

# INTERNATIONAL JOURNAL OF AYURVEDA AND PHARMACEUTICAL CHEMISTRY



**Greentree Group Publishers** 

RESEARCH ARTICLE

www.ijapc.com

e-ISSN 2350-0204

# Clinical Study of Ayurvedic Management of Atopic Dermatitis in Children

Amitkumar K. Sonawane\*

#### ABSTRACT

Atopic dermatitis (AD), or eczema, is the most common chronic relapsing skin disease seen in infancy and childhood<sup>1</sup>. It affects 10-30% of children worldwide and frequently occurs in families with other atopic diseases such as asthma, allergic rhinitis, and food allergy. AD patients thereby have increased risk of bacterial, viral, and fungal infection related to impairment of innate immunity, including a loss of barrier function and impaired generation of antimicrobial peptides<sup>2</sup>.

In this case study, subject was 18 months old female toddler and had intermittent, pruritic rashes on her cheeks, mouth and extremities since past 9 months. *Haridradi ghritam* were used as local application every day for 30 days. The assessment criteria were subjective-pruritus and crusted area. The effect of local application of "Ghrit T" is to enhance skin barrier function. At the end of 30<sup>th</sup> day no pruritus or crusted area was seen at affected area.

# **KEYWORDS**

Atopic dermatitis, Haridradi Ghrit, Kushtha, Vicharchika, Raktaj vikar



Received 05/06/18 Accepted 17/06/18 Published 10/07/18

<sup>\*</sup>Ankerite Ayurvedic Medical College and Hospital, Lucknow, UP., India

# **INTRODUCTION**

All skin disorders in Ayurveda come under the name of *Kushtha*. In ancient Ayurvedic texts, Vicharchika is considered as one of the varieties of Kushtha that can be correlated with Atopic dermatitis based on the similarities of signs and symptoms. It is Rakta Pradoshaja Vikara(a kind of disease due to impure blood) having involvement of three Doshas with dominance of Kapha. Mithya Ahar (vitiated, incompatible diet), Vihar (life style), disobeying of Guru and parents, misbehaviour. misconduct Poorvajanmakrita Karma are main cause of khushta<sup>3</sup>. The continue practice of these causative factors leads to vitiation of doshas. In Vicharchika, as per ayurvedic texts, persistent or recurring skin rashes are present which are characterized by redness, skin oedema, itching and dryness, with possible crusting, flaking, blistering, cracking, oozing or bleeding and after long duration "lichenification" occurred.

# Management of AD requires:

- 1. A systematic, multifaceted approach that incorporates skin hydration
- 2. Topical anti-inflammatory therapy.
- 3. Identification and elimination of flare factors
- 4. As per necessary, systemic therapy.

Control of pruritus is essential for treatment, because AD often represents 'an itch that rashes,<sup>4</sup>. Haridra with ghrita therefore. were selected for local application in this case. Several drugs from plant, mineral, and animal origin are described in Ayurveda for anti-pruritic (Kandughana), skin disease improving properties (Kusthaghana) and wound healing properties (Vranaropaka). These activities of some plants have been screened scientifically in different pharmacological models and patients, but the potential of most of them still remains unexplored. Some Ayurvedic plants. namely Vata (Ficus bengalensis Linn.), Durva (Cynodondactylon Pers.), Lodhra (Symplocosracemosa Roxb.), Manjishtha (Rubiacordifolia Linn.), Chandan (Pterocarpus santalinus Linn.f.), Gular Roxb.). (Ficusracemosa Yashtimadhu (Glycyrrhizaglabra Linn.), Daruharidra aristata DC.). (Berberis Haridra (Curcuma longa Linn.), Mandukaparni (Centella asiatica (Linn.) Urban), Snuhi (Euphorbia nerifolia Linn.), and Ghrita Kumarai (Aloe vera Tourn. ex Linn.) were found to be effective in experimental models. Among them drugs C. longa was selected for clinical assessment in Atopic Dermatitis for local application with ghee. Phytochemical study of turmeric has revealed a large number of compounds,

including curcumin, volatile oil, and curcuminoids, which have been found to have potent pharmacological properties<sup>5</sup>. Studies suggest that the turmeric has antibacterial, cholagogue insecticidal, antifungal, anti-inflammatory, antiprotozoal, antihistaminic activities<sup>6</sup>. By the local application of haridra with ghrita, local area get prevented from cutaneous irritants, get moisturized properly, have effective topical anti-inflammatory and antipruritic action, and also get prevented from secondary infection. Thus skin gets protection and it gets healed properly. At last skin integrity become normal.

Therefore, this paper is being written to document the local application and outcomes of *Haridra* with *ghrita* in management of *Vicharchika*. The study design is retrospective but all relevant tests and observations were rigorously documented.

#### **Case Report**

An 18-month-old baby is brought to our clinic by his mother, who is concerned about her daughter's intermittent, pruritic rashes. She report that the rashes started when baby was about 7 months old and were initially concentrated on her cheeks and around her mouth. Since that time, the rashes seem to come and go and now also intermittently affect her extremities. She (Daughter) frequently scratches the

affected areas. Mother has treated the condition with various "baby lotions" but effect is uncertain. She also noted that she and her husband are not affected by any itchy rashes, and she doesn't know of any close contacts that are experiencing this problem either. Baby is otherwise healthy and meeting developmental milestones.

#### Examination:

The assessment of this disease is subjective. Pruritus and crusted area were of different sizes with dispersed area on face, bilateral knee, ankle, and elbow. Weeping inflammatory patches and crusted plaques on the face, neck, and extensor surfaces.

Table 1 Examination of Patient

	Before treatment	After months	6
General condition	Fair	Fair	
Vitals (BP, PR, RR)	Normal	Normal	
Appetite	Normal	Normal	
<b>Bowel evacuation</b>	Normal	Normal	
Bladder evacuation	Normal	Normal	
Sleep	Normal	Normal	
Systemic	NAD	NAD	
examination of			
CNS, CVS, RS, PA			

## **Evaluation of Symptoms:**

**Table 2** Evaluation of lesion are based on the following criteria

Before treatment	After treatment	
1. severe pruritus	1. pruritus was disappear	
2. weeping	2. Mostly normal	
inflammatory patches	pigmented, some area has	
and crusted plaques	only specks of	
on the face, neck, and	hyperpigmentation.	
extensor surfaces of		
knee, ankle, elbow		

# **MATERIALS & METHODS**

Local application – Cow's ghrit + Turmuric powder (1:1/20) "Ghrit T"

Local application 3 times in a day at affected region

# **DISCUSSION**

Atopic dermatitis is considered as a chronic, relapsing eczematous skin inflammatory condition that is a result of an overactive immune system which responds to triggers (stimulus) inside and outside the body. It is characterized by inflammation pruritus and and accompanied by cutaneous physiological dysfunction. The lipid barrier of skin is usually reduced in the people with eczema, compared with others. The lipid barrier helps prevent water loss. As the barrier is reduced water loss will be faster and the skin becomes dry. The immune system then overreacts to these allergens and causes inflamed, irritated, or sore skin.

Lipid content of Ghrit T protects skin from environmental irritants and heels these areas. Turmeric has anti-inflammatory, anti-pruritic, antibacterial properties which help to heal, reduce itching and protect from secondary infection. After 3 days, pruritus was decreased on 8<sup>th</sup> day, crusted patches were mildly healed. On 15<sup>th</sup> day, itching was totally resolved and crusted

patches were more improved. On 30<sup>th</sup> day, affected area was totally normal without itching.

In present day practice, local application of ghee with turmeric is found to be a safe, efficacious, and cost-effective method for management of atopic dermatitis. Compilation of case reports and clinical studies are needed to standardize the treatment protocol and define outcome measures. In this way, comprehensive treatment guidelines can be formulated.

## **CONCLUSION**

Local application of "Ghrit T" was found effective in normalization of the pruritus, weeping and crusted patches of atopic dermatitis. This local application gradually decreased the symptoms. The patient was on active treatment for a period of 30 days. This case is being reported after a follow-up of 2 months with non-recurrence at previously affected area and no side effect. This case study showed that "Ghrit T" applied locally over a period of one month is effective in decreasing pruritus and crusted patches as well as preventing recurrence on a long-term basis.

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