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Research Article

CLINICAL EFFICACY OF JALAUKAVACHARANA (LEECH THERAPY) ON MANAGEMENT OF VYANGA (MELASMA)

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ABSTRACT

The eight branches of Ayurveda, Salakya Tantra deals with the etiology, diagnosis, prognosis prevention & treatment of diseases that are located above the neck region. Face is the most important and beautiful part of this region. Vitiating of Doshas, results in various kinds of diseases & dysfunctions in their localized region. Panchakarma treatments are used in Shalakyatantra to cleanse vitiated Doshas located above human clavicle line. Vyanga is the facial skin disorder. The person who is suffering from Vyanga ailment under cosmetic disfigurement in discoloration of the face skin. Modern treatment includes an external application of creams. But long term usage of these preparations may produce the irritation in individuals. Hence study was carried out to find out an Ayurvedic & traditional management for the condition and to find out the efficacy of Jalaukavacharana (leech therapy) on Vyanga (Melasma). Open randomized clinical trial & 25 individuals were selected as total sample population and used Convenience sample method. Application of leeches on the darkest point of patch, till leeches fall down, repeated once in a week, 6 applications. Results were assessed by using the photography of the patch & Computer technology. Total effect of therapy, marked improvement was there in 55%. Jalaukavacharana has efficacy in Vyanga to cleanse and evacuate the vitiated relevant dosas safely. It has strong ability to eliminate free radicals & it has free radical scavenger activity.

Keywords: Jalaukavacharana, Raktamoksana, Shalakyatantra, Vyanga.

INTRODUCTION

Vyanga is one of the important ailments pertaining to hyperpigmentation disorders in the face. It is considered under Kshudra Rogas, which occurs mainly due to vitiation of Vata, Pitta and Rakta. As quoted in *Su. Sam.* The Vayu aggravated by anger & exertion in combination with Pitta, reaching the face suddenly produces circular patches there which are painless, small in size & blackish in color¹. *Astanga Hrudaya* also considers *Vyanga* as one among the *Kshudra Rogas*. As quoted in *Astanga Hrudaya*, *Vata & Pitta* getting aggravated to gather due to grief, anger etc. produce blue-black colored patch on the face. This was known as *Vyanga2*.

^{Acharya} Susruta (800 B.c.) has included Raktamokshana as fifth karma of Panchakarma therapy. It is practiced in blood born disease, in Pitta predominant diseases and also in a few Vata disorders. This study includes a specialized bloodletting method Raktamokshana with special reference to leech application² was adopted in the management of Vyanga.

In modern medicine; these hyper pigmented patches are known as Melasma. This condition was common in middle

age women. The female to male ratio was found to be 9:1. The symptoms of Melasma are dark, irregular well demarcated hyper pigmented maculae's to patches commonly found on the upper cheeks, lips nose, and forehead. There are many factors such as the sun light, cosmic rays, pollution, emotional upheavals, hormones, drugs & stress that may cause the above problem³. The Vyanga ailment can compare with of Melasma in modern medicine⁴. Uncorrected Melasma which affect any persons, cause of cosmetic disfigurement in discoloration of the face skin. They may result in great impact on the physiological social & professional life. As quoted in *As. Samgraha*, in Vyanga especially bloodletting was done⁵. In *Su.samhita* Venupuncture was indicated⁶. Raktamokshana is one of the best treatments to expel vitiated pitta dosha. It was mentioned that jalauka should be used to remove vitiated blood from the sukumaras (tender bodied persons)⁷. Modern treatment includes an external application of creams containing hydroquinone & hydrocortisone, which is found to be sensitive in individuals. Long term usage of these preparations may produce the irritation. So there is a definite need for treatment to overcome this problem. At the same time

effective safe, economically cheaper method of treatment is essential. No research has been done in Ayurvedic field to find out the effectiveness of jalaukavacharana (Leech application). Hence this study was designed to find out it.

MATERIALS AND METHODS

Selection of individuals - Who are fulfilling the diagnostic criteria with respect to age group between 25 – 55 years, was selected. The individuals coming under three symptoms of Neeruja (painless), Tanu (thin), Shyavamandala (blackish/brownish hyper pigmented irregular patch) on facial skin and criteria of inclusion were selected from the O.P.D. Department of Shalya Shalakya, teaching hospital Borella. Individuals were examined on the basis of special Performa prepared for the present study.

Selection of Leeches - In Ayurveda medicine Raktamokshana (bloodletting) is a significant therapeutic procedure using six type Nirvisha jalauka(non poisonous leech). They are Kapila, Pingala, Sankumukhi, Mushika, Pundarikamukhi, Savarica. Leeches which are in color of mudga (green gram) & have yellow stripes on either side of their bodies.

Method of leech application - After Prepared of leeches used for each individual & same leeches were not used for another individual. Application of leeches on the darkest point of patch, till leeches fall down. Repeated once in a week, 6 applications.

Study design - Open randomized clinical trial & 25 individuals were selected as total sample population. Used Convenience sample method. Vyanga was manifest with time especially in elderly females & because it was not a self improving condition, a control group is not taken.

Criteria for Clinical assessment - The effect of the treatment assessed on change skin color & size of the patch on the face. Outcome measures assessed before & after treatment assessed by using the photography of the patch. Computer technology included for the statistical analysis.

Clinical assessment – This study was aimed to find out the efficacy of Jalaukavacharana (leech therapy) on Vyanga (Melasma). The effect of the treatment was assessed on the basic changes in the skin color (amount of discoloration) & area of involvement (size of the skin patch). The changes in color (R.G.B. values) & patch size values therefore surface area of the patch measured by using special method. Before & after treatment photography & computer technology (Photoshop) was introduced for the patch color & patch size changes objectively.

Before & after treatment assessed by paired “t” test. The results in the groups compared & the statistical significance of changes between the groups analyzed by adopting the Anova test. Inter group statistical analysis performed chi-square correlation methods. Group range, mean value, standard deviation will be analyzed by using Descriptive statistics.

RESULTS

Table 1: Effect of therapy (% of relief)

Associated symptoms	% of relief
Patch size	55%
Patch color	58%

Table 2: Total effect of therapy(% of relief)

Effect of therapy	No of individuals	%
Cured 100% relief	00	0%
Markedly improved (76% - 99% relief)	8	32%
Moderately improved (50% -75% relief)	13	52%
Mild improved (26%-49% relief)	04	16%
Unchanged (25% - 0% relief)	00	0%

Table 3: Differences between before and after Patch

	Group				
	Mean	SD	SE	t	Sig.
Before Red - After Red	-15.840	19.115	3.823	-4.143	*.000
Before Green - After Green	-16.040	11.781	2.356	-6.808	*.000
Before Blue - After Blue	-8.680	17.769	3.554	-2.442	*.022
Before Patch size - After Patch size	57.560	6.886	1.377	41.792	*.000

*Values were significant at p<0.05

DISCUSSION

Human skin is a mirror which images beauty along with the normal physiology, health, moods & expression of a person. That pitta present in the tvak (skin) is known as Bhrajakagni (bharajaka pitta), it was responsible for cooking (digestion and absorption) of substances used in the form of anointing,

bathing, washing, immersing and poulticing (application of past) etc. and helps expression of shades (colors) on the skin⁸. Sloka describes rakta dhatu undergoing vrddhi(increase) produces darkness of patches on the skin like Vyanga. Vrddha vata karma (functions of aggravated vata) also cause to blackish discoloration of the skin⁹.

Vyanga is one of the ailments which massacre the beauty of the face. In Ayurveda the etiological factors of vyanga as quoted in Susruta Samhita, vayu aggravated by anger or physical exertion and in association with pitta, reaching the face, suddenly produces circular patches. Ayurveda texts have mentioned shodhana & shaman karma for it.

The drugs were selected for pacifying pitta & rakthashodaka Susruta mentioned twak (skin) was one of the seats of pitta¹⁰. guna. As quoted in As. Samgrha, especially bloodletting is done. In this study jalaukavacharana (shodana karma) was selected for the treatment of Vyanga. For the present clinical study 25 individuals were selected from O.P.D. of Salakya, the Ayurvedic hospital Borella, examined on the basis of special Performa prepared for the study. The individuals were selected convenience sampling method. The study design clinically observed with a pre, mid and post test assessment.

Overall results of clinical study raktamokshana were performed by using leeches. Since Vyanga in manifested due to vitiated raktadatu. Raktamokshana was used to remove the vitiated pitta & rakta¹¹. As the individual sufferings from this ailment were sukumaras (tender bodied) the therapy of Jalaukavacharana was selected. The study further highlighted none of them presented with features of shirobhitapa (hadake), Akshepaka (convulsion), Daha (burning sensation).

The effect of Jalaukavacharana (leech application) therapy on Vyanga shows the maximum relief of symptoms was observed in markedly improved (76% - 99% relief) 32%. Moderately improved (50% -75% reliefs) 52%. The study proves that Raktamokshana with Jalauka (leech application) can be used for the treatment of vyanga.

CONCLUSION

Based on clinical study it may be concluded, Jalaukavacharana (leech application) reduces the symptoms of vyanga. Jalaukavacharana is effective to relieve facial hyper pigmented patch color and patch size. Jalaukavacharana (leech application) can be established as line of treatment for vyanga(Melasma).

REFERENCES

1. Singhal GD., susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 3, 2007; 597.
2. Srikantha murthy KR., Astanga hridayam, Chaukhambha krishnadas academy Varanasi, 31/28-29, 2004,296.
3. James E. Fitzpatrick, John L. Aeling, Dermatology secrets in color, New Delhi, Jaypee Brothers Medical Publishers (P) Ltd, 2nd edition, 18,2001;120,
4. Singhal GD., Susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 3, 2007; 107-114.
5. <http://en.wikipedia.org/wiki/melasma>. (25 March 2013)
6. Srikantha murthy, Astanga samgraha (vagbhat'a English translation), chaukhamba orientalia, Varanasi, part 3, 1997; 324,326.
7. Singhal GD., Susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 5, 2007; 349.
8. Singhal GD., Susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 1, 2007; 107.
9. Singhal GD., Susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 1, 2007; 191.
10. Srikantha murthy, Astanga samgraha (vagbhat'a English translation), chaukhamba orientalia, Varanasi, part 3, 1997; 351.
11. Singhal GD., Susruta samhita English translation, Chaukhamba Sanskrit pratishthan Delhi, part 1, 2007; 190.
12. Sirinivasa Acharya, Panchakarma illustrated, Chaukhamba Sanskrit pratishthan Delhi, 1st edition, 2006,

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