

Ayurveda

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A COMPARITIVE CLINICAL STUDY ON THE EFFECTS OF LEECH THERAPY (JALOUKAVACHARANA) WITH AND WITHOUT HERBAL FACE PACK (MUKHADOOSHIKAAHARA LEPA) IN ACNE VULGARIS (MUKHADOOSHIKA)



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**ABSTRACT**

Acne vulgaris (Mukhadooshika) is a common skin disease in adolescents encountered by general practitioners and dermatologists in day today clinical practices. Acne vulgaris is one among the kshudra roga (minor diseases), having the features of shalmali's thorn like boils, pidaka (boils) are Ghana (hard), saruja (painful) with medogarbha (containing fatty material), present in the face of younger populations. Acne Vulgaris is a chronic inflammatory disease of sebaceous glands manifesting generally in adolescence with pleomorphic lesions like comedones, papules, pustules, nodules and cysts. Herbal face paste (Mukhadooshikaahara lepa) is explained in the context of treatment Acne vulgaris. Leech therapy (Jaloukavacharana) is one among the other varieties of therapeutic bloodletting technique which is indicated in many kinds of skin manifestations. Current treatment procedures which include surgery, laser treatment, oral antibiotics and topical applications are associated with many side effects, bacterial resistance, skin irritation, peeling, scar and recurrence. Acharya Sushruta explained that, one who undergoes bloodletting (raktamokshan) periodically, will not suffer with skin disorders (tvak roga), diseases presenting with nodules (granthi roga), diseases presenting with swelling/oedema (shopha roga). With this background a study has been conducted to compare the effect of leech therapy without and with application of herbal paste. Two groups were done as Group-A & Group-B, each of 10 patients. Leech therapy alone was done on face of Group-A twice with an interval of seven days that is, on day 1 and day 7. In Group B it was done on twice with an interval of seven days that is, on day 1 and day 7 along with application of face pack from day 1 to day 7. The pre and post therapeutic subjective and objective criteria were recorded. All data were analyzed clinically as well as statistically. In both the Group-A and Group-B leech therapy has shown good result in reducing the symptoms of Acne vulgaris and in this study there were no significant additional benefits of herbal face pack.

INTRODUCTION

The skin is a largest and one of the most complex organ of the body, skin health can be impacted by hormones, age, diet and environment. In the present day society each and every one is beauty conscious. According to analysis Transparency Market Research, global demand for organic personal care products (skin care and hair care) was over \$7.6 billion in 2012 and about skin care

products is expected to reach \$13.2 billion by 2018 growing at a rate of 9.9%. It shows that the world is behind of beauty. As per high demand and need of society, the field of cosmetology is developing at a rapid rate. Along with increased demand, the problems are also increasing which cause damage to beauty or personality due to changed life style and polluted atmosphere. Due to various side effects in modern chemical cosmetology, people are rushing towards natural and safety preparations to beautify themselves. Ayurveda can provide safe, painless, effective, economical and natural herb based treatments for many maladies including dermatological diseases. Hence, this dissertation deals with the skin disorder Mukhadooshika one among the Kshudraroga as explained in Ayurvedic classics. In the contemporary science, it can be compared with Acne vulgaris. Acne vulgaris can have negative impact on the individual's self esteem and social life. It is more than a cosmetic problem. The Sebaceous gland/Pilosebaceous follicle is an important epidermal appendage and is the anatomical unit involved in the pathogenesis of acne vulgaris. Acne vulgaris is a most common disease characterized by eruption of conical shaped lesions with seborrhea. The disease occurs in all races worldwide, affecting 90% of people sometime or the other in their life. It can cause physical pain and mental suffering, and lead to the appearance of scars. Aside from scarring, its main effects are psychological, such as reduced self-esteem and in very extreme cases, depression or suicide. One study has estimated the incidence of suicidal ideation in patients with acne as 7.1%. Acne usually appears during adolescence, when people already tend to be most socially insecure. Early and aggressive treatment is therefore advocated by some to lessen the overall long-term impact to individuals. In Current treatment procedures which include surgery, hormonal therapy, laser treatment, oral antibiotics and topical antibiotic applications are associated with many side effects, bacterial resistance, and irritation of the skin, peeling, scar and recurrence. Prior to avoid these ailments we need to research the safest, efficacious remedies which are encrypted in Ayurveda. In this regards the topic has been selected and study has been done on 20 patients with Acne vulgaris. All patients were selected in between the age group 16-30yr old of either sex. History, clinical data, subjective and objective criteria were recorded on a specially prepared proforma for observing and comparing the therapeutic effect of leech therapy, without and with herbal face pack in the management of acne vulgaris.

OBJECTIVES OF STUDY

1. To study the detailed literature about Mukhadooshika & Acne vulgaris.
2. To compare the efficacy of leech therapy without and with herbal

face pack in the management of acne vulgaris.

MATERIALS AND METHODS

Method of collection of data: A minimum of 20 patients suffering from acne vulgaris in an age group of 16-30 yrs of either sex were selected and were subjected to clinical trial.

Design of study: It was an open label clinical study with Pre test-Post test designs, where in 20 patients with Acne vulgaris were selected in between 16-30yr old of either sex. History, clinical data, subjective and objective criteria were recorded on a specially prepared proforma. Two groups were done as Group-A & Group-B, each of 10 patients. Leech therapy alone was done on face of Group-A & leech therapy along with herbal face pack was carried out in Group-B.

Intervention: 1. Group-A leech therapy was done on face twice with an interval of seven days – that is, on Day 1 and Day 7. The pre and post therapeutic subjective and objective criteria were recorded on Day 1(immediately before and after first bloodletting) Day 7 (immediately after second sitting) Day 15 (final assessment of therapeutic study) Day 45 (observing for recurrence).

Leech therapy: Procedure in three steps:-

1. Preparation of patient- part (face) is washed with water and dried. Preparation of leech-were kept in turmeric water for 10 minutes.
 2. Applying the leech to the required area – that is, within a perimeter of one hand of the lesion/s. Cover the leech with a moist gauze piece. Letting the leech to draw blood till it detaches spontaneously.
 3. Squeezing leech to expel/Vomit the blood. Application of turmeric powder and hundred times washed ghee(shadhotghrita) on bitten site.
2. Group-B i. Leech therapy - Day 1 and Day 7 ii. Herbal face pack application – Day 1 to Day 7

Herbal face pack application:

No of applications (per 24 hrs) One Time of application Morning. Duration of application until spontaneously dried. Base for mixing is lukewarm water. Thickness of pack 3 mm. Duration of treatment: 7 days in both groups. Follow up period: 45 days & Observations will be recorded on day 1, day 7, day 15, day and day 45.

Inclusion criteria: 1. Patients aged between 16-30 yrs. 2. Patients of either sex. 3. Patients fit for Raktamokshana. 4. Diagnosed case of Acne vulgaris presenting with specific features like Shalmali's thorn like boils, painful, thick, boil, white headed (closed), black headed (opened) & inflamed lesion.

Exclusion criteria: 1. Patients unfit for bloodletting. 2. Acne rocea. 2. Folliculitis. 3. Steroid acne. 4. Pregnancy, lactation. 5. Severe anemia. 6. Systemic diseases like DM, HIV, Tuberculosis, HbsAg.

Assessment criteria: The patients were assessed on the basis of subjective & objective parameters before and after treatment.

Subjective parameters: 1. Number of boils. 2. Inflammation. 3. Discharge. 4. Itching. 5. Painful

Objective parameters: 1. Medogarbha. 2. Black head – number. 3. White head – number. 4. Inflamed papules – number. 5. Pustules – number. 6. Exfoliation – present or absent.

Investigations: wherever found necessary 1. Hemoglobin. 2. Bleeding time. 3. Clotting time. 4. RBS etc

RESULTS

COMPARISON BETWEEN THE GROUPS:

1) No: of Papules (Pidakas): Mean score of group A was 4.1 and mean score of group B value increased to 4.4 and the value shows insignificant increase ($P=0.5926$) in after treatment of group B when

compared to the group A in No. of Pidakas.

2) Inflammation (Daaha): Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Daaha.

3) Discharge (Sraava): Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Sraava.

4) Itching (Kandu): Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Kandu.

5) Pain (Ruja): Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Ruja.

6) Medogarbha: Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Medogarbha.

7) Black head no: Mean score of group A was 2.6 and mean score of group B value increased to 3.6 and the value shows insignificant increase ($P=0.3880$) in after treatment of group B when compared to the group A in No. of blackheads.

8) White head no: Mean score of group A was 2.5 and mean score of group B value increased to 2.8 and the value shows insignificant increase ($P=0.5335$) in after treatment of group B when compared to the group A in No. of white heads.

9) Inflamed papules no: Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in No. of inflamed papules.

10) Pustules no: Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in no. of pustules.

11) Exfoliation: Mean score of group A was 1.0 and mean score of group B value was 1.0 and the value shows no change ($P=---$) in after treatment of group B when compared to the group A in Exfoliation

CONCLUSION

In both the groups all the patients showed marked improvements in symptoms like Pain, inflammation, itching, discharge and reduction in number of inflamed papules with statistically essentially significant results. There was marked reduction in the no. of white heads and black heads during follow up period with statistically significant results. No untoward side effects, allergy is seen. It is the safest method for bloodletting. After follow-up period there was recurrence of Papules. It indicates that leech therapy is to be carried out periodically. There were no statistically significant results for resolution of Medogarbha and exfoliation. There was minimum improvement in No. of Papules of group B as compared to group A, however the statistical value shows no significant change in after treatment of Group B when compared to the Group A for other parameters. It indicates that there was no additional treatment property of herbal face pack used in this study along with leech therapy in Group B. we may try the other combination of the pack described by Acharya Sushruta. In this study the application of pack was carried out only for 7 days, therefore it may require to apply for longer duration. Studies with larger sample size are required to properly assess the efficacy of herbal face pack. Both the treatment modalities taken for the study were having local action, and having minimal effect on Doshadooshyasammurchana, there may be the need of other detoxification (shodhan)therapy with Sahamana

medications.

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