Research Article

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CLINICAL STUDY ON THE EFFECT OF MOOLAKAAVALGUJA BEEJA LEPA IN SWITRA

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ABSTRACT
The color of the skin plays very important role in the society especially in India. Switra is a hypopigmentary disorder of skin. Based on the symptoms, Switra can be correlated to Vitiligo of modern science. This Vitiligo affects the estimated 1% of world's population. In the present study 22 cases of Switra were sampled in to 2 groups with 11 patients in each group. The first group of patients received Sramsana therapy followed by internal medicine and lepa. Patients of second group received only lepa. In first group moderate improvement was seen in 72.73 % patients and mild improvement seen in 22.27 % patients. In test group marked improvement was seen in 18.18 % patients whereas marked improvement was observed in 63.64 % patients and mild improvement in 18.18 % patients. When the results of the two groups were compared with unpaired 't' test statistically non-significant was obtained which proves the application of lepa alone can produce repigmentation in the mandalas by decreasing their number and size.
Keywords: Switra, Vitiligo, Sramsana, lepa.

INTRODUCTION

Vitiligo affects the estimated 1 % of world's population. It affects the individuals of all ethnic origins and both sexes. Between 30-40 % of the patients have a positive family history and the genetic factor is undoubtedly involved. It can begin at any age but more common between the age group of 10-30. This is a disfiguring disease whose cause and cure are unknown[1]. Vitiligo causes destruction of melanocytes in the skin mucous membrane, inner ear and occasionally hair bulbs. Melanocytes provide the pigment that gives skin its color[2]. Loss of pigment most commonly is noted first on the hands, feet, arms, face or lips. Frequently this disease is progressive and usually associated with autoimmune disorders like Diabetes mellitus, Myasthenia gravies etc. The treatment of Vitiligo is not completely satisfactory is spite of advanced modern technology and medicine[3]. Switra is considered as one of the variety of Kushta in the classics. It is due to vitiation of tridoshas and dhaus like rasa, rakta, mamsa and meda. Depending upon the duration of the disease and the involvement of the dhatus, the prognosis of the disease becomes bad[4]. Acharya Sushrutha also mentioned about Switra in Kustarogadhyaya and delt its type as Vataja, Pittaja and Kaphaja Switra[5]. While explaining rakta pradoshaja vikaras, switra is also mentioned. The principle line of treatment explained in such condition is virechana. Sramsana in particular is indicated for the treatment of Switra. As Switra affects the skin hence lepa is more rational.

MATERIALS AND METHODS

The materials taken for the study were, Trikatu Churna[6], Moorchita Ghrita[7], Argwadha phalamajja[8], Nimbapatradi churna[9] and Moolaka-Avalguja Lepa[10].

Sampling Method and Research Design

The total number of cases selected for the study was twenty-two excluding the dropouts. These 22 patients were assigned into two principle groups, Control group and test group, consisting of 11 patients each. The patients of control group were treated with Moolaka Avalguja Lepa along with Sramsana and Shamanoushadhi, while those of test group with Moolaka Avalguja Lepa and placebo. Both the groups were analyzed and results were compared.

Inclusion Criteria

- Patients of either sex having twacha shwetata with or without other symptoms of Switra were selected.
- Patients aged between 16-60 years were selected.

Exclusion Criteria

- Patients with systemic disorders which interfere with the course of treatment were excluded.
- Switra associated with other skin diseases like Kitibha, Vicharchika were excluded.
- Lesions present on the lips were excluded.
- Switra caused due to burns were excluded.

Investigation

Following investigations were done prior to the study.
- Blood for Hb % TC, DC, ESR.
- Urine for albumin, sugar and microalbumin.
- Other investigations if necessary.

Diagnostic Criteria

Twacha shwetata with or without the other features of Switra were selected.

Intervention

For Control Group:

- Ama, pachana by trikatu churna at the dose of 3 g thrice daily with ushnodaka as anupana before food until the appearance of nirama lakshanas.
- Sadhyah Sneha by Moorchita Ghrita
- Abhyanga and Ushnodaka Snana for three days.
- Sramsana by Aragwadha phala majja 20 g with ushnodaka at 8 o'clock
- Nimbapatradi churna 12 g given with milk in the early morning for 60 days.
- Thick application of Moolaka-Avalguja lepa over the mandala for 60 days.
- Exposure to sunlight for 10-15 minutes in the morning.

For test Group:

- Placebo was given for 60 days.
- Application of Moolaka-Avalguja lepa thickly over the mandala for 60 days.
- Exposure to sunlight for 10-15 in minutes in the morning.

Assessment Criteria

The assessment was based on the color, number and size of the mandala, which were observed before starting the treatment, during and after the treatment in two follow-ups. For the purpose of effect of lepa, the following criteria were considered.

- Decrease in the color of mandala
- Decrease in the number of mandala
- Decrease in the size of mandala.

To assess the effect, number and the size of the mandalas were considered as they are without grading before, during and after the treatment. To assess the improvement in color the following grading is given.

G_0- Normal skin color.
G_1- Mild depigmentation.
G_2- Moderate depigmentation.
G_3- Severe depigmentation
G_4- More severe depigmentation.

The data obtained from the test group and the control group were compared before the after treatment and analyzed statistically.

Color of the mandala

- Marked improvement - 67-100 % reduction.
- Moderate improvement- 34-66 % reduction.
- Mild improvement- 1-33 % reduction.

Number of the mandala

- Marked improvement- 67-100 % reduction in the number
- Moderate improvement- 34-66 % reduction
- Mild improvement- 1-33 % reduction.

Size of the mandala

- Marked improvement 67-100 % reduction in the size of the mandala
- Moderate improvement 34-66 % reduction
- Mild improvement 1-33 % reduction

OBSERVATION AND RESULTS

Totally 25 patients were selected for the present study. The study was completed in 22 patients only as three patients dropped out during the course of treatment. The patients assigned to test and control groups with equal number of male and female patients. In the present study it has been observed that the patients of Switra were more about 45.45 % between the age groups of 16-30 years, 27.27 % between 31-40 years and 13.64 % between 41-50 years, 22.73 % had the family history. When the pattern of distribution was observed it showed 54.55 % of the patients had symmetrical distribution of the patch. It was also observed that 68.18 % was having generalized type of Vitiligo and 31.82 % were having localized Vitiligo.

DISCUSSION

Both treated and untreated cases of Switra were taken for the study. Observations were made before, during and after the treatment in two follow ups. For the purpose of assessment of the effect of lepa, decrease in the color, size and the number of mandalas were considered. Lepa was applied along with placebo in the test group and along with Sramsana and Nimbapatradi churna in the control group. When both groups were compared, non-significant results were obtained in unpaired 't' test which proves that the improvement in both groups were almost the same. Color of the mandala showed highly significant result by paired 't' test in both the groups. Size also proved statistically significant. There is slight difference in the results in number of mandala in both the groups that is in test group P value is greater than 0.05 which shows nonsignificance and in control group value is less than 0.05 which shows statistically significant result. Finally when improvement in three assessment criteria was compared through unpaired 't' test non-significant values were obtained. Improvement in the number of mandalas was slightly more in test group and size was slightly more in the Control group. But similar results were obtained in both groups in the color of the mandalas. By assessing the overall results it can be said that there was no much difference in samprapti vighatana in both groups. As the difference was not-significant in unpaired 't' test, application of lepa alone can be used in the management of Switra as Sramsana and Shamanoushadhi are comparatively costly.

Table 1: Showing the significance of results in the size of the Mandalas

Follow-up	Groups	Mean	S.D	S.E	t	p	RM
After 1 week	First group	0	0	0	0	0	N.S
	Second group	0.363	2.778	0.838	0.433	> 0.05	N.S.
After 2 week	First group	2.727	7.414	2.238	1.218	> 0.05	N.S.
	Second group	1.818	4.854	1.466	1.24	> 0.05	N.S.
After 4 week	First group	28	44.434	13.416	2.08	> 0.05	N.S.
	Second group	9.909	14.009	4.229	2.343	< 0.01	S.S
After 6 week	First group	47.363	65.341	19.728	2.4	< 0.01	S.S
	Second group	12.727	17.029	5.145	2.47	< 0.01	S.S
After 8 week	First group	56.54	76.315	23.041	2.45	< 0.01	S.S
	Second group	17.090	23.021	6.954	2.45	< 0.01	S.S
After 10 week	First group	62.54	92.384	27.893	2.24	< 0.01	S.S
	Second group	17.090	23.021	6.954	2.24	< 0.01	S.S
After 12 week	First group	64.636	91.80	27.717	2.33	< 0.01	S.S
	Second group	17.090	23.021	6.954	2.57	< 0.01	S.S

Table 2: Showing the significance of results in the number of the Mandalas

Follow-up	Groups	Mean	S.D	S.E	t	p	RM
After 1 week	First group	0	0	0	0	> 0.05	N.S
	Second group	0.545	1.809	0.546	0.998	> 0.05	N.S
After 2 week	First group	0.181	0.462	0.139	1.302	> 0.05	N.S
	Second group	0.09	3.33	1.005	1.084	> 0.05	N.S
After 4 week	First group	0.727	1.271	0.383	1.89	> 0.05	N.S
	Second group	1.27	3.921	1.184	1.07	> 0.05	N.S
After 6 week	First group	0.818	1.25	0.377	2.169	> 0.05	N.S
	Second group	2	5.674	1.713	1.167	> 0.05	N.S
After 8 week	First group	0.909	1.22	0.368	2.47	> 0.05	N.S
	Second group	3	7.071	2.135	1.405	< 0.05	S.S
After 10 week	First group	0.909	1.22	0.368	2.47	> 0.05	N.S
	Second group	3.272	7.114	2.148	1.52	< 0.05	S.S
After 12 week	First group	0.909	1.22	0.368	2.47	> 0.05	N.S
	Second group	3.363	7.199	2.173	1.505	< 0.05	S.S

Table 3: Showing the significant difference of results in the color of the Mandalas

Follow-up	Groups	Mean	S.D	S.E	P.S.E	t	P and RM
After 1 week	First group	0	0	0	0.121	1.496	N.S.
	Second group	0.818	0.403	0.121			
After 2 week	First group	0.272	0.465	0.14	0.209	0.436	N.S
	Second group	0.363	0.511	0.154			
After 4 week	First group	1	0.447	0.135	0.189	0	N.S
	Second group	1	0.447	0.135			
After 6 week	First group	1.09	0.301	0.091	0.162	0.55	N.S
	Second group	1	0.447	0.135			
After 8 week	First group	1.454	0.522	0.158	0.224	1.625	N.S
	Second group	1.454	0.522	0.158			
After 10 week	First group	1.454	0.222	0.158	0.224	2.031	N.S
	Second group	1.545	0.522	0.158			
After 12 week	First group	1.545	0.518	0.156	0.21	0.867	N.S
	Second group	1.727	0.467	0.141			

Table 4: Showing Overall assessment of the improvement in both the groups

Improvement	First Group		Second Group	
	No. of Patients	Percentage	No. of Patients	Percentage
Marked	0	0	2	18.18
Moderate	8	72.73	7	63.64
Mild	3	27.27	2	18.18

CONCLUSION

Switra is a pitta pradhana tridoshaja twak vikara. Switra is a disease which effectively represents Vitiligo. The lakshanas of doshaja varieties of Switra are not found in the patients. Family history was present in 22.73 % of patients. Lepa alone as well as Sramsana and Shamanoushadhi along with lepa have their role in the management of Switra. Statistically also effect of both were proved with encouraging results in reducing the color and the size of the mandala. When the results were compared, non significant values were obtained in color number and the size of the mandala which shows both were equally effective.

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Cite this article as:
Seetha Devi P., Sandhya Rani D, Shreeshananda Sharma V. Clinical study on the effect of Moolakaavalguja beeja lepa in switra. Int. J. Res. Ayurveda Pharm. 2013;4(5):732-735 http://dx.doi.org/10.7897/2277-4343.04522

Source of support: Nil, Conflict of interest: None Declared