Management of Ichthyosis by an Ayurvedic regimen w.s.r. Vipadika: A Case Report

Pratibha M. Gayakwad1*, Seema V. Giri2 and M. J. Qadri3

1-3Department of Shalyatantra, Govt.Ayurvedic College Osmanabad, Maharashtra, India

Abstract
Ichthyosis is a relatively uncommon group of skin disorders characterized by presence of excessive amount of dry surface scales1. The word itchy means fish2. It is the disorder of keratinisation cornification and is due to abnormal epidermal differentiation or metabolism3. Ichthyosis affects people of all age groups and gender4. Each year more than 16,000 babies are born with some or the other form of Ichthyosis5. Recent study shows that approximately 300 babies are born in each year with moderate to severe form of Ichthyosis6. Ichthyosis which presents at birth or within the first year continues throughout their life time. Specific signs and symptoms of Ichthyosis depend on the particular form7. Common signs include dry scaly skin, redness, blistering or excessive skin shedding. Symptoms include itching, overheating and pain. In this case classical features of Ichthyosis were on only palms and soles edges were present. He had received frequent treatment from various dermatologists, but the results were not satisfactory. Patient was treated with Ayurvedic management mentioned in Kushthachikitsa like Snehan (oleation), Shamam (conservative), Raktsprasadan (blood purifier) for 1½ month. He got significant relief from the signs & symptoms of Ichthyosis. This article presents a single case report in which Ichthyosis has been controlled by Ayurvedic means.

Keywords
Ichthyosis, Vipadika, Scales, Ayurvedic, Management, Kushthchikitsa
INTRODUCTION
The skin is a primary deflector of body as well as dynamic organ in a constant state of change. The barrier that makes up the skin has many components, which includes a barrier to excessive loss of body fluids or uptake of noxious chemicals. The skin is made up of many layers but outermost layer provides the most protection and it is this where Ichthyosis patients have a defect. Ichthyosis refers to relatively uncommon group of skin disorder in which,

1) Excessive amount of dry surface scales on all body parts or a particular part, pain itching, overheating.
2) It is disorder of keratinisation or cornification and is due to abnormal epidermal differentiation or metabolism.
Ichthyosis may be either inherited or acquired. Inherited Ichthyosis is usually apparent during the first year of life often at birth and continues throughout life. Acquired Ichthyosis may occur as a result of Hormonal, Inflammatory or Malignant disorders. Sign and symptoms of Ichthyosis depend on a particular type. The Ichthyosis may be classified according to clinical manifestations. These are

1) Genetic presentation
2) Histological findings
3) Ocular alteration may occur in specific subtype.
Besides the common scaling problems patient may present with associated psychological symptoms due to disfiguring or ugly look, low self esteem and depression which are common due to appearance of their visible chronically shedding skin. At present there is no complete cure for Ichthyosis. Thus modern science has targeted managing symptomatically. This includes creams, emollients, lotions or ointment, lengthy bathing in salt water or using preparations containing salicylic acid or urea. Retinoid, creams containing lactic acid, propylene glycol are used for more severe cases.

According to Ayurveda, Vipadika (Rhagaede) is a type of Kshudrakushtha(skin disease) and is caused by imbalance of Vata and Pitta dosha. It specially affects palms and soles where cracks, itching, severe pain are the chief complaints.

In this case discussion, the patient was suffering from multiple episodes of Ichthyosis since 1 to 1 ½ year. He received treatment from various dermatologists but did not receive complete relief. But when he visited the Shalyatantra department OPD at
GAH, Osmanabad he was offered Ayurvedic line of treatment mentioned in Kushtchikitsa by Aacharya Charaka in modified form.

CASE REPORTS
A 60 year old male patient, farmer by occupation (OPD registration no.- 806) visited the OPD of Shalyatantra dept. of Govt. Ayurvedic College and Hospital Osmanabad (Maharashtra) with presenting complaints as follows-

- Scales on both the palms and soles- 1 to 1½ year
- Cracks with the blood and mild serous discharge.
- Severe itching, warmness,
- Painful holding of the object and walking.
- Mental Irritation due to continuous rubbing of palms and soles.

Past history – No History of Any other medical illness

Surgical history – No History of Any operative procedure.

Personal history
Appetite – good
Bowel – normal
Micturition – straining
Addiction – tobacco chewing
Sleep – normal
Blood pressure – 130/80 mm of Hg

Respiratory system – clear, bilateral equal air entry.
Cardio Vascular system – S1S2 normal
No added sounds
Central Nervous System - Conscious, cooperative, oriented.

Local examination
Cracked scales on the palms, cracks on the soles edges,
Warmness over bilateral palms and soles,
Blood and serous discharge through this cracks.

Lab Investigation (Dated on 18-01-2017)
Haemoglobin – 9.9 gm%.
Bleeding Time - 1 min 4 sec
Clotting Time – 5 min 0 sec
Blood Sugar Level Random – 86 mg/dl
Urine routine and microscopy – Nil
Hepatitis B Australian Antigen – Non Reactive
Human Deficiency Virus – Non Reactive

DIAGNOSIS
The diagnosis was made on the basis of history given by the patient and the clinical findings done.

TREATMENT
Treatment is used given in TABLE-1

AYURVEDIC PROTOCOL USED.
Table 1 Ayurvedic protocol used

<table>
<thead>
<tr>
<th>Sr no</th>
<th>Principal Aushadhi with anupana and matra</th>
<th>No of days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Snehan (oleation) Abhyantar (Internal)</td>
<td>Godugdh(cow milk) 100ml + Goghrit(cow ghee) 5ml Sikth(Wax) + Haridra churna (Turmeric powder) + Til tel (Sessamoum indicum oil) ointment (1:1:2)</td>
</tr>
<tr>
<td></td>
<td>Bahyantar(local application)</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>Abhyantar chikitsa (Internal medicine)</td>
<td>1) Sarivadyasav 30 ml + same amount of cold water 2) Yshtimadhu churna (Glycerhiza glabra) + Ananta churna (Hemidiscus indicus) 2 gm each with leuke warm water</td>
</tr>
</tbody>
</table>

Treatment History

Cap. Primosa Once a day--------30 days  
Xerina cream for Local application  
Tab. Lonazep 1 Once a day --------30 days.  
Tab. melanocyl 1Twice a day--------30 days  
Skinn – Calamine lotion for local application  
Tab. Follitrane 2.5 mg every Thursday and Friday 2 Twice a day--------30 days  
Tab. Nectolor 1 once in a day--------20 days.  
Cornisol 56 ointment for local application.  
Tab. Triliv 1 Once in a day -------20 days at night time  
Cosvate -5 ointment for local application before sleep.

Assessment Criteria and Observations

1) Lesions  
2) Pain  
3) Discharge  
4) Itching  
Mild-------- +  
Moderate ------++  
Severe--------+

OBSERVATIONS AND RESULTS

The above symptoms started to regress up to Day 5 and gradual relief was observed afterwards. Symptoms were markedly reduced on 45th day of treatment. Patient was followed for 2 months. Yet up to 2 months no relapse occurred. Iron preparation

MATERIALS AND METHODS
was prescribed for another 1 month for anaemia. Observations and results are shown in TABLE -3 ASSESSMENT CRITERIA.

### Table 2  Dravykarmuktav (properties of dravyas)

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Dravya (drugs)</th>
<th>Rasa (Taste)</th>
<th>Vipaka (metabolic property after digestion)</th>
<th>Veerya (potency of drug)</th>
<th>Guna (quality)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Godugdh (Cow milk)</td>
<td>Madhur (sweet)</td>
<td>Madhur</td>
<td>Sheet (cold)</td>
<td>Laghu (lightness), Snigdh (oilyness)</td>
</tr>
<tr>
<td>2)</td>
<td>Goghrit (Cow ghee)</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Laghu, Snigdh</td>
</tr>
<tr>
<td>3)</td>
<td>Sikkh (wax)</td>
<td>Madhur</td>
<td>Madhur</td>
<td>Sheet</td>
<td>Snigdh, Pichchil (sticky)</td>
</tr>
<tr>
<td>4)</td>
<td>Haridra churna (Turmeric powder)</td>
<td>Tikt (bitter), Katu (pungent)</td>
<td>Katu</td>
<td>Ushna</td>
<td>Ruksh, Laghu</td>
</tr>
</tbody>
</table>

### Table 3 Assessment Criteria

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Sign &amp; symptoms</th>
<th>Before treatment start</th>
<th>9th day</th>
<th>23rd day</th>
<th>45th day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Lesion (area affected)</td>
<td>100%</td>
<td>80%</td>
<td>50%</td>
<td>15%</td>
</tr>
<tr>
<td>2)</td>
<td>Itching</td>
<td>+++</td>
<td>+++</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>3)</td>
<td>Pain</td>
<td>Moderate to severe</td>
<td>Moderate</td>
<td>Mild</td>
<td>No pain</td>
</tr>
<tr>
<td>4)</td>
<td>Discharge (blood with serous)</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>NIL</td>
</tr>
</tbody>
</table>

### DISCUSSION

Dravyakarmuktwa explained in TABLE -2 Dravykarmuktwa

In this case we are using Ayurvedic medicines which are not mentioned as it is in the text but have been modified accordingly for the convenience. In case of Ichthyosis there are symptoms such as scales, cracks on the palms and soles, along
with burning sensation. So, internal use of Godugdh (cow milk) & Goghrit (cow ghee) which are in possession of Madhur Rasa, Madhur Vipaka (sweet metabolic property after digestion) and Snigdha guna\textsuperscript{17} (oilyness). These properties help to decrease the dryness and burning sensation. Goghrit, due to its Shothahar (which decreases edema), Agnidipak (appetiser), Vranaropak (wound healing), Dhatuvardhak (Increasing all body component) and Sansakaranuvartan (Changing the property after process) property\textsuperscript{18}, increased the wound healing of Ichthyosis. Lipophilic action of ghee easily facilitates transportation to the target organ and final delivery, inside the cell, as the cell membrane also contains lipids. This lipophilic nature of ghee facilitates entry of formulation into the cell and its delivery to the mitochondria, microsome and nuclear membrane\textsuperscript{19}. According to Ayurveda, Goghrita (cow ghee) is beneficial for Rasdhatu (lymph) and Raktadhatu (blood). It also possesses Sheet Guna (cold property). With these properties, Goghrita enhances the Rasagni (fire of rasdhatu) and Raktagni (fire of Raktadhatu) and thus increases Ropan Karma (wound healing work). Godugdha (Cow milk) produces excess sebum which helps to maintain the Snigdha Guna over palms and soles which decreases dryness\textsuperscript{20}. External application of the formulation made by Sikh (wax), Haridra (Curcuma longa) and Til tail (sesamum indicum oil) was used for healing cracks. The Vipadikahar tail described in Charak samhita was included in the study. The principle was kept same but modification in contents were done. Contents of Vipadikahar tail is Jivant (Ledtadenia reticulate), Manjishta (Rubia cordifolia) Daru haridra (Barberis aristata) Kampilaka (Mallotus philipinesis), Tuthha Kalk sidhha sneha along with Sikh or Madhuchhisht(Wax)\textsuperscript{21}. But in this case study only Haridra, Til tail, Sikh were used. Sikh is Madhur Rasa (sweet taste) Pradhan Dravyas so act as Vranropak (wound healing). It is Mrudu (soft) in nature and Snigdh (oily), so useful in wound healing\textsuperscript{22}. Turmeric mainly acts as a Kandughna\textsuperscript{23} (itching reducer) so useful for treatment of the symptoms like itching. It possesses Katu Tikt Rasa (bitter and pungent). Katu Rasa (bitter) has Vranshodhan (wound cleaner) and Avsadan properties\textsuperscript{24} (wound contraction). Tikt Rasa (pungent) do the Twak mams sthirikaran (skin and muscles stabilizer) and Lekhana (scrapping) thus
helping in increasing tensile strength of wound\textsuperscript{25}. Haridra (Curcuma longa) have Antibacterial, Anti-inflammatory, Antiseptic and wound healing properties\textsuperscript{26}. Til tail (Sessamum indicum oil) reduces Rukshata (Dryness) of Vata and maintain normal tone of muscle. It was used to facilitate penetration of the formulation into the cell membrane and to provide immediate relief. It is Twakprasadak (Skinpolisher) and Vranashothahar (swelling reducer) so the formulation possess Suksha guna (piercing micro level) and helps in Lekhana (scrapping) so when applied externally removes debris from wound that is it acts as Vranshodhan\textsuperscript{27} (wound cleaner). It also improves skin complexion and colour. Yashtimadhu (Glycerhiza glabra) have the predominant gunas (property) such as Madhur rasa (sweetness), Sheet Virya (cold potency), Guru (Heavyness), Snigdh (oilyness), gunas\textsuperscript{28} (property). It alleviates vata and pitta thus useful as Dahprashman (reduce burning), Vedanasthapan (Pain reliever) and shothahar (reduce edema) etc\textsuperscript{29}. It also possess wound healing, antibacterial and anti-inflammatory properties. Sariva (Hemidiscus indicus) have Raktaprasadana (blood purifier) property so it promotes healing of cracks. Sheet virya (cold potency) regulates inflammation and specially used to reduce burning sensation. Sariva (Hemidiscus indicus) also possess Dahprashamn (reduce burning) Shothahar (reduce edema) and wound healing properties\textsuperscript{30}.

**CONCLUSION**

So from the above discussion it can be concluded that Ayurveda has better approach to treat Ichthyosis. A significant relief could be offered in signs and symptoms of Ichthyosis with the use of Ayurvedic drugs. In this case patient got relief from itching. As the continuous rubbing of both the palms and soles due to itching was reduced, he became psychologically stable. Presentation and look of both the palms and soles changed to almost like normal, which also provided him a mental satisfaction. Thus we can say that patient got relief symptomatically as well as psychologically. This approach is safe, cost effective and have no adverse effects. It is simply adaptable in regular practice.
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