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Research Article

A CLINICAL EVALUATION OF EFFICACY OF AROGYAVARDINI RASA AND MARICHYADI TAILA EXTERNAL APPLICATION ALONG WITH PRANAYAMA IN EKA KUSTA W.S.R TO PSORIASIS

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ABSTRACT

Eka kusta is a type of kshudra kusta described in different Ayurvedic classics. It is a vata-kaphaj disorder. The clinical symptom of Ek kusta described in Ayurveda resembles with the clinical symptom of Psoriasis. The clinical feature of Eka kusta described by Kashyap represents remission, relapse and seasonal variation, which are present in Psoriasis. In modern medicine there is no definite treatment for this disease. 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 as well as toxicity. Medicines, which are used in Ayurveda, are safe and being practiced since thousands of year. A large number of drugs and measures are described in Ayurveda for the treatment of Kusta. This study was designed to access Ayurvedic treatment plan in the treatment psoriasis (Eka kusta). The study was randomized open phase clinical trial. The patients of age group 18 to 60 were selected on the basis of Ayurvedic signs and symptoms of Eka kusta. Observations were recorded for sharply defined erythemosquamous lesions varying in size; presence of erythema, scaling and induration in the lesions; surface consists of non-coherent scales; positive Auspitz sign – (Bleeding occurs after scratching of scales); positive onion peeling sign/candle grease sign (after scratching the scales fall like peels of onion). Since the assessment criteria were Quantitative, paired 't' test was applied. In the current study the treatment was found significantly effective in treating psoriasis.

Keywords: Ayurveda, Eka kusta, Psoriasis, Arogyavardini rasa, Marichyadi taila, Pranayama

INTRODUCTION

Eka kusta is a type of kshudra kushta described in different Ayurvedic classics^{1,2}. It is a Vata-Kaphaja disorder. The clinical symptoms of Kitibha described in Ayurveda resembles with the clinical symptoms of Psoriasis. The clinical feature of Kitibha described by Kashyapa represents remission, relapse and seasonal variation, which is present in Psoriasis. It is one of the most common dermatological problems of unknown etiology³. It is a chronic, genetically determined, inflammatory and proliferative disease characterized by dry, well-circumscribed, silvery scaling papules and plaques of various sizes with spontaneous remission, relapse and seasonal variation. Lesions distributed all over the body with silvery scales, covering loops of dilated superficial capillaries underneath which are presented as tiny bleeding points on removal of scales (Auspitz's sign). It affects about 2% of world population. Various races and communities differ in the susceptibility to this disease. In India it affects about 1.5% of population including both the genders. It appears to be

common in Europeans than in Orientals. Psoriasis is a common dermatologic disorder with psychiatric comorbidity that often goes undetected and untreated. It has higher associations with psychiatric illness than do other dermatologic conditions. Psoriasis is a multifactorial disorder associated with significant psychological distress, social stigmatization, psychiatric morbidity and other psychosocial factors. Patients with psoriasis report that their disease leads to various psychological and psychosomatic consequences, such as feelings of anger, depression, anxiety, and social isolation. The degree of pruritus is strongly correlated with depressive psychopathology. Furthermore, psychosocial burden plays a substantial role in patient perception of disease severity, quality of life, and disease course. Knowledge of mind-body-environment interactions can help to improve patients' skin conditions and, ultimately, their quality of life. Psoriasis like other skin disorder is a challenge to the medical sciences. In modern medicine there is no definite treatment for this disease. 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 as well as toxicity. Medicines which are used in Ayurveda are safe and being practiced since thousands of years.

Type of study:

The study was a observative Clinical To evaluate the efficacy of Arogyavardini rasa and Marichyadi taila external application along with pranayama in Eka kushta w.s.r to psoriasis".

Source of data:

The minimum numbers of patients included for the study were 20. Patients of either sex were selected from O.P.D of S.D.M college of Ayurveda Hassan after screening. The inclusion and exclusion criteria were duly considered before including the patients for the study.

Selection of patients:

After fulfilling the criteria set in the form of inclusion and exclusion criteria. A total 20 cases presenting with classical signs and symptoms of kitibha kushta were selected. Patients were advised with the abhyantara prayoga of Arogyavardini rasa 2 tablets thrice daily and Bahya prayoga of Marichyadi taila application once in a day and practice of pranayama once a day about 30 minutes for the period of 30 days.

Inclusion criteria:

Patients were seen for signs and symptoms of kitibha kushta those told by different acharyas. signs like shyavavarna kina, krishnavarna kina, parusha kina, Ghana, khara sparsha and symptom ugra kandu were appreciated in all patients before their inclusion. The age limitation for the study was kept to a minimum of 15 years and maximum of 60 years. Patients belonging to both the gender were included in the study.

MATERIALS AND METHODS

Exclusion criteria:

Chronic cases of more than 5 years were refused to be the part

of trial. Patients with the secondary systemic involvement like psoriatic arthritis etc were excluded. Patients with secondary systemic diseases like diabetes and hypertension were excluded from the study. Pregnant women and lactating mothers were not considered for the study.

Diagnostic criteria:

The above mentioned clinical signs and symptoms of kitibha kushta were used as diagnostic tools. Also the signs and symptoms of psoriasis were seen for patchy circumscribed skin lesions with erythematous, well defined, dry, silvery scaly papules and plaques were appreciated before their inclusion in the study. Patients were also seen for "Candle grease sign" and "Auspitz sign".

Posology:

For Abhyantara prayoga: 2 tablets thrice daily was advised with sukhoshna jala after food.

For Bahya prayoga: Sufficient quantity of taila was advised to apply as per the size & distribution of lesions.

Pranayama daily in the early morning for about 30 mins. Which includes Naadi shuddhi Pranayama, Soorya anuloma viloma pranayama and Kaphala bhathi pranayama

Study duration:

Abhyantara prayoga of Arogyavardhini rasa for 30 days.

Bahya prayoga of Marichyadi taila for 30 days.

Daily practice of pranayama for 30 days

Assessment of results:

Assessments of results were done on the basis of subjective and objective parameters before and after the treatment. The outcomes of the observations were analyzed statistically for 'P' value using paired Student 't' test.

Subjective parameters:

Shyava krushna Varna, Parushata, Ghanatwa, Kharasparsha and Kandu were set as subjective parameters. The grading was given as follows;

Table 1: (Subjective Parameters)

Sl. No.	Subjective Parameter	Score 0	Score 1	Score 2	Score 3	Score 4
1.	Shyava krushna varna	No	Mild	Moderate	Severe	Extensive
2.	Parushata	No	Mild	Moderate	Severe	Extensive
3.	Ghanatwa	No	Mild	Moderate	Severe	Extensive
4.	Kharasparsha	No	Mild	Moderate	Severe	Extensive
5.	Kandu	No	Mild	Moderate	Severe	Extensive

Table 2: (Objective Parameter)PASI

Sl. No.		Head	Upper Extremities	Trunk	Lower Extremities
A	Redness+				
B	Thickness+				
C	Scaling+				
	Sum of rows of 1, 2 & 3				
D	Area score				
E	Score of row 4 × row 5 × the area multiplier	Row 4 × row 5 × 0.1	Row 4 × row 5 × 0.2	Row 4 × row 5 × 0.3	Row 4 × row 5 × 0.4
F	Sum of row 6 for each column for PASI Score				

Steps in generating PASI score:

a) Divide the body into four areas: head, arms, trunk to groin and legs to top of Buttocks.

b) Generate an average score for the erythema, thickness, and scale for each of the 4 areas (0=clear; 1-4=increasing severity).

c) Sum scores of erythema, thickness, and scale for each area.
d) Generate a percentage for skin covered with psoriasis for each area and Convert that to a 0-6 scale (0=0%; 1=10%; 2=10-30%; 3=30-50%; 4=50-70%; 5=70-90%; 6=90-100%).

e) Multiply score of item(c) above times item (d) above for each area and Multiply that by 0.1, 0.2, 0.3, and 0.4 for head, arms, trunk and legs Respectively.

f) Add these scores to get the PASI score.

Erythema, indurations and scale are measured on a 0-4 scale (none, slight, mild, Moderate, severe).

Area scoring criteria (score: % involvement)

0:0 (clear)

1:0 - 10 %

2:10 - 30%

3:30 - 50%

4:50 - 70%

5:70 - 90%

6:90 - 100%

Assessment of results by objective criteria (PASI)

Complete remission- PASI score 0 after treatment.

Marked improvement- reduction of PASI scores more than 75% after treatment.

Moderate improvement- reduction of PASI score between 50-75% after treatment.

Minimal improvement- reduction of PASI scores less than 50% after treatment.

No improvement- no reduction in PASI score after treatment

OBSERVATION AND RESULTS

Age: Maximum numbers of patients were from 46-60 years age group. Though there is no clear explanation regarding age of onset, these observations do not match with the earlier researches and is difficult to draw any conclusion by this study involving minimum number of patients.

Sex: Males dominated the attendance in the study when compared to females. This supports the earlier research works. Some scholars of recent times opine that the rakta of stree

becomes shuddha every month as dushta rakta is expelled out in the form of rajasrava, so the incidence of dermatological problems are comparatively lesser than males.

Religion: In the present study maximum patients were from Hindu religion. But there are no references of earlier research works interpreting the religion. This particular observation may be because of Large Hindu dominated region.

Economical status: In the study most patients were from middle class status. The reason must be the inclusion of labours whose earning is good enough in this class.

Occupation: In the present study most were from labour class. The next were of sedentary occupation. The inclusion of all field workers (farmers) doing heavy works in this group must have influenced.

Nature of work: Maximum patients were from stressful working environment. The reason must be the manasika karana as hetu and precipitating factor of the disease.

Ahara (matra and kala): Most of the patients reported with madhyama matra ahara. Next were taking bahu matra ahara which is again told as nidana of the vyadhi and few were consuming alpahara who were females. Most of the patients were taking ahara at regular time. Those who were not taking at regular time were occupationally disturbed.

Rasa: People of this part of karnataka are accustomed of using more katu rasa. The next pre-dominant rasa used was madhura in the form as discussed in the nidana context under the same heading.

Guna of ahara: Most of the patients used dry type of food without ghee or butter. This may be the reason that the vata got aggravated to lead to the disease kushta as clarified by Acharya Vagbhata.

Type of ahara: Most of the patients were of mixed diet which once again shows the significance of mamsa and matsya in the manifestation of kushta. However once after being diagnosed as kitibha kushta either they have reduced the intake or stopped completely.

Table No-3(Showing the similarity between kitibha kushta and psoriasis)

Eka kushta	Psoriasis
Shayava,krushna and aruna varna kina	Erythema
Khara sparsha of the kina	Dry lesion, scaling
Parushata	Dryness and scaling
Srava	Flow of exudates from lesion in early stage
Vrutta	Rounded plaques
Ghana	Thickness of the lesion. Stable plaque
Ugra kandu	Lesions are variably pruritic
Vartate cha samutpannam	The disease may aggravate without any apparent cause

Table No-4(Showing statistical analysis)

Sl. No.	Parameters	Mean	S.D	S.E	t-value	Pvalue	Remarks
1.	Shyava Krishna Varna	2.55	.759	.170	15.022	<0.001	H.S
2.	Parushata	2.450	.686	.153	15.964	<0.001	H.S
3.	Ghanatwa	2.25	.851	.190	11.82	<0.001	H.S
4.	Kharasparsha	2.350	.875	.196	12.010	<0.001	H.S
5.	Kandu	2.60	.754	.169	15.931	<0.001	H.S
6.	PASI	1.22	3.44	.769	15.931	<0.001	H.S

In the studied group of patients mean of observed values after treatment was calculated and standard deviation, standard error, 't' values were calculated and was then referred for p-value which was <0.001. According to this all the parameters i.e. shyavakrushna Varna, parushata, ghanatwa, kharasparsha, kandu (subjective parameters) and PASI (Objective parameter) shown highly significance.

RESULTS

TABLE NO-4

Sl. No.	Impression	No of patients	Percentage of patients
1	Complete remission	0	00%
2	Best response	13	65%
3	Moderate response	04	20%
4	Mild response	3	15%
5	No response	0	00%

DISCUSSION

In this study group result was very quick to show. On the sixth day of the treatment itself the chief complaint kandu was reduced to 50% or even more. Eight days after the taila lepa total relief from kandu was noted. The sign parushata and rukshata were observed to decrease slowly, on the eighth to tenth day complete absence of rukshata was noted. Ghanatwa was relieved after eight to ten days of the taila lepa. The colour of the skin was last to become normal approximately on the fifteenth day. Patients were satisfied totally with the treatment as kandu was suddenly relieved. The additional effect of the treatment was found to induce good sleep as told by patients voluntarily. In the follow up period slight itching was noted in six cases, whereas none other lakshanas relapsed.

CONCLUSION

The purpose of this study was to assess the efficacy of Arogyavardini rasa and marichyadi taila external application along with pranayama in Eka kusta w.s.r to psoriasis". The cases were selected randomly from OPD of kaya chikitsa S.D.M college of Ayurveda Hassan. This study was designed as abhyantara prayoga of Arogyavardini rasa along with bahya prayoga of Marichyadi taila for local application along with pranayama. On the basis of this study, following conclusions can be drawn:

- Eka with its lakshanas simulates to psoriasis of modern science and was considered for the convenience of this study.
- Samanya Nidana, Poorvaroopo and Samprapti of kushta are accepted for the Eka kushta also as separate explanation regarding Eka kushta Nidana, poorvaroopo and samprapti are not available in the kushta chikitsa adhyayas.
- All the texts of Ayurveda have explained Eka kushta in kshudra kushta and dosha predominance as vata kapha except Acharaya Susrutha who says it as due to pitta.

- Shyava krushna varna of kina, parushata and ugra kandu are the lakshanas in Eka kushta rogi making their life miserable.
- Administration of bahirparimarjana chikitsa is inevitable in the skin diseases especially in Eka kushta.
- Marichyadi taila in the bahya prayoga is effective in kitibha kushta in controlling shyava krushna varna, parushata, ghnantwa, khara sparsha and kandu. It reduced the PASI scoring remarkably.
- No adverse effects were reported after applying Marichyadi taila externally.
- Arogyavardini rasa is effective in the management of kitibha kushta.
- No adverse reactions were reported in this study by the administration of Arogyavardini rasa.
- Pranayama is effective in the management of stress.
- The efficacy of Arogyavardini rasa is more significant when used along with bahya prayoga of Marichyadi taila application and pranayama

Limitations of the study:

- Sample size was very small to universalize the results.
- It was difficult to assess exact mode of action of as we used three procedures.
- Sample selection was random in the present study.

Recommendations for the future study:

- The same study can be taken for the study including large number of samples.
- The study can be done to evaluate the efficacy of pranayama
- The study can be done on cumulative effect of abhyantara prayoga of Arogyavardini rasa and bahya Prayoga of Marichyadi Talia application along with pranayama after shodhana.

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