

Management of Psoriasis by *Saribadyarista*: A Case Study

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Abstract

Psoriasis is a non-infectious inflammatory disease of the skin characterized by well-defined erythematous (reddish) plaques with large adherent silvery scales. The exact cause of psoriasis is not known although it is activated by the immune system and is related to allergic reactions. In Ayurveda, numerous formulations have been described to treat skin diseases. *Saribadyarista*, basically a blood purifier, is one of the most famous Ayurvedic medicines, used to treat all kinds of skin disorders. In this study we have shown that *Saribadyarista* can effectively be used to treat psoriatic disorder. This is a case report of 23-year-old male where *Saribadyarista* is used to manage psoriasis. The duration of the study was twelve months and follow-up was done for one month. Our subject showed good results as it improved the quality of life in terms of Dermatology Life Quality Index (DLQI). This case report may open up a new era in the management of psoriasis.

Keywords

Psoriasis, Ayurveda, Saribadyarista, Blood purifier



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INTRODUCTION

Psoriasis is an autosomal, dominantly inherited dermatosis¹. It is a common skin condition where the skin develops areas that become thick, covered with silvery scales with severe itching. Psoriasis is considered as a skin disease but in reality it is the result of a disordered immune system where the T-cells, a type of white blood cell, become over-stimulated². It is an increased proliferation of the skin layers due to excessive division of the cell in the basal layers of the skin³. Psoriasis is now considered a systemic inflammatory disease with Th1 cells, Th17 cells and inflammatory cytokines contributing to its pathogenesis⁴. both Person of all ages and sexes may develop the disease¹. Psoriasis most frequently affects the skin of the elbow, knees, scalp, lumbosacral areas, intergluteal cleft and glans penis. It is a skin disorder in which there is formation of plaques along with scales and dryness. Psoriasis produces intense itching, roughness and scaling. Scales may just like the scales of a fish⁸. It can be one cause of total body erythema and scaling known as erythroderma. Nail changes occur in 30% of cases of psoriasis and consist of yellow brown discoloration (often linked to an oil slick), with pitting,

dimpling, separation of the nail plate from the underlying bed (onycholysis), thickening and crumbling⁵. Ayurveda is a science of life, which offers a body of wisdom designed to help people stay vibrant and healthy while realizing their full human potential. In ayurveda, all skin diseases can be included under the umbrella of *KushtaRoga*⁸. *RaktaDusti* (toxicity in blood) is one of the causes of skin disease⁹. According to ayurvedic references, accumulation of low potency poisons (*Dooshivishas*), are the basic pathological changes taking place in the system during psoriasis.

Ayurvedic practitioners offer many different formulas for different types of applications. One such well-prescribed formulation is “Saribadyarista”, an ayurvedic preparation enlisted in Bangladesh National Ayurvedic Formulary and traditionally used as a blood purifier. It is the preparation of *Hemidesmus indicus*, *Azadiracata indicus*, *Acacia catechu*, *Picrorhiza kurroa* along with other medicinal plants. The present study was aimed to study the effectiveness of “Saribadyarista” in the management of psoriasis, as a new therapeutic approach for the search of antipsoriatic drug

development and formulations and thus to improve the quality of patient's life in terms of Dermatology Life Quality Index (DLQI). In this case study, A 23 years old male was presented who had complaints of rashes over chest and dorsum of right foot, associated with intense itching and burning sensation, scaling and swelling which are the typical symptoms of psoriasis. The duration of the study was one year with follow up for another two months. It was shown highly significant results in improving signs and symptoms of the disease. This study also aims to share the knowledge of ayurvedic formulations of skin disorder for further research purpose.

MATERIALS AND METHODS

Psoriasis assessment method

A 23-year-old male underwent treatment program of psoriasis by "Saribadyarista". The patient's problem began at the age of 21 suffering from skin disease and was admitted to Government Unani Ayurvedic Medical College where the specialist ayurvedic doctors first diagnosed his skin disease as psoriasis. As a first step of the clinical study for the efficacy of ayurvedic drugs, the feasibility of dermatology life quality index (DLQI)-based questionnaires

(QOL-sheet) was evaluated. Slight modifications were made to the original QOL-sheet to evaluate the efficacy of the herbal medicine. Skin-related quality of life (QoL) sheet consisting of ten easy user-friendly and concise validated questionnaire based on dermatology life quality index (DLQI) was answered by the patient and the total score was recorded. Each question was answered by a tick box on a 4-point Likert scale: Not at all/Not relevant=0, A little=1, A lot=2 and Very much=3. Each question had the score from 0 to 3 and the scores summed, giving a range from 0 (no impairment of life quality) to 30 (maximum impairment). Higher scores mean greater impairment of patient's quality of life. The average completion time of the questionnaire was 2 minutes. In this modified QOL-sheet, the patient was also to answer (for measurement of itching) by visual analogue scale (VAS) (see Fig 1). For VAS assessment of itching (scores range from 0–10), the patient checked a mark on a 10-cm bar¹¹, and the distance of the mark was determined in cm from the zero point. The assessments were performed at baseline (before beginning of treatment) and at every two months intervals thereafter. The 10 cm VAS [ranging from zero (no complaints) to

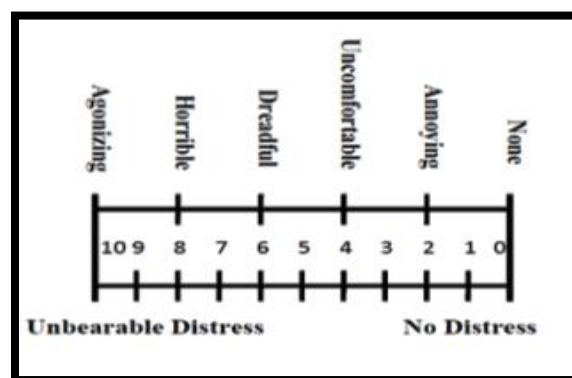
10 (worst complaints)] was used for patient's assessment of psoriasis activity at each visit. Thus with the help of the linear VAS scale, the patient did the subjective assessment and the extremes of linear analogue were defined as "no improvement" and "total cure". In comparing VAS and DLQI, higher scores in QOL sheet and VAS, reflects greater impairment in patient's quality of life.

In addition to that, the healing process was also evaluated by image analysis of digital images of patient's chest and right heel. The patient was photographed before beginning of the treatment; and on each two months interval thereafter. Photographic evaluation was done with the same equipment, lighting and location. Ethical approval was taken from the Scientific Research Committee of Govt. Unani Ayurvedic Medical College Dhaka.

Drugs: The ingredients of "Saribadiyarista"[Table 1] were obtained from Moulavibazar, Dhaka. It was prepared according to BANF (Bangladesh National Ayurvedic Formulary) at department of Pharmacy, Primeasia University and was validated by the researchers of the Government Unani Ayurvedic Medical College and department of Pharmacy,

Primeasia University. This preparation was administered orally route at a dose of 30-45 ml for two times daily up to 1 year.

Fig 1: Vas Scale for Measuring Intensity of Itching



RESULTS AND DISCUSSION

Itching: Before treatment, the patient had red patches of skin covered with silvery scales over chest and right heel bone. Associated findings include skin lesions such as rash, blisters and redness of the affected area. The skin was dry and itching lead to tears in the skin (excoriations) from scratching. These symptoms gradually decreased with treatment, which was measured by DLQI based questionnaire.

Scaling: Before treatment, the patient had plaques of red skin, covered with loose, silver-colored scales. These lesions were itchy and painful.

Table1 Ingredients of "Saribadyarista"

43	As-hat-tha	<i>Ficus religiosa, Linn</i>	Bark	2.50kg.
S.No.	Bengali Name	Scientific Name	Used Parts	Amounts
44	Bala	<i>Pavonia odorata, wild</i>	Whole plant	2.50kg.
45	Akaradi	<i>Cissampelos pareira, Linn</i>	Whole plant	Per- 100 litre
01	Shariba/Lota	<i>Hemidesmus indicus</i>	Root	2.50kg.
46	Amlak	<i>Emblica officinalis, Gaertn</i>	Fruit	2.50kg.
07	Shem lota	<i>Tenocarpus frutescens</i>	Root	2.50kg.
47	Rolatak	<i>Aphananixis polystachya</i>	Bark	2.50kg.
03	Salsa lota	Bishops weed	Root	2.50kg.
48	Jonaru	<i>Trachyspermum ammi, Linn</i>	Seed	2.50kg.
04	Reuchini	<i>Rheum emodi</i>	Root	2.50kg.
49	Somrai	<i>Centratherum anthelminticum</i>	Seed	2.50kg.
05	Topchini	<i>Smilax china</i>	Root	2.50kg.
Exipients	Haridra	<i>Curcuma longa</i>	Tuber	2.50kg.
Sl.no.	Bengali Name	Scientific Name	Used Parts	Amounts
06	Darunharidra	<i>Berberis aristata</i>	Wood	2.50kg.
08	Kotla	<i>Pierorhizakurroa Royle</i>	Root	Per- 100 liter
09	Nim	<i>Azadirachta indica</i>	Bark	2.50kg.
10	Gudehi	<i>Tinospora cordifolia, wild</i>	Steam	Decoction:-100 Lit
11	Sugar			100g
12	Tetri	<i>Operculina turpethum</i>	Root bark	2.50kg.
13	Drakkha	<i>Vitis vinifera</i>	Fruit	10g
14	Pani	<i>Hydnocarpus laurifolia</i>	Seed	2.50kg.
15	Sheth Chondon	<i>Santalum album, Linn</i>	Wood	2.50kg.
16	Prasarani	<i>Paderia foetida</i>	Root	2.50kg.
17	Raktha Chondon	<i>Pterocarpus santalinus</i>	Wood	500gm
18	Arona	<i>Ricini seominus</i>	Root	2.50kg.
19	Choto Elachi	<i>Elettaria cardamomum</i>	Fruit	500gm
20	Rasna	<i>Vanda roxburghii</i>	Root	2.50kg.
21	Boro Elachi	<i>Amomum subulatum, Roxb</i>	Fruit	500gm
22	Kethapapa	<i>Ocimum sanctum</i>	Whole plant	2.50kg.
23	Daruchini	<i>Cinnamomum zeylanicum</i>	Bark	500gm
24	Chirata	<i>Swertha chirata</i>	Whole plant	2.50kg.
25	Narkesor	<i>mesuaferrea</i>	Leaf	500gm
26	Kaomegh	<i>Andrographis paniculata</i>	Whole plant	2.50kg.
27	Narkesor	<i>mesuaferrea</i>	Flower	500gm
28	Patolpatra	<i>Trichosanthe sdioica</i>	Leaf	2.50kg.
29	Pipul	<i>Piper longum</i>	Seed	500gm
30	Vasak	<i>Adhatoda vasica</i>	Bark	2.50kg.
31	Sunthi	<i>Zingiber officinale</i>	Rhizome	500gm
32	Marich	<i>Piner nigrum</i>	Seed	500gm
33	Kumvt	<i>Shilax zeylanica</i>	Root	2.50kg.
34	Dhoney	<i>Coriandrum sativum</i>	Seed	500gm
35	Mouri	<i>Aloukeulium vulgare</i>	Seed	500gm
36	Chaitim	<i>Alstonia scholaris</i>	Bark	2.50kg.
37	Beinol	<i>Zanthoxyum alatum</i>	Bark	500gm
38	Buangra	<i>Embelia ribes</i>	Seed	500gm
39	Kala dana	<i>Cinnamomum roseus</i>	Seed	500gm
40	Nayanara	<i>Cinnamomum roseus</i>	Seed	500gm
41	Labongo	<i>Syzygium aromaticum</i>	Flower	500gm
42	Jalppani	<i>Pomogran indicus</i>	Whole plant	2.50kg.
43	Chhalphal	<i>Myristica fragrans</i>	Fruit	500gm
44	Telechha	<i>Coelma indica</i>	Fruit	500gm
45	Jasimadhu	<i>Glycyrrhiz aslabra</i>	Root	500gm
46	Padma	<i>Plumiscer aslades, D.Don</i>	Wood	500gm
47	Albaluka	<i>Ferrous cerasus</i>	Seed	500gm
48	Sarpakasta	<i>Pinus roxburghii</i>	Wood	500gm
49	Bevdaru	<i>Acacia arabica</i>	Extract	500gm
50	Bevdaru	<i>Cearus deolara</i>	Wood	500gm
30	Sonapata	<i>Cassia angustifolia, vahl</i>	Leaf	2.50kg.
31	Horitoki	<i>Terminalia chebula, Retz</i>	Fruit bark	2.50kg.
32	Vringaraj	<i>Wedelia calendulacea</i>	Whole plant	2.50 kg
33	Akanda	<i>Calotropis gigantea</i>	Root	2.50kg.
34	Apang	<i>Achyrrhntes aspera</i>	Root	2.50kg.
35	Lajjabati	<i>Mimosa pudica</i>	Root	2.50kg.
36	Gokkhur	<i>Tribulus terrestris</i>	Seed	2.50kg.
37	Mutha	<i>Cyperus rotundus</i>	Tuber	2.50kg.
38	Khadirkasta	<i>Acacia catechu</i>	Wood	2.50kg.
39	Mehedi	<i>Lawsonia inermis</i>	Leaf	2.50kg.
40	Sarnalata	<i>Cassytha filiformis</i>	Whole plant	2.50kg.
41	Lodhra	<i>Symplocos racemosa, Roxb</i>	Bark	2.50kg.
42	Bot	<i>Ficus bengalensis, Linn</i>	Bark	2.50kg.

Beginning of taking “**Saribadyarista**” regularly, the fish like hard scaling becomes soft gradually and after one year it forms normal epidermal tissues as no scaling was observed. Dried skin of the affected area moistens and complete cure of the plaques was observed within 12 months. With a follow-up for a period of 2 months, the patient had shown no signs of recurrence.

First two months after treatment, unbearable itching continues with red swelled skin [See Fig 2 (A)], Next two months intense, dreadful and horrible itching was felt with small scaling spots [See Fig 2(B)], After 6th month of treatment, itching continued as distressing stage and dry to cracked skin was observed instead of hard scaling [see Fig 2(C)]. The next two months, itching reduced as uncomfortable and troublesome stage and swollen stiff skin was observed on the affected area [see Fig 2(D)]. After 10th month of treatment, which is almost near the completion of the course, only mild itching recorded with slightly swollen and reddish spot of the affected area [see Fig 2(E)]. After 1 year, no itching was felt leaving slightly reddish mark on the affected area [see Fig 2(F)].

The scores of QOL sheet (based on DLQI) was measured from tick box answer. The

QOL sheet scored 19 before beginning of treatment, and after beginning of that each successive two months scoring recorded as 15, 14, 14, 13, 12 and 10. VAS score recorded as: After 2nd month of treatment; 8 to 10 cm, after 4th month 5 to 6cm, after 8th month within 4cm, after 10th month 2cm, and after 12th month within 0-1 cm.

As oozing was not observed on the subject, measurement of oozing was excluded from the present study.

Today psoriasis is a great problem hampering the life quality of the patients, and millions of people in the world have been suffering from this¹². So the aim of the therapy was to improve it. The traditional knowledge on the properties of plants and their uses to treat itching, psoriasis and wounds of skin diseases are increasingly being put to the practice of ayurvedic medicine. This study provided important information regarding the usefulness of ayurvedic drugs in the treatment of psoriasis. The conventional approach to psoriasis consists of utilizing topical and/or oral corticosteroids, other immunosuppressant drugs, oral retinoids, UV light, and several biological agents²⁸. Although these treatments can be highly effective in controlling the disease, none are

universally safe and effective, and each carries a considerable risk profile^{1,28}. To get rid of side effects observed with chemical agents more research is expected for the discovery and development of herbal ayurvedic preparations. Natural products are beneficial for the treatment of psoriasis without any side effects and plants are used for the search of new antipsoriatic drug development and formulations¹. *Hemidesmus indicus*, one of the main ingredients used in Saribadyarista, has been known for its medicinal properties for nearly a thousand years¹³. Traditional ayurvedic medicine practitioners have used Sariva for hundreds of years; it was used as a healing herb. Another ingredient *Azadirachta indica* (Neem oil) reduces itching, irritation, roughness of skin and heals the psoriatic patches, which helps skin to retain moisture and protect it from environmental oxidative damage^{14, 17}. It also helps to slow rapid growth of skin cells and restore normal skin's appearance²⁵⁻²⁷. Clinical studies have also revealed that "neem" inhibits inflammation as effectively as cortisone acetate, this effect further accelerates wound healing and oozing¹⁵⁻¹⁶. Bishop's weed contains several chemicals, including methoxsalen, a chemical used to make a

prescription medication for the skin condition psoriasis^{18,20}. *Glycyrrhiza glabra* (Jastimadhu) is a potent anti-inflammatory agent which by using externally acts similarly to the steroid hydrocortisone in reducing the inflammation and itching associated with psoriasis²¹⁻²². Further, no changes were observed in the laboratory investigations (blood sugar, LFT, RFT) after 12 months of treatment and these parameters remained within normal limits. This indicates that, the ayurvedic formulation named "Saribadyarista" do not have systemic side effects.

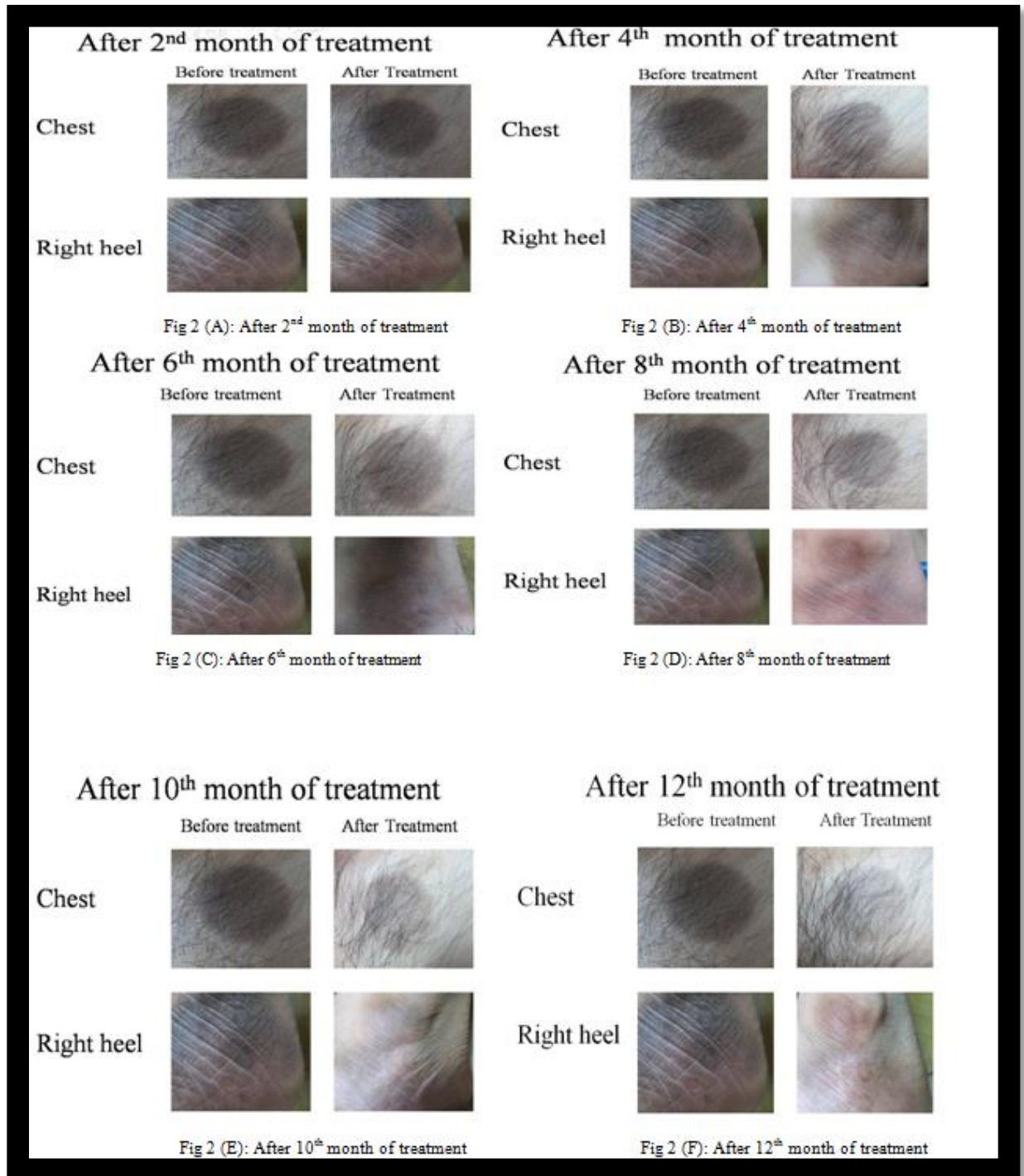
CONCLUSION

Medicinal plants, herbs, spices and herbal remedies are known to "ayurveda" in India since long ago. The value of medicinal plants, herbs and spices as herbal remedies is lost due to lack of awareness, and deforestation. As a result many valuable medicinal herbs are becoming rare and precious information is lost¹. Herbalists used herbs for centuries in the treatment of various diseases including psoriasis for one²³⁻²⁴. Ayurvedic psoriasis treatment originated in India and is considered as one of the oldest medical practice. Ayurvedic

line of management aims to give a blissful life by improving the immune system of the individual by removing the toxins. Thus it can be concluded that, the use of alternative ayurvedic treatment like “Saribadyarista” as

a blood purifier, can be a new and effective therapeutic approach to treat psoriasis.

Fig 2 Gradual regression of psoriasis treated with “Saribadyarista



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