

Effect of *Panchatikta Ghrita* and *Gandhakadi Taila* in the Management of *Kitibha* (Psoriasis) - A Case study

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Abstract:

Psoriasis is resemblance to the *Kitibha Kushta* in *Ayurvedic* perspective and has a significant impact on a patient's quality of life. *Kitibha* is one of the common dermatological health issue found in Sri Lanka and the study has been focused to evaluate the efficacy of two herbal formulae in the management of *Kitibha* disease. Fifty four years old male patient presented with *Mandala* (Erythematous Plaque), *Ruksha* in the affected skin (Roughness of the skin), *kandu* (Itching), *Twak Vidarana* (scaling) along with *Daha* (burning Sensation) all over the body since 9 months, attended to the OPD in the Department of Kayachikitsa, National Ayurveda Hospital, Borella, Sri Lanka. The patient has been treated with *Manibhadra Churna* 10 mg morning and evening for consecutive 7days as internal medicine. At the end of the seventh day; *Gandhakadi Taila* has been applied as an external treatments for the lesions twice a day while *Panchatikta Ghrita* has been administrated 5 ml orally two times per day for three weeks. The visual Analog scale (VAS) has been adopted for the assessment of the efficacy of treatment regime. It was observed that end of the study period; clinical features of *Kandu* (Itching) *Daha* (Burning sensation) and *Rakta Srava/ Rakta Pitika* (Pin point bleeding) was reduced completely and 75% relief was showed in *Vivarnatha* (Discoloration of skin), *Kina* (dry scaling), *Rukshata* (Roughness) and *Vruththan Vrudhimanthi* (Elevation of the patches) accordingly. In view of the above it can be concluded that treatment protocol is effective in the management of *kitibha Roga* in *Ayurveda* perspective.

Keywords: *Gandhakadi Taila*, *Kustha*, *Kitibha*. *Manibhadra Churna*, *Panchatikta Ghrita*, Psoriasis, Skin disorder.

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Introduction:

Psoriasis is a multifactorial, chronic relapsing inflammatory skin disease affecting 1–2% of the general population and it has identified as a serious health challenge in the present global society^[16]. It has been considered only a disease of the keratinocytes which involves basal cell hyper proliferation with an increase in the epidermal cell turnover rate. The prevalence of psoriasis in Sri Lanka is estimated to be over 0.4%^[5] and it became a serious global health issue approximately 100 million individuals are affected worldwide. Psoriasis is a common and chronic inflammatory, auto immune skin disease, with an unpredictable course. It is characterized by raised, sharply demarcated, erythematous plaques covered with white silvery scale. It is a lifelong disorder associated with multiple co-morbidities and considerable psychosocial disability. The negative impact of this condition on patients' quality of life can be immense.

The clinical symptoms of psoriasis are most resembled with *Kitibha Kushta* in *Ayurveda* medicine. *Kitibha* disease is considered as *Vata Kapha* predominant *Thidosaja Vyadhi*,^[13] with the clinical features of *Shava Aruna Varna mandala* (erythromatous plaque), *Kandu* (itching), *Kina* (Scaling), *Khara Sparsha* (Rough), *Rukshata* or *Parusha* (coarseness), *Daha* (burning sensation), *Vruttan Vruddhimanti* (elevated round patches), *Ghana* (Thick), *sravi* (oozing), *Punakh Punarudpadyanthe* (relapses & remission)^[6,8,13,15,16,17]. It is ensure that the successful treatment has been not

established yet for this disease in modern medicine. The medicines which are available to treat the disease are not very effective and cannot be used for long term management because of their local and systemic side effect. Hence, the case study is innovated to find the effective treatment regime in the management of *kithibha kushta* based on the *Ayurveda* principles and treatments.^[13]

Case History:

A fifty four years old previously healthy male patient presented with four months history of multiple *mandala* with *Aruna Varna* (erythromatous plaques) covered by *Shayava Varna* (silvery scales) with *kina* (Scaling), *Kandu* (Itching), *Ugra Kandu* (scratching), *Dhaha* (Burning sensation) *Srava* (pin point bleeding). The plaques were *Utsanna Mandala* (well-defined), *Vruttan Vruddhimanthi* (Elevated and sharply demarcated boundaries), ranged from 3 to 10 mm in diameter, were limited to the scalp, the trunk, the abdomen and the anterior aspect of the upper limb especially pronounced in the proximal third of both the thigh and the knee. The lesions were first noticed in the scapular region and progressively extended within a few weeks to the trunk, the abdomen, lateral aspect of the upper limbs, and the anterior aspect of the lower limbs. Lesions in the nails were also observed, and there was no personal or family history of skin diseases. The patient stated that he had same clinical features before ten months and subsided after the medication. In spite of continuous

medication, the status of health has deteriorated and the patient was admitted in the I.P.D. of Kayachikitsa at the National Ayurveda Teaching Hospital, Borella, Sri Lanka.

Methodology:

Diagnosis was established on the basis of clinical sign and symptoms of *Kitibha* disease mentioned in authentic *Ayurvedic* texts Hematological and biochemical investigations such as ESR, FBC, FBS, UFR, Lipid profile were carried out before and after the treatment. Previous history of the drug administered and other medical history were recorded in detailed manner in a prepared special proforma.

Treatment protocol:

Duration of the treatment was 1 month and follow up period was 2 weeks. The patient

was treated with *Manibrada churna* 10 gm twice a day after the meal with luke warm water as internal medicine for first consecutive 07 days. *Panchatikta Ghrita*-5 ml^[12], was administered for consecutive 21 days twice a day before meal along with local application of *Gandhakadi Taila* (Sri Lankan traditional oil) twice a day after the meal (Table-1).

Preparation of Trial Drug:

Panchatikta Ghrita (table-2) and *Gandakadi Taila* (Sri Lankan Traditional oil) (Table-3) were prepared according to *Ghrita Taila Paribasha*. 1.8kg bark and leaves of *Burulla (Leea indica)* was mixed with 200gms of scraped coconut (*Cocos nucifera*) and juice has been removed from the mixture and added ingredients (Table -3) and prepared the oil according to the *Sneha paka kalpana*^[10].

Table 1: Scheduled Treatment to the patient:

Day	Medicine	Treatment schedule		
		Dose	Mode of administration	Duration of treatment
1-7 days	Manibhdra churna	10 gm ,morning & Evening After meal	With luke warm water	7 days
8-30 days	Panchatiktha Ghrita ^[9]	5 ml full before meal morning& Evening	Warm water	21 days
8-30 days	Gandhakadi Taila	Morning & Evening quantity of the oil was depended on the severity of the lesion	Local application	21 days

Table 2: Ingredients of Panchatikta Ghrita:^[11,12]

	Sankrit Name	Botanical Name
Kwata	<i>Vasa</i>	<i>Adhatoda vasica</i>
	<i>Guduchi</i>	<i>Tinospora codifolia</i>
	<i>Nimba</i>	<i>Azadirachta indica</i>
	<i>Kantakari</i>	<i>Solanum virginanum</i>
	<i>Patola</i>	<i>Trichosanthes curcumerina</i>
Kalka	<i>Haritaki</i>	<i>Terminalia chebula</i>
	<i>Vibihitaki</i>	<i>Terminalia bellerica</i>
	<i>Amalaki</i>	<i>Phyllanthus embilica</i>
Ghrita		(Ghee)

Table-3 Ingredients of Gandhakadi Taila:

Sankrit Name	Botanical Name
<i>Burulla</i>	<i>Leea indica</i>
<i>Gandaka</i>	Sulphur
<i>Tutta</i>	Copper sulphate
Coconut	<i>Cocos nucifera</i>

Criteria for Assessment:

Efficacy was assessed by following clinical features: ^[2,4,7,8,13,14,15,17]

- *Kandu* (Itching sensation)
- *Daha* (Burning sensation)
- *Vivarnatha* (Discoloration of affected areas of the

- *Kina* (Dry scaling)
- *Rakta Srawa / Rakta pitika* (Pin point bleeding)
- *Rukshata* (Dryness)
- *Vruththan Vrudimanthi* (Elevated ,demarcated round plaques)

Extent of the changes of clinical features was evaluated on Visual Analog Scale

(VAS) ^[3] score at baseline and at every follow up visit till the end of the study. ^[4] Therapeutic effects of treatment protocol were evaluated through symptomatic relief based on the grading system. The scoring pattern adopted for assessment [Table-4] of clinical features of Kitibha is as follows:

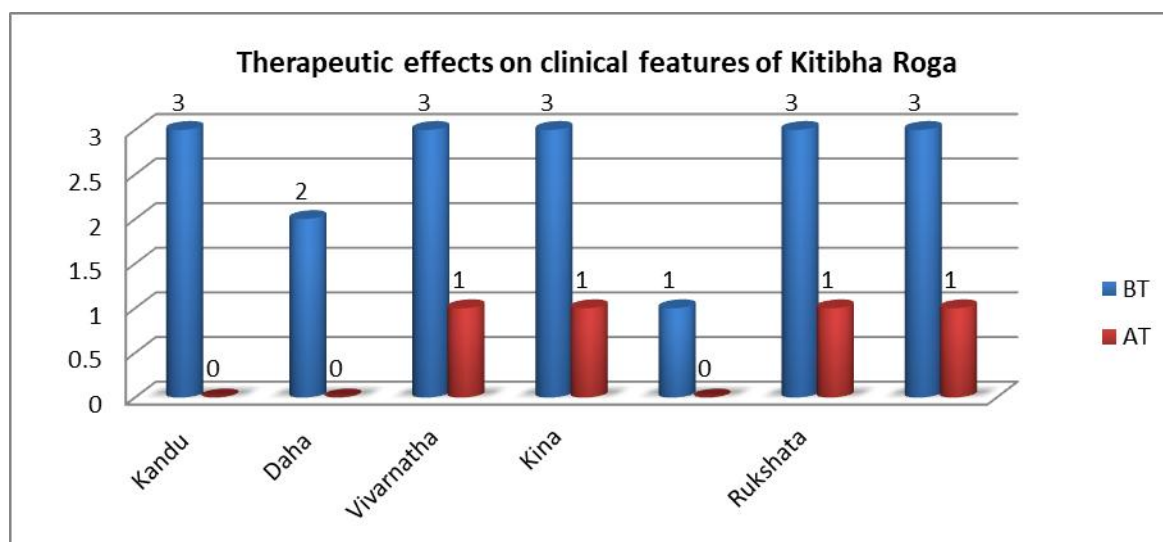
Analysis of Data: The data were analyzed adopting the percentage reduction of signs and symptom of *Kitibha* disease at different visits as shown in table-5.

Table 4: Grading scale of Clinical features:

Clinical Features	Grading scale		
<i>Kandu</i> Itching sensation	No itching	0	Normal
	Occasionally feel itching	1	Mild
	Moderate (tolerable) itching	2	Moderate
	Severe itching (Disturb daily works)	3	Severe
<i>Daha</i> Burning sensation	No burning sensation	0	Normal
	Occasionally burning sensation	1	Mild
	Often burning sensation	2	Moderate
	Always burning sensation (Disturbing sleep and other activities)	3	Severe
<i>Vivarnatha</i> Discoloration of affected areas of the skin	Normal skin colour	0	Normal
	Near to normal which look like pinkish red colour	1	Mild
	Slight pinkish red colour	2	Moderate
	Deep pinkish colour	3	Severe
<i>Kina</i> Dry scaling	No Scaling	0	Normal
	Scaling off between 15-28 days	1	Mild
	Scaling off between 4-7 days	2	Moderate
	Scaling off between 1-4 days	3	Severe
<i>Rakta Srawa / Rakta pitika</i> Pin point bleeding	No pin point bleeding	0	Normal
	Occasionally pin point	1	Mild
	Intermittently pin point bleeding	2	Moderate
	Always pin point bleeding	3	Severe
<i>Rukshata</i> Dryness	No line on scrubbing with nail	0	Normal
	Patent line on scrubbing nail	1	Mild
	Markley lining and even words can be written on scrubbing by nail	2	Moderate
	Rukshata leading to crack formation in the skin	3	Severe
<i>Vruththan Vruidimanthi</i> Elevated ,demarcated round plaques	No elevated or demarcated plaques	0	Normal
	More elevated slightly demarcated plaques	1	Mild
	Elevated slightly demarcated plaques	2	Moderate
	Elevated very well demarcated plaques	3	Severe

Table: 5 Therapeutics effects on clinical signs and symptoms for treatment protocol

Sign & Symptoms	Before treatment	After the treatment	Percentage Reduction
<i>Kandu</i> (Itching)	Grade 3	Grade 0	100%
<i>Daha</i> (Burning sensation)	Grade 2	Grade 0	100%
<i>Vivarnatha</i> (Discoloration of skin)	Grade 3	Grade 1	75%
<i>Kina</i> (dry scaling)	Grade 3	Grade 1	75%
<i>Rakta Srava/ Rakta Pitika</i> (Pin point bleeding)	Grade 1	Grade 0	100%
<i>Rukshata</i> (Roughness)	Grade 3	Grade 1	75%
<i>Vruththan Vrudhimanthi</i> (Elevation)	Grade 3	Grade 1	75%

**Figure 1: Therapeutic effects on clinical features of Kitibha Roga****Observation and Results:**

Based on the study it has been observed that *Kandu* (Itching), *Daha* (Burning sensation), and *Rakta Srava/ Rakta Pitika* (Pin point bleeding) were completely reduced and 75% reduction were observed in *Vivarnatha* (Discoloration of skin), *Kina*

(dry scaling) *Rukshata* (Roughness) *Vruththan Vrudhimanthi* (Elevation).

Hematological and biochemical investigations such as ESR, FBC, FBS, UFR, Lipid profile were not changed after the treatment.

Images of Therapeutic effect of the treatment protocol:

Front View



Figure- 2A: Before the treatment



Figure -3A: After 14 days treatment

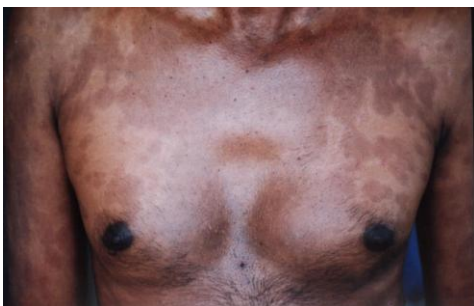


Figure- 4A: 1 month treatment

Back view



Figure- 2B: Before treatments



Figure- 3B: After 14 days treatment

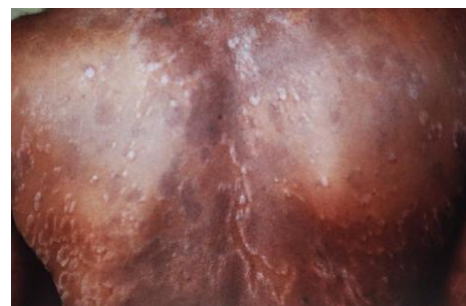


Figure- 4B: After 1 month treatment

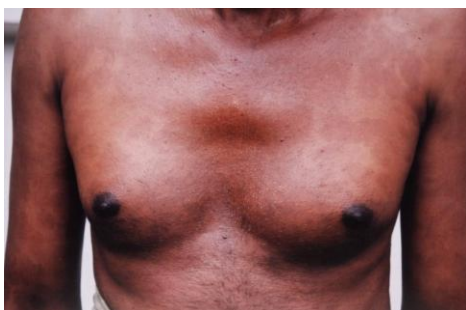


Figure -5A: End of the 6 weeks



Figure- 5B: End of the 6 weeks

Discussion:

Ingredients of *Panchatikta Ghrita* has *Katu* (pungent), *Tikta* (Bitter), *Kashaya* (Astringent) *Madura* (Sweet), *Laghu* (Light), *Ruksha* (Roughness) and *Sheeta* (cold) *Snigdha* (Oily) properties along with *Ushna Virya* (hot in potency) helps to pacify *Vata Pitta* and *Kapha Doshas*. Due to pacification of *Vata Dosha* subside *Khara sparsha* (Roughness), *Kina* (Dry Scaling), *Parusha* (Coarseness) as well as *Shyava Varna* (Blackish brown colour) and *Aruna Varna* (Pinkish red colour) in *Kitibha Roga*. Due to pacification of *Kapha Dosha* helps to subside *Kandu* (Itching), *Vruttan Vruddimanthi* (Round elevated demarcated plaque), *Gana* (Thickness plaque), *Sthira* (localization/ steady plaque), *Upalepa* (adhesion of plaque/ clusters) of *Kitibha* plaque. In addition, pacification of *Pitta Dosha* helps to decrease *Daha* (burning sensation and *Srava* (Pin point bleeding) of *Kitibha* disease. Further, ingredients of *Ghandhakadi Taila* has *Katu*, *Tiktta*, *Kashaya Pradhana Rasa* which helps to pacify *Pitta* and *Kapha Dosha*^[1]. Due to pacification of *Kapha Dosha* leads to minimize the clinical features of *Kandu*,

Vruttan Vrudhimanthi, *Gana*, *Sthira*, *Upalepa* of *Kitibha* disease. Moreover, pacification of *Pitta Dosha* leads to subside *Daha* and *Srava* of the skin lesions.. *Madura Rasa*, *Ushna Veerya* and *Snigdha* properties pacify *Vata Dosha* and leads to cure *Kina Khara sparsha*, *Parusha*, *Shayava Varna* in *Kitibha* plaques. Properties of *Snigdha*, *Vyavayi*, *Laghu*, *Yogawahi* and *Abishyandi* support to pervaded medicinal properties of *Ghandakadi* oil in to deeper tissue of the skin. In addition, it has *kandugna*, *Kushtagna*, *Dahaprashamana*, *shotagna*, *kaphagna*, *Varnakara* and *Vranaropana* properties and biochemical analysis revealed that it has anti inflammatory, anti ulcer, anti microbial, anti Viral and anti oxidant effects.

Conclusion:

Based on the study it can be concluded combination of *Panchatikta Ghrita* and *Gandhakadi Taila* is effective in the management of *Kitibha Kushta* (Psoriasis). Further clinical, biochemical and toxicity studies should be carried out in larger scales to evaluate the efficacy of the said treatment protocol.

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