Efficacy of Ayurvedic Therapies on Psoriasis: A Review on Researches Conducted at Gujarat Ayurved University, Jamnagar

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ABSTRACT

Psoriasis is a chronic disease that has substantial psychological and social impact on a patient’s life. However, the treatment options available in contemporary system of medicine are not much satisfactory. Psoriasis is far more than ‘just a skin disease’ and is equated to Eka Kushtha in Ayurveda. Various clinical studies have been carried out at different research centers in India on Psoriasis (Eka Kushtha). Present study is aimed to compile such available research works in various departments of two PG institutes under Gujarat Ayurved University. Total 27 completed research works on Psoriasis were found at PG (24) and PhD (3) levels, which revalidated the impact of various Ayurvedic treatment modalities (viz. Shodhana and Shamana). In Shamana therapy maximum drugs were of Vata Kapha Shamaka, Rakta Prasadana, Vishaghna, Kushthaghna and Kandughna etc. properties, which effectively counteract the etiopathogenesis of Psoriasis. Whereas, in Shodhana therapy maximum times Virechana procedure was carried out. The therapies were found to be significantly effective and clinically safe as no adverse drug reactions were reported during treatment period.

KEYWORDS: Ayurveda, Eka Kushtha, Psoriasis, Research, Shodhana, Shamana.

Introduction

Ayurveda, a life science has contributed healthy lifestyle to humanity. Along with suitable diet and lifestyle recommendations, Ayurveda also offers medicinal interventions (herbal and herbo-mineral/single and compound formulations) to combat various menacing disorders. Life style disorders are affecting all the sectors of society and emerging as a global threat today. In today's fast track life style, people are shifting more toward mechanistic world and are adopting unhealthy dietary and lifestyle choices, which have resulted in increasing trend of lifestyle diseases.[1] Psoriasis is one amongst these notorious auto-immune disorders having deep psychological and social impacts.[2] It is a chronic inflammatory disease with skin manifestations, aggravated by or can recur by number of triggering factors such as psychological (anxiety, stress, depression etc.),[3] dietary (incompatible diet),[4,5] lifestyle disturbances,[6] environmental stress / changes,[3] medications[7] etc. The prevalence of Psoriasis is raising an alarming picture, as presently about 120-180 million of global population suffer from Psoriasis.[8] In India, overall incidence of Psoriasis among total skin patients is 1.02%.[9]

Contemporary available management options (synthetic drugs) are not much promising and are reported to have associated adverse effects.[10] Ayurvedic herbs, which are relatively significantly potent, more suitable and having negligible side effects than available synthetic agents, provide a better therapeutic intervention. Along with medicinal treatment, Ayurvedic procedures viz. Vamana, Virechana etc. are being successfully practiced by traditional physicians since long to manage Psoriasis.

Kushtha (skin disorders) has been considered among Ashtamahagada[11] (octaominous disorders) in Ayurveda. Eka Kushtha is one of the subtypes of Kushtha, which is equated with Psoriasis as they show similar manifestations such as Aswedanam (anhydrosis), Mahavastu (extent of lesion), Matsyashakalopamam (scaling).[12-14]
Various clinical studies have been conducted in different Institutes of India on management of Psoriasis. Considering the wide range of treatment modalities of Psoriasis in Ayurveda many research works have been carried out in Gujarat Ayurved University, Jamnagar aimed to achieve most suitable, effective management of Psoriasis. These studies (PG-24 and PhD-3) were carried out in department of Basic Principle (3), Kaya Chikitsa (9), Rasa Shastra and Bhaishajya Kalpana (6) and Pancha Karma (9). The present study is an attempt to compile all available research works done on psoriasis, and provide brief information about management contributions.

**MATERIAL AND METHODS**

Works carried out in Institutes under Gujarat Ayurved University viz. IPGT and RA, Jamnagar and Akhandanand Institute, Ahmedabad, at PhD and PG levels during 1959–2013 were compiled and screened to provide the guidelines for further research works in Psoriasis management. All collected thesis from the various departments of both the Institutes under Gujarat Ayurved University, Jamnagar were thoroughly analyzed. Reported studies related to present subject were also screened and cited.

**Observations**

Number of works has been carried out at GAU, Jamnagar, under various departments which are as follows:

Figure 1: Number of works in different levels and several modes of treatment

<table>
<thead>
<tr>
<th>Scholar</th>
<th>Regimen</th>
<th>Patients</th>
<th>Duration</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makwana MM[15]</td>
<td><em>Arogyavardhini Rasa</em> and <em>Gandhaka Rasayana</em> (1 gm twice a day orally) <em>Gandhaka Malhara</em> (externally)</td>
<td>20</td>
<td>30 days</td>
<td>Significant relief was reported.</td>
</tr>
<tr>
<td>Sabu NR[16]</td>
<td>Gp A: <em>Brihata Manjishthadi Kwatha</em> (decoction), <em>Talasindura</em> (125 mg twice a day orally) and <em>Haritala Mishrana</em> (externally) Gp B: <em>Rakta Mokshana</em> (blood letting)</td>
<td>14</td>
<td>60 days</td>
<td>Gp A: 54.14% patients were completely improved. Gp B: 71.43% patients showed marked improvement.</td>
</tr>
<tr>
<td>Parvani I[17]</td>
<td>Gp A: <em>Shodhana</em> (purification procedures), <em>Shamana</em> with <em>Pathya Ahara</em> (wholesome diet) Gp B: <em>Shamana</em> Gp with <em>Pathya Ahara</em> Gp C: <em>Pathya Ahara</em></td>
<td>25</td>
<td>60 days</td>
<td>Complete remission: 9.09% in Gp A. Moderate improvement: 36.36% in Gp A, 62.5% Gp B and 33.33% in Gp C.</td>
</tr>
<tr>
<td>Dhuri KD[18]</td>
<td>Gp A: <em>Shodhana</em> <em>[Vamana]</em></td>
<td>27</td>
<td>30 days</td>
<td>Complete remission: 35.7% in</td>
</tr>
<tr>
<td>Study (Author)</td>
<td>Group A</td>
<td>Group B</td>
<td>Group C</td>
<td>Conclusion</td>
</tr>
<tr>
<td>---------------</td>
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</tr>
<tr>
<td>Joorawan PR [19]</td>
<td>Virechana Karma, Lelitaka Yoga 1 gm per day and Vishwamitra Kapala Taila (externally)</td>
<td>Lelitaka Yoga 1 gm per day and Vishwamitra Kapala Taila (externally)</td>
<td>Lelitaka Yoga 1 gm per day</td>
<td>Complete remission: 69.23% in Gp A, 44% in Gp B and 20% in Gp C. Marked improvement: 23.08% in Gp A, 55.56% in Gp B and 30% in Gp C. Mild improvement: 7.69% in Gp A, 10% in Gp B and 40% in Gp C.</td>
</tr>
<tr>
<td>Kanani V[20]</td>
<td>Bhallataka Vati orally with Jeevantyadi Lepa (externally)</td>
<td>Mandalaparni Orally in addition to the above mentioned Shamana drugs</td>
<td>Placebo (glucose powder 500 mg twice daily)</td>
<td>Highly significant relief was reported in both groups.</td>
</tr>
<tr>
<td>Galani K[21]</td>
<td>Darvayadi Yamaka Malahara (externally)</td>
<td>Darvayadi Yamaka Malahara (externally) with Saptasamo Yoga (orally 3 gm daily)</td>
<td>Placebo group (glucose powder 500 mg twice daily)</td>
<td>Complete remission: 44.4% in Gp B, 33% in Gp A. Marked improvement: 33.3% in all Gps. Moderate improvement: 22.2% in Gp B and C, 22% in Gp A.</td>
</tr>
<tr>
<td>Mehta C[22]</td>
<td>Pathayadi Vataka (2 g thrice daily) and Vidangadi Lepa externally after Koshtha Shuddhi</td>
<td>Vidangadi Lepa (externally) after Koshtha Shuddhi</td>
<td>Placebo (Rawa powder 500 mg twice)</td>
<td>Complete remission: 26.31 % in Gp A and 20% in Gp B. Marked improvement: 52.63% in Gp A and 33.33% in Gp B. Mild improvement: 21.05% in Gp A, 40 % in Gp B and 30% in Gp C. Unchanged: 6.66% in Gp B and 70% in Gp C.</td>
</tr>
<tr>
<td>Barvaliya R[23]</td>
<td>Panchatikta Ghrita prepared with Ghrita Murcchana and Triphala Kalka</td>
<td>Panchatikta Ghrita prepared with Ghrita Murcchana</td>
<td>Panchatikta Ghrita prepared without Ghrita Murcchana and Triphala Kalka</td>
<td>Comparative relief of treatment regimens on clinical parameters was 55.5% in Gp A, 35.93% in Gp B and 29.31% in Gp C.</td>
</tr>
<tr>
<td>Zala U[24]</td>
<td>Panchatikta Ghrita prepared with Ghrita Murcchana</td>
<td></td>
<td></td>
<td>Comparative effect of trial showed 55.5% improvement in</td>
</tr>
<tr>
<td>Study</td>
<td>Gp A</td>
<td>Gp B</td>
<td>Gp C</td>
<td>Duration</td>
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<td>-------</td>
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</tr>
<tr>
<td>Vaghmashi R[25]</td>
<td>Guduchi Taila orally (5 gm twice daily) and externally</td>
<td>Guduchi Ghrita orally (5 gm twice daily) and externally</td>
<td>Gp A: Panchatikta Ghrita prepared with Ghrita Murcchana; Gp B: Panchatikta Ghrita prepared without Ghrita Murcchana and Triphala Kalka; Note: 10 gm per day.</td>
<td>27 days</td>
</tr>
<tr>
<td>Shrimannarayan K[26]</td>
<td>Guduchi Ghrita 125 mg once per day</td>
<td>Guduchi Ghrita 125 mg twice per day</td>
<td>Placebo (starch) 250 mg twice per day</td>
<td>37 days</td>
</tr>
<tr>
<td>Umrethiya B[27]</td>
<td>Guduchi Ghana prepared by Kwatha methods (250 mg twice daily)</td>
<td>Guduchi Ghana prepared by soxhlet method (250 mg twice daily)</td>
<td></td>
<td>33 days</td>
</tr>
<tr>
<td>Ruparel S[28]</td>
<td>Panchatikta Ghrita (10 gm) and Triphaladi Rasayanavati (6 gm) as Shamana Chikitsa per day after Virechana Karma</td>
<td>Panchatikta Ghrita (10 gm) and Triphaladi Rasayanavati (6 gm) as Shamana Chikitsa per day without Virechana Karma</td>
<td></td>
<td>16 days</td>
</tr>
<tr>
<td>Parida A[29]</td>
<td>Vamana Karma with Jivantyadi Yamaka (externally)</td>
<td>Virechana Karma with Jivantyadi Yamaka (externally)</td>
<td></td>
<td>30 days</td>
</tr>
<tr>
<td>Patel JR[31]</td>
<td>Vamana Karma with Madanaphala Pippali</td>
<td>Vamana Karma with Krutvedhana For Shamana Yoga Panchatikta Ghrita 20 ml twice daily in both Gps.</td>
<td></td>
<td>27 days (after Sansarjana)</td>
</tr>
</tbody>
</table>
Improvement: 23.07% in Gp A and 35.71% in Gp B.
Unchanged: 7.69% in Gp A and 14.29% in Gp B.

Gulhane C[32]

| Gp A: Virechana Karma followed by Shamana Yoga
Gp B: Takra Dhara (as Shirodhara for 14 days) followed by Shamana Yoga
Shamana Yoga Makandi Ghanavati 1 gm thrice daily |
| 28 |
| 15 days after Virechana or Takra Dhara |
| Marked improvement: 20% in Gp A and 23.08% in Gp B.
Moderate improvement: 53.33% in Gp A and 14.39% in Gp B.
Mild improvement: 26.67% in Gp A and 14.29% in Gp B. |

PhD Thesis

Dave AR[33]

| Gp A: Amrita Bhallataka Avaleha (5 gm twice a day) and Karanjadi Lepa (externally)
Gp B: Placebo Gp (glucose powder 2 capsule twice a day) |
| 64 |
| 90 days |
| Complete remission: 50% in Gp A.
Marked improvement: 28.13% in Gp A.
Improvement: 15.63% in Gp A and 18.75% in Gp B.
Unchanged: 6.25% in Gp A and 81.25% in Gp B. |

Mehta C[34]

| Gp A: Navayasa Rasayana Leha (2 gm twice daily) with Dhatradycho Lepa (externally)
Gp B: Medhya Rasanasaya tablet (1 gm daily) with Dhatradycho Lepa (externally) |
| 94 |
| 90 days |
| Complete remission: 16.32% in Gp A and 6.66% in Gp B.
Marked improvement: 62.22% in Gp A and 40.81% in Gp B.
Moderate improvement: 26.66% in Gp A and 40.81% in Gp B.
Mild improvement: 4.44% in Gp A and 2.04% in Gp B. |

Mitra S[35]

| Gp A: Gandhaka Rasayana Bhavana given with Kwatha Dravya's Arka (distillate)
Gp B: Gandhaka Rasayana Bhavana given with Kwatha
Gp C: Placebo control Gp (roasted Suzi Tila Taila (externally) for all Gps. |
| 34 |
| 30 days |
| Complete improvement: 11.70% in Gp A and 14.70% in Gp B.
Marked improvement: 38.23% in Gp A and 5.88% in Gp B.
Moderate improvement: 29.10% in Gp A and 26.47% in Gp B.
Mild improvement: 11.70% in Gp A, 20.58% in Gp B and 2.94% in Gp C.
Unchanged: 8.82 % in Gp A, 32.35 % in Gp B and 97.05% in Gp C. |

Note:- Gp: Group; Gps: Groups

Table 2: Researches on Psoriasis conducted in Ahmedabad institute

<table>
<thead>
<tr>
<th>Scholar</th>
<th>Regimen</th>
<th>Patients</th>
<th>Duration</th>
<th>Observations</th>
</tr>
</thead>
</table>
Gp B: Panchatikta Ghrita Guggulu (12gm per day) as Shamana
Gp C: placebo capsule with Chandamarutam (externally with butter) | | | Virechana is highly effective in Psoriasis as compare to other two Gps. Shamana Gp also showed better result as compared to placebo Gp. |
Belani JM[37]  
Gp A: Virechana Purvaka Shamana Chikitsha  
Gp B: Shamana Chikitsa  
For Shamana purpose Navakashaya Ghanavati (3 gm per day) and Navakashaya Shiddha Taila (externally)  
90 days  
Complete remission: 10% in Gp A and 5% in Gp B. Marked improvement: 25% in Gp A and 35% in Gp B. Moderate improvement: 32.5% in Gp A. Mild improvement: 32.5% in Gp A. Unchanged: 60% in Gp B.

Shah PN[38]  
Gp A: Ichhabhedi Rasa (125 mg to 1 gm) as Virechaka Dravya  
Gp B: Trivrittadi Churna (1 to 10 gm) as Virechaka Dravya  
20  
Marked improvement: 80% in Gp A and 60% in Gp B. Moderate improvement: 10% in Gp A and 40% in Gp B. Mild improvement: 10% in Gp A.

Jagtap R[39]  
Gp A: Vamana Karma after Go-Ghrita (cow Ghee) as a Snehapana  
Gp B: Vamana Karma after Vajraka Ghrita (Samskarita Ghrita-mediated oil) as a Snehapana  
20  
Vamana was effective in both Gps but with Vajraka Ghrita it showed better results.

Yadav A[40]  
Gp A: Vamana Karma after Pippalyadi Ghrita (Samskarita Ghrita-mediated oil) as a Snehapana and Pippalyadi Vati (6 gm daily) for Shamana.  
Gp B: Vamana Karma after Go-Ghrita (cow Ghee) as a Snehapana and placebo (Yava Churna Vati 6 gm daily) for Shamana.  
24  
Marked improvement: 25% in Gp A. Moderate improvement: 75% in Gp A and 83.33% in Gp B. Mild improvement: 16.67% in Gp B.

Agrawal R[41]  
Gp A: Virechana Purvaka (with Krutavedhana) Shamana Karma (Aaragvadhadi Vati 1 gm thrice daily)  
Gp B: Shamana Karma (Aaragvadhadi Vati 1 gm thrice daily)  
28 days  
Complete remission: 5.88% in Gp A and 13.33% in Gp B. Marked improvement: 52.94% in Gp A, and 28.12% in Gp B. Moderate improvement: 35.29% in Gp A and 46.67% in Gp B. Mild improvement: 5.88% in Gp A and 40% in Gp B.

DISCUSSION

Charaka has narrated ‘Rogam Aado Parikshyet’ principle, which means it is essential to first diagnose the disease, then the drug plan should be decided.[42]

He has also given utmost importance to personalized therapy under ‘Purusham Purusham Vikshya’ principle,[43] which means the mode of treatment vary from patient to patient, hence, it is equally important to diagnose the patient along with diagnosis of disease.[44] Ayurveda has also given importance to quality of drug, maturity of plant, season and time of collection, standard preparation methods, and its mode of usage in logical manner.[45-48]

These principles are well described by Charaka in Kalpasthana, where he stressed judicious selection and use of drugs for purification procedures (Vamana or Virechana).[49]

In Ayurved all skin diseases are described under the common disease Kushtha. It is named as a Rakta Pradoshaja Vyadhi because Rakta vitiation is found as a common pathology in this disorder.[50] Kushtha is divided in 2 types as Maha and Kshudra Kushtha.[51] Eka Kushtha is...
one amongst eleven Kshudra Kushtha with Kapha-Vata dominancy.[51, 52]

In Ayurvedic classics, Kushtha is indicated to be treated with various purification procedures such as Vamana, Virechana and Rakta Mokshana.[53, 54] Also in the treatment plan for Kushtha the following regimen is mentioned: Vamana, Virechana and Rakta Mokshana at 15 days, 1 month, and 6 months interval respectively.[55]

There is a need to revalidate these classical principles of treatment of Psoriasis and develop harmless, commercial and superlative treatment profiles to generate evidences. Based on the aforesaid Ayurvedic treatment plans various clinical trials were under taken in different research institutes. In this course, a screening has been done through the works carried out in various departments of two institutes under Gujarat Ayurved University, Jamnagar. Modes of treatments along with number of works at different department and study levels are enlisted in figures 1.

After analyzing all research works, it was found that maximum works were done on Shamana Karma, while better results were found where Shodhana Karma was associated with Shamana Karma. One work on each Rakta Mokshana, Pathya Aahara, and effect of psychological factors in Psoriasis was found conducted. All researchers opined Eka Kushtha as Psoriasis, but Dr Sabu et al named Psoriasis as Kitibha.

Overall, Virechana showed better results than Vamana; this may be due to specificity of Virechana Karma for major pathology of disease i.e. Raktaja Vyadhi (disease due to vitiation of Rakta) as Pitta is Mala of Rakta.[50],[56] Hence, Virechana is specific treatment for vitiation of Pitta.[57] Virechana suppresses Pitta anomalies thus ultimately it decreases Kushta (Eka Kushtha). For Snehana, Snehapana should be given with medicated Sneha.

No any adverse effects of Ayurvedic treatment were reported in any of these studies. Hence all studies validate the potential of Ayurvedic treatment principles for Psoriasis treatment. Though certain limitations were observed in these researches, the results can be considered as lead for further well stratified studies covering larger population. Reviewing previous work will definitely allow one to know regarding several factors associated with the drug discovery, like rectification of errors in earlier studies and developing better study design.

CONCLUSION

In nutshell, all Ayurvedic therapies were found to be significantly effective and clinically safe as no events of adverse drug reaction were reported during treatment period. It is concluded that Shodhana Karma followed by Shamana along with Pathya Ahara is found as a suitable treatment plan to manage Psoriasis. In Shodhana therapy, maximum times Virechana procedure was carried out and it was found comparatively better than other Shodhana procedures. In Shamana Chikitsa, some Medhya Aushadha (brain tonics) should be prescribed along with other drugs to alleviate the disease triggering factors such as emotional stress. Along with drug interventions, emphasis must be given to promote a healthier diet and lifestyle plans among affected individuals.

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