

'EFFECT OF HARITAKI LEPA IN THE MANAGEMENT OF HYPERPIGMENTED SCAR'**¹Dipke Amol Ashok ²Annapure S.V.**¹M.S.(Scholar), ²HOD & Professor , Department of Shalyatantra , Government Ayurved College , Vazirabad ,Nanded, Maharashtra, India**ABSTRACT**

Hyper pigmented scar is the sequel of most of the wounds. The occurrence of hyper pigmented scar has equal distribution in either sex and incidence is highest in second to third decade. . In case of delayed healing, it is more likely to be local than general which simplifies the importance of the difficulty of study. It is a cosmetic problem, there is no any economical & safe treatment available. *Acharya Sushruta* has suggested treatment for the scar as *Pandukarma* in sixteen *vranoupakramas*. *Chebulic myrobalan (Haritaki)* was freely available in our area. In *pandukarma*, *Haritaki (Chebulic myrobalan) lepa* applied on scar site. 100 patients were selected and divided in two groups Group A (*Haritaki* with Goat's milk), Group B (*Haritaki lepa*). Treatment was given for 28 days ,the results found are quite satisfactory. Due to *vranakar karma* of *Haritaki* Scar size and colour were improved.

Keywords: Hyper pigmented, *Pandukarma*, *Haritaki*, *vranaropana*.

INTRODUCTION

Sushruta is the father of surgery whose knowledge of clinical material and the principles of management are considered to be true in this era. He classified traumatic wounds in *Shuddha Vrana*, *Nadi Vrana*, *Sadhya Vrana*, *Dagdha Vrana* and also explained *their* stepwise evaluation and treatment in the form of sixty *upakramas* which are from *Apatarpana* to *Rakshavidhana*, resolve on primary suturing in clean wounds prevention of sepsis are outstanding for their current point of view. The study of *Shalya Chikitsa* brings out obviously that *Vrana* (wound) is the most momentous surgical thing and the acquaintance of its effective management for a surgeon is the basic obligatory skill on which the conclusion of surgery turns. Wound healing, a complex and dynamic interactive process, is divided into 3 overlapping phases: inflammation, tissue for-

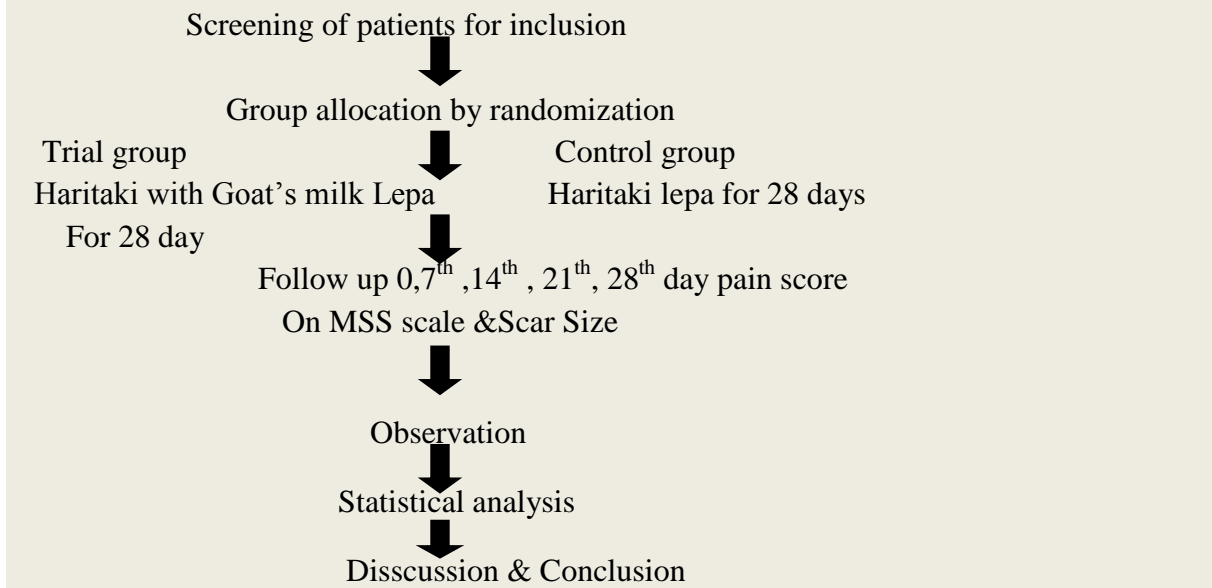
mation, and tissue remodeling . Cutaneous scars from surgical wound can result in normal asymptomatic scars to cosmetically unacceptable scars . Scars are not only a cosmetic concern but they can also cause pain, itching, discomfort, contracture, and other functional impairment. Several well-proven interventions are available for scar treatment including intralesional steroid injection, surgical excision, cryotherapy, radiotherapy, dermabrasion, pulse dye, and carbon dioxide laser therapy. These treatments have variable success and require multiple therapeutic sessions. Therefore, prevention and early recognition of hypertrophic scars and keloids are essential in their management. Among preventive treatments available, *Haritaki churna* with goat's milk *lepa* to improve the appearance and texture of surgical hypertrophic scars.

Haritaki is the plant simply accessible in the Indian subcontinent. It has seven types, among these *Rohini*, which is said to be *Varnakar* action which is used

in this study. It was observed that patients scar size reduces than improved of scar colour.

STUDY DESIGN:

Prospective open labelled randomized controlled clinical trial.



MATERIAL & METHOD:- Total of 100 patients were selected for this study and divided in 2 groups.

Group A(Experimental group): *Haritaki lepa* with goat milk was applied on the scar daily according to size for 28 days.

Group B(Control group): *Haritaki lepa* was applied on the scar daily for 28 days.

The clinical study had been conducted in the out patients department department of *shalyatantra*. The patient of either sex were randomly selected of age group 16 to 65 yrs. The detail history of each patient was recorded in the performa which is specially prepared for the purpose and all the factors were filled up on first day of examination as well as on the days of successive periodic visits. Lepa application was done on each day and patient was called in for follow up for every 7 days. Thus, treatment was given for one month and assessment was done on 0, 7, 14, 21, 28th day of treatment.

CRITERIA FOR SELECTION OF PATIENT :

1. Hyper pigmented scars.
2. Patients of either sex
3. Age group between 16-60 yrs.

CRITERIA FOR REJECTION OF PATIENT:

1. Keloid scar
2. Scar after severally burn
3. Vitiligo
4. Patients suffering from malignancy
5. Seriously ill patients of any other skin disease.

MATERIALS :- Instruments and other

1. *Haritaki phal*
2. Goat's milk
3. Gauze piece
4. Cotton pads
5. Bowls, bottles
6. Transparent paper
7. Graph paper

Drug:

Haritaki phal: According to *Rajnighantu*, *haritaki* is divided in seven types by means of their fruits, from these *Rohini* is round in shape, used in *vranakarma*, found mostly in our area. Usually, *Haritaki* is used as *anulomak karma*, but in my study *rohini* is used.

Goat's milk: - collected from local area.

METHOD: *Haritaki* fruits was placed in the goats milk for 7 days and milk was changed every day .After that, these fruits was dried in shadow & grinded into fine powder. The selected patient was taken on the examination table, In the appropriate position .Graphical measurement of the lesions was done whenever possible.

As per random selection in the Group A (Experimental group): *Haritaki lepa* with goat milk was applied on the scar daily according to size for 28 days. *Lepa* applied in 2-3 mm thickness.It was to be kept till it dried and later washed with warm water.Patient was called for next follow up after every seven days upto 28 days.

GroupB Control group: *Haritaki lepa* was applied on the scar daily for 28 days in the same manner.Findings were noted on 0, 7, 14, 21, 28th day of treatment.After 28 days a complete assessment was done. Residual symptoms were noted.

PARAMETERS:-

CRITERIA FOR ASSESSMENT: Manchester scar scale:

A. Scar colour:

1. Perfect: normal healthy colour with no scar mark.
2. Slight: marked pink yellow colour with 3 or less scar marks.
3. Obvious: multiple scar marks with normal skin colour.
4. Poor: no change in scar colour.

B. Size of scar: Size of scar was measured by using transparent graph paper.

Follow Up:-0, 7, 14, 21 and 28th day follow up were taken.

Standardization Of Haritaki Churna:Result of analysis:-

1. Moisture - 6.40%
2. Specific Gravity - 1.153
3. Total Ash - 3.30%
4. Acid Insoluble ash -0.29%

OBSERVATION

Data thus generated was assessed and arranged into tabular form and represented statistically.

DIAGNOSIS wise distribution of 100 patients of Scar :-

DIAGNOSIS	Trial Group		Control Group		TOTAL
	No.of Pts.	%	No.of Pts.	%	
After CLW Suturing	20	40%	19	38%	39
After infected wound	12	24%	10	20%	22
After postoperative wound	18	36%	21	42%	39
TOTAL	50	100%	50	100%	100

X=0.4382 P>0.05

To assess the result of the study both objective and subjective findings were recorded before ,during and after completion of the treatment. The most leading clinical features of hyperpigmented scar was taken as subjective for analysis i.e.scar colour according to manchestar scar scale. Objective parameter was taken as scar size from 5 to 12 cm.As the sample size was more than 30 patients i.e. 50.so paired Z test was

applied to know the significance of subjective parameter converting into quantitative data and scar size as quantitative . For qualitative data i.e. scar colour grading according to Manchester scar scale Chisquare test was applied. The level of significance was set at 5% (p=0.05).

Table showing the difference between two followups in scar size Group A (trial Group)

Difference obs. Days	Mean	SD	SE	Z	P
0-7 days	0.9600	0.4499	0.06363	2.34	P<0.05
7-14 days	1.140	0.6392	0.09040	2.62	P<0.05

14-21 days	1.2	0.6389	0.09035	2.87	P<0.05
21-28 days	1.66	0.7722	0.1092	4.191	P<0.05
BT-AT	4.920	1.275	0.1803	12.63	P<0.05

Group B Control Group

Difference obs. Days	Mean	SD	SE	Z	P
0-7 days	0.9200	0.3959	0.05599	2.30	P<0.05
7-14 days	1.040	0.6376	0.09017	2.49	P<0.05
14-21 days	1.26	0.6328	0.08949	3.01	P<0.05
21-28 days	1.480	0.6465	0.09143	3.68	P<0.05
BT-AT	4.700	1.329	0.1879	11.71	P<0.05

Table showing effect of treatment on scar colour according to grading of manchester scar scale in control group by chisquare test

Grades	BT	AT
1	0	1
2	7	17
3	18	23
4	25	9

$X^2 = 13.31$ P<0.05

Table showing effect of treatment on scar colour according to grading of Manchester scar scale in trial group by chisquare test.

Grades	BT	AT
1	0	6
2	7	26
3	20	12
4	23	6

$X^2 = 28.90$ P<0.05

Table showing effect of treatment on scar colour according to grading of Manchester scar scale at after treatment by comparing trial vs control group at last follow up.

Grades	AT(CONTROL)	AT(TRIAL)
1	1	6
2	17	26
3	23	12
4	9	6

$X^2 = 9.512$ P<0.05

The above table shows the effect of treatment on scar colour in control and Trial group by chisquare test. The effect of treatment on scar colour according to manchester scar scale in both groups is statistically significant, but more signifi-

cant in Trial group. More cured patients are observed in Trial group i.e.6 patients and 1 patient in Control group .

Table showing improvement in no.of patients on scar size :-

Effect Of Treatment	Trial Group		Control Group		Total
	No.of pt.	%	No.of pt.	%	
Uncured(more than 4Cmsq.)	10	20%	12	24%	22

Partial cured(size2-4Cmsq.)	18	36%	21	42%	39
Cured(size0-2Cmsq.)	22	44%	17	34%	29
Total	50	100%	50	100%	100
$X^2=1.054$ $P>0.05$					

DISCUSSION

Vrana implies damage of the part leading to discolorations –hence the term *Vrana*. It is better understood in terms of discontinuity of skin, muscles, mucus membrane etc. *Vranachinha* forms after abnormal *ropana* and *vrana lekhana*. Though no specific *Samprapti* regarding *Vrana* exists in any *Ayurvedic* text an attempt is made here to checkout a specific Pathogenesis of the disease *Vranachinha*.

Samprapti Ghataka:

Dosha : *Tridoshaja Dusya* :
Twaka, Mansa.
Srotas : *Raktavaha, Mansavaha,*
Svedavaha. Agni : *Mandya, Vishama.*
Marga : *Shakha. Adhithana* :
As Dushya.

Although scar formation commences long time wound healing, has been well elaborated by the modern pathologist and surgeon in the light of recent research. Though the symptom of *Vranachinha* is discoloration in general, specific sign and symptoms are characterized according to the manifestation of *Samprapti*. As far as the management of scar is concerned appropriate *Savarnikarna* i.e. *pandukarma* and *krishnakarma* has to be done. By the virtue of *Lakshana, savarnikarna* properties of *Rohini phala*, the local *Dhatu Dusti* is ceased. The second step in the path of scar removal is to enhance, for this purpose Goat's milk made easy way. With the help of "*Prinana*" and "*savarnikarna*" action of trial drug i.e. *haritaki* acted as promoter on rate of contraction. *Rohini phala* with Goat's milk contain *Varnya* properties which is helpful to enhance the local appearance of the wound.

CONCLUSION

It was noticed that maximum 44% of cured cases were observed in trial group i.e. *haritaki lepa* with goat's milk followed by 34% in control group i.e. *haritaki lepa*. Whereas highest percentage, 64% of partially improved cases in *haritaki lepa* Control group. More improved cases were also reported in *haritaki* with goat's milk lepa trial group. 21% cases noticed unchanged in trial group, 14% cases unchanged in control group. From the studies made both control & experimental cases, it can be speculated that, the drugs namely "*haritaki* with goat's milk lepa" possess sufficient efficacy in "*Savarnikarna*" without producing any adverse effects. The drug preparation shown better effect in clinical studies and also reduces scar size sufficiently than scar colour. Hence, this study goes to show that application of *haritaki* with goat's milk is quite superior to plain *haritaki lepa* in faster scar removal.

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