Case Report

Chronic Lichen Planus Pigmentosus treated with Ayurveda: A Case Report

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Abstract

Background: Lichen planus pigmentosus(LPP) is a chronic pigmented disorder of unknown etiology. It is a distinct clinical entity commonly encountered in the Indian population. All skin diseases are described under the heading of kushtha roga (skin diseases) in Ayurveda. LPP seems more akin to charma kushtha, described as kshudra kushtha due to the resembling signs and symptoms. Method: A 20 –year-old female presented with asymptomatic symmetrically distributed hyperpigmented macules since 5 years that were clinically diagnosable as Lichen Planus Pigmentosus (LPP). Patient was given shiravedha (bloodletting) followed by topical application of Gandhakadruti Malahar (ointment). Results: Significant reduction in the hyper pigmentation was observed after 5 month of treatment. Conclusion: The case report shows that Ayurveda treatment in the form of shiravedha followed by topical application of Gandhakadruti malahara gives clinically significant results in chronic Lichen Planus Pigmentosus (LPP).

Key Words: Kushtha, Lichen Planus Pigmentosus, Rakta mokshan, Shiravedha

Introduction

Lichen planus pigmentosus (LPP) is dyschromia of unknown etiology described clinically as hyperpigmented gray-blue or brown-black macules or patches in a photodistributed pattern. Since its discovery, LPP has often been reported in variety of ages predominantly in dark skinned ethnicities. LPP lesions exhibit a range of pigmented dyschromia, from brown-blackish to blue or purple-grey macules or patches. Areas of involvement tend to be asymptomatic, but pruritus/ or burning may be present. There are several treatment options that have been reported with variable efficacy for improvement of the appearance of the lesions, but due to the chronicity of the underlying disease, none of these treatments are found curative. Ayurvedic medicines emerge here as possible intervention in chronic and lifestyle disorders in absence of a real cure.

Skin diseases are collectively described as kushtha roga in Ayurveda. Due to its resemblance in signs and symptoms, LPP seems similar to charma kushtha, which is a vata and kapha dosha dominant condition in class of kshudra kushtha. The vitiated dosha affects the skin and its blood circulation affecting the moisture of the tissue. Affected skin therefore becomes discoloured and thick. We herein, report a case of symmetrically distributed chronic lichen planus pigmentosus which was effectively managed by ayurvedic treatment modalities.

Case Report

A 20-year-old female presented at outpatient department of IPGT&RA, Jamnagar with complaints of symmetrically...
distributed hyperpigmented lesions over lower legs spread from knee joint to phalanges. There was no associated history of itching and the lesions were relatively asymptomatic since the appearance of disease before 5 years. The lesions started over the forelegs and gradually spread over legs. There was no history of friction prior to the onset of lesions. Her occupation did not involve any trauma on affected site. The lesion showed gradual darkening in colour over the years. There was no history of any drug intake as well as surgical intervention in affected area. Patient had past history of pig bite on right leg at 3 years of age. Family history was not associated with any dermatological pattern. Patient had normal menstrual history. Psychological stress was seen due to ugly appearance of the skin. There was no specific seasonal and food associated history affecting the disease presentation. Patient had applied hair dye occasionally (approx. 1 time in 6 month) and cosmetics. Patient used to apply household remedies like coconut oil over affected area.

Cutaneous examination revealed symmetrically distributed lesions with diffused border, blotchy pattern and inflammation on both legs. Lesions were non-scaly, slaty-grey in colour, extending from the below knee joint to forelegs (Figure 1, 2). There were no any similar lesions over other parts of body. Examination of palms, soles, hair, nails and mucous membranes was normal.

All routine biochemical and hemotological tests were found within their normal range. HIV and HBsAg tests were found non-reactive.

<table>
<thead>
<tr>
<th>Years/Days</th>
<th>Relevant medical history and interventions</th>
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<tbody>
<tr>
<td>2002</td>
<td>Pig bite on right lateral of lower leg</td>
</tr>
<tr>
<td>2014</td>
<td>Small hyperpigmented lesions spread over right lateral of ankle joint</td>
</tr>
<tr>
<td>2016</td>
<td>Spread over both forelegs including foot</td>
</tr>
<tr>
<td>2018</td>
<td>Increased hyperpigmentation with thickness of skin over lesions. Patient applied coconut oil over affected site.</td>
</tr>
<tr>
<td>Dec 2018</td>
<td>Condition worsened. So, patient came to O.P.D at hospital.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Day of visit</th>
<th>Summaries from initial and follow-up visit and descriptions of disease condition</th>
<th>Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2018 (Day 0)</td>
<td>Came to O.P.D with complaints of hyperpigmented lesions over the bilateral lower legs and foot, spread from knee joint to phalanges (Figure 1).</td>
<td>All routine hematological, biochemical and urine investigations were done. HIV and HBsAg tests were done. Suggested avoidance of excessive sun exposure and restricted cosmetic usage.</td>
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<tr>
<td>December 2019 (Day 15)</td>
<td>Figure 3, 4</td>
<td>1st sitting of Siravedhakarma was done</td>
</tr>
<tr>
<td>December 2019 (Day 30)</td>
<td>No relief observed</td>
<td>2nd sitting of Siravedhakarma was done</td>
</tr>
<tr>
<td>January 2019 (Day 60)</td>
<td>Mild reduction in colour of hyperpigmented lesions from surroundings (Figure 6).</td>
<td>3rd sitting of Siravedhakarma was done</td>
</tr>
</tbody>
</table>
Diagnosis of lichen planus pigmentosus is suspected based on presence of characteristic signs and symptoms as described in cutaneous examination. No any specific histopathological test was done in view of patient’s unaffordability.

**Therapeutic intervention**

The patient was properly counseled regarding the nature of disease and its prognosis. Patient was recommended to avoid any exacerbating factors and was advised for siravedha (blood letting).

*Siravedha karma* is mentioned in Ayurveda classics but a modified method was utilised in this case for its ease of application and feasibility. Three sitting of *siravedha karma* were carried out in two months. First and second sitting were performed in 15 days interval while 3rd sitting was done after 1 month.

**Process of Siravedha karma**

After all routine haematological and biochemical tests including HIV and HBsAg were found in range and nonreactive, informed written consent was taken from the patient prior to procedure. Patient was advised to take liquid diet 1-2 hours prior to the procedure. Local snehana (oil massage) and Nadi Swedana (hot steam fomentation) on lower limbs was done. Dorsum of foot was selected as the site for *Siravedha* and was cleaned with spirit. Tourniquette was applied to make the superficial veins prominent. *Siravedha* was done with help of a scalp vein of suitable bore. 50 – 60 ml blood was evacuated in one sitting. Average bleeding time for *siravedha karma* was approximately 5-10 minutes (Figure 3,4).

**Topical application of Gandhakadruti malahara (Ointment):** It was applied by patient after *siravedha karma* (bloodletting procedure) 1 time in a day till 3 months. Till date no any recurrence of dermal symptoms were observed.

**Preparatory method for Gandhakadruti malahara (Ointment):** Gandhakadruti was prepared in Rasashashtra laboratory at IPGT &RA, Jamnagar as per the classical guidelines. Malahara (ointment) of *gandhakadruti* was prepared by adding $\frac{1}{5}$th part of molten siktha (bees wax) and 4 times of coconut oil in porcelain mortar with tricturation process as therapeutically better and convenient dosage form as that of *gandhakadruti*.

**Outcomes and Follow-up**

Photographs of affected skin were taken during initiation of treatment and during followup visits (Plate 1). Subsequent observational summaries of disease condition are depicted in Table 1. Successive photographs were able
to show the changes in the extent and severity of skin lesions. No adverse effects were reported pertaining to the procedure or prescribed medication. During follow-ups, after 1 month, no recurrence of features observed. Overall condition was noted after each follow-up period observed for as long as 5 month.

Discussion

LPP like skin diseases affect the person’s psychological status and disturb the social life. The patient was suffering from a kapha-vata dominant disease condition. The involvement of vatadosha resulted in dry slaty-grey pigmentation. Ayurveda considers raktadusti (haematological abnormality) as one prime cause of skin diseases; therefore such patients may get relief after letting the vitiated raktadosha out. Siravedha is a bloodletting procedure where blood is oozed after piercing a superficial vein. It is said to remove toxic material from the body. Mild improvement of symptoms was noted after siravedha (Table 1). After the procedure, gandhakadruti malahara (Ointment) was topically applied on the affected area by the patient for 3 months. A significant reduction in the hyperpigmentation was observed after 5 months of treatment (Figure 5). Sulphur is most important ingredient from gandhakadruti as used in Ayurvedic system of medicine for the treatment of skin diseases. Gandhakadruti is a stable liquid form of sulphur which is a popular preparation used in skin diseases, fungal infections, parasitic skin diseases and allergic dermatitis. Coconut oil as snehadravya is a good lipophillic medium for penetration in malahara. Malahara has properties like snehana (oleation), cleansing, ropana (scraping), and varnya (beutifying). Siktha (bees wax) gives soothing action and emollient action to skin. So, external application of gandhakadruti malahara with siravedha karma markedly subsides lesions as well as hyperpigmentation. Biopsy of skin lesion to confirm diagnosis could not be done is the limitation of our study. This study proposes that chronic persistent pigmentation of LPP may be helped through Ayurvedic interventions like blood letting.

Conclusion

Combining siravedhana karma with topical application of gandhakadruti malahara (ointment) may be a reasonable option for cases like chronic lichen planus pigmentosus, where much is not to be offered by modern skin care. Since this study was carried out only in a single patient, the observations may not have an external validity. To get reproducible observations, a systematic controlled study including sufficient number of patients will be required.

References


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