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An open labelled clinical study to evaluate the effect of Manjistha Lepa on Savarnikarana of Vrana Vastu w.s.r. to scar

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ABSTRACT

Vranavastu is the scar formed on the skin after the Vrana is healed. It remains for the rest of life even after the healing of Vrana is completed.^[1] This Vranavastu forms discoloration of skin, to treat this discoloration of skin various procedures are explained in Vaikrutapaha Chikitsa^[2] of Vrana, which helps to restore the normal skin color after healing. Cosmetology^[3] was given utmost importance even in the Vedic period. It emphasizes not only on physical beauty but also on psyche beauty for the purpose of attaining an admirable personality. Reference of *Manjishta*^[4] used in skin disorders is mentioned in Charaka Samhitha under Varnya Gana. This study is carried out in a single group of 30 diagnosed cases of Vrana vasthu. This study is based on clinical evaluation of effect of Manjishta Lepa in Vrana Vasthu. Obtained observations and results have been analyzed in terms of Ayurveda and Contemporary science.

Key words: Manjistha, Savarnikarana, Vrana, Scar

INTRODUCTION

Ayurveda includes every aspect of a living thing's over all physical and mental wellbeing. The definition of Ayu includes the body, sense organs, mind, and soul.

Shalya Tantra is one among eight branches of Ayurveda, sheds light on various Surgical and Para surgical interventions for the treatment of various diseases. Acharya Sushrutha gave much more importance to the treatment of Vrana.

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Vrana Vastu is the scar formed on the skin after the Vrang is healed. It remains for the rest of life even after the healing of Vrana is completed. This Vrana Vastu forms discoloration of skin, to treat this discoloration of skin various procedures are explained in Vaikrutapaha Chikitsa of Vrana, which helps to restore the normal skin color after healing. Cosmetology was given utmost importance even in the Vedic period. It emphasizes not only on physical beauty but also on psyche beauty for the purpose of attaining an admirable personality.

Skin being largest organ of the body not only attracts attention directly. But also acts like first line of body defense.^[5] Which is also prone to wounds and injuries commonly leading to scar or post inflammatory pigmentation, this acquired skin disorder can also be a complication of laser therapy. The prevalence rate of scar is >70%.^[6]

Wound healing^[7] is a series of mechanism which may lead to altered skin pigmentation causing unpleasant appearance and cosmetic concern by formation of scar hence management of scars and pigmentations are

important. Mismanaged scar can develop into a hypertrophied scar or a keloid. As we know the cosmetic procedures in the present era are mostly invasive, costlier with considerable side effect and are not so feasible to common man.^[8] So there is need of *Ayurvedic* remedies in cosmetology which will be easily available with good outcomes and devoid of side effects.

Scar are a natural and normal part of healing following an injury to the skin. *Vranavastu*^[9] was mentioned by *Sushruta* which is formed after wound healing. The context of *Vaikrutapaha Chikitsa* of *Shasti Upakrama* like *Pandu Karma and Krishna Karma*^[10] was found in *Sushrutha Samhitha* and the concept of *Savarnikarana* was mentioned by *Acharya Charaka*^[11] and *Vagbhata*.^[12]

Manjishta^[13] used in skin disorders is mentioned in *Charaka Samhitha* under *Varnya Gana*. It also has *Vranahara, Varnya* and *Raktha Shodhaka*^[14] properties.

AIMS AND OBJECTIVES

To assess the efficacy of *Manjistha Lepa* in *Savarnikarana* of scars

MATERIALS AND METHODS

Literary Source

The Literary data of *Vrana Vastu* and *Manjishta Churna* was collected from Ayurvedic texts, contemporary reputed published journals and retrorespective studies.

Sample Source

30 patients diagnosed with Scar or Pigmentation on skin resulted due to ulcers or wounds are selected from the IPD and OPD of S.D.M Ayurveda Hospital, Udupi.

Drug Source

Manjishta in dry form was identified and *Churna* was prepared in SDM Pharmacy Udupi.

Method of collection of data

30 subjects fulfilling diagnostic and inclusion criteria was selected and taken for the clinical trial with consent.

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Study Design

Single group open labelled clinical study with pretest and posttest design.

Sample Size

30 patients fulfilling inclusion criteria was selected.

Diagnostic Criteria

- Patients were investigated according to the proforma prepared for the study.
- Patients diagnosed with scar or pigmentation of skin after wound healing.
- The age group of 18-60 years was selected.
- Size of the scar measuring upto 25sqcm.

Inclusion Criteria

- Patients are selected in the age group of 18-60 years.
- Patients with scar or pigmentation of skin after wound healing.
- Post-operative scar
- Size of the scar measuring up to 25sqcm.

Exclusion Criteria

- Malignancy.
- Keloid.
- Patients suffering from skin disease like leucoderma, leprosy was excluded.

Method of preparation of Lepa

Dry *Manjishta* roots was collected and pounded into fine powder. This powder was mixed with sufficient quantity of water to make into the form of *Lepa*.

Intervention

Method of Application

The area of scar selected was cleaned with normal saline and dried with a sterile gauze. The freshly prepared *Manjishta Lepa* was applied over the scar, with thickness of ½ *Angula* (0.75cm)^[15] in opposite to the direction of hair follicles and was kept until it dries up.

Duration of treatment

The *Lepa* was applied once daily for a duration of 28 days.



Manjistha Roots



Manjistha Churna

Observation period

- The patients were observed on 0th, 7th, 14th and 28th days.
- Follow-up of the patient was done after 2weeks.

Study Period			Follow Up	
Day 0	Day 7	Day 14	Day 28	Day 42
вт	AT-1	AT-2	AT-3	AT-4

Assessment Criteria

Subjective parameters

Pain	Vancouver Scar Scale ^[16]
None	0

Occasional	1
Requires medication	2
Itching	
None	0
Occasional	1
Requires medication	2

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Objective parameters

Pigmentation	Vancouver Scar Scale ^[16]
Normal	0
Hypo pigmentation	1
Mixed pigmentation	2
Hyperpigmentation	3
Colour of skin	Visual analog scale ^[17]
Perfect	1
Slight mismatch	2
Obvious mismatch	3

To compare the color of the scar with normal skin color by using the above parameters with the help of Fitzpatrick scale^[18]



Shape of scar	Grading
Remains unchanged	Grade 3
Reduction in shape/ size from 25 % - 50%	Grade 2
Reduction in shape/ size from 50% - 75%	Grade 1

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Reduction in shape/ size > 75% Grade 0

Subjective parameter within the group

Itching on the scar - Wilcoxan sign rank

Table 1: Comparison of Mean of Itching of the Scar

Parameter	Mean Score	P Value
Itching of scar 0-7 th day	0.23	1.0
Itching of scar 14 th day	0.20	0.31
Itching of scar 28 th day	0.03	0.06
Itching of scar 42 nd day	0.0	0.03

Objective parameter within the group

Colour of the scar - Wilcoxan sign rank

Table 2: Comparison of Mean of Colour of the Scar

Parameter	Mean Score	P Value
Colour of scar 0 - 7 th day	3.03.	1.0
Colour of scar 7- 14 th day	2.26	0.00
Colour of scar 14 - 28 th day	1.93	0.0
Colour of scar 28 - 42 nd day	1.03	0.0

Shape of the scar - Wilcoxan sign rank

Table 3: Comparison of Mean of shape of the Scar

Parameter	Mean Score	P Value
Shape of scar 0- 7 th day	3.0	1.0
Shape of scar 7- 14 th day	2.1	0.0
Shape of scar 14- 28 th day	1.7	0.0
Shape of scar 28-42 nd day	0.9	0.0

Comparing the results before and after the intervention using Wilcoxon signed rank test, reveals that it is statistically highly significant with the p value being 0.00

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Paired T Test

Objective Parameter - Within the group

Size of the scar - Paired t test

Table 4: Observations on Area of the Scar afterApplication of the Lepa

Size of the scar	Mean Score	P Value
Size of the scar BT	7.55	0.20
Size of the scar 0-7th day	7.49	0.20
Size of the scar7-14th day	4.50	0.00
Size of the scar 14-28th day	2.98	0.00
Size of the scar 28- 42 nd day	1.64	0.00

Comparing the results before and after the intervention using Paired T test, reveals that it is statistically highly significant with the p value being 0.00

Observations on Size of the Scar after Application of the *Lepa*

In present study out of 30 patients, after comparing before and after treatment. The p value for color of scar after treatment on 7th day for the variable size of scar using Wilcoxon signed rank test, results obtained was found statistically was not significant as the p value was 0.20.

The mean color of the scar was reduced after the treatment on 14th, 28th and 42nd day was found statistically highly significant with p value 0.00.

There was Gradual reduced in size of the scar during the course of treatment with the help of *Manjishta Lepa*.

Observations on color of the Scar after Application of the *Lepa*

In present study out of 30 patients, after comparing before and after treatment. The p value for color of scar after treatment on 7th day for the variable size of scar using Wilcoxon signed rank test, results obtained was found statistically was not significant as the p value was 1.0.

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The mean color of the scar was reduced after the treatment on 14th, 28th and 42nd day was found statistically highly significant with p value 0.0.

Manjistha is included under Varnya Dashemani. Ushna Veerya accelerates the action of Bhrajak Pitta (Agni), which is responsible for skin color and luster. Due to Tikta Rasa and Katu Vipaka have Kushthaghna property and Kashaya Rasa has Varnya action.

Observations on itching of the Scar after Application of the *Lepa*

In present study out of 30 patients, after comparing before and after treatment. The p value for color of scar after treatment on 7th, 14th and 28th day for the variable size of scar using Wilcoxon signed rank test z value is results obtained was found statistically was not significant as the p value was 1.0, 0.31, 0.06

The itching of the scar was reduced after the treatment on 42^{nd} day was found statistically highly significant with p value 0.03.

Kandu is the symptom of Kapha mainly but it is due to dryness of skin and Vata dosha is the main reason behind it. Madhura Rasa of Manjistha pacifies the Vata dosha relieving Kandu. Kandughana action is performed by Tikta Rasa.

Observations on shape of the Scar after Application of the Lepa

In present study out of 30 patients, after comparing before and after treatment. The p value for shape of scar after treatment on 7th day for the variable size of scar using Wilcoxon signed rank test and the results obtained was found statistically not significant as the p value was 1.00.

The mean shape of scar was reduced after the treatment on 14th, 28th and 42nd day and was found statistically highly significant with p value 0.000.

The shape of scar during treatment was found to improve gradually and found to be statistically highly significant after 42nd day with p value 0.00.

Rakta Prasadana by *Tikta Rasa* of *Manjistha* along with other factors contributes to nature the skin and

maintain its proper luster and texture and prevent the *Vairupya* / shape caused due to tearing of skin.

CONCLUSION

Cosmetology was given utmost importance even in the *Vedic* period. It emphasizes not only on physical beauty but also on psyche beauty for the purpose of attaining an admirable personality. Wound healing is a series of mechanism which may lead to altered skin pigmentation causing unpleasant appearance and cosmetic concern by formation of scar, hence management of scars and pigmentations are important. So, there is need of Ayurvedic remedies in cosmetology which will be easily available with good outcomes and devoid of side effects. Using Manjishta Lepa in scar has proven effective both clinically and statistically by reducing itching, shape, size and colour of the scar. It also has properties like Vranahara, Varnya and Raktha Shodhaka. The treatment is effective in reducing the size of the scar in almost patients and 78% of patients had reduced in size of the scar. Hence this less interventional, economical method which helps to bring back normal colour associated with least adverse effect.



Before Treatment



After Treatment



Before Treatment



After Treatment

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