



**AN OBSERVATIONAL CLINICAL STUDY TO ASSESS THE EFFICACY OF
KARANJADI LEPA WITH PANCHATIKTA GHRITHA AS SHAMANA SNEHA IN EKA
KUSTA W.S.R TO PSORIASIS**

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ABSTRACT

Eka Kusta is one among the *Kshudra Kusta* presenting with *Aswedanam*, *Mahavastu* and *Matsyashakalopamam lakshanas* and it takes upper hand by its chronicity, severity, involving large extent of body parts and is often compared to Psoriasis, a chronic, non-infectious skin disease characterized by well defined, slightly raised, dry, silvery erythematous macules of typical extensor distribution. This study was done to evaluate the efficacy of *Karanjadi Lepa* (*Ruksha lepa*) and *Panchatikta ghritha shamana snehapana* in *Eka Kusta*. A total of 20 patients who fulfilled the inclusion criteria were selected, were administered with *Karanjadi lepa* with *Panchatikta ghritha* for 14 days. The *Lakshanas* of *Eka Kusta* were observed, recorded and assessed. The statistical analysis after intervention showed highly significant result in all the parameters. The present study reveals that there is a significant added effect of *Panchatikta ghritha* internal administration with the *lepa* used externally in *Eka Kusta*.

KEYWORDS: *Eka kusta*; Psoriasis; *Karanjadi lepa*; *Chakramardadi lepa*; *Panchatikta ghritha*.

INTRODUCTION

Skin is the largest organ in the human body which weighs 4kg and covers 2m square area in an adult individual. Patients with skin disease may experience physical, socio-economic and psychological embarrassment in the society. Skin disease occurs about in 20-30% of general population, where Psoriasis affects about in 2 to 3% of the population¹ and is equally common in men and women. It can start at any age, there is a peak incidence during late teens or early twenties and a second peak during the fifties. Among different types of psoriasis plaque psoriasis is the most common variety.^[1]

In Ayurveda, all the skin diseases are categorized under *Kusta* among which Psoriasis is commonly identified with *Eka Kusta* which is one among the *Kshudra Kusta*^[2] presenting with *Asvedanam*, *Mahavastu* and *Matsyashakalopama lakshanas*.^[3] Among various varieties of *Kusta*, *Eka kusta* takes upper hand by its chronicity, severity, involving large extent of body parts and is often compared to Psoriasis.

Psoriasis is a serious condition strongly affecting the view in which a person sees himself and the way he is seen by others. It is linked with social stigmatization, pain, discomfort, physical disability and psychological distress.^[4]

Currently the treatment modalities available for the management of Psoriasis include topical therapy, corticosteroids, cytotoxic drugs, photo-chemotherapy. Most of these treatment modalities have serious limitations as they are only palliative. It is also important to note that they have considerable side effects when used for a longer period.^[5]

There are good number of drugs and yogas described in Ayurvedic classics for the management of *Kusta*. These formulations can be conveniently planned for individual variety of *Kusta* depending upon the symptoms and dosha predominance.

One such yoga which are described in classics is *Karanjadi lepa*^[6] and *Pancha tikta ghritha*^[7] is another yoga which is an established formulation for skin diseases which can be used for both shodananga and shamananga sneha. Sushruta mentions shodana and lepa as one of the prime treatment modalities when *Kusta* is *twak sampraptha*^[8] hence the current study was taken up to evaluate the efficacy of lepa chikitsa along with shamana sneha in the management of *Eka kusta w.s.r* to Psoriasis.

AIMS AND OBJECTIVES

To evaluate the efficacy of Karanjadi Lepa (Ruksha lepa) and Panchatikta ghritha pana in *Eka Kusta* w.s.r to Psoriasis.

MATERIALS AND METHODS

20 Patients with clinical features of *Eka Kusta* coming under inclusion and exclusion criteria approaching OPD and IPD of KAYACHIKITSA, SKAMCH&RC, BENGALURU were selected for the study.

Table 1: Showing diagnostic criteria criteria taken for the study.

| |
|---|
| Based on <i>lakshanas</i> of <i>Eka Kusta</i> |
| Signs and symptoms of Psoriasis |
| Candle Grease sign |
| Auspitz sign |

Table 2: Showing inclusion criteria taken for the study.

| |
|--|
| Patient presenting with signs & symptoms of Psoriasis |
| Patient presenting with <i>lakshanas</i> of <i>Eka Kusta</i> . |
| Patients of age group 11-70 years of either sex. |

Table 5: Ingredients and Preparation of karanjadi lepa.

| 1) Drug | 2) Latin name | 3) Useful part | 4) Quantity |
|----------------|---------------------|----------------|-------------|
| 5) Karanja | 6) Pongamia pinnata | 7) Beeja | 8) 1 part |
| 9) Chakramarda | Cassia tora | Beeja | 1 part |
| Kusta | Saussurea lappa | Mula | 1 part |
| Go mutra | Bos taurus | Mutra | 1 part |

Method of preparation of lepa

The above-mentioned Drugs Karanja seeds, Chakramarda seeds, Kusta roots were dried well in sunlight for a week. The dry drugs were pulverized to powder form and sieved using a cloth for fine powder. The fine powder was triturated with equal quantity of Go

Table 3: Showing exclusion criteria taken for the study.

| |
|---|
| Psoriasis associated with other systemic disorders that interfere with the course of treatment. |
|---|

Table 4: Showing laboratory investigations included for the study.

| |
|--------------------------------|
| Blood for Haemoglobin% |
| Erythrocyte Sedimentation Rate |
| Total Count |
| Differential Count |
| Random Blood Sugar |
| Urine Routine examination. |

Intervention

The patients were given *Panchatikta Ghritha* - 30ml in two divided doses of 15 ml in morning and night half an hour before food with hot water as *Anupana* & *Karanjadi Lepa* with *Gomutra* for external application on affected parts for a period of 14 days.

Duration of study- 14 days

Day 1- Before treatment (BT)

Day 14- After treatment (AT)

mutra, prepared chakrika and dried in sunlight. The dried chakrikas were powdered to prepare fine powder of lepa churna & was instructed the patients to mix with sufficient quantity of Go mutra and apply on lesions, wash after 30 minutes with water.

Table 6: Ingredients of panchatikta ghritha.

| Drug | Latin name | Useful part | Quantity |
|-----------|----------------------|--------------------------|----------|
| Guduchi | Tinospora cordifolia | Mula, Kaanda, patra | 1 part |
| Nimba | Azadirachta indica | Twak, Patra, Phala beeja | 1 part |
| Vasa | Adathoda vasica | Patra, Moola | 1 part |
| Kantakari | Solanum xanthocarpum | Panchanga | 1 part |
| Patola | Tricosanthes dioica | Panchanga | 1 part |
| Haritaki | Terminalia chebula | Phala | 1 part |
| Vibhitaki | Terminalia Bellerica | Phala | 1 part |
| Amalaki | Emblica officinalis | Phala | 1 part |
| Go Ghrita | Bos taurus | Ksheera | 2 parts |

Table no. 7: Showing grading of subjective parameters.

| Parameters | Score |
|---------------------------|-------|
| 1) Itching: | |
| No itching | 0 |
| Mild / occasional itching | 1 |

| | |
|---|---|
| Moderate (tolerable) infrequent itching | 2 |
| Severe itching frequently | 3 |
| Very severe itching disturbing sleep and other activities | 4 |
| 2) Erythema: | |
| Normal skin | 0 |
| Faint erythema on lesion or near to normal | 1 |
| Blanching + red colour on lesion | 2 |
| No blanching + red colour on lesion | 3 |
| Red colour + subcutaneous involvement | 4 |
| 3) Scaling: | |
| No scaling | 0 |
| Scaling off between 15 – 28 days | 1 |
| Scaling off between 7 – 14 days | 2 |
| Scaling off between 4 – 6days | 3 |
| Scaling off between 1 – 3 days | 4 |
| 4) Anhidrosis: | |
| Non anhidrosis | 0 |
| Mild, present in very few lesions | 1 |
| Moderate, present in few lesions | 2 |
| Excess, present in all lesions | 3 |
| Excess, anhidrosis in both lesion and uninvolved skin | 4 |
| 5) Dryness: | |
| No line on scrubbing with nails on lesion | 0 |
| Faint line on scrubbing by nails on lesion | 1 |
| Lining & even words can be written on scrubbing by nail on lesion | 2 |
| Excessive dryness leading to itching | 3 |
| Dryness leading to crack formation | 4 |
| 6) Burning sensation: | |
| No burning sensation on lesion | 0 |
| Mild burning sensation on lesion | 1 |
| Moderate burning sensation on lesion | 2 |
| Severe burning sensation on lesion | 3 |
| Severe burning sensation affecting sleep | 4 |
| 7) Epidermal thickening: | |
| No thickening | 0 |
| Mild thickening | 1 |
| Moderate thickening | 2 |
| Severe thickening | 3 |
| Severe thickening with induration | 4 |
| 8) Discharge: | |
| No discharge on lesion | 0 |
| Occasional discharge on lesion after itching | 1 |
| Mild discharge on lesion after itching | 2 |
| Moderate discharge on lesion | 3 |
| Profuse discharge on lesion making clothes wet | 4 |
| 9) Mahavastu: | |
| No lesions | 0 |
| Lesions on partial hand, neck, scalp, trunk, back | 1 |
| Lesions on most part of hand, neck, scalp, trunk, back | 2 |
| Only few areas of healthy skin noted | 3 |
| Lesions on whole body | 4 |

Objective parameters

PASI: PASI scoring was calculated by using PASI work sheet of British Columbia, ministry of Health Service.

Statistical analysis

- For the statistical analysis, the data obtained was recorded, presented in tabulations and drawings.

- The Statistic Mean, Standard Deviation (SD), Standard Error of Mean (SEM) were employed for descriptive statistics.
- To infer the clinical study and draw conclusion, paired 't' test was applied for within the group analysis
- The corresponding p value was noted and the obtained results were interpreted as:

Table no. 8: Showing interpretation of statistical results.

| Interpretation | P value |
|--------------------|---------------|
| Not Significant | >0.05 |
| Significant | <0.05 |
| Highly Significant | <0.01, <0.001 |

Table no. 9: Showing the results.

| Symptoms | Bt | At | Md | Sd | Se | T value | P value | Remarks |
|----------------------|-------|------|------|------|------|---------|---------|---------|
| Kandu | 3.05 | 0.4 | 2.65 | 0.65 | 0.14 | 18.38 | <0.001 | Hs |
| Arunata | 2.5 | 0.85 | 1.65 | 0.67 | 0.15 | 11 | <0.001 | Hs |
| Matsyashakalopamam | 2.75 | 0.15 | 2.6 | 1.04 | 0.23 | 11.11 | <0.001 | Hs |
| Aswedana | 2.64 | 1.29 | 1.35 | 0.93 | 0.22 | 5.98 | <0.001 | Hs |
| Ruksha | 2.6 | 0.65 | 1.95 | 0.68 | 0.15 | 12.70 | <0.001 | Hs |
| Daha | 2.66 | 0.5 | 2.16 | 1.16 | 0.47 | 4.53 | <0.001 | Hs |
| Epidermal thickening | 2 | 0.8 | 1.2 | 0.41 | 0.09 | 13.07 | <0.001 | Hs |
| Mahavastu | 1.4 | 0.75 | 0.65 | 0.58 | 0.13 | 4.95 | <0.001 | Hs |
| Pasi scoring | 10.52 | 3.20 | 7.42 | 4.22 | 0.94 | 7.84 | <0.001 | Hs |

Out of 20 patients on overall therapy, all 20 patients got highly significant results on all the parameters considered for the studies.

DISCUSSION

As per *Charaka samhita*, although all *Kustas* are *tridoshaja*,^[9] the treatment should be planned depending on the involvement of the predominant *dosha* i.e., by considering the *Tara tama bhavas* of *Doshas*.

Karanjadi lepa contains drugs like *Karanja*, *Chakramarda*, *Kusta* and *gomutra* which are having *laghu ruksha* and *tikshna guna*, *usna veerya*, *kushtaghna* and *kandughna* property which is helpful in alleviating *vata* and *kapha* which are vitiated mainly in *Eka Kusta* and helps in relieving the symptoms.

Panchatikta ghritha contains drugs like *Guduchi*, *Nimba*, *Vasa*, *Kantakari*, *Patola* which are *tikta rasa pradhana tridosha shamaka* and *rakta shodaka*. *Haritaki*, *Vibhitaki* and *Amalaki* together are known as *triphala*. This combination is *tridoshaghna* and *kushtaghna*. *Samskarita Ghritha* imbibes the properties of the drugs added to it and attains the specific *dosha harana* properties. *Ghritha* due to its *Pitta* and *Vatahara* property and *Ojo Vriddhikara* property helps in reducing the symptoms of *Eka Kusta*.

Probable mode of action of *karanjadi lepa*:

Effect of treatment on *kandu*

Kandu is one of the *kapha prakopaka lakshana*. *Karanja*, *chakramarda*, *kusta* are having *kandughna* property, *gomutra* which is added is having *usna guna* and *kapha hara guna* and this combined action of the *lepa* has helped in relieving *kandu* *Pancha Tikta Ghritha* being *tikta rasa pradhana* is best *kandughna* has added benefits as *shamana Sneha*.

Effect of treatment on *arunata*

Arunata is one of the *vata prakopa lakshana*.

Karanjadi lepa was found to be *rakta shodaka* due to *kusta*, further the drugs have *vatahara* property resulting in decrease of *prakupitha vata* and thereby *arunata*.

Pancha Tikta Ghritha does *snehana* when administered as *shamana dravya* and helps in reducing *vata prakopa* and inturn *arunata*.

Effect of treatment on *matsyashakalopamam*

Vata is responsible for the cell division (*sthula anu srotasam bhettha*), and *matsyashakalopamam/ abhraka patra samam* is manifested due to *sukshma & chala guna vriddhi* of *vata*, the drugs of *Karanjadi lepa* possess *vatahara guna*. The *usna*, *tikshna*, *lekhana* and *shodana guna* of *go mutra* has scrapping action of the lesions & helped in clearing the same.

Pancha Tikta Ghritha administered as *shamana Sneha* further prevented the aggravation of *vata* & thereby reducing the scaling of the lesions.

Effect of treatment on *aswedana*

Aswedana is due to blockage of *romakupa* by vitiated *doshas*. *Karanja* and *chakramarda* have *sroto shodana guna* and *kusta* being *swedajanana* has helped in relieving *aswedana*.

Pancha Tikta Ghritha given as *shamana Sneha* contains *kantakari* which is *swedajanaka* which accelerated the effect and helped in relieving *aswedana*.

Effect of treatment on *ruksha*

Ruksha is the *atma guna* of *vata dosha*, and excessive dryness was observed due to *vata vriddhi*. Though the drugs present in this *lepa* had *ruksha*, *laghu guna* and *gomutra* also being *ruksha* and *ushna* helped in reducing

rukshata probably due to *kapha vata hara* and *twak dosha hara karma* added with the effect of *shamana Sneha* given simultaneously.

Effect of treatment on *daha*

Karanja being *kapha- pitta shamaka* and *vraha shodaka* and *twak dosha hara* helped in relieving *daha*.

Further *Pancha Tikta Ghrita* contains drugs like *nimba* and *guduchi* which is *daha prashamaka* and *vasa* which is *pitta shamaka* enhanced *daha prashamana*.

Effect of treatment on epidermal thickening

Karanja is *twak dosha dalam param, kusta* and *chakramarda* have *usna veerya*, and *go mutra* is *kshara* and *kusta* is *ruksha* which helps in decreasing *kapha dosha* and hence decrease *sthiratha*.

Pancha Tikta Ghrita is *kapha hara* which helped in decreasing epidermal thickening.

Effect of treatment on *mahavastu*

Mahavastu means *maha sthanam* i.e., area of involvement of lesion is vast, the *saptako dravya sangraha* is the causative factor for *twak shaitilya* and the lesions are produced at the site of *sthana samshraya* of *doshas*. Further, *Shigrakari guna* of *vata* and *drava* and *laghu guna* of *rakta* are responsible for spreading of the lesions all over the body.

Karanja, kusta, chakramarda all being *kapha vata hara*, helps in *vata shamana* and *kusta* being *rakta shodaka* has helped in reducing the size and spread of the lesion.

The intake of *Pancha Tikta Ghrita* by its properties reduced *vata* and *rakta dusti* and checking the spread of lesion.

CONCLUSION

- *Eka kusta* is one among the *kshudra kusta* presenting with *aswedana, mahavastu, matsyashakalopamam lakshanas* and is usually compared with Psoriasis, a chronic, non-infectious skin disease characterized by well defined, raised, dry, erythematous, scaly papules of typically extensor distribution.
- *Eka kusta* is *alpadosha arambhatwa, alpalakshana*, less tendency of *uttarottara dhatu anupravesha* and *alpa chikitsya*.
- Even though *shodana* has been mentioned as the best line of treatment, many *Bahirparimarjana chikitsa* have been mentioned in the classics for the management of *kusta* and *Lepa* being one of them was selected for the present study along with internal administration of *Shamana Sneha*.
- The study was an observational clinical study with 20 diagnosed cases of *Ekakusta* of either sex. Patients were administered *PanchaTikta ghrita* as *shamana Sneha & Karanjadi Lepa* over lesions for 14 days.

- The effect of treatment was statistically assessed within the group by students paired 't' test. The analysis was statistically highly significant ($p < 0.001$) Before treatment to After treatment on all the parameters.
- All the *nidanans* mentioned in classics *aharaja (viruddhaahara, atiamla-lavana&katu rasa, vishamaashana), viharaja (diwa Swapna, vegadharana) & manasika (atikrodha, atichinta)* were elicited among all the patients.
- 3 patients developed burning sensation and mild bleeding from the skin lesions when *karanjadi lepa* was applied in summer.
- The present study reveals that there is a significant effect of *Karanjadi lepa* along with *Pancha tikta ghrita* as *shamana Sneha* in *Ekakusta*.

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