

## A RANDOMIZED COMPARATIVE CLINICAL STUDY ON LODHRADHI LEPA AND ARJUN TWAK LEPA WITH JALOUKAVACHARANA IN THE MANAGEMENT OF MUKHADUSHIKA (ACNE VULGARIS)

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### ABSTRACT

*Mukhadushika* is the most troublesome and most common skin care problem. The symptoms of *Mukhadushika* resembles with Acne Vulgaris. **Objective:** The present study was to evaluate the comparative effect of *Lodhradilepa* and *Arjuna twak lepa* with *Jaloukavacharana* in the management of *Mukhadushika*. **Methods:** 40 patients were randomly selected and divided into 2 groups. **Results:** Both the groups showed statistically significant results on all assessment criteria. On comparison between 2 groups, there is no significant difference in assessment criteria except in the size in which Group-2 was more effective than Group-1 and Number of *pidaka* in both groups found to be insignificant. **Interpretation and conclusion:** *Jaloukavacharana* serve as a *Shodhana karma* here as there is involvement of *Rakta dhatu* in the *Samprapti* & *Lepa* is one of the treatment modalities for *Mukhadushika* mentioned in classics. Both *Arjuna lepa* and *Lodhradi lepa* along with application of *Jalouka* showed statistically highly significant on all the assessment criteria like *vedana* etc. GAGS Score and IGA criteria

except in the size in which Group-2 was more effective than Group-1 and Number of *Pidaka* in both groups found to be insignificant.

**Keywords:** *Mukhadushika, Lodhradilepa, Arjuna Twak Lepa, Jaloukavacharana*

## INTRODUCTION

*Mukhadushika* is commonly called as *Youvanapidaka* as it affects to mainly adults. According to *Sushruta, Shalmali Kantaka* like eruptions on the face due to vitiation of *kapha, vata & rakta* and are characterized by *Saruja, Ghana, Medogarbha* known as *Mukhadushika* or *Youvanpidika* or *Tarunya pidika*<sup>1</sup>. The explanation of *Mukhadushika* is similar with description of “Acne vulgaris” the surface areas of the skin that contains the most amounts of sebaceous glands will be the areas prone for acne vulgaris breakouts. This includes the back, face, and upper portion of the chest. The most common causes of acne vulgaris are hormone fluctuations; excess sebum production in the sebaceous units, in few cases genetics has been shown to play a role. In modern medicine the treatment mainly includes prolonged use of antibiotic, comedolytics and anti-inflammatory agents. Though, these medicines are better treatment options for acne management, the side effects of these medications such as increase in frequency and severity of skin dryness, scaling, erythema, and burning, stinging, itching and bacterial resistance limits their use<sup>2</sup>. In Ayurveda *Mukhadushika* is treated mainly by *Shodhana* (purification of body) and *Shamana* (conservative treatment) or combination of both. As the involvement vitiation of *Rakta* in the *Samprapti* of *Mukhadushika, Raktamokshana* with *Jaloukavacharana* may benefit and the efficacy of local application of *Lodhradi lepa* and *Arjun Twaklepa* has been proven previously on *Mukhadushika*<sup>3</sup> hence the combination of *Shodhana* and *Shamana* together may give synergetic effect in curing *Mukhadushika*. For *Mukhadushika, Lepa* as treatment modality acts quick and locally but not long-lasting leading to relapse of the disease. The administration of *shodhana* therapy may benefit by removing vitiated *doshas* from the site, it is also said that action of *shamana aushadi* will increase after *shodhana*, Hence an attempt is made in the present

study by adopting *Jaloukavacharana* in both the groups then followed by *Lodhradi lepa* in one group & *Arjun twak lepa* in other group for external application for 15 days, to rule out the synergetic action of both *Shodhana & Shamana* effect in *Mukhadushika*.

**Materials and Methods:** Totally 40 patients of *Mukhadushika* selected and divided into two groups, Group 1 -20 patients and Group 2 – 20 patients. Complete history and clinical evaluation of the patients of *Mukhadushika* recorded in the specially designed case sheet. Subjective and objective parameters were used to assess the clinical response in both the groups. The patients were assessed on before treatment (1<sup>st</sup> day), after treatment (16<sup>th</sup> day), Follow up on 23<sup>rd</sup> day and 31<sup>st</sup> day.

Group 1- *Jaloukavacharana* followed by *Lodhradi lepa*<sup>4</sup>.

Group 2 – *Jaloukavacharana* followed by *Arjun twak lepa*<sup>5</sup>.

### Preparation of *Lodhradilepa*

Drugs- *Lodhra, Dhanyaka, Vacha*

Each drug is pounded into fine powder and mixed in equal parts and made paste with lukewarm water.

### Preparation of *Arjun twaklepa*

Drug- *Arjun twak*

*Arjun twak* is pounded into fine powder and made paste with milk.

***Jaloukavacharana:*** Activated *Nirvishajaloukas* are taken and applied to most affected part and temperature is maintained by putting wet gauze over it and sucking is observed until 40-45 min. Used *Jaloukas* are vomited by putting *Haridra/Saindhavalavana* over the face.

### Source of Data:

**Sample Source:** 40 patients diagnosed with *Mukhadushika* are taken for the study from OPD/IPD of B.L.D.E.A's AVS *Ayurveda Mahavidyalaya* Hospital and research center, Vijayapura.

### Inclusion Criteria

1. Age group between 16 to 35 years irrespective of gender.
2. Patients diagnosed with the clinical symptoms of *Mukhadushika* i.e. *Shalmali Kantaka, Saruja, Ghana, Medogarbha*.

### Exclusion Criteria:

1. Patients with systemic illness and hormonal disorders.
2. Patients who are Allergy to *Lepas*.
3. Pregnant women.
4. Patients of *Krusha* or underweight.
5. Patients with severe Anemia

### Observation and Results

#### Effect on *Vedana* (Pain)

**Group 1**-Before treatment mean score and standard deviation of *Vedana* of *Pidaka* was  $2.30 \pm 0.801$  which reduced to  $0.80 \pm 0.768$  after treatment, showing 65 % reduction. It was statistically significant at the level of  $P < 0.01$ . **Group 2**- Before treatment mean score and standard deviation of *Vedana* of *Pidaka* was  $2.65 \pm 0.587$  which reduced to  $1.15 \pm 0.489$  after treatment, showing 56.6 % reduction. It was statistically significant at the level of  $P < 0.001$ .

#### Effect on *Srava* of *Pidaka*:

**Group 1**- Before treatment mean score and standard deviation of *Srava* of *Pidaka* was  $2.25 \pm 2.049$  which reduced to  $0.40 \pm 0.503$  after treatment, showing 82 % reduction. It was statistically significant at the level of  $P < 0.01$ . **Group 2**- Before treatment mean score and standard deviation of *Srava* of *Pidaka* was  $2.15 \pm 0.745$  which reduced to  $0.25 \pm 0.444$  after treatment, showing 88.37 % reduction. It was statistically significant at the level of  $P < 0.01$ .

#### Effect on Number of *Pidaka*:

**Group 1**- Before treatment mean score and standard deviation of Number of *Pidaka* was  $2.95 \pm 0.224$  which reduced to  $2.40 \pm 0.598$  after treatment, showing 18.6 % reduction. It was statistically not significant at the level of  $P < 0.05$ . **Group 2**- Before treatment mean score and standard deviation of Number of *Pidaka* was  $3.00 \pm 0.00$  which reduced to  $2.45 \pm 0.510$  after treatment, showing 18.3 % reduction. It was statistically not significant at the level of  $P < 0.05$ .

### Effect on Size of *Pidaka*:

**Group 1**-Before treatment mean score and standard deviation of Size of *Pidaka* was  $1.95 \pm 0.826$  which reduced to  $1.25 \pm 0.444$  after treatment, showing 35.89 % reduction. It was statistically not significant at the level of  $P > 0.05$ . **Group 2**-Before treatment mean score and standard deviation of Size of *Pidaka* was  $2.10 \pm 0.641$  which reduced to  $1.05 \pm 0.224$  after treatment, showing 50 % reduction. It was statistically significant at the level of  $P < 0.001$ .

### Effect on *Vivarnata* of *Pidaka*:

**Group 1**-Before treatment mean score and standard deviation of *Vivarnata* of *Pidaka* was  $2.45 \pm 0.887$  which reduced to  $0.95 \pm 0.510$  after treatment, showing 61.22 % reduction. It was statistically significant at the level of  $P > 0.05$ . **Group 2**- Before treatment mean score and standard deviation of *Vivarnata* of *Pidaka* was  $2.25 \pm 0.786$  which reduced to  $0.70 \pm 0.657$  after treatment, showing 8.88 % reduction. It was statistically significant at the level of  $P < 0.001$ .

### Effect on Global acne Grading system:

**Group 1**- Before the treatment mean score and standard deviation of Global acne Grading system was  $21.25 \pm 5.803$  which reduced to  $11.55 \pm 3.052$  after the treatment, showing 45.64 % reduction. It was statistically significant at the level of  $P < 0.01$ . **Group 2**- Before the treatment mean score and standard deviation of Global acne Grading system was  $22.70 \pm 3.686$  which reduced to  $10.75 \pm 3.307$  after the treatment, showing 52.64 % reduction. It was statistically significant at the level of  $P < 0.001$ .

### Effect on Investigators Global Assessment:

**Group 1**- Before the treatment mean score and standard deviation of Investigators Global assessment was  $2.60 \pm 0.754$  which reduced to  $1.50 \pm 0.688$  after the treatment, showing 42.30 % reduction. It was statistically significant at the level of  $P < 0.001$ . **Group 2**- Before the treatment mean score and standard deviation of Investigators Global Assessment was  $2.45 \pm 0.759$  which reduced to  $1.45 \pm 0.605$  after the treatment, showing 40.81 % reduction. It was statistically significant at the level of  $P < 0.001$ .

**Overall Effect:** The overall effect in Group 1 showed highly significant result with mean score & standard deviation before treatment was 11.90 ±2.922 respectively and 5.80±1.67 after treatment with overall reduction of 51.3%. The overall effect in Group 2 showed highly significant result with mean score & standard deviation before treatment was 12.15 ±2.41 respectively and 5.60±1.57 after treatment with overall reduction of 54.0%.

## DISCUSSION

*Mukhadushika* in modern view has similarity with Acne Vulgaris which is called to be a Physically and Psychologically scarring disease. In this disease patients have greater impairment in mental health and associated with psychological disturbances like embarrassment, anxiety. In the study many of the patients had *Manasika lakshanas* like *Krodha*, *Ayasa*, *Shoka*, which aggravates *Vata Dosha*. *Jaloukavacharana* being a bio-purificatory method removes deeply seated toxins by letting out blood, clearing *Srotasa* and pacifying vitiated *Dosha*. As *Jaloukavacharana* removes vitiated *Pitta/Rakta*, which causes reduction in *Paka*, *Daha* and number of *Pidakas*. It also reduces the pooled blood and pus which results in purification of *Srotas*. *Lodhradi Lepa* are having the predominance of *Tikta*, *Katu* and *Kashaya Rasa*, *Laghu Guna*, *KatuVipaka* and *UshnaVirya*. These properties alleviate *KaphaDosha*. It is capable of pacifying vitiated *Vata Dosha* by its *Madhura Rasa*, *Snigdha Guna*, *Ushna Veerya* and *Madhura Vipaka*. Due to the presence of *Madhura*, *Tikta*, *Kashaya Rasa*, *Snigdha Guna* and *Sheeta Virya* it alleviates *Pitta Dosha*. *Arjuna* which has *Kashaya rasa*, *Sheetaveerya* does *Shamana* of *Kapha* and *Pitta*. *Raktashodaka* property of *Arjuna* acts on the causative factor of *Mukhadushika*. Thus, *Ksheera* which has *Madhurarasa*, *Sheetaveerya* and *Vatapittashamaka* property provides an added effect to this *yoga*. Flavonoids exhibit Anti-Inflammatory activity. Tannins exhibit antibacterial property. Overall, both the groups have shown highly significant results in all the parameters except in number of *Pidakas* and size of *Pidaka*.

## CONCLUSION

The Statistical analysis the study reveals there is no significant difference between *Jaloukavacharana* followed by *Lodhradilepa* and *Jaloukavacharana* followed by *Arjuntwaklepa* are having Qualitative Equanimity effect of the treatment on disease *Mukhadushika*.

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