RESEARCH ARTICLE

COMPARATIVE STUDY OF LODHRADHI LEPA AND SHALMALIKANTAK LEPA IN THE MANAGEMENT OF MUKHADUSHIKA WITH SPECIAL REFERENCE TO ACNE VULGARIS

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Manuscript Info

Abstract

Mukhadushika is explained by Sushruta under Kushudra rogas. It is characterized by Shalmali Kantka sadrugh Pidaka on face. It co-relates to acne vulgaris explained in modern science. These acnes when not treated in the earlier stage leads to severity and hence leave a permanent scar, which mentally depresses individual and face insecure. Hence there is a need to counter this condition effectively and prevent its progress to severity and thereby preventing the eruption of new lesions. In the treatment of Mukhadushika, Vaghbhata, Sharandhara, Chakradutta, Yogaratnakar and Ashtang Hrudhya has mentioned Lodhradhi lepa and Shalmalikantaka lepa in the management of Mukhadushika. But comparison between these drugs doesn’t evaluate in the management of Mukhadushika so that this drugs was selected for project work.

Introduction:-

Mukhadushika is explained by Sushruta under Kushudra rogas. It is characterized by Shalmali Kantka sadrugh Pidaka on face. It may co-relates with acne vulgaris in modern science. These acnes when not treated in the earlier stage leads to severity and hence leave a permanent scar, which mentally depresses individual and face insecure. Hence there is a need to counter this condition effectively and prevent its progress to severity and there by preventing the eruption of new lesions.

Aim:

Comparison between Lodhradhi lepa & Shalmali kantak lepa in the management of Mukhadushika w.s.r to Acne vulgaris.

Objectives:-

1. Conceptual study of Mukhadushika in light of both Ayurvedic and modern perspectives.
2. To study the efficacy Lodhradhi lepa & Shalmali kantak lepa in the management of Mukhadushika w.s.r to Acne vulgaris.
3. To observe the side effects of Lodhradhi lepa and Shalmali kantaka lepa during the trail.
4. To assess overall wellbeing effect of the drug.

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Hypothesis:
Lodhradhi Lepa & Shalmali kantak Lepa may be Effective in the Management of Mukhadushika.

Null Hypothesis:
Lodhradhi Lepa & Shalmali kantak lepa may not be effective in the Management of Mukhadushika.

Materials and Methods:
Lodhradhi Lepa Contains (Group A):

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>Name of Ingredient</th>
<th>Latin Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lodhra</td>
<td>Symplocos racemose Roxb.</td>
<td>3.5gm</td>
</tr>
<tr>
<td>2</td>
<td>Vacha</td>
<td>Acorus calamus. Linn.</td>
<td>3.5gm</td>
</tr>
<tr>
<td>3</td>
<td>Dhanyaka</td>
<td>Coriandrum sativum.</td>
<td>3.5gm</td>
</tr>
</tbody>
</table>

Shalmali kantak Lepa Contains (Group B):

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>Name of Ingredient</th>
<th>Latin Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shalmali kantaka</td>
<td>Bombax ceiba</td>
<td>10gm</td>
</tr>
</tbody>
</table>

Preparation of Drugs:
Purvakarma – collection of drugs, Khalva big and small both, Grinder
Pradhan karma – makes a powder of all drugs and mixes them in equal quantity.
Paschatkarma - With aseptic precautions, the powered is packed in clean and dry container.

Methodology:
Type of Study: - Randomized comparative clinical study.
Sample size: - Total 10 patients were selected
Site of study - Bharati Vidyapeeth Deemed to be University College of Ayurveda and Hospital, Kayachikitsa OPD and IPD. Pune
Primary Study End points: - Improvement in Sign & Symptoms of Mukhadushika (Acne Vulgaris)
Secondary Study End points: - Comparison between Lodhradhilepa and Shalmaillakantakalepa.

Study Treatment Design:
Drug Administration:

<table>
<thead>
<tr>
<th>Treatment given</th>
<th>Group A Trial Group Lodhradhi lepa</th>
<th>Group B Trial Group Shalmali kantaka lepa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>once in day</td>
<td>once in day</td>
</tr>
<tr>
<td>Kala</td>
<td>Morning</td>
<td>Morning</td>
</tr>
<tr>
<td>Root of Administrations</td>
<td>Local</td>
<td>Local</td>
</tr>
<tr>
<td>Treatment Period</td>
<td>2 Weeks</td>
<td>2 Weeks</td>
</tr>
<tr>
<td>Follow up Period</td>
<td>0, 1st week, 2nd week and 3rd week after treatment.</td>
<td>0, 1st week, 2nd week and 3rd week after treatment.</td>
</tr>
</tbody>
</table>

Diagnostic criteria Diagnosis was made on the cardinal signs and symptoms of Mukhadushika (Acne vulgaris) as explained in the classics. Specifically Pidika, Daha, Shool, Kandu.

Subject Selection and Withdrawal:
Inclusion criteria:
1. Patients presenting with signs and symptom of Mukhadushika were selected.
2. Patients of the age group between 15-35 years were selected irrespective of sex and economical status.
3. Acne vulgaris specific on face.

Exclusion criteria:
1. The age group < 15 years and > 35 years.
2. Acne vulgaris other than face region i.e. chest & back.
3. Mukhadushika with other skin infections and systemic disorder etc were excluded.
4. Drug induced Mukhadushika (Acne vulgaris)

Assessment criteria:
for assessment of mukhadushika were carried out on following symptomatology like Ruja (Pain), Kadu (Itching Sensation), Daha (Burning Sensation), Pidaka (Lesion) Sankhya (Number of Lesion), Comedone, Varna (Scar), Raktavarnata (Erythma) by using grading parameter 0 to 3 (0-Nil, 1- Mild, 2-Moderate, 3-Severe)

Observation & Result:-

<table>
<thead>
<tr>
<th>Lakshana</th>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Mann-Whitney U</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ruja</td>
<td>Group A</td>
<td>5</td>
<td>6.10</td>
<td>30.50</td>
<td>9.500</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>4.90</td>
<td>24.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daha</td>
<td>Group A</td>
<td>5</td>
<td>7.00</td>
<td>35.00</td>
<td>5.000</td>
<td>0.043</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>4.00</td>
<td>20.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kandu</td>
<td>Group A</td>
<td>5</td>
<td>6.70</td>
<td>33.50</td>
<td>6.500</td>
<td>0.018</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>4.30</td>
<td>21.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pidaka</td>
<td>Group A</td>
<td>5</td>
<td>6.00</td>
<td>30.00</td>
<td>10.000</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>5.00</td>
<td>25.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sankhya</td>
<td>Group A</td>
<td>5</td>
<td>7.20</td>
<td>36.00</td>
<td>4.000</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>3.80</td>
<td>19.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comedones</td>
<td>Group A</td>
<td>5</td>
<td>6.00</td>
<td>30.00</td>
<td>10.000</td>
<td>0.049</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>5.00</td>
<td>25.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vrana</td>
<td>Group A</td>
<td>5</td>
<td>7.50</td>
<td>37.50</td>
<td>12.500</td>
<td>0.034</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>5.50</td>
<td>27.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raktavarna</td>
<td>Group A</td>
<td>5</td>
<td>6.50</td>
<td>32.50</td>
<td>10.000</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>Group B</td>
<td>5</td>
<td>5.00</td>
<td>25.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Discussion on Observations:-
In both Group A and Group B total percentage of female is 60% and male is 40%. The gender wise distribution of the patients shows that the majority of the patients were females probably due to endocrinal disturbances.

Discussion on Result:-
1. Ruja- The effect of therapy 80% in group A and 60% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
2. Daha- The effect of therapy 83.33% in group A and 63.64% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
3. Kandu- The effect of therapy 80% in group A and 57.4% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
4. Pidaka- The effect of therapy 80% in group A and 60% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
5. Sankhya- The effect of therapy 86.67% in group A and 60% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
6. Comedone- The effect of therapy 75% in group A and 50% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.
7. Vrana- The effect of therapy 75% in group A and 60% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.

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improvement in both the groups with p-value <0.05, but it was more significant in group A.

8. Raktavarna- The effect of therapy 80% in group A and 60% in group B respectively. There was significant improvement in both the groups with p-value <0.05, but it was more significant in group A.

Probable Mode of Action of Lodhradhi Lepa and Shalmali kantaka Lepa:

Lodhradhi lepa:
The Mukhdushika occurs mainly due to vitiation of Kapha, Vata and Raka doshas. The Lodhradhi Lepa comprises of Lodhra, Vacha and Dhaniya. The Shita Viryatva of Lodhra is subsiding the aggravation of Rakta and Pitta. Vacha and Dhanyaka are having Ushna Virya property to counteract the aggravation of Vata and Kapha. Moreover, Dhanyaka is Tridosha Shamaka, Shothahara, and Shulahara properties, Vacha have Kapha Vata Shamaka, Lekhana and Swedajanana properties along with Vedana Shapaka and Shothahara. Lodhra has Kapha- Pittahara, Shothahara and Kushthaghna, Ropana, Rakta Stambhaka properties and the Shotha hara and Vedana shapana action of almost all the drugs proved beneficial in swelling and pain. Srotoshodhana is done by Vacha by its Lekhana property, while drying up vitiated Kapha, Whereas Vrana Ropana and Vrana Prakshalana property of Lodhra. It is understood that the drugs should possess the Kapha-Vatahara and Pitta (Rakta) Shamaka effect.

Shalmalikantaka lepa:
The Shita Viryatva of Shalmali kantaka lepa is subsiding the aggravation of Rakta and Pitta. Shalmali kantaka having Pitta and Vatashamak. Sthanik karma of Shalmalikantaka is Vedanasthapana.

Summary & Conclusion:–
After appropriate and logic discussion, based on the obtained literary concept and observations, results and some fruitful conclusions have been drawn to highlight the importance and utility of the subject, for advancing a step ahead in society as well as in medical science, as follow:
1. In Ayurvedic texts very brief description about Mukhdushika is available. Still it is observed and confirms in applied clinical study that aggravated Kapha and Vata Dosha along with vitiated Rakta Dhatu are mainly responsible for the actual manifestation of the disease.
2. The Acne vulgaris is commonly found in age of 15-25years.
3. In the category of Lodhradhi lepa in 5 patients group A we get 80% relief in symptoms Ruja, Daha, Kandu, Pidaka, Sankhya, Comedones, Vrana, Raktavarna.
4. In the category of Shalmali kantaka lepa in 5 patients group B we get 60% relief in symptoms Ruja, Daha, Kandu, Pidaka, Sankhya, Comedones, Vrana, Raktavarna.
5. Lodhradhi lepa shows better efficacy than Shalmali kantaka lepa. Both drugs are safe, economic and doesn’t show any adverse effect in the management of Mukhadushika.

References:-
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