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Mini Review

# **Overview of Wound Healing Siddha Medicines**

Vajiravelu Sivamurugan\*<sup>1</sup>, Murugan Anbarasu<sup>1</sup>, Ponmudi Priya<sup>2</sup>, Gopal Jeya<sup>1</sup>, Ravikumar Dhanalakshmi<sup>1</sup> and Viswanathan Vinitha<sup>1</sup>

<sup>1</sup>PG and Research Department of Chemistry, Pachaiyappa's College, India

<sup>2</sup>PG and Research Department of Zoology, Pachaiyappa's College, India

\*Corresponding author: Dr. V Sivamurugan, Assistant professor, Department of Chemistry, Pachaiyappa's College, Chennai-600030, India

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#### **Abstract**

The present article is intended to deliver a bird's eye view of traditional Siddha medicines prescribed for the wound healing process for various types ulcers, wounds and few skin diseases including eczema, scabies, psoriasis etc. The article may not be exhaustive, however, we have attempted give an overall impression on the Siddha medicines, especially for the readers, those are not familiar with Indian traditional system of medicines. We have listed the medicinal plants (botanical name and Tamil name) and their medicinal uses. Finally, the mode of Siddha drug formulation based on the diseases also summarised in order to understand the Siddha formulations.

Keywords: Herbal formulation; Indian traditional medicinal system; Medicinal plants; Siddha; Wound healing

#### Introduction

The siddha medicines are originated from the envisions and constant experimentation of sages (Siddhar in Tamil, an ancient Indian language) on medicinal plants, minerals, animals, who were wished to defeat death and live longer using medicinal herbs and their formulations, which subsequently evolved as one of the Indian Traditional System of medicines, i.e., Siddha medicines [1]. According the ancient Siddha Tamil literature, there are 18 siddhas, who are majorly contributed to the development of the Siddha medicines for various kinds of diseases including wound healing and skin diseases. Among them, the sage Agastyar being the first siddhar in the siddha lineage, who contributed to large portion of Siddha literature. The Siddha system of medicines have been developed for both internal and external applications. The drug has been formulated into various types viz., capsules, tablets, powder, decoctions and oil form in order to facilitate the intake of medicine without hustles for the patients' convenience. In order to protect the rights of ancient traditional system of medicines, the Government of India has taken necessary steps to protect the traditional medicinal systems such as Ayurveda, Unani, Yoga and Siddha in the form of digital library and almost 223,000 formulations have been digitised in this library with the proper citations of literature to the drugs [2]. The Siddha medicines as spread as 32 types of internal medicine and 32 types of external treatment viz., non – invasive surgery, bloodletting, leech therapy etc. The Siddha system is found to very effective in healing skin problems such as psoriasis, eczema, leucoderma, vitiligo, scabies etc. with variety of drugs and their formulations [3]. Geographically, the siddha medicines has widely spread in south east Asian countries such as Sri Lanka, Burma (Myanmar), Cambodia, Malaysia and Indonesia. This medicinal system has a long history and founded in Ancient Tamil Literature and Tamil culture of South India, which is contemporary to Ayurvedic medicinal system originated from North India at the same evolution period [4].

# Siddha Medicines for Skin Diseases and Wound Healing

Though, the Siddha medicines having capability of treating various kinds of ailments, we have selected the medicines that specifically prescribed for the treatment of wounds and skin diseases including chronic and non-chronic types. The ulcers or wounds, which are developed by various physiological disorders also by diseases put the patients' life in pathetic conditions and in some cases it could become life threatening. For example, the untreated diabetic foot ulcers, leprosy wounds, venous and arterial

ulcers and pressure ulcers may developed as chronic wounds and continuous treatment is necessary for the healing. Similarly, the skin diseases such as eczema, psoriasis, scabies, itching, vitiligo pruritus and carbuncles also critical to human life. The following (Table 1) summarises the use of various medicinal plants used for treatment for wound healing and treatment for skin diseases. The drug may be obtained using parts or whole plants as a single drug or combinations with other drugs/minerals in the form of various formulations according to the severity of the disease. For the

convenience of readers, we have mentioned the botanical name of the plant and its Tamil name used in Siddha and respective diseases are listed in Table 1. In addition, the disease and their equivalent Tamil name in Siddha formulatory and Siddha pharmacopeia is also listed in the (Table 1) [5,6]. The juice or extract or decoction of above medicinal plants obtained from leaf, bark, flower, root or whole plant used for formulating the medicines prescribed in The Siddha Formulatory of India by using various formulations [5].

<u>Table 1</u>: The medicinal plants used in Siddha medicines for the treatment of skin diseases, ulcers and wounds (Equivalent Tamil language given in brackets) [5,6].

S. No.	Botanical Name	Traditional Name	Treatment
1	Glycyrrhiza glabra L.	Athimathuram (Stolon and Root)	Peptic ulcer, herpes, eczema and psoriasis
2	Aconitum heterophyllum Wall. ex. Royle	Athiviúayam (Root)	All kinds of wounds
3	Indigofera tinctoria L.	Avuri (Whole Plant including root)	Acid peptic ulcer (Kunmam)
4	Nardostachys grandiflora DC. Syn.	Cadamancil (Rhizome)	General term used for the group of various Skin diseases (Kuttam)
5	Tinospora cordifolia (Willd.) Miers.	Cìnthil thaûúu (Stem)	Skin diseases, Scabies/Skin ulcers (Ciranku) and Pruritus(Cori)
6	Cuminum cyminum L.	Cìrakam (Fruit)	Acid Peptic Disease
7	Psoralea corylifolia L.	Kërpõkarici (Fruit)	Eczema (Karappan), leukoderma (Venkuttam),Vitiligo (Venpulli), leprosy (Kuttam) and psoriasis
8	Nigella sativa L.	Karuncìrakam (Seed)	Psoriasis, ulcers (Pun) and peptic ulcers
9	Picrorhiza kurroa Royle ex Benth.	Kadukurõkini (Rhizome and Root)	Eczema, ulcers and vitiligo
10	Vernonia anthelmintica (L.) Willd.	Kattu cìrakam (Fruit)	Acid peptic ulcer
11	Curcuma longa L. Syn. C. domestica Valeton	Mancal (Rhizome)	Ulcers
12	Terminalia arjuna (Roxb.) W. & A.	Marutham pattai (Stem bark)	Ulcers
13	Crateva magna (Lour.) DC.	Mavilinkappattai (Stem bark)	Chronic ulcers
14	Hemidesmus indicus (L.) R. Br.	Nayuruvi camulam (Whole Plant)	Acid peptic ulcer
15	Smilax china L.	Paranki cakkai (Tuberous root)	Eczema, ulcers and carbuncle (Pilavai)
16	Stereospermum chelonoides (L.f.) DC.	Pathiri ver (Root)	Eczema and ulcers
17	Alpinia galanga Willd.	Perarattai (Rhizome)	Scalp ulcer (Talaippun)
18	Pongamia pinnata L.	Punkam verpttai (Root bark) Punkam viththu (Seed)	Ulcers and eczeme
19	Terminalia belerica (Gaertn.) Roxb.	Tanrikkay (Fruit)	Penile sore (Ankurippun)
20	Piper longum L.	Thippili (Fruit)	Acid peptic ulcer
21	Piper cubeba L. f.	Valmilaku (Fruit)	Acid peptic ulcer
22	Celastrus paniculatus Willd.	Valuzuvai (Seed)	Ulcers
23	Azadirachta indica A. Juss.	Veppampazam (Fruit)	Skin diseases
24	Crotalaria juncea Linn. Papilionaceae	Sanal (Seeds)	Psoriasis and impetigo
25	Hydnocarpus kurzii (King)Warb	Niradi-muttu	Psoriasis, eczema and dermatitis
26	Indigofera aspalathoides Vahl ex DC	Sivanaarvembu	psoriasis and erysipelas
27	Leucas aspera Spreng	Thumbai (Leaves)	Juice is used as an external application for psoriasis, chronic skin eruptions and painful swellings
28	Semecarpus anacardium Linn. f.	Shenkottei (Kernel oil)	Antiseptic, gout, leucoderma, psoriasis and leprosy
29	Thespesia populnea Soland. ex Correa.	Poovarsu (Root, fruit and leaf)	Psoriasis, scabies and other cutaneous diseases
30	Vernonia cinerea Less	Naichotte Poonde (Seeds)	Leucoderma, psoriasis and other skin diseases.
31	Apium graveolens Linn	Celery-keerai (Seeds)	Chronic skin disease and psoriasis
32	Canarium strictum Roxb	Karunkungiliyam (Resin)	Psoriasis and pityriasis
33	Carica papaya Linn	Pappali (latex of unripe fruit)	Eczema, psoriasis, sloughing wounds, carbuncles and eschar of burns

34	Alkanna tinctoria (L.) Tausch	Ratthapaalai	Indolent ulcers, wounds
35	Aquilaria agallocha Roxb	Akil kattai	Used as a liniment in skin diseases
36	Bauhinia tomentosa Linn	Kokkumandarai	Seed-used for wound Healing
37	Bridelia retusa (Linn.) Spreng	Mulluvengai	Paste of the stem bark is applied to wounds
38	Buchanania lanzan Spreng	Mudaima	Powdered or crushed leaves are applied to wounds
39	Calendula officinalis Linn	Thulvkka Saamanthi	on poorly healing wounds
40	Carissa carandas Linn. var. congesta (Wt.) Bedd.	Kalakke	Juice of the fresh plant is used for infected wounds that refuse to heal. Root-paste used for diabetic ulcer Wounds and sores with pain and swelling
41	Carthamus tinctorius Linn.	Chendurakam	Wounds and sores with pain and swelling
42	Centella asiatica (Linn.) Urban.	Vallaarai	Chronic postsurgical and post trauma wounds; treat second and third degree burns
43	Chloroxylon swietenia DC.	Karumboraju	Anti-inflammatory and antiseptic
44	Coscinium fenestratum Colebr.	Maramanjal	For dressing wounds and ulcers, and in cutaneous leishmaniasis
45	Dendrophthoe falcata (Linn. f.) Etting	Pulluri	Wounds
46	Datura metel Linn	Oomatthai	Seed, leaf and root used for antidermatosis
47	Wrightia tinctoria R. Br.	Irum-paalai	Used for piles and skin diseases
48	Rubia cordifolia Linn	Manjitti	Piles, ulcer and skin diseases
49	Acalypha indica Linn.	Kuppaimeni	Leaf juice used for scabies
50	Ficus carica Linn	Semaiatti	Leaf extract used in lucoderma Bark juice used for eczema and other skin diseases

#### Mode of Vehicle (The Drug Formulation System)

The siddha medicinal formulation system have variety of mode of drug delivery system. Mostly, it is classified based on the type and severity of the disease. Some disease needed internal medicine and some may needed external applications. So, the Siddha system is consists of various formulations viz., powder, lotion, capsule, oil form etc. Since, we are highlighting about the wounds and skin diseases, the mode of delivery for various diseases are summarised in (Table 2). According to the Siddha formulatory of India, each Siddha formulation have well defined preparation procedure [4]. It has to be strictly followed for the preparation, and colour, character tests, shelf life and storage method for the each formulation is clearly discussed in the Siddha formulator of India. The summary of above mentioned formulations have been discussed here,

Table 2.

Disease	Mode of delivery (Siddha formulation)
Eczema (Karappan)	Kullikai, tailam, centuram, meluku and ilakam
Leprosy (Kuttam)	Ney, churnam
Acid peptic ulcer (Kunmam)	Kuzhambu, curnam, patankam, kulikai, tailam, ilakam, centuram, ennai, meluku and parpam
Scabies (Ciranku)	Meluku, ennai, ney, patankam, parpam and tailam
Pruritus (Cori)	Parpam, tailam, meluku, ennai, ney and ilakam
Carbuncles (Pilavai)	Meluku
Psoriasis (Tol noy)	Parpam, ney and tailam

**a) Curnam:** It is a finely powdered form of a drug/drugs and free from foreign matter.

- **b) Centuram:** Medicines made from grinding of plant juices or extracts with metal minerals followed by calcination or burning or sublimation.
- **c) Ilakam:** It is a sweetened semisolid medicinal preparation with the addition of juices of medicinal plant and sugar and heated till a thick syrup is obtained.
- **d) Kuzhambu:** It is a semi liquid form of medicines. Simple mixtures of juices of medicinal plants with sugar or other drug powder and heated to the consistency of thick syrup.
- **e) Meluku:** This kind of medicine prepared by way of grinding well the drug or by heating the drugs until a waxy kind of substance obtained.
- **f) Ney:** It is kind of medicine that obtained by boiling the drugs with ghee.
- **g) Parpam:** The powder form of substances obtained after the calcination process.
- **h) Patankam:** It is prepared by sublimation of organic or inorganic drugs.
- i) Tailam: It is a kind of medicated oil preparation done by boiling the decoction, milk and paste of drugs with oils for a stipulated period of time.

### Conclusion

The use of Siddha drugs for the treatment of various types of skin diseases and wounds has a very long history. It could be clearly witnessed from the ancient Siddha Tamil literature. The drugs are available in various formulations and chosen according the type of disease and facilitate the intake of medicine. The formulations of

siddha drugs which includes both internal and external applications depending on the severity. For the detailed preparation of Siddha drugs, the Siddha formulatory of India must be referred. The Siddha has treatment for various other kinds of diseases as well and it has lot to offer to the society.

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