

'The Efficacy of Jallaukavacharan (Leech Therapy) in Mukhdushika (Acne)'

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Abstract: Mukhdushika could be compared with modern medicine of Acne vulgaris. Many oral medicines and local applications are available in many other pathies which provide less relief and more side effects such as cortio steroids, Laser therapy, aroma therapy, local thermal facial packs etc. In Ayurveda, Mukhadushika is considered under the category of Kshudra rogas. Almost all the skin diseases are considered as 'Kshudra' because they are less troubling, consume less time, produce less symptoms and does not affect the physical working capacity of a person. Hence, it does not affect the day to day routine of a person. Hence they are termed as 'Kshudra'. Mukhadushika appears due to dosha and dhatu dushti in the form of small pidikas all over the body especially on face. This affects the face mainly hence termed as 'Mukhadushika'.

Keywords: Mukhdushika, Kshudra roga, Laser therapy, Aroma Therapy, Thermal facial packs

INTRODUCTION

A person suffers from Mukhadushika or Yuvanpidika or Tarunypidika i.e. Acne especially after puberty i.e. at the start of adolescence. It is this period of life when boys and girls get attracted to each other and Mukhadushika is a prime barrier in this attraction. But the person always strives to look beautiful in every stage of life. Because, having first look only, one gets attracted to other only if the first look is fascinating. Hence, every person strives hard to look beautiful and attractive. Some persons are naturally good looking. But, those who are not always suffer from a sort of inferiority complex and may get psychological problems. These people use some artificial measures to get rid of this complex, such as cosmetics, thermal facial packs, herbal packs etc., and unknown of the complications which chemicals provide them for long term. Hence, there has been wide spread research since long time to overcome Mukhdushika with least side effects.¹

Many oral medicines and local applications are available in many other pathies which provide less relief and more side effects such as cortio steroids, Laser therapy, aroma therapy, local thermal facial packs etc. Considering the signs and symptoms, we can correlate Mukhdushika to Acne vulgaris in modern medicine.

In Ayurveda, Mukhadushika is considered under the category of Kshudra rogas. Almost all the skin diseases are considered as 'Kshudra' because they are less troubling, consume less time, produce less symptoms and does not affect the physical

working capacity of a person. Hence, it does not affect the day to day routine of a person. Hence they are termed as 'Kshudra'.

Mukhadushika appears due to dosha and dhatu dushti in the form of small pidikas all over the body especially on face. This affects the face mainly hence termed as 'Mukhadushika'.²

Mukhadushika:(Acne)³

Purvarupa (Pre Symptoms) –

The unexposed symptoms of the disease which is to come are called Purvarupa. The appearance of Utsedha (bulging) on Nasa & Kapola (Nose and cheeks), Lalima (Redness) Shula (Pain).

Rupa:

The presence of Pitika (pustules) on Nasa, Kapola and Mukhapradesha (Nose, Cheeks and whole face) just like spikes of Shalmali tree. Shotha (swelling), Strava yukta (with discharge) or strava rahita (without discharge), Sashula (with pain) or Shularahita (without pain), Daha (Burning Sensation), Sparshasahatva (Intolerance to touch), Kandu (Itching).

Common mode of treatment -

(1) Shamana

(2) Shodhana.

Shodhana (i) Vamana
(ii) Nasya
(iii) Sthanika lepa (local)

Shamana (i) Sthanika lepa (local)
(ii) Ayurvediya oral treatment.

Raktamokshana -

This disease mostly occurs in Yuvavastha (Adolescence). Mostly, in this stage, there is activation of pitta dosha mainly. If this is vitiated, it in turn vitiates rakta also. Hence with the help of Raktamokshan, dushita rakta along with pitta can be letted out and the disease subsides.

MATERIAL AND METHODS:

MATERIALS:

The materials for Jallaukavacharan included the following -

- 1) Jallauka - Active Kapila Jallauka or Indian cattle leech were used.
- 2) Turmeric Powder - This is also called Haridra churna. This was used for dressing purpose and to vomit out the sucked blood.
- 3) Glass containers - Six glass containers each labeled Monday, Tuesday, Wednesday, Thursday, Friday and Saturday were used to store leech.
- 4) Kidney trays and bowls - These were used while applying the leech.
- 5) Sphatika powder (Alum) - This was used while doing dressing.
- 6) Roll bandages. Sticking Plast and cotton pads - These were used for dressing purposes.
- 7) Scissors - These were used while dressing.

METHODS:

The research work was carried under two main heads-

- 1) Patient Study and Selection.
- 2) The selection and application of Jallauka

Patient Study and Selection :

This study was carried on patients registered in OPD of Pakwasa samanvaya rughnalya. A total number of 30 patients were considered for the clinical study. Age, Sex, education, occupation, caste, religion were no bar for this selection of patients. Patients with non suppurative inflammation of mukhdushika were exclusively selected for Jallaukavacharan.

Clinical examination included the detailed case study according to the proforma decided by my guide. It included history taking, present complaints with duration, past illness, personal history family history. The additional Gynaecological and obstetrical history was also taken in females. Special stress was paid on regular diet habits and occupation, exposure to the atmosphere and pollution and menstrual history in females. The special examination included the assessment of texture or quality of skin, regular use of cosmetic is done or not, colour of skin etc. The local examination included the site of

Mukhdushika, single or multiple in nature, colour over and around the acne, redness, tenderness, size, shape, presence of cyst or abscess, rise in temperature, any secondary infection etc. General systemic examination was performed to exclude any other systemic abnormality.

The investigations done were as follows - Hemoglobin percentage, total leukocyte count, differential leukocyte count and Erythrocyte sedimentation rate, bleeding time and clotting time. Unfortunately, lipid profile and hormonal analysis could not be done because this facility is not available in our hospital.

The treatment was given in following way - Jallauka of small size was applied on every fourth day i.e. biweekly to the patient. Such types of 4 sittings were done. Observations were noted before and during treatment. Later patient was followed every 7th day. 3 of such follow ups were taken.

Assessment Criteria:

Clinical observations included pain, swelling, redness, tenderness, rise in local temperature before and after treatment. The observations were recorded in the following way :-

- 1. Pain :** Measurement of pain was done by visual analogue scale (Bond and Pilowsky, 1966) and questionnaire.

Visual Analogue Scale : A line of 10 cm long was drawn on a page on which at one end 'no pain and at other end 'severe pain I ever felt' were written. The patient was asked to mark the line at the point corresponding to the intensity of pain at that very moment.

This scale is a good tool for pain measurement, but it has got some limitations. It fails in some illiterate patients. Hence, some questionnaire was designed in such cases, such as do you feel unbearable pain, or can you bear it? Does it affect your work? etc. and the intensity was decided. Pain was measured before and after treatment.

- 2. Swelling (Swelling in mms)**

The regular compass scale was used to measure the size of swelling in millimetres before and after the treatment, so that the change or alteration should be noted.

- 3. Tenderness:**

Tenderness was recorded in four grades, depending upon the patient's reaction to firm pressure of acne pustules or cysts to the observer's fingers pulp

Grade 1 : Patient says the acne is tender.

Grade 2 : Patient winces.

Grade : The patient winces and withdraws the affected part.

Grade 4 : Patient doesn't allow to be touched.

These grades were denoted as the signs +, ++, +++, +++++ respectively. These were noted before and after treatment.

4. Redness:

This character was noted by inspection of local papules and putules and were observed for change in colour. It was compared to the normal colour of face and then redness was noted. This task was quite tedious and difficult to assess as some patients with fair complexion revealed the redness easily, but those with dark complexion took more time for this assessment.

But for the sake of statistical convenience, we classified it under four grades -

Grade 1 : + : Mild redness (just equal to nominal)

Grade 2 : ++ : Mild to moderate redness.

Grade 3 : +++ : Moderate redness.

Grade 4 : +++++ : Severe redness.

This was done before and after treatment.

5. Rise in local temperature

TYV is known as local heat or local warmth. This was assumed in two Grades.

Grade 1 : Presence of rise in local Warmth.

Grade 2 : Absence of local Warmth.

This was calculated by palpation method. For this purpose, the back of fingers was used. It was first put on the normal side of face and then on the site of acne. The difference in temperature was felt.

Clinical Study:

a) Selection and Preparation of Jallauka

An active kapila Jallauka, which is moderate in size was selected for the research work.

This Jallauka was rubbed with mustard powder or turmeric powder for some time (2 mins.) and then kept in pure water for sometime (48 mins). Now the leech was prepared for application.

b) Application of Leech

This is categorised in three subheads -

- i) Purvakarma
- ii) Pradhana Karma
- iii) Paschata Karma.

i) Purvakarma - This is considered as -

- 1) Preparation of Leech.

2) Preparation of Patient.

a. Preparation of Leech (Jallauka)

Selectively Kapila Jallauka was taken and it was applied a lepa of mustard powder and turmeric powder and kept in pure water for one muhurta (48 mins). Now it was hungry and fastly moving.

Acharya Vagbhatta has mentioned to keep the Jallauka for sometime in Amlakanji or Takra and later in pure water.

It means purvakarma of Jallauka is nothing but its shodhana.

b. Preparation of Patient:

The part which was to be applied the Jallauka was cleaned first as blood was to come out. But it should never be cleared with antiseptic agents such as spirit, Betadine or Savlon. Neither it was cleaned with Nimba Kwatha (decoction) or any other Kashaya Rasatmaka drugs, because strongly smelling agent applied at the site where leech is to be applied doesn't allow the leech to suck blood. Even this part can't be cleaned with regular soap. This part can only be cleaned with pure water.

Even the Snehana, Swedana procedures mentioned by Acharya Sushruta in Purvakarma, is practically a contraindication to Raktamokshana with Jallauka or leech, because the surface being soft and moist after snehana and swedana does not give them grip to suck blood.

ii) Pradhana Karma

Patient was made to sit comfortably. The Jallauka was held in hands with gloves on, with the anterior sucker and placed at the swollen site. Then it was covered with wet cotton pad and some water was sprinkled over it frequently. Now it was left as it is for some time. But it was given continuous watch as Jallauka is slippery, it usually slipped outside and vanished from the spot. As it became calm, it took the grip and started sucking. The patient felt mild burning sensation at that instance. Then frequently, water was sprinkled over the site. Some patients did not feel the burning sensation. The sign of blood sucking Jallauka is that, its mouth becomes like a horse's hoof while sucking. If the leech did not suck even after sometime, some malai was applied to the site and leech kept by its side, it worked and leech started sucking the blood. It took approximately 5 to 15 mins. time to start sucking, in my observation.

It continued to suck, till its stomach capacity was full and then left. While the process was on, the regular sucking movement could have visualised on the dorsal portion of the body with naked eyes.

iii) Paschata Karma

When the Jallauka detached itself, the triradiate Y shaped scar was observed at the site. This wound was made clean with pure water. Then swab with turmeric powder was applied to it and the dressing bandage was done. If the bleeding did not stop after this then sphatika (alum) powder was applied to the wound. Generally, the oozing continued upto 24 hrs. Hence, the bandage was kept intact for this period and then removed or the dressing was done if necessary with the same.

The Jallauka was made to vomit out the sucked blood by holding its tail with left hand with gloves on, and pressing it with right hand from upside downwards. Sometimes if a little turmeric powder sprinkled over its mouth, it vomited out the sucked blood on its own.

This blood was measured with a disposable syringe of 10 cc. quantity of vomited blood depends on the size of leech and varies from (0 to 20 cc.)

- A small sized leech sucks 2 to 4 cc of blood.
- A moderate sized leech sucks 5 to 10 cc of blood.

- A big sized leech sucks 10 to 20 cc of blood.

After the blood was vomited out, the leech was washed twice or thrice with fresh water and kept in a separate container with fresh water.

If the leech does't vomit out the sucked blood properly, it suffers from an incurable disease, called Indramada.(Su.Sa.13/22)

This leech was again used after 7 days. This is all about Paschat Karma.

40 leeches or Kapila Jallauka were attributed for this research work. They were kept in six glass container which were labelled with Monday, Tuesday, Wednesday, Thursday, Friday and Saturday. One container was unlabelled.

The leeches used on the day were kept in the container with the same label so that again it was used on the same day in the later week. Hence, this avoided the puzzling of used and unused leeches. The water was changed every day in these containers. This way, the leeches were preserved.

Observations & results:

According to texture of skin .Table No. 1

Sr.No.	Texture Type	No. of Patients	%
1	Oily	22	73.33
2	Dry	8	26.66
3	Normal	0	00

Table No. 1 shows classification according to Texture of Skin .

According to the texture of skin gives the following data –

Out of total 30 patients, 22 (73.33%) of patients had oily skin, and 8 (26.66%) of patients had dry skin. Majority of patients were found to have oily skin. It means all these patients had hyper secretion of sebaceous glands, and this intermingling with other causative factors such as guru vidahi aahar, malabadhata, exposure to pollution etc. produced acne or mukhdushika.

According to type of Acne Table No. 2

Sr.No.	Type of Acne	No. of Patients	%
1	Cystic	6	20
2	Papulopustular	24	80
3	Abscess	0	0

Table No.2 shows classification according to Type of Acne.

According to this type, out of total 30 patients, 6 (20%) were found to have cystic acne. 24(80%) patients were found to have papulopustular acne. 0% patients had abscess.

Classification according to type of pain due to dosha -Table No. 3

Sr.No.	Type of pain	No. of Patients	%
1	Daha (Burning)	22	73.33
2	Kandu (itching)	19	63.33
3	toda (Pricking)	7	23.33
4	Bheda (Throbbing)	9	30.00

Table No. 3 shows classification according to type of Pain due to Dosha.

Classification according to type of pain reveals that, out of total 30 patients, 22 (73.33%) of patients had Daha or Burning pain. 19 (63.33%) patients had kandu or itching. 7 (23.33%) of patients had toda or pricking pain and 9 (30%) of patients had Bheda or Throbbing pain.

This shows that 22 (73.33%) patients had Burning pain. This may be due to acne or mukhadushika being a paittika Vyadhi, most of the patients had used some or other local suppressive agents (ointments), the consumption of vidahi diet and overexposure to atmosphere or pollution.

According to type of strava (Before Treatment)Table No.4

Sr.No.	Type of strava	No. of Patients	%
1	Sanguiserous	20	66.66
2	Blood with pus	5	16.66
3	No discharge	5	16.66

Table No. 4 shows classification according to Type of Strava before treatment.

Classifications according to type of strava (discharge) indicates the following data- out of total 30 patients, 20 (66.66%) patients were found to have sanguiserous strava or discharge. 5 (16.66%) patients were found to have the discharge of blood with pus. 5 (16.66%) patients were found to have no discharge.

According to type of strava (After treatment)Table No .5

Sr.No,	Type of strava	No. of Patients	%
1	Sanguiserous	4	13.33
2	Blood with pus	2	6.66
3	No discharge	24	80

Table No. 5 shows classification according to Type of Strava after treatment.

Classifications according to type of strava (discharge) indicates the following data- out of total 30 patients, 4 (13.33%) patients were found to have sanguiserous strava or discharge. 2 (6.66%) patients were found to have the discharge of blood with pus. 24 (80%) patients were found to have no discharge.

Statistical analysis

From the observation and statistical analysis by grading taking before and after treatment for subjective criteria p value obtained was <0.05 for the symptoms Pain, Swelling (in mms) Or Size, Tenderness, Redness which was significant at 5% level of significance.

Discussion

Mukhadushika is the top most barrier in the beauty of an individual. It's mentally as well as physically harassing and scarring in nature. Though Acharyas have included mukhadushika in kshudra rogas, it affects mainly the face and therefore affects the personality of a person, hence is a foremost priority for treatment. Jallauka is a ansuhastra, described by Acharya Sushruta. It sucks blood, ie the raktadushti by pitta or other toxins is also sucked with blood, hence ancient Acharyas have suggested to apply Jallauka in Paittik and Raktaj Vyadhi.

It's a very simple and cheaper tool for treatment in the diseases untreatable with medicines. The choice of Jallauka has to be done depending on the inflammatory lesion. For acne, a small sized leech, which can suck 5 to 8 cc of

blood, was used. In dense papulopustular acne, 2-3 such leeches at a time can be used. This procedure was repeated every 4th day and 5 such sittings were done.

The pain & inflammation was found to reduced extremely. All the five criteria's for observations Pain, Swelling in mm, redness, tenderness and rise in temperature were found to reduce tremendously.

Initially the patients used to hide the acne with scarf or cap due to its severity, but after treatment they just gave away all these habits. Out of 30, 29 patients got satisfactory results, one patient, a sales girl by profession, due to overuse of cosmetics to hide acne, didn't respond to treatment. Even she did not give proper follow-ups. Out of remaining 29, 26 gave proper follow ups, and other 3 were of out of Nagpur localities, hence these were called for weekly follow ups. The patient came and responded to treatment.

Conclusion:

Mukhadushika is stated as Sadhya roga(Curable) by all Acharya. It is seen at any age but frequently in young age. The poor and lower middle class people are more prone to the disease Mukhadushika gets aggravated by many factors. Now a day junk food, irregularity in food taking, suppression of natural urges and use of cosmetics and other chemicals, polluted environment, stressful life and emotional disturbances definitely play a major role in manifestation of Mukhadushika. However jallaukavacharan has some properties like it play role in purification of

blood and also maintain well blood flow in the facial part which also helps in reducing the symptoms of Acne. It has very least side effects and it is cost effective remedy for the treatment of Mukhadushika (acne vulgaris). Now a day it has got

approved from various agencies along with FDA for medical use.

Conflict of Interest: Nil

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