Ayurvedic management of childhood atopic dermatitis - A case report

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ABSTRACT

Atopic dermatitis (AD) is a common, chronic skin disorder that can significantly impact the quality of life of affected individuals as well as their families. Not only patients are affected by the social stigma of a visible skin condition, but the intense itching characteristic of the disease often leads to significant sleep disturbances. If the itch can be controlled, the rash can be more readily treated. As per Ayurvedic classics, Atopic dermatitis can be incorporated under the category of twak vikara (skin disease). In this article, a case of 7 year old boy with dry, itchy and scaly skin with excoriative lesions who was treated with parisheka (affusion sudation) and internal medicaments. The parisheka (affusion sudation) was prepared out of Karanja (Pongamia pinnata Pierre.) and Nimba patra (Azadirachta indica A. Juss.) which are kushtahara (alleviates skin lesions) and kandughna (anti-pruritic). Encouraging results were observed in the form of reduction in itching and dryness of skin.

Keywords: Atopic dermatitis, Charmadala, Parisheka, Kushtahara, Kandughna.

INTRODUCTION

Atopic dermatitis one among the Atopic triad, is a chronic, highly pruritic inflammatory skin disease commonly seen in children. It affects about 10-20% of children and 1-3% of adults. It often starts in early infancy; approximately 45% of all cases begin within the first six months of life, 60% during the first year, and 85% before 5 years of age \cite{1,2}. Although the pathogenesis of the disorder is not completely understood, it appears to result from the complex interplay between defects in skin barrier function, environmental and infectious agents, and immune abnormalities \cite{3,4}.

In Ayurvedic literature, the word “Charmadala” has been mentioned under the category of Kushta (skin disorders) that denotes all varieties of skin disorders. Acharya Kashyapa’s description of the disease Charmadala (dermatitis) closely resembles with that of Atopic dermatitis. It is characterized by Kandu (itching), rakta varnata of twak (reddish discoloration of skin), charma avadarana (peeling of skin) and twak rookshata (dryness) with pidaka (papule) formation \cite{5}.

CASE REPORT

Case history

A 7 year old boy was brought to SDM Ayurveda Hospital, Udupi, Karnataka with complaints of itchy, dry skin with excoriations since 6 ½ years.

On Examination

Integumentary system

Scalp – dry flakes of skin present

Erythematous lesions with scales and excoriations were present over face. Crusts and lichenification along with serous exudates in some lesions of the lower limb was observed which were irregular in shape and distributed in symmetrical fashion. The lesions were more pronounced over face, flexor and extensor aspect of limbs and back with pruritus and xerosis.
**Brief history**

The child said to be born through normal vaginal delivery was apparently normal till 6th month of age.

Later it was noticed that erythematous lesions first appeared on cheeks and in due course of time lesions got spread over body gradually in symmetrical fashion with intense itching, dryness and excoriation. The condition used to flare up during cold weather. Child had disturbed sleep due to intense itching at night.

**Diagnostic Criteria**

The diagnosis was based on history, clinical presentation and Hanifin & Rajka Criteria \[6\] for Atopic dermatitis which consists of constellation of symptoms divided into two categories, Major and minor features.

**Table 1: Hanifin & Rajka Criteria for Atopic dermatitis**

<table>
<thead>
<tr>
<th>Major Criteria</th>
<th>Minor Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pruritus</td>
<td>Xerosis (dry skin)</td>
</tr>
<tr>
<td>Typical morphology and distribution (facial and extensor involvement in infants and young children)</td>
<td>Early age of onset</td>
</tr>
<tr>
<td>Chronic relapsing dermatitis</td>
<td>Elevated total serum immunoglobulin E (IgE)</td>
</tr>
</tbody>
</table>

**Intervention**

The patient was subjected to Parisheka (affusion sudation) using Karanja- Nimba patra kashaya (decoction) twice for a period of 7 days with a gap of 15 days followed by oral administration of Avipattikara churna – 5 g with 200 ml milk. The patient was discharged with the following medications.

1) Avipattikara churna 2.5 grams twice in a day
2) Gandhaka Rasayana ½ tablet three times a day
3) Karappan tablet ½ tablet two times a day and
4) Mahamanjisthadi Kadha 10 ml three times in a day for 45 days.

**RESULT**

The changes observed after treatment was assessed based on SCORAD (SCORing Atopic Dermatitis) rating. SCORAD is a clinical tool used to assess the extent and severity of Atopic dermatitis. This tool is used before and after treatment to determine the effectiveness of the treatment.

**Table 2: SCORAD rating based on area of skin lesion**

<table>
<thead>
<tr>
<th>Area (A)</th>
<th>Before Treatment</th>
<th>After Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head &amp; Neck</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Upper limbs</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Lower limbs</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Anterior trunk</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Back</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

SCORAD score: A/5 + B/2+C

Before treatment – 45.5

After treatment – 29

The Ig E level before treatment was 3500 IU and after treatment more than 2500 IU.

**Table 3: SCORAD rating based Intensity of skin lesion**

<table>
<thead>
<tr>
<th>Parameters (B)</th>
<th>Before treatment</th>
<th>After treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redness</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Swelling</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Oozing/crusting</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Scratch marks</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lichenification</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dryness</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 4: Grading according to subjective symptoms**

<table>
<thead>
<tr>
<th>Subjective symptoms (C)</th>
<th>Before treatment</th>
<th>After treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itch</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Sleeplessness</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>
DISCUSSION

Children with atopic dermatitis relate a history notable for intense pruritus and dry skin. Affected children often have a lowered itch threshold, resulting in increased levels of cutaneous reactivity in response to stimuli. Pruritus stimulates a bout of scratching which in turn, increases skin inflammation and triggers a greater sensation of itching, thus exacerbating flares[7].

In Ayurveda, the development of skin follows the fertilization of Shukra (Sperm) & Shonita (Ovum). In garbha (fetal stage) different layers of the skin are formed and this formation is caused by all the three doshas[8] (three body humours). Further, the 6 layers of twak (skin) are formed from the Mamsa Dhatu[9] (muscle) or Raktta Dhatu[10] (blood).

So, while treating Charmadala (dermatitis), the drugs alleviating Vata, Pitta, Kapha doshas (body humours), which are having kandughna (anti-pruritic), kushtaghna (alleviates skin lesions) and raktashodhaka (blood purifier) as well possessing tikta (bitter), katu (pungent) rasa (taste) and ushna veerya (hot potency) should be selected. As tridoshas (three body humours) are involved in charmadala (dermatitis), the drug chosen should be balancing tridoshas[11-13] (three body humours).

Though, tridoshas (three biological humours) are involved in the manifestation of charmadala (dermatitis), the characteristic feature of xerosis and pruritus is attributed to vata and kapha dosha respectively. The treatment should aim at reducing dryness and pruritus which causes much of the discomfort to patients. So Karanja (Pongamia pinnata Pierre) and Nimba (Azadirachta indica A. Juss.) patra (leaves) parisheka (affusion sudation) was selected. Parisheka (affusion sudation) is one among the variety of swedana (sudation) therapy specially administered in vata dosha pradhana vyadhi (diseases with predominance of vata) due to its vataushama (pacifying vata) nature[14].

Karanja (Pongamia pinnata Pierre.) and Nimba[13] (Azadirachta indica A. Juss.) patra (leaves) are kushtahara (alleviates skin lesions) and kandughna (anti-pruritic) in nature. Katu (pungent), tikta (bitter) rasa (taste) and ushna veerya (hot potency) of Karanja (Pongamia pinnata Pierre) & Nimba (Azadirachta indica A. Juss) patra (leaves) kashaya (decocction) helped in alleviating Kapha and vata dosha (body humours), resulting in reduction of dryness as well as itching in this case. Once the itch-scratch cycle is controlled, excoriations will reduce naturally. Nimba and Karanja possess antimicrobial, anti inflammatory properties. Avipattikara churna helps in elimination of pitta which is responsible in manifestation of twak roga (skin disorders) and pachana (digestion) of ama (undigested material). Mahanmanjisthadi kashaya is raktta prasadaka (blood purifier) and Gandhaka rasayana is best for skin disorders. Altogether the synergistic action of medicinal preparations prescribed have helped in reduction of dryness, scales and excoration marks over face and back in a span of 45 days.

CONCLUSION

Though Atopic dermatitis is a chronic relapsing dermatitis condition, depending on the dosha (body humors) it can be managed through Ayurvedic intervention. The quality of life can be improved and immune response can be slowed down with Ayurveda.

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REFERENCES


HOW TO CITE THIS ARTICLE