

CLINICAL EFFICACY OF NEEDLING (*VISTRAVAN KARMA*) IN THE MANAGEMENT OF *SHVITRA* (VITILIGO)Dr. Anshu Pathania<sup>1\*</sup> and Dr. Ankita Thakur<sup>2</sup><sup>1</sup>Department of Samhita Evum Siddhanta, R.G.G.P.G. Ayurvedic College and Hospital Paprola, Distt. Kangra (H.P.).<sup>2</sup>Department of Rog Nidaan, R.G.G.P.G. Ayurvedic College and Hospital Paprola, Distt. Kangra (H.P.).

\*Corresponding Author: Dr. Anshu Pathania

Department of Samhita Evum Siddhanta, R.G.G.P.G. Ayurvedic College and Hospital Paprola, Distt. Kangra (H.P.).

Article Received on 22/07/2018

Article Revised on 12/08/2018

Article Accepted on 02/09/2018

## ABSTRACT

**Background:** Vitiligo is an acquired idiopathic hypomelanotic disorder which present as localized or widespread areas of depigmentation. Patient present with milky or chalky white amelanotic macules usually with well demarcated margins. This condition is compared with *Shvitra* in Ayurveda. Needling has been mentioned in *Ayurveda* by the name of *vistravan karma*. In present era needling is used in the treatment of vitiligo, where it is evident to give successful results in respective diseases. **Aim:** To evaluate the efficacy of needling (*Vistravan karma*) in *Shvitra*. **Materials and Methods:** 10 patients of *Shvitra* were selected randomly from out patient department of skin care unit and underwent needling treatment over 90 days period. **Results:** subjective assessment (VETI score) reveal a statically significant result. **Conclusion:** Needling appears to have good effects in decreasing pigmentation in melasma.

**KEYWORDS:** *shvitra*, *vistravan karma*, needling, vitiligo, VETI (Vitiligo extent tensivity index).

## INTRODUCTION

All skin disorders in *Ayurveda* are placed under the name of *Kustha*. In *Ayurveda*, *Shvitra* is considered as one of the varieties of *Kustha*,<sup>[1]</sup> that can be co-related with vitiligo based on the similarities of sign and symptoms. It is caused due to vitiation of *Tridosha* and *Dhatu*s like *Rasa*(lymph), *rakta* (blood), *Mansa* (muscles), and *Meda*(fats).<sup>[2]</sup> According to *Harita Samhita*, vitiated *Vata* along with *Pitta* affects the *Rakta Dhatu* manifests *Pandura Varna* (whitish patches) on skin that is called *Shvitra*.<sup>[3]</sup>

*Vistravan karma* is one of the surgical technique used to treat *shvitra* in ancient time with *kurcha shastra*.<sup>[4]</sup> According to *yuga-anurupa sandhrbha*.<sup>[5]</sup> this *vistravan karma* for *shvitra* can be considered as needling. Needling is a procedure in which a needle is inserted into normally pigmented skin on the rim of a vitiligo patch and then is pushed into the center of the patch, theoretically moving healthy pigment skin cells into the vitiligo patch.

## MATERIALS AND METHODS

## Source of data

Patients fulfilling the clinical criteria of *Shvitra* were randomly selected irrespective of their age, sex, religion, occupation etc. from outpatient department of skin care unit, R.G.P.G. Ayurvedic College and Hospital. Paprola.

Written consent was taken from each patient willing to participate before starting the study.

## Inclusion criteria

- Patients having signs and symptoms of *Shvitra*
- Age group between 16-60 years
- Chronicity less than 5 years
- Lesions with positive wood's lamp test.

## Exclusion criteria

- Patients not fulfilling the above criteria
- H/o chronic illness diabetes mellitus, atopic dermatitis, other serious systemic illness
- Gravid and lactating women
- Lesions at *Ghuhyanga* (genital organ), *Panipadatala* (palms and soles), *ostha* (lips), *Ekanga* (involving an entire organ). *Savanga* (generalized lesions).<sup>[6]</sup>
- Patches with *Raktaroma* (reddish hairs) and *Samsakta* (coalescent).<sup>[7]</sup>

## Investigations

Routine investigations of blood and urine were carried out before treatment to rule out any systemic disease.

## Treatment schedule

A total of 10 patients were registered in a single group; all patients were treated with needling therapy.

**Follow up**

Patients were asked to attend OPD on 15<sup>th</sup> day for follow up for a period of 90 days (total 6 sittings of needling at the interval of 15 days)

**Table 1: Criteria of Assessment.**

Score	Percentage of area (rule of nine) (%)	Size of patches (cm)	Color of patches	Number of patches	Chronicity of patches (years)
1	1	1	Normal skin color	1	1
2	2	2	Red color	2	2
3	3	3	White to reddish	3	3
4	4	4	Red to whitish	4	4
5	>4	>4	White	>4	>4

**Table 2: Severity of disease.**

Category	Total score
Mild	1-8
Moderate	9-16
Severe	17-25

**Table 3: Criteria for assessment of total effect.**

Effect of therapy	percentage
No change	0-25
Mild improvement	26-50
Moderate improvement	51-75
Marked improvement	76-99
Cured	100

**Table 4: Results.**

Sign and symptoms of patches	Mean Before treatment	After treatment	Mean difference	%age relief	S.D.	't'	p
Color	4.68	2.00	2.68	57.26	1.190	0.00	<0.05
Number	4.55	2.66	1.89	41.53	3.710	0.00	<0.05
Area	2.11	1.64	0.47	22.27	1.190	0.00	<0.05
size	3.50	2.66	0.84	24	1.190	0.00	<0.05

Effect of therapy shows that there was 57.26% reduction was found in color of patches, in number of patches 41.53% reduction was found while in percentage area of patches 22.27 reduction was found and 24% reduction was found in size of patches. All these changes were statistically significant ( $p < 0.05$ ).

**DISCUSSION**

The ultimate emphasis of any clinical study would be the discussion where in all the actual facts are presented in a combine format. The present clinical study was aimed to evaluate the management of vitiligo with *vistravan karma*. Vitiligo is an acquired idiopathic hypomelanotic disorder which present as localized or widespread areas of depigmentation. Patient present with milky or chalky white amelanotic macules usually with well demarcated margins. On examination five clinical types of vitiligo focal, segmental, acrofacial, generalized and universal

**OBSERVATIONS**

Of the registered patients 4 were in age group of 16-30 years with chronicity of 1-2 years. Majority of registered patients.<sup>[6]</sup> were male, 2 have positive family history. Totally, 6 patients had white colored patches while 4 patients had red to white. A total of 5 patients had number of patches more than 4; while 4 patients had 4 patches while only one patient had a single patch. Totally 3 patients had more than 4cm size of patches, 4 patients had 4cm, 2 patients had 3cm and only 1 patient had 1cm size of patches. *Vata-Kapha Prakriti* was predominant in the majority of the patients.

vitiligo may be recognized. Treatment of vitiligo is oral steroids, topical PUVA therapy.<sup>[21]</sup>

According to *Shusruta* in *shvitra/ kilaas* there is no exudation and it is limited to the skin only<sup>22</sup>. According to *charaka* when doshas reached upto meda dhatu then shvitra turned into white color.<sup>[23]</sup>

**Mechanism of repigmentation**

It has been commonly observed that skin trauma or many inflammatory skin diseases induce post inflammatory hyperpigmentation.<sup>[8]</sup> The inciting inflammatory process cause an increase in both melanogenesis and the transfer of pigment to the surrounding keratinocytes.<sup>[9,10,11]</sup> Repigmentation in stable vitiligo requires proliferation and migration of melanocytes from the reservoir into the depigmented skin. The melanocytes migrate only a few

millimeters from the pigmented edge towards the centre.<sup>[12]</sup>

In therapeutic wounding, re-epithelialization takes place from remnants of dermal appendages like sebaceous glands, hair follicles and sweat glands.<sup>[13,14,15,16,17]</sup> During the wound healing process, the inflammatory reactions and the re-epithelialization phase stimulate the follicular and perilesional melanocytes through liberation of cytokines such as leukotriene C4 and D4, TGF-alpha, interleukin-1, endothelin-1 etc.<sup>[18]</sup> thereby inducing follicular and perilesional pigmentation.<sup>[19,20]</sup>

#### Suggestions for further study

More studies with larger sample size are desirable for deriving conclusion on the role of needling on vitiligo, moreover needling along with topical and oral preparations can be suggested for further study.

#### REFERENCES

- Acharya JT, editor. Charak Samhita of Agnivesha, Chikitsa Sthana, ch 7, Ver.178. Reprint. Varanasi Chaukhamba Surbharti Prakashan, 2005; 459.
- Acharya JT, editor. Charak Samhita of Agnivesha, Chikitsa Sthana, ch 7, Ver.173-74. Reprint. Varanasi Chaukhamba Surbharti Prakashan, 2005; 458.
- Tripathi H, editor. Harita Samhita of Harita, Tiritiya Sthana, ch. 39, Ver. 50. Reprint. Varanasi Chaukhamba Krushnadas Academy, 2009; 421.
- Astanga-Samgraha (sutrasthana 34/31) Edited With 'Saroj' Hindi Commentary By Dr. Ravi Dutt Tripathi, Chaukhamba Sanskrit Pratishthan, Reprint year, 2006; 594.
- Astanga-Samgraha (sutrasthana 1/20) Edited with 'Saroj' Hindi Commentary By Dr. Ravi Dutt Tripathi, Chaukhamba Sanskrit Pratishthan, Reprint: year 2006, page no. 8.
- Tripathi B, editor. Asthanga Hridya of Vagbhata, Nidana Sthana, Ch. 14, Ver. 41. Reprint ed. Delhi Chaukhamba Sanskrit Pratishthan, 2009; 533.
- Tripathi B, editor. Charak Samhita of Agnivesha, Chikitsa Sthana, Ch. 7, Ver. 175. Vol.2. Reprint ed. Varanasi Chaukhamba Surbharti Prakashan, 2009; 334.
- Epstein JH: Post inflammatory hyperpigmentation. *Clinic Dermatol*, 1989; 7: 55-65.
- Savant SS: Vitiligo Surgery. IADVL Textbook and Atlas of Dermatology (Valia RG, Valia ARR eds) 2<sup>nd</sup> edn., Mumbai: Bhalani Publishing House 2001: 1357-1369.
- Halder RM, Nootheti PK: Ethnic skin disorder an overview. *J Am Acad Dermatol*, 2003; 48: 143-148.
- Laiz NL, Vafaie J, Kihiczali NI, Schwartz RA: Post inflammatory hyperpigmentation: A common but troubling condition. *Int J Dermatol*, 2004; 43: 362-365.
- Savant SS: Therapeutic spot and regional dermabrasion in stable vitiligo. *Ind J Dermatol Venereol LEprol*, 1996; 62: 139-145.
- Savant SS: Therapeutic spot and regional dermabrasion in stable vitiligo. *Ind J Dermatol Venereol L Eprol*, 1996; 62: 139-145.
- Savant SS: Therapeutic spot dermabrasion: Study of 197 sites in 11 skin conditions. *Ind J Dermatol Surg.*, 1999; 1(1): 6-15.
- Savant SS: Shenoy S: Chemical peeling with phenol: for the treatment of stable vitiligo and alopecia areata. *Ind J Dermatol Venereol Leprol*, 1999; 65(2): 93-98.
- Yarborough JM Jr, Besson WH: Dermabrasion. *Aesthetic Surgery of the aging face* (Bessan WH, McCollough EH eds) 1<sup>st</sup> edn., Toronto, 1986; 142-181.
- McGregor IA: Free skin grafts. *Fundamental Techniques of Plastic surgery and their Surgical Applications* (McGregor IA ed.) 8th edn., Edinburgh: Churchill Livingstone, 1989; 39-63.
- Yohn J Morelli J, Walchak S, et al: Cultured human keratinocytes synthesize and secrete endothelin-1. *J Invest Dermatol*, 1993; 100: 23-26.
- Savant SS: Therapeutic spot and regional dermabrasion in stable vitiligo. *Ind J Dermatol Venereol L Eprol*, 1996; 62: 139-145.
- Savant SS: Therapeutic spot dermabrasion: Study of 197 sites in 11 skin conditions. *Ind J Dermatol Surg*, 1999; 1(1): 6-15.
- Essentials In Dermatology, Venereology And Leprology, First Edition 2015, Ramesh Bansal, (page no. 280-284). ISBN-978-93-5025-720-3.
- Sushruta samhita Of Maharshi sushruta, Shri Acharya Dalhana Hindi commentary (Sutra evum Nidaan sthana) (part -1) by Dr. Keval Krishan Thakraal, Chaukhamba Publisher. ISBN-978-81-7637-309-8.
- Charaka samhita Vidyotini Hindi commentary (part -2, chikitsa Sthana 7/174) by Pt. Kasi Natha Sastri, Dr. Gorakha Natha Chaturvedi, Chaukhamba Bharati Academy, Varanasi, Reprint: year, 2013; 274.