



EVALUATION OF THE EFFICACY OF SWITRARI RASA AND SWITRA LEPA ON SWITRA - A CLINICAL STUDY.

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ABSTRACT:-

Switra is defined as a skin disorder of skin which brings about the white coloured patches on the body the occurrence of the lesions of body is not restricted to a particular area, it may occur randomly anywhere. In the modern system of medicine the disease is compared with vitiligo. It is a skin disease causing a localized loss of pigmentation in which patient develops white spots in the skin which vary in size and location. The spots occur when pigment cells, or melanocytes are destroyed and the pigment melanin can no longer be produced. In this concern Ayurvedic treatment through holistic approach promises to the patients appearance and restore the normal pigmentation of this skin. Switrari rasa and lepa selected have internal and external applications respectively as thus contents of the yogas are quite economic. Hence the present study evaluation of the efficacy of Switrari rasa and lepa is under taken. Switrarirasa is a kharaliya rasayana and is a Sagni, Sagandha, Murchana of Parada. Rasoushadhis with various elements along with Kajjali is proved more effective than herbal formulations in lesser dosage. Switrari rasa and lepa are unique herbo mineral combination of drugs

to treat switra. The main objective of this study was to evaluate the clinical efficacy of switrari rasa and Switra lepa on Switra. Therapeutic efficacy of Switrari rasa and lepa was evaluated in single blind clinical trial on 30 selected cases of switra. Result showed highly significant by students paired t test. Overall response to the treatment was found to be well (60%) out of 30 patients under trial.

Key words: Switra, Switrari rasa, Switra Lepa, Vitiligo

INTRODUCTION :

Switra is a disease pertaining to Twacha¹ which turns the normal colour of the skin to white. It can be correlated to that of vitiligo in contemporary medicine which is a achromatic mocular depigmentory condition resulting from loss melanine pigment². This condition effects about 1-2% of the world population³ and 3-4% in India. All the races and both sexes are equally affected.

Since the etiological cause of vitiligo may not be removed medicine may only act on symptoms by means of therapies aimed at restoring the lost colour uniformity. However it is not always easy to suggest to a patent treatment being effective long lasting and free of side effects at the same time. As vitiligo is relatively common skin disorder is which white spots or patches appear on the skin. These spots are caused by distruction or weakening of the pigment cells in those areas, resulting in the melanine pigments being destroyed or no longer produced melanine is synthesized by special cells called melanocytes. Which restore the melanins, in most cases vitiligo is believed to be an autoimmune related disorder in vitiligo only the colour of the skin is affected but texture and other skin qualities remain normal. Though the contemporary medical science tries to treat this condition with different types of repigmentation therapies which fails to offer satisfactory results. In this concern Ayurvedic treatment through holistic approach promises to the patients appearance and restore the normal pigmentation of this skin. Switrari rasa and lepa selected have internal and external applications respectively as thus contents of the yogas are quite economic. Hence the present study evaluation of the efficacy of Switrari rasa and lepa is under taken.

AIMS AND OBJECTIVES:

- To assess the combined clinical efficacy of Switrari rasa and Switra Lepa on Switra
- To provide a safe, alternative and economic medicine in Switra.

REVIEW OF LITERATURE:

Switra is described as Kilasa and said to be an alternative or variety of kushta. It is of 3 types 1) Vataja 2) Pittaja and 3) Kaphaja. The difference between the kushta and kilasa lies in the fact that kilasa vitiation is restricted to skin and it is devoid of exudation as against kushta. Vataja Kilasa is circular, whitish red in colour and is coarse and associated with loss of hair. Pittaja Kilasa resembles the colour of lotus petals and is associated with burning sensation. Kaphaja Kilasa is white in colour, unctous, wide and associated with itching. (Ref: Su.Ni.Cha. 5/17)⁴.

Acharya Charaka gives the following explanation regarding switra.

Duruna, Varuna and Switra are the three synonyms of Kilasa. (Ref: Cha.Chi. 7/173)⁵.

All the other scholars more or less agree with the opinions of Sushruta and Charaka as far as etiology, Pathogenesis, signs and symptoms, prognosis and treatment are concerned.

MATERIALS AND METHODS:

Selection of patients:

Patients attending OPD and IPD of Shri DGM Ayurvedic Medical College and Hospital, Gadag, fulfilling the diagnostic and inclusion criteria of Switra were selected and registered randomly irrespective of age, sex or religion.

Method of collection of data:-

- a. Study Design: Prospective clinical trail.
- b. Sample size : A minimum of 30 patients are taken in randomized selection
- c. Study duration :60 days – treatment schedule
- d. Follow up: 30 days
- e. Administration of Drug:

Internally Switrari rasa 65mg / day, increased 65mg daily upto 60 days with Madhu.

Externally Switra lepa Q.S. rubbed in water to paste and applied all over the effected skin.

Criteria for Diagnosis:

Patients having signs and symptoms of Switra were selected percent study. Detailed history was taken and physical examination was according special proforma incorporating the signs and symptoms of the disease.

1. Medical history: Evaluation and diagnosis of Vitiligo require obtaining the following information:

- i. The age of onset of the white spots; Vitiligo rarely begins before the age of 6 months.
 - ii. Family history of Vitiligo and early greying of the hair (i.e., significant loss of hair colour before the age of 30 years)
 - iii. Inflammation, irritation, or rash preceding the white spots.
 - iv. Potential precipitating events including emotional stress, physical illness, sunburn, or other forms of cutaneous forms occurring within 2 to 3 months prior to the onset of de pigmentation.
 - v. Personal stress to the patient resulting from the disease
 - vi. Ocular or auditory dysfunction.
 - vii. Previous forms of therapy, either systemic or topical, how the therapy was prescribed, and the effects or toxicity of the treatment.
 - viii. Stability or progression of the disease.
 - ix. Allergies and personal family history of atopy.
 - x. Occupational hazards and hobbies to define chemical exposures that might be responsible for chemically induced Vitiligo.
 - xi. Personal or family history of associated diseases including thyroid disorders, premature graying, alopecia areata, diabetes mellitus, collagen vascular diseases, pernicious anaemia, and Addison's disease; personal history of other disorders aggravated by photo exposure or of photosensitivity.
2. Physical examination

The diagnosis of Vitiligo is based exclusively on the clinical examination of the patient. The physical examination includes the following findings; the presence of acquired asymptomatic depigmented macules or patches, usually without clinical signs of inflammation. Hypopigmented lesions may coexist with depigmented

lesions. Such trichrome lesions are often observed in individuals with darker skin. Trichrome Vitiligo is characterized by depigmented, hypopigmented, and normally pigmented skin. About 2% to 5% of patients may exhibit one or more depigmented lesions with dermatitic /inflamed borders. Vitiligo lesions may be found in any area of the body. The initial lesions are frequently found on the hands, forearms feet, face and lips. The borders of the lesions are usually discrete and well defined.

Inclusive and Exclusive Criteria:

Inclusion :

1. All the Patients other than that of exclusive criteria are included in the study.
2. Patients with classical symptoms of Switra as explained in Ayurvedic classics and diagnosed case of Vitiligo according to the contemporary diagnostic system are included

Exclusion:

1. Patients below 10 years irrespective of sex are excluded: because the children under the age of 10 may not be co-operative and also are not accepted for any trail. Thus the below 10 years of age children are excluded.
2. Patients above 60 years of age, irrespective of sex are excluded : because the old age people are of Vata ages and above the age of 60 may not be accepted as they are under the influence of degeneration. Thus the above 60 years of age people are excluded.
3. Pregnant women and lactating women are excluded: because the drug may be placental barrier, thus pregnant women and lactating women are excluded.
4. Patients suffering from other systemic disease are excluded: Because the other systemic diseases may mask the disease original and the effect of the trail drug may not elicited perfect. Thus the Patients suffering from other systemic disease are excluded.
5. Patients with Burnt areas are excluded: Because the burnt area skin loses permanently melanocytes and scar is formed, which is a irreversible white patch mimics the Vitiligo. Thus the Patients with Burnt areas are excluded.

6. The patches over lips and mouth angulations are excluded: The patches over lips are excluded because the application over the area is not possible as it is a cornified tissue. Thus the people with such lesions are excluded.

7. The genital area patches are excluded: Because, of the application as generally is not possible and may cause irritation to that part due to Haratala and bakuchi. Thus such cases are excluded in the study.

Criteria for assessment:

Subjective and objective parameters will be assessed for result.

I) Subjective parameter: Signs and symptoms as designed in classical texts.

1. Rukshata: becoming skin dryness at depigmented surface is identified as

different grades are as follows –

Grade 0 – Normal skin dryness

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

2. Parushata: becoming skin roughness at depigmented surface is identified as

different grades are as follows –

Grade 0 – Normal skin roughness

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

3. Paridwamshi: getting dusty skin at depigmented surface is identified as different

grades are as follows

Grade 0 – Normal dusty skin

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

4. Daha: getting burning sensation of skin at depigmented surface is identified as

different grades are as follows

Grade 0 – No Burning sensation

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

5. Roama Patana: getting hair falling at depigmented surface is identified as

different grades are as follows

Grade 0 – No hair fall

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

6. Kandu: getting itching at depigmented surface is identified as different grades are

as follows

Grade 0 – No itching

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

7. Kleda: getting moisture skin at depigmented surface is identified as different

grades are as follows

Grade 0 – Normal skin

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

8. Srava: getting discharge at depigmented surface is identified as different grades are as follows

Grade 0 – Normal skin

Grade 1 – Mild

Grade 2 – Moderate

Grade 3 – Severe

II) Objective parameter

For the assessment of results the following objective parameter were consider

i) Colour

ii) Margin

iii) Number

iv) VASI score.

To assess the effect number and VASI score were consider as they are without grading before and after treatment. To assess the improvement in colour and margin the following grading were given.

1. Colour: The colour of your skin is due to an interaction between

(1) Pigment composition and concentration and

(2) The dermal blood supply. The grades are as follows

Grade 0 – Normal skin colour

Grade 1 – Non-unified normal skin

Grade 2 – Pigmentation is more than depigmentation

Grade 3 – Depigmentation equal or more than pigmentation

Grade 4 – Depigmentation more than pigmentation

Grade 5 – Complete Depigmentation

2. Margin: margins of the lesions are enumerated as grades are as follows.

Grade 0 – Normal skin colour attributed

Grade 1 – Hyper pigmented thick broad width graduated margin

Grade 2 – Hyper pigmented broad width graduated margin

Grade 3 – Hyper pigmented well defined margin

Grade 4 – Hyper pigmented thin edge margin

Grade 5 – Ill defined margin

3. VASI score:

When patients or physicians try to determine how well a particular treatment works for Vitiligo, it is often difficult to compare different treatment options. There is no standardized measure for the amount of Vitiligo someone has and how it responds to treatment. There is a standard for psoriasis known as the PASI (psoriasis Area and Severity Index) score, which has been quite helpful in comparing different treatment options in numerical terms. The PASI has been the basis for the FDA in its evaluation of the rapid increase in new psoriasis treatments. This is not the case for vitiligo. Presently, when a patient wants to determine how well Narrow Band UVB (NBUVB) may work for their Vitiligo they are given the statistic that is often not intuitive.

The first step of the VASI is to divide the patient into various body regions such as the arms, trunk, legs, hands and feet. Then, using the assumption that a palm of the hand is equivalent to 1% of the body surface, the physician determines how much of the skin is affected by Vitiligo. Then the physician determines what percent of the skin is depigmented by referring back to standardized pictures of various degree of pigmentation (see attached pictures)

$$\text{VASI} = \frac{\text{Sum of value of product of palm units X Extent of depigmentation}}{\text{Total Body surface area}}$$

II) Overall assessment

Overall assessment of the results are done considering the cumulative effect of subjective and objective parameters. The disease is not totally manageable within the scheduled time, the grades of assessment of results made as under.

1) Cured:

Colour – Normal skin colour

Margin – Normal or No margins

Number –100% reduction

VASI – VASI score is “Zero”

2) Well Responded:

Colour – non unified normal skin colour

Margin – hyper pigmented thick broad width graduated margin

Number – more than 75% reduction

VASI – more than 75% reduction

3) Moderately Responded:

Colour – pigmentation equal to depigmentation

Margin – hyper pigmented broad width graduated margin

Number – more than 50% reduction

VASI – more than 50% reduction

4) Poorly Responded:

Colour – depigmentation is more than pigmentation

Margin – hyper pigmented well defined margin

Number – less than 50% reduction

VASI – less than 50% reduction

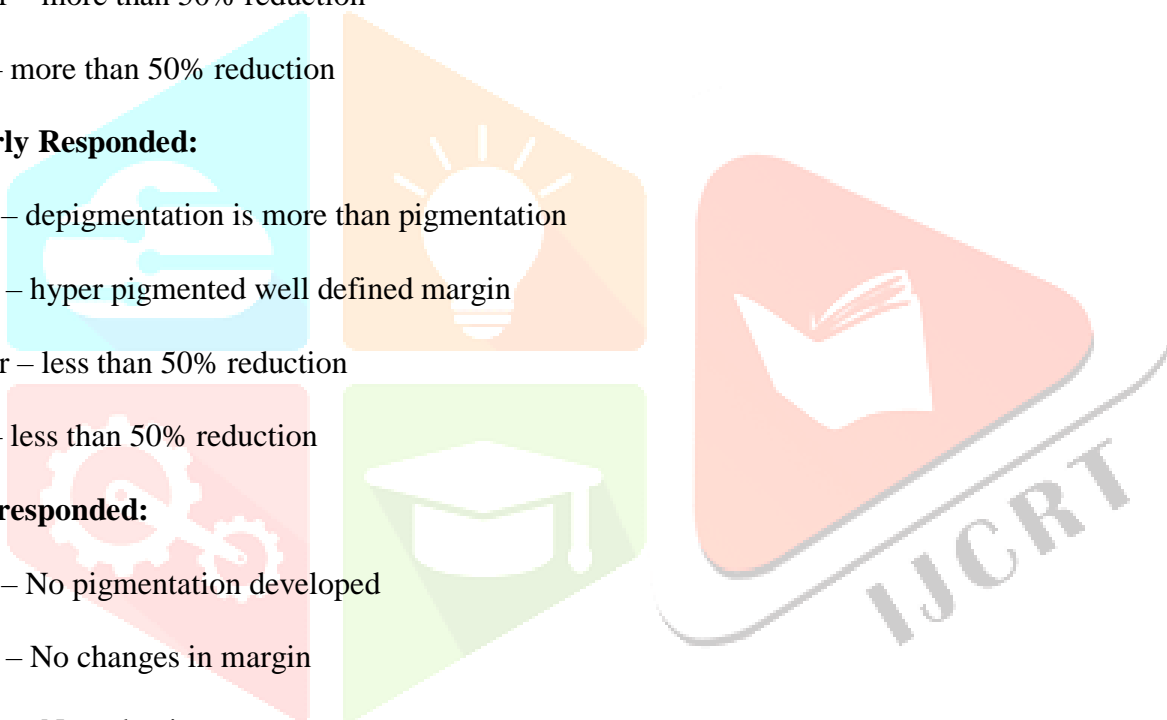
5) Not responded:

Colour – No pigmentation developed

Margin – No changes in margin

Number – No reduction

VASI – No reduction



OBSERVATIONS AND RESULTS:**Table No. 1. Assessment of subjective parameters in switra**

Subjective parameters	Patient Before	Patient after	Patient Changed	Changed %
Rukshata	5	1	4	80
Parusha	2	1	1	50
Daha	2	1	1	50
Kandu	4	2	2	50
Guruta	1	0	1	100

Table No. 2. Assessment of objective parameters in switra

Objective parameters	Mean Before	Mean after	Mean Difference	% Improvement
Colour	4.06	1.866	2.0194	49.73
Margin	4.13	1.866	2.266	54.86
Number	13.76	9.76	3.99	28.99
VASI	1.174	0.579	0.595	50.68
Average				46.06%

The subjective parameters which are considered here show marked response with good percentage of relief. At the objective parameters all has shown the variances on the positive declination in the study.

Table No. 3. Result in Switra with Switrari Rasa and Switra lepa

Result	No of Patient	Percentage
Cured	02	6.67
Well responded	08	26.66
Moderate responded	11	36.67
Poor responded	08	26.66
Not responded	01	3.34
Total	30	100

Table No. 4. Statistical analysis of the clinical and objective parameters Subjective parameters statistical analysis in switra with switrari rasa and switra lepa

Subjective Parameters	Mean	SD	SE	T value	P value	significance
Rookshata	0.266	0.52	0.095	2.804	> 0.05	NS
Parusha	0.066	0.365	0.066	1.0	> 0.05	NS
Daha	0.1	0.402	0.073	1.36	> 0.05	NS
Kender	0.3	0.65	0.018	2.523	> 0.05	NS
Guruta	0.13	0.434	0.0791	1.68	> 0.05	NS

NS-Not Significant

Objective Parameters	Mean	SD	SE	T value	P value	significance
Colour	2.2	0.961	0.175	12.53	< 0.001	HS
Margin	2.26	1.04	0.191	11.84	< 0.001	HS
Number	4.06	5.686	1.03	3.94	< 0.001	HS
VASI	0.296	0.435	0.079	3.72	< 0.001	HS

HS-Highly Significant

Individually all the objective parameters show high significance by comparing p value. The parameter colour, margin, S. Copper show high significance than the other parameters (By comparing t value). The parameter S. Copper show more net mean effect, with more variations, where as VASI show less mean effect with less variation (by comparing mean and SD). In the head and neck the parameters colour and margin show high significance than the number. Where as VASI show non significance (by comparing p & t values). In the trunk region the parameters colour and margin shows high significance, but the parameters number and VASI are not significant (by comparing p & t values). In upper limb the parameters margin and colour show high significance than number. The parameter VASI is not significant in upper extremities (by comparing p & t values). In the lower extremities the parameters colour and margin show high significance but the parameters.

DISCUSSION

Ingredients of Switrarirasa

Parada : Krimigna, Tridoshagna, Rasayana, Yogavahi

Gandhaka : Kusthagna, Kaphavatahara, Rasayana,

Kaseesa : Switragna, Raktashodhaka, Kushtagna,

Ingredients of Switralepa

Haratala : Kushtagna, Jwaragna

Bakuchi : Kushtagna

Parada, Gandhaka and Kaseesa are main ingredients of Switrarirasa. It is having property such as Krimigna, Tridoshagna, Rasayana and Yogavahi properties.

Switrari rasa in its finest state of subdivision slowly absorbs into the gut and produces systemic action. Presence of Kaseesa which gives repigmentation to the skin with association of Parada and Gandhaka and causing soothing action on skin.

- Deepana and Pachana action of Parada, Gandhaka and Kaseesa causes amapachana action. This helps chikitsa sutra of Switra, once the amapachana is done the nirama lakshana would appear.
- Yogavahi guna of Parada enhances activities of Gandhaka and Kaseesa.

Mode of action Switralepa

- Bakuchi is having action of the melanocyte stimulation. The drug Bakuchi is drug of choice in vitiligo and which has been successfully using by various system of medicines in various forms.
- In present study, Bakuchi which used in application was purified in Gomutra for 7 days.
- In western system of medicine the available drugs for vitiligo obtained from Bakuchi are trioxalen and methoxalene.
- Kushmanda swarasa shodhita Haratala is best drug for Switra.
- By its Ushna, Teekshana, Lekhana gunas may help in rejuvenation of the melanocytes.

Some patients are having sensitive symptoms against lepa, due to arsenic content of formulation. While applying ghee over affected area can normalized.

CONCLUSION

- Switrarirasa & lepa has shown better zone of inhibition of switra compared to modern drugs.
- Switrarirasa & Switra lepa was found to be highly significant on all the objective parameters with an Average improvement of 46.05% where as there was no significant effect found on the subjective parameters.
- 60% of the patients were well responded where as remaining patients did not respond significantly.

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