EFFECT OF JATIPHALADI LEPA IN TARUNYAPIDIKA AS REFERENCE TO ACNE VULGARIS

Jyoti B. Tapase¹, Rajesh Shah²

¹PG Scholar, ²Guide, HOD Swasthavritta Department; K.C. Ajmera Ayurved Mahavidyalaya, Dhule, Maharashtra, India

Email: jyotichoure01@gmail.com

ABSTRACT

Mukhdushika i.e. TarunyaPidiKA is one of the diseases mentioned under kshudrarogas and is considered as “SwatantraVyadhi” in the Ayurvedic literature. An equivalent terminology in Modern Medicine is acne vulgaris. Sometimes leading to major social problem which is characterized by maculo, papulo, pustulopustular eruptions on the skin especially on the face in both male and female genders of adolescent age, group is commonly affected. TarunyapidiKA is also called as, “Mukhdushika” as it decreases the complexion and smoothness of the face. Jatiphaladi lepa was the drug taken for the trial. In this Trial 10 patients were treated. The treatment is of 15 days with a follow up of 7 days. Jatiphaladi Lepam was applied externally on the affected area. This is a clinical study, as special clinical performa is prepared with relevant inputs from Ayurvedic and allied science of study. Highly significant result and improvement in Acne vulgaris was observed. It reduces acne of the face as well as suppresses the Black spots and various types of “Vyang” and “Nilika”.

Keywords: Tarunya pidika, Jatiphaladi lepa, Acne vulgaris.

INTRODUCTION

Acne Vulgaris it develops at teen age when the sebaceous glands are the most active[¹]. For the development of acne, besides seborrhea, the hyperkeratosis of the pilo-sebaceous ostia is an important pathogenic factor[²]. That is why acne never occurs on scalp and only rarely, on the beard region despite seborrhea being present in these areas[³]. Importance is being given to be beautiful by the people now a days as well in the olden days same thing was practiced in order to improve the complexion various soundrya vardha-kas were used[⁴]. The formulations that are...
selected for the clinical trial as follow: Jatiphaladi lepa Jatiphal, Raktachandan, Marich in equal proportion, External Application on affected area. This is a clinical study; a special clinical performa is prepared with relevant inputs from allied sciences of study. A total 10 patients from the OPD of K.C. Ajmera Ayurved College, Dhule. The treatment is of 15days with a follow up of 7days. For the same, accurate statistical record maintained and analysis was done accordingly.

Aims:-
To study the efficacy of Jatiphaladi lepa in the management of Tarunyapidika i.e. Acne Vulgaris.

Objectives:-
1. To study the efficacy of Jatiphaladi lepa on Acne Vulgaris.
2. To study the effect of Jatiphaladi lepa on black spots.
3. To study the effect of Jatiphaladi lepa on Nilika n Vyang.
4. To study the effect of Jatiphaladi lepa on comedones, inflammatory lesion, papules and pustules.

Structure of Skin:-
The skin is formed of a superficial epitelial layer the epidermis and an underlying connective tissue layer, the dermis or corium.

Dermis – The dermis is covered by the epidermis. Deep to the dermis lies superficial facial hypodermis or subcutaneous layer which in turn is bound to the under lying tissues by a dense fibers, deep facial corresponding to the eqimysium of muscle blocks or cartilaginous surface.

Epidermis – The thickness of epidermis is at about 0.07mm to 0.12 mm but in certain parts like soles of the feet and palms of hand it is very thick ranging from 0.8 mm to 1.4mm. Squamous epithelium is 10-12 cells thick in the palms and soles and 3-4 cells thick over the eye lids[5].

Sebaceous glands:-
Sebaceous glands are mainly associated with the hair follicles. This gland is absent from the hairless portions of the body like palms of the hands and soles and sides of the feet. These sebaceous glands however, occur independently, irrespective of presence of hair follicles at certain places like the eyelids, margins of lips, external auditory meatus, nipple, anus and around the more superficial skin[6].

Functions of Skin:-
1. The Skin provides Physical, Chemical and Biological barriers that help to protect the body.
2. It includes tactile sensation, thermal sensation and pain.
3. Skin helps in process of thermoregulation[7].
4. It helps in the process of excretion and absorption also.
5. Samprapti – Keratinization of ducts→Sebaceous duct with keratin→Abscess develops →Neck distended →Rupture at dermis →Inflammation reaction in skin →Bacterial in-
festation → Formation of debris → Edematous Papule\(^8\).

**Karma of Jatiphaladi Lepam –**

*Jatiphaladi Lepa* specially made for Acne-Vulgaris; this *Lepa* suppresses the Acne-Vulgaris, “Black-Spots”, “Vyang” and Nilika.

- It is very good for skin. It connects very effective drugs which plays important role for the beauty of skin. The contents of *Jatiphaladi Lepam* make the skin healthy and glorious.

- *Jatiphaladi Lepam* acts as vranshodak and Ropan to skin, due to presence of *Jatiphal* in this *lepa*. Extensive studies have indicated wound healing inflammation modifying action of this plant. The inflammation response Fibroblast, Proliferation, Collagenisation and Epithelisation were better with *Jatiphala*.

- *Raktachandan* of *Jatiphaladilepam* acts as, “Shothhar” to the skin; it also acts as, Dahprashaman and reduces to the diseases of skin\(^9\).

- In *Jatiphaladilepam* due to the presence of *Maricha* it acts as, Jantughna and Vednasthapan and Vranya, Swedal, Kandughna, Kushthghna and reduces the all types of diseases of Skin. All content of *Jatiphaladilepam* suppresses “Black Spots”, “Vyang” and “Nilika”, “Kushthghna, “Swedal” and “Kandughna” it used for “Vranadhavan.

- In short *Jatiphaladilepam* acts as, Vranshodak, Ropak, Shothhar, Dahprashamak, Jantughna, Vednasthapan, Vranya, kushthghna, Swedal, Kandughna, Vranadhavan to skin.

- So, it is very effective to the skin & increase the fairness and beauty of skin.

**Table 1: Drug – Review**

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Latin Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Jatiphala</td>
<td><em>Myristica Fragrance</em></td>
</tr>
<tr>
<td>2) Raktachandan</td>
<td><em>Pterocarpus Santalinus</em></td>
</tr>
<tr>
<td>3) Marich</td>
<td><em>Piper Nigrum</em></td>
</tr>
</tbody>
</table>

**MATERIAL AND METHODS:**

**SOURCE OF DATA:**

The present clinical study on *Tarunyapidiika* has been done with unique combination of herbs”, which is used for external application only.

- For clinical study 10 patients were selected from, “K.C. Ajmera College of Dhule.

- The Clinical study is categorized in to groups – i.e. 10 patients with external treatment (*Lepa*) of combination of herbs for 15 days.

**Selection Criteria:**

1) Patients who were within age group mentioned in the inclusive criteria with
irrespective of sex, religion, occupation, socio Economical and material status.
2) Patients willing to participate in study will be selected.
3) Patients fulfilling the inclusive criteria.

Subjective Criteria:-
The patients who presents with the following symptoms of TarunyaPidika told in Classics will be selected for this study-

a. Number of papules
b. Pustules (Numerous)
c. Sparse inflammatory lesions.
d. Open and closed comedones.
e. Pimple formation over chicks, chine, nose for head, chest, Back, shoulder, buttocks usually associated with oily scalp.

Inclusive Criteria:-
i) The patient between the age group of 13 to 23 yrs.
ii) Female in between the age group of 15 to 18 yrs.
iii) Male in between the age group of 17 to 23 yrs.

Exclusive Criteria:-
i) The patient below 13 yrs and above the age of 25 yrs. are not selected, also the patient who have severe cases of acne vulgaris.

Criteria of Assessment:-
It is based upon subjective parameters assessed by severity of symptoms and signs presented before and after treatment.

Parameters of Upashaya:-
1) Excellent Result – Upashaya above 75%
2) Moderate Result – Upashaya between 35% - 75%
3) Poor Result – Upashaya below 35%

STATISTICAL ANALYSIS
Table 2: Before and after Treatment

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Score of symptoms Before T/t X1</th>
<th>Score of symptoms After T/t X2</th>
<th>Difference X1 - X2 =X</th>
<th>X-X</th>
<th>(X-X)^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>2</td>
<td>8</td>
<td>-0.4</td>
<td>0.16</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>-0.4</td>
<td>0.16</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>1</td>
<td>9</td>
<td>+0.6</td>
<td>0.36</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>+0.6</td>
<td>0.36</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>3</td>
<td>9</td>
<td>+0.6</td>
<td>0.36</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>2</td>
<td>7</td>
<td>-1.4</td>
<td>1.96</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>-1.4</td>
<td>1.96</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>1</td>
<td>8</td>
<td>-0.4</td>
<td>0.16</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>2</td>
<td>9</td>
<td>+0.6</td>
<td>0.36</td>
</tr>
<tr>
<td>10</td>
<td>12</td>
<td>2</td>
<td>10</td>
<td>+1.6</td>
<td>2.56</td>
</tr>
</tbody>
</table>
N = 10 \quad X = 84 \quad (X-X)^2
\begin{align*}
\text{df}=9 \quad X=8.4 \quad &= 8.40 \\
\text{Applying t-test to the data} \\
n=10 \quad \sum x = 84 \quad \sum(X-X)^2
\end{align*}
\begin{align*}
\text{df}=9 \quad X = 8.4 \quad &= 8.40 \\
\text{Standard Deviation:-} \\
\text{S.D.} = \sqrt{\frac{\sum(X-X)}{n-1}} \\
= \sqrt{\frac{8.4}{9}} \\
= 0.933 \\
\text{S.D.} = 0.966
\end{align*}
\begin{align*}
\text{Standard Error} &= \frac{\text{S.D.}}{\sqrt{n}} \\
&= \frac{0.967}{\sqrt{10}} \\
&= 0.3059 \\
&= 0.306 \\
\text{S.E.} &= 0.306
\end{align*}
\begin{align*}
T_9 &= \frac{X}{\text{SE}} = \frac{8.4}{0.306} \\
&= 27.45098
\end{align*}
Therefore, standard Deviation is 0.966 and standard error is 0.306 and the observed t value is 27.45 times the standard error. Therefore Result of Jatiphaladilepa is highly significant.

**Observations:-**
In earlier stage of treatment all patients had showed good results the number of acne was reduced. This lepa suppresses the Acne – Vulgaris and reduces the “Black Spots” and reduces the “Vyang” and “Nalika” also. It brightens the skin than earlier stage. All the patients received the standard dose of the Jatiphaladilepam. Just after treatment final dates were collected.
RESULTS:

Table 3: The Results of *Jatiphaladi Lepam* in *TarunyaPidika* are as follows:

<table>
<thead>
<tr>
<th>Duration</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-7 days</td>
<td>First assessment showed symptomatically less significant</td>
</tr>
<tr>
<td>7-14 days</td>
<td>Second assessment showed symptoms and signs are significantly decreased.</td>
</tr>
<tr>
<td>14-21 days</td>
<td>Third assessment showed symptomatically significant.</td>
</tr>
<tr>
<td>1-30 days</td>
<td>Last assessment showed powerful significant.</td>
</tr>
</tbody>
</table>

**TOTAL ASSESSMENT**

After the treatment of *Jatiphaladilepam* in *TarunyaPidika*, it is statistically analysed that it was very significant and particularly in mild and moderate cases.

*TarunyaPidika*, it is statistically analysed

Table 4: Data Related To Subjective Parameters.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Open and Closed Comedones</th>
<th>Spars Inflammatory lesion</th>
<th>Numerous Papules</th>
<th>Pustules</th>
<th>Percentage Relieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2</td>
<td>+</td>
<td>+</td>
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<td>+</td>
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<td>+</td>
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<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
DISCUSSION

Discussion about Jatiphaladi Lepam:
Jatiphaladi lepa is specially made for acne vulgaris this lepa suppresses the Acne – Vulgaris “Black Spots” Vyanga and “Nilika”.
In this Jatiphaladi, Maricha, Rakta-chandan.
All above dravya are given in equal proportion in the form of churna and it should be mixed with cold water and it applies all over the face for 15 minutes, this lepa is very effective on the Acne Vulgaris.

Criteria for Selection of Jatiphaladi Lepam:
1. Jatiphaladi Lepa is very effective on the Acne-Vulgaris.
2. This Jatiphaladi lepa is very safe.
3. Its contents are easily available in market.
4. Method of preparation is very simple.
5. There is no effective research on the clinical efficacy of Jatiphaladi lepa.
6. It reduces the Tarunya-pidakaas well as Nilika and Vyanga also.

Diagnosis:-
Diagnosis is made on the clinical symptoms of Acne Vulgaris mentioned in the classics and cases were diagnosed.

Recommendation for Future Study:-
For the further studies as well as to overcome limitation the following recommendation are made on the basis of observations and conclusions.
1. Jatiphaladi lepa’s effect can be studied in longer duration even in severe cases of Acne vulgaris.
2. Same study can be repeated by taking a large number of samples.
3. The effect of Jatiphaladi lepa’s has to be estimated in double blind randomized controlled study.

Limitation of study:-
1. To generalize the result, sample size is very small.
2. It is Difficult to draw its mode of action as drug being a compound formation.
3. Samples were selected randomly.

CONCLUSION
The present clinical study was conducted on Tarunya-pidika giving stress upon literally, diagnostic and therapeutic perspectives of Tarunya-pidika, by detailed clinical study, following conclusions can be drawn.
The Jatiphaladi lepa prayoga has got its own relevance in the symptoms relief of Tarunya-pidika lepas are generally varnya and twakprasadaka in nature; this lepas mainly made for the patients of acne vul-
giris, it reduces the Acne of face as well as this lepa suppresses the “Black Spots” and the various types of “Vyang” and “Nilika” of the face also. The other investigation procedures like Biopsy before and after treatment can be selected to present a better picture of pathophysiology and results after the treatments.

REFERENCES

1. Yogratnakara, Uttaradhgat, 24th Chapter, KshudraRogaNidanam, Shloka no.34, Page no.272, with Vidyotini Hindi commentary, by Vaidya Lakshmipatisastri.

2. Sushruta has described TarunyaPidades under KshudraRoga in S.N. 13/39 also give considerable importance in S.CHI. 20/37.


7. In case of BhelSonhita, Kashyapa Sanhita and Harita Sanhita no any description is available, Yoga Ratnakar – 1600 A.D.


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Conflict Of Interest: None Declared