION

The above mentioned medicine is effectively used for the management of Kalanjaga padai (Psoriasis). Besides all the ingredients of the Elathy chooranam have Immunomodulatory and anti-inflammatory properties that inhibits the production of Interleukins and cytokines which is the key factor for the development of Psoriasis. Hence, Elathy chooranam can be effectively used for the management of Kalanjaga padai (Psoriasis).

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