

**Review Article****PROMISING AYURVEDIC HERBS IN THE MANAGEMENT OF KITIBHA (PSORIASIS)- A REVIEW****C. Murali Krishna<sup>1\*</sup>, D. Panchajanya Kumar<sup>2</sup>, G. Sivaram<sup>2</sup>, Malini. S<sup>3</sup>, B. Venkateshwarlu<sup>1</sup>,  
Sujata P Dhoke<sup>1</sup>, G. Babu<sup>4</sup>**<sup>1</sup>Research Officer (Ay), <sup>2</sup>Senior Research Fellow (Ay), <sup>3</sup>Research Officer (Bio-chemistry), <sup>4</sup>Assistant Director  
Incharge, RARISD, CCRAS, Vijayawada, A.P., India.

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**ABSTRACT**

Psoriasis is one of the commonest skin disorders seen in routine clinical scenario, in entire world around 80 million people suffering from psoriasis. Psoriasis is differentiated by patches of abnormal skin. These skin patches are typically red, itchy, and scaly. Psoriasis varies in severity from small, localized patches to complete body coverage. It typically presents as red patches with white scales on top. Areas of the body most commonly affected are the back of the forearms, chin, navel area, and scalp. Diagnosis is typically based on the signs and symptoms. Men and women are affected with equal frequency. The disease may begin at any age, but typically starts in adulthood. Psoriasis is associated with an increased risk of psoriatic arthritis, lymphomas, cardiovascular disease and depression. Psoriatic arthritis affects up to 30 percent of individuals with Psoriasis. It is noted that around 2% of population are touching with Psoriasis. In present study review on Herbs frequently used in treating psoriasis were compiled. The Herbs *Nimba*, *Stri Kutaja*, *Guduchi*, *Daruharidra*, *Bhallataka* *Haritaki*, *Aragvadha*, *Amalaki*, *Karveera*, *Saptaparna*, *Khadira*, *Vasa*, *Guggulu*, *Chitraka* & *Katuki* are reviewed to be having *Vata* or *Kapha* balancing properties. The pharmacological studies showing that Nimbidin of Neem having anti psoriatic property, The Methanolic and ethanolic extracts of *Stri Kutaja* and *Guduchi* are having anti oxidant and anti psychotic properties which are helpful in reducing the symptoms of psoriasis.

**KEYWORDS:** *Kitibha*, Psoriasis, *Nimba*, *Kshudra Kushta*, *Bruhatrayi*.**INTRODUCTION**

Psoriasis is an Autoimmune, Chronic skin disease characterized by well defined slightly raised dry erythematous macules with silvery scales. According to the modern system of medicine the disease is said to affecting 2% of the population in all age groups of both sexes. [5] Worldwide, there are projected to be 80 million people suffering from psoriasis. Psychological upsets and infections trigger the disease. According to *Ayurveda* it can be correlated with *Kitibha* which comes under Eleven *Kshudra Kushtas* according to *Bruhatrayi*. According to *Charaka* the signs and symptoms of *Kitibha* are “*Syavam Kina Kharasparsam Parusham Kitibhamam Smritam*” -*Kitibha* is blackish brown in colour, rough in touch like a scar tissue, hard in touch. It is due to vitiation of *Vata* & *Kapha* (*Kitibham Prayo Vata Kaphadhikam*). According to *Susruta* signs and symptoms of *Kitibha* are “*Yat Sravi Vrittam Ghana Mugra Khandum Tat Snigdha Kushtam Kitibham Vadanti*”- in *Kitibha* the eruptions exude a kind of secretion and which are circular, thick, excessively itching, glossy and black coloured. According to

*Ashtanga Sangraha* the signs and symptoms of *Kitibha* are “*Ruksham Kina Kharasparsam Kandumat Parushasitam*”. This reveals in *Kitibha Kushta* manifestation, the skin is blackish brown in colour, rough in touch like a scar tissue & rigid in touch with itching.

In this disease patient suffers with severe itching along with continuous scaling of skin, which causes both physical and psychological disfigurement. The patient feels to restrict his social move which implies burden to himself and to his family. The populations who are doing stress oriented jobs and who are under stress due to poor economic and social background are more prone to this disease. In present study review on Herbs frequently used in treating psoriasis were taken.

**Materials and Methods**

An attempt has been made to explore the references related to *Kitibha* in *Bruhatrayi*. Related verses were critically compiled from *Charaka samhita*, *Susruta samhita*, *Ashtanga sangraha* & *Bhavaprakasha nighantu*.<sup>[1-4]</sup>

**Results**

*Kitibha Kushta* comes under *Kshudra Kushta* according to *Bruhatrayi*. The *Doshas* mainly vitiated are *Vata* and *Kapha*. The treatment of *Kitibha* includes *Kapha* and *Vata* balancing Herbs. They are *Nimba*, *Stri Kutaja*, *Guduchi*, *Daruharidra*, *Bhallataka*

*Haritaki*, *Aragvadha*, *Amalaki*, *Karveera*, *Saptaparna*, *Khadira*, *Vasa*, *Guggulu*, *Chitraka* & *Katuki*. In these Herbs similar and dissimilar properties which cause change in the signs and symptoms of the disease were discussed elaborately.

**Table 1: Herbs mentioned in *Bruhatrayi*<sup>[1,2,3]</sup>**

S.No.	Name of the Herb	Charaka	Susruta	Ashtanga Hridayam
1.	<i>Nimba</i>	+	+	+
2.	<i>Stri Kutaja</i>	+	+	+
3.	<i>Guduchi</i>	+	+	+
4.	<i>Daruharidra</i>	+	+	+
5.	<i>Bhallataka</i>	+	+	+
6.	<i>Haritaki</i>	+	+	+
7.	<i>Aragvadha</i>	+	+	+
8.	<i>Amalaki</i>	+	+	+
9.	<i>Karvera</i>	+	+	+
10.	<i>Saptaparna</i>	+	+	+
11.	<i>Khadira</i>	+	+	+
12.	<i>Vasa</i>	+	+	+
13.	<i>Guggulu</i>	+	+	+
14.	<i>Chitraka</i>	+	+	+
15.	<i>Katuki</i>	+	+	+

**Table 2: Herbs useful in the treatment of *Kitibha*<sup>[4]</sup>**

S.No.	Name of the Herb	Latin name	Family
1.	<i>Nimba</i>	<i>Azadirachta indica</i>	Meliaceae
2.	<i>Stri Kutaja</i>	<i>Wrightia tinctoria</i>	Apocynaceae
3.	<i>Guduchi</i>	<i>Tinospora cordifolia</i>	Menispermaceae
4.	<i>Daruharidra</i>	<i>Berberis aristata</i>	Berberidaceae
5.	<i>Bhallataka</i>	<i>Semecarpus anacardium</i>	Anacardiaceae
6.	<i>Haritaki</i>	<i>Terminalia chebula</i>	Combretaceae
7.	<i>Aragvadha</i>	<i>Cassia fistula</i>	Fabaceae
8.	<i>Amalaki</i>	<i>Emblica officinalis</i>	Phyllanthaceae
9.	<i>Karveera</i>	<i>Nerium indicum</i>	Apocynaceae
10.	<i>Saptaparna</i>	<i>Alstonia scholaris</i>	Apocynaceae
11.	<i>Khadira</i>	<i>Acacia catechu</i>	Fabaceae
12.	<i>Vasa</i>	<i>Adhatoda vasica</i>	Acanthaceae
13.	<i>Guggulu</i>	<i>Commiphora mukul</i>	Burseraceae
14.	<i>Chitraka</i>	<i>Plumbago zeylanica</i>	Plumbaginaceae
15.	<i>Katuki</i>	<i>Picrorhiza kurroa</i>	Plantaginaceae

**Table 3: Rasapanchaka of selected Herbs in Kitibha<sup>[4]</sup>**

S.No.	Name of the Herb	Rasa (Taste)	Guna (Qualities)	Virya (Potency)	Vipaka (Post Digestive State)	Karma (Properties)
1.	<i>Nimba</i>	Bitter - <i>Tikta</i> Astringent- <i>Kashaya</i>	<i>Laghu</i> - Light to digest <i>Rooksha</i> - Dryness	<i>Sheeta</i> - cold potency	<i>Katu</i> - pungent	Balances- <i>Vata</i> and <i>Pitta</i>
2.	<i>Stri Kutaja</i>	<i>Tikta</i> -Bitter <i>Kashaya</i> - Astringent	<i>Laghu</i> - Lightness <i>Rooksha</i> - Dryness	<i>Sheeta</i> – cold potency	<i>Katu</i> –pungent	Balances- <i>Kapha</i> and <i>Pitta</i>
3.	<i>Guduchi</i>	<i>Kashaya</i> - Astringent <i>Tikta</i> -Bitter	<i>Laghu</i> – Light to digest, <i>Snigdha</i> – Oily, Unctuous	<i>Ushna</i> – Hot potency	<i>Madhura</i> – sweet	Balances- <i>Vata</i> , <i>Pitta</i> and <i>Kapha</i>
4.	<i>Daruharidra</i>	<i>Tikta</i> -Bitter, <i>Kashaya</i> - Astringent	<i>Laghu</i> -light to digest, <i>Rooksha</i> - Dryness	<i>Ushna</i> – Hot potency	<i>Katu</i> -Pungent	Balances <i>Kapha</i> and <i>Pitta</i>
5.	<i>Bhallataka</i>	<i>Katu</i> - Pungent <i>Tikta</i> -Bitter <i>Kashaya</i> - Astringent	<i>Laghu</i> -Light to digest <i>Teekshna</i> - Piercing <i>Snigdha</i> - Unctuous	<i>Ushna</i> – hot in potency	<i>Madhura</i> –sweet taste conversion after digestion	Causes <i>Pitta</i> Balances <i>Kapha</i> and <i>Vata</i>
6.	<i>Haritaki</i>	Five tastes except salt, Astringent dominant	<i>Laghu</i> – Light to digest <i>Rooksha</i> – Dryness	<i>Ushna</i> – Hot potency	<i>Madhura</i> – sweet	Balances <i>Vata</i> - <i>Pitta</i> - <i>Kapha</i>
7.	<i>Aragvadha</i>	<i>Madhura</i> - Sweet	<i>Mrudu</i> -Soft <i>Guru</i> -Heavy to digest <i>Snigdha</i> Unctuous, Oily	<i>Sheeta</i> -Cold	<i>Madhura</i> –Sweet	Balances <i>Kapha</i> and <i>Pitta</i>
8.	<i>Amalaki</i>	contains all tastes except salt	<i>Guru</i> -Heavy <i>Ruksha</i> -Dry <i>Sheeta</i> -Cool	<i>Sheeta</i> - Cold	<i>Madhura</i> -Sweet	Balances <i>Kapha</i> and <i>Pitta</i> .
9.	<i>Karveera</i>	<i>Katu</i> - Pungent <i>Tikta</i> -Bitter	<i>Laghu</i> - Lightness <i>Rooksha</i> - Dryness	<i>Ushna</i> – Hot potency	<i>Katu</i> –Pungent	Balances <i>Kapha</i> and <i>Vata</i>
10.	<i>Saptaparna</i>	<i>Tikta</i> -Bitter <i>Kashaya</i> - Astringent	<i>Laghu</i> - Lightness <i>Snigdha</i> - Unctuousness, oiliness	<i>Ushna</i> –Hot potency	<i>Katu</i> –Pungent	Balances <i>Vata</i> - <i>Pitta</i> - <i>Kapha</i> .
11.	<i>Khadira</i>	<i>Tikta</i> -Bitter <i>Kashaya</i> - Astringent	<i>Laghu</i> -Light to digest <i>Rooksha</i> - Dryness	<i>Sheeta</i> - Cold	<i>Katu</i> - Pungent	Balances <i>Kapha</i> and <i>Pitta</i>
12.	<i>Vasa</i>	<i>Tikta</i> -Bitter <i>Kashaya</i> - Astringent	<i>Laghu</i> - Light to digest <i>Rooksha</i> - Dryness	<i>Sheeta</i> – Cold potency	<i>Katu</i> –Pungent	Balances <i>Kapha</i> and <i>Pitta</i>
13.	<i>Guggulu</i>	<i>Tikta</i> -Bitter <i>Katu</i> - Pungent	<i>Laghu</i> -Light to digest <i>Rooksha</i> - Dryness <i>Vishada</i> - Clears channel <i>Sookshma</i> - Minute <i>Sara</i> – Brings about movement	<i>Ushna</i> –Hot potency	<i>Katu</i> –Pungent	Balances <i>Vata</i> - <i>Pitta</i> - <i>Kapha</i>
14.	<i>Chitraka</i>	<i>Katu</i> -Pungent	<i>Laghu</i> - Lightness <i>Rooksha</i> - Dryness <i>Teekshna</i> - Piercing, strong	<i>Ushna</i> -Hot potency	<i>Katu</i> –Pungent	Balances <i>Vata</i> and <i>Kapha</i> <i>Doshas</i>
15.	<i>Katuki</i>	<i>Tikta</i> – Bitter	<i>Ruksha</i> -Dryness <i>Laghu</i> - Light to digest	<i>Sheeta</i> -Cold potency	<i>Katu</i> - Pungent	Balances <i>Kapha</i> and <i>Pitta</i>

## DISCUSSION

*Nimba* contains *Tikta-Kashaya Rasas* with the *Gunas Laghu & Ruksha, Seeta Veerya* and *Katu Vipaka* which usually aggravate *Vata Dosha*. According to the classical literature *Nimba* balances *Vata* which might be due to its *Prabhava*. *Nimba* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*. *Stri Kutaja* though having *Seeta Veerya* balances *Kapha* due to its *Tikta-Kashaya Rasas, Laghu-Rooksha Guna & Katu Vipaka*. *Stri Kutaja* acts on circular patches with secretions and severe itching of *Kitibha*. *Guduchi* balances *Kapha Dosha* due to it contains *Kashaya - Tikta Rasas, Laghu Guna & Ushna Veerya*. *Guduchi* acts on circular patches with secretions and severe itching of *Kitibha* It also balances *Vata* due to its *Snigdha Guna, Ushna Veerya & Madhura Vipaka*. *Guduchi* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*.

*Daruharidra* balances *Kapha* due to it contains *Tikta-Kashaya Rasa, Laghu -Rooksha Guna, Ushna Veerya & Katu Vipaka*. *Daruharidra* acts on circular patches with secretions and severe itching of *Kitibha*. *Bhallataka* balances *Kapha Dosha* due to it contains *Tikat-Katu-Kashaya Rasas, Laghu Teekshna Gunas & Ushna Veerya*. *Bhallataka* acts on circular patches with secretions and severe itching of *Kitibha* It balances *Vata* due to it contains *Sigdha Guna* and *Madhura Vipaka*. *Bhallataka* acts on the brownish black discoloration, scaling-roughness & hardness of *Kitibha*. *Haritaki* balances *Kapha* due to having *Katu-Tikta-Kashaya Rasas, Laghu Rooksha Guna & Ushna Veerya*. *Haritaki* acts on circular patches with secretions and severe itching of *Kitibha*. It balances *Vata* due to it contains *Madhura-Lavana Rasas, Ushna Veerya* and *Madhura Vipaka*. *Haritaki* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*.

*Aragvatha* balances *Kapha* due to *Prabhava*, though it contains *Madhura Rasa, Mudu-Guru-Snigdha Guna, Sheeta Veerya & Madhura Vipaka*. *Aragvatha* acts on circular patches with secretions and severe itching of *Kitibha*. *Amalaki* balances *Kapha* though it is having *Madhura-Amala Rasas, Guru Guna, Sheeta Veerya, Madhura Vipaka*, due to its *Tikta- Katu-Kashaya Rasas & Ruksha Guna*. *Amalaki* acts on circular patches with secretions and severe itching of *Kitibha*. *Karaveera* balances *Kapha* due to it contains *Katu-Tikta Rasas, Laghu-Rooksha Guna, Ushna Veerya & Katu Vipaka*. *Karaveera* acts on circular patches with secretions and severe itching of *Kitibha*. It balances *Vata* due to its *Ushna Veerya*. *Karaveera* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*.

*Saptaparna* balances *Kapha* due to it contains *Tikta- Kashaya Rasas, Laghu Guna, Ushna Veerya & Katu Vipaka*. *Saptaparna* acts on circular patches with secretions and severe itching of *Kitibha*, It balances *Vata* due to its *Snigdha Guna & Ushna Veerya*. *Saptaparna* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*. *Khadira* balances *Kapha Dosha* due to it contains *Tikta-Kashaya Rasas, Lahu Ruksha Guna & Katu Vipaka*. *Khadira* acts on circular patches with secretions and severe itching of *Kitibha*. *Vasa* balances *Kapha Dosha* as it contains *Tikta Kashaya Rasas, Laghu-Rooksh Guna & Katu Vipaka*. *Vasa* acts on circular patches with secretions and severe itching of *Kitibha*.

*Guggulu* balances *Kapha Dosha* due to it contains *Tikat-Katu Rasa, Laghu-Rooksha-Vishada-Sookshma Gunas, Ushna Veerya & Katu Vipaka*. *Guggulu* acts on circular patches with secretions and severe itching of *Kitibha*. It balances *Vata* due to *Ushna Veerya*. *Guggulu* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*. *Chitraka* balances *Kapha Dosha* as it contains *Katu Rasa, Laghu-Rooksha-Teekshna Gunas, Ushna Veerya & Katu Vipaka*. *Chitraka* acts on circular patches with secretions and severe itching of *Kitibha*. It balances *Vata* due to *Ushna Veerya*. *Chitraka* acts on brownish black discoloration, scaling-roughness & hardness of *Kitibha*. *Katuki* balances *Kapha Dosha* due to it contains *Tikta Rasa, Laghu-Rooksha Guna* and *Katu Vipaka*. *Katuki* acts on circular patches with secretions and severe itching of *Kitibha*.

A double blind clinical drug trial study was performed to check the efficacy of drug made up of aqueous extract of *Neem* leaves in 50 cases of uncomplicated psoriasis taking conventional coal tar regime and results revealed that patients taking drug in addition to coal tar had shown a quicker and better response in comparison to placebo group.<sup>[6]</sup>The hydro-alcoholic extract of *Wrightia tinctoria* (*Stri Kutaja*): leaves was evaluated for anti-psoriatic activity by mouse tail test. Anti-psoriatic activity was performed at a dose 200 mg/kg body weight in mice (25-30 g). Isoretinoic acid (0.5 mg/kg) was used as the standard. Degree of orthokeratosis, drug activity, and the relative epidermal thicknesses were calculated and statistically analyzed. The extract was also evaluated for its antioxidant potential by DPPH, nitric oxide, and hydrogen peroxide radical scavenging assays. The extract produced significant (P < 0.01) degree of orthokeratosis compared to control, and the drug activity was found to be 70.18%, which is more potent than the standard (57.43%). The extract showed prominent antioxidant

activity in all the assays. The present study concludes that the selected plant has anti-psoriatic activity and can be used for psoriasis treatment.<sup>[7]</sup> The ethnolic extract of *Guduchi* having anti psychotic property in psoriasis which is a psychosomatic disorder.<sup>[8]</sup> The transferosomes of herbal extract of *Daruharidra B. aristata* for treating inflammation and psoriasis. The remarkable enhancement in the *in vitro* release efficiency of *B. aristata* extract loaded transferosomal gel resulted in improved anti-inflammatory activity. The prepared novel formulation of *B. aristata* has also shown its efficacy against IMQ-induced psoriasis<sup>[15]</sup>. *Haritaki* Terminalia chebula, exhibited potent anti-psoriatic activities, as evidenced by improvement of erythema and scaling scores, decrease of epidermal, ear and skinfold thickening, decrease of tumor necrosis factor  $\alpha$  (TNF $\alpha$ ), interleukin (IL)-17A, IL-23 and matrix metalloproteinase (MMP)-9 expression, and decrease of TBARS content and increase of GSH content in IMQ-treated mice, and decrease of keratinocyte proliferation, TNF $\alpha$ , IL-17A and IL-23 expression, and ROS level in M5-treated cells. All those effects induced by TC were inhibited by zinc protoporphyrin IX (ZnPP), an inhibitor of heme oxygenase (HO)-1, indicating that HO-1 was responsible the anti-psoriatic effect of TC. Moreover, TC inhibited the upregulation of p65 NF-x03BA;B under in vitro psoriatic condition. ZnPP suppressed TC-induced inhibition of p65 NF-x03BA;B expression. Over expression of p65 NF-x03BA;B significantly suppressed TC-induced decrease of TNF $\alpha$ , IL-17A and IL-23 expression and keratinocyte proliferation, indicating that HO-1-mediated down regulation of NF-x03BA;B was involved in the anti-psoriatic effect of TC<sup>[16]</sup>. The herbal cream impregnating *Aragvadha C. fistula* fruit extract showed good activity in the psoriasis like skin mouse model by exposing antiproliferant activity, reducing relative epidermal thickness, and inducing ortho keratosis. It is believed that the phytochemicals in the fruit extract play a key role in correcting the immune problems. At a dose of 6.25% (w/w) fruit extract, psoriasis form was ameliorated well without dermal irritation. Formulae containing extract denoted the good outcome of psoriasis<sup>[17]</sup>. According to Ayurveda *Bhallataka, Amalaki, Karveera, Saptaparna, Khadira, Vasa, Guggulu, Chitraka & Katuki* acts as immune modulatory and *Rasayanas* in the treatment of psoriasis. <sup>[9-12]</sup>

## CONCLUSION

The above discussed Herbs are proven effective for *Kitibha* treatment. In this work we have tried to correlate the above cited herbs according to their Ayurvedic properties and current researches.

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**\*Address for correspondence**

**Dr. C. Murali Krishna**

Research Officer (Ay),  
RARISD, CCRAS, Vijayawada-15,  
Phone no.9492030564

Email: [mkchagamreddy@gmail.com](mailto:mkchagamreddy@gmail.com)

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