

SIDDHA MANAGEMENT OF CONTACT DERMATITIS -A CASE STUDY

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ABSTRACT

Karappaan is a Siddha medical terminology for dermatitis among pediatric age groups. The present study was a case report of a 19 year old boy who visited the out-patient department of a private Siddha clinic at Chennai during January 2022. He complained of pinkish red eruptions on his lateral aspect of neck on both sides with extreme pruritis and hyperpigmentation since one week. The history taking revealed that the boy was a student who used to wear uniform shirt with tight and closed collar. The diagnosis was primarily made as *Karappaan* which is the general diagnostic criteria for skin ailments mentioned in Siddha text and the simultaneous comparison with

modern parameters were also made which correlated well with contact dermatitis. The humoural imbalance in *Vatham* was managed with therapeutic purgation with *Agathiyar Kuzhambu* followed by internal medicines such as *Parangipattaichooranam*, *palagaraiparpam*, *Seenthil Chooranam*, *Gandhagarasayanam*. *Punganthylam* was used as external medicine daily for a period of 50 days. The outcome assessment was done from base line at 0 day, 7th day and 50th day and documented. The results revealed the effectiveness of Siddha therapy for the management of contact dermatitis.

KEYWORDS: *Karappaan*, Contact dermatitis, Skin allergy, Herbal medicines, traditional medicines.

INTRODUCTION

Contact dermatitis is an inflammatory eczematous skin disease. It is caused by chemicals or metal ions that exert toxic effects without inducing a T-cell response or by small reactive chemicals that modify proteins and induce innate and adaptive immune responses.^[1] Contact

dermatitis is divided into irritant contact dermatitis and allergic contact dermatitis. Irritant contact dermatitis is a nonspecific response of the skin to direct chemical damage that releases mediators of inflammation predominantly from epidermal cells while allergic contact dermatitis is a delayed (type 4) hypersensitivity reaction to exogenous contact antigens. Immunological responses are due to the interaction of cytokines and T cells. In photo contact, allergic dermatitis lesions are confined to sun-exposed areas even though the allergen is in contact with covered areas. Physical irritants like friction, abrasions, occlusion, and detergents like sodium lauryl sulphate produce more irritant contact dermatitis in combination than alone.^[2] Subsequently, according to the Siddha system, *Karappaan* is the inflamed skin condition due to various internal bodily triggers and external triggers. ‘*Karappaan Pandangal*’ or consumption of food items, allergens, and physiological issues leads to ‘*Karappaan*’.^[3]

According to Siddha system the human body originally consist of five basic universal elements called as earth, water, fire, air and ether called as *panchaboothams* that maintain the integrity of the body. Any alteration in these basic elements is said to be the root cause of all diseases.^[3]

The Siddha management of *karappaan* focuses on humoral balance thereby addressing the key issues of AD such as biochemical alterations, anti-inflammatory actions and immune boosting effects. For this case of *karappaan*, purgation was induced with *Agathiyar Kuzhambu* (100mg) followed by internal medicines such as *Parangipattai chooranam*, *palagarai parpam*, *Gandhagarasayanam*. *Pungan thylam* was used as external medicine daily for a period of 50 days. The prognosis has been documented and evaluated in this case report.

MATERIALS AND METHODS

The Siddha literature was searched for the diagnostic criteria for *karappaan* and the specific formulations were derived to treat the patient. All the drugs were purchased from GMP Certified SKM Pharmacy, Chennai. Biomedical ethics was followed and informed consent was obtained from the subject after explanation about the disease and its line of treatment.

CASE HISTORY

The case was a 19 year old boy who visited the out-patient department of a private Siddha clinic at Chennai. He complained of pinkish red eruptions on his lateral aspect of neck on

both sides. On scratching, new lesions developed and remained as hyper pigmented rashes. He had intense itching and mild oozing and scaling since 7 days. The history taking revealed that the boy was a student who used to wear uniform shirt with tight and closed collar. Initially he had severe perspiration which later developed small scattered popular eruptions over his neck region and he had intense pruritus.

A dermatological examination revealed erythematous, edematous, and scaly plaque lesions on the neck. The boy did not have any other medical history such as Asthma. There was also no family history of Asthma or dermatitis. The subject was a *pitha* predominant and his pulse diagnosis was *pithakabam*.

Symptom evaluation for Siddha management

Reddish elevated popular eruptions over lateral aspect of neck on both sides

Intolerable itching

Presence of erythema, edema, oozing, crusting, tenderness in the region

Unable to sleep at night

Line of treatment

The medicines were purchased from GMP Certified SKM pharma. Every Siddha drug is administered with a unique line of treatment. This is done to pacify the deranged humours. Initially a purgative was used to pacify the deranged *vatham*. The significance of giving such a therapy before administering the main drug is due to the Siddha humoral concept “*vathamalaathu meni kedaathu*” which means *vatham* is the ultimate cause for skin ailments. The following internal and external medicines (Table-1) were prescribed and the patient was advised to avoid shirts with tight collar. The case prognoses was observed and documented as shown in Table-2.

Table 1: Dosage and duration of medicines.

Day	Medicines	Dosage and duration
Day-1	<i>Agathiyar Kuzhambu</i> (100mg)	Once a day early morning in empty stomach with 30ml of Ginger juice
Day-2	No medicines	No medicines
Day 3 to Day 50	Tablet <i>Parangipattaichooranam</i>	Two Tablets Twice a day
	Tablet <i>Palagaraiparpam</i>	Two Tablets Twice a day
	<i>Seenthil Chooranam</i>	2 Grams with 30ml of water twice a day
	<i>Gandhagarasayanam</i>	5 grams with milk
	<i>Pungan Thylam</i> <i>Kuliyal Chooranam</i> for Bath	External application twice daily Regular application during bath

Table-2: Case Prognosis.

DAY	PRESENTING SYMPTOMS AND PROGNOSIS
DAY-1	Reddish pink popular eruptions with edema, oozing, crusting, tenderness in the lateral aspect of neck
DAY-15	Itching slightly reduced. Eruptions same reduced with no new eruptions.
DAY-30	Eruptions reduced and no oozing. Crusting and tenderness reduced
DAY-50	Complete recovery from erythema, itching and papular eruptions.

**Figure-1: Dermatological Outcome Assessment Of The Patient.****DISCUSSION**

The present case was a 19 year old male presented to the clinic after developing diffuse pruritus that began 15 days prior. The patient was awake, alert, oriented to self, time and place. Vital signs were within normal limits. Physical examination revealed a rash that was inflamed, reddish pink with papular eruptions with edema, oozing, crusting, tenderness in the lateral aspect of neck. All other systemic examination was normal. The subject had no past medical history of dermatitis and no associated family history was available. His immunizations were up-to-date till present.

The Patient denied exposure to any allergens except wearing his uniform with tight collar. Although the exact incidence of textile contact dermatitis is unknown, recent studies demonstrate that contact dermatitis produced by allergic or irritant reactions to clothing not only is more frequent than previously thought but also increasing. The clinical features of contact dermatitis (CD) caused by clothing may resemble common allergic contact dermatitis or may have atypical presentations. Textiles are made of fibres: natural wool, linen, cotton and silk and synthetic cellulose derivatives and polyamides that can cause allergy.^[5] Though

patch testing with own material is advocated to facilitate the diagnostic procedure, it was not performed in this case and it may be included as the study limitation. Contact dermatitis in those using the garment is often diagnosed when appearing in areas preferably with close contact between skin and textile (especially where friction or perspiration occurs), but may also be widespread.^[5] A recent research article suggested that possible contact allergy to textiles should be considered if dermatitis appears on symmetrical sites of intimate contact with the garment. The author has made the diagnosis as the case had symmetrical allergic sites on lateral aspect of neck on both sides.^[6]

Previously published findings demonstrate that *Parangipattai chooranam* drastically reduces free radicals responsible for inflammation and skin disorder in RAW cell line assay.^[7] *Palagarai parpam* is regarded as one among the resources of marine known as *Kadalpaduthiraviyangal*. It has been indicated for allergic skin diseases and itching.^[8] Research studies on *Seenthil Chooranam* represent reduce mast cell degranulation through significant protection against egg albumin induced mast cell degranulation by stabilizing its role in airway inflammatory pathway, by preventing release of various inflammatory mediators. This can also be the causative factor for contact dermatitis in atopic individuals.^[9] The drug *Gandhaga Rasayanam* has sulphur as the chief ingredient. According to literature, sulphur regulates the sodium/potassium electrolyte pump within each cell. It also helps in detoxification and is a vital part of immune system. Sulphur functions along with thiamine and biotin in a normal sugar metabolism. It also helps in tissue repair. It has been referred to as 'Nature's beauty mineral' as it keeps hairs, skins, fingernails strong and healthy. It maintains skin's elasticity.

Hence the present medicinal combination could act in synergy for contact dermatitis due to its anti-inflammatory as well as immune-modulatory effect.^[10]

CONCLUSION

Through this case report the therapeutic efficacy of Siddha regimen towards the management of contact dermatitis has been showcased. There was remarkable improvement in symptoms within a short period of treatment and no relapse on follow up to 6 months of treatment. These combination of Siddha medicines can effectively used as they are scientifically proved to possess anti allergic, anti-inflammatory and immunomodulatory action and needs to be further evaluated in large scale studies.

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