A COMPARATIVE ANALYSIS OF ARJUNA TWAK LEPA AND VATANKURADI LEPA IN VYANGA – A CASE STUDY

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ABSTRACT

Smooth and glowing complexion of the face increases the beauty of a person and also gives self-confidence. The disease Vyanga, one among Kshudra roga, first explained by Acharya Sushruta in Kshudra Rogadhikara, which decreases the glowing complexion of the face and affects the skin, has got a major importance as a cosmetic problem in the society. It is characterized by the presence of painless, thin and bluish-black patches on face, occurs due to vitiation of Vata, Pitta followed by Rakta Dosha. Treating this condition has become a challenge since safe drugs are not available for long-term. In modern medical science, topical steroids have been described in the management of facial melanosis, a form of hyper pigmentation associated with increased melanin. It mainly affects the women of reproductive age with Fitzpatrick skin type 4-6 and in darker skin types, such as Hispanics, Asian and African Americans. However, the topical steroids are not completely free from adverse effects such as irritation, rashes. Apart from this, generally the topical steroids are expensive and sometimes poor patients cannot afford this treatment. Hence there is a need to search better methods of management in facial melanosis considering the above drawbacks. Considering these points, Arjunatwak churna with madhu and vatankuradi lepa is selected for external application, as these preparations have Kushtaghna, Kandughna, Raktashodhaka, Twak Prasadaka and Varnyakara properties and can produce cutaneous depigmentation that remove the blackish discoloration of skin. Arjunatwak lepa and vatankuradi lepa is been prepared as per the classical reference. To set up standards of quality the preparations were subjected for testing of organoleptic parameters & physical constants. In clinical study while comparing the two drugs Arjunatwak lepa found to be more effective and quicker in action than compared to that of Vatankuradi lepa.

Keywords: Vyanga, Arjunatwak lepa, Vatankuradi lepa, Facial melanosis.

INTRODUCTION

Ayurveda is the eternal unparallel science of medicine which deals with all aspects of life. It is considered to be Holistic which means relating to or concerned with wholes or with complete system rather than with the analysis of, treatment of, or dissection into parts. Rather than dealing symptomatically with any diseases, Ayurveda approaches all the aspects related with pathogenesis and treatment of the dis-
eases. Ayurveda is also called, as ‘Knowledge of Life’ which deals with spiritual, psychological, and physical well being of the individual. The Ayurveda medical system has been in vogue since the Vedic period and was developed to safe guard health which is considered to be essential for the achievement of the four primary objects of life viz. Dharma, Artha, Kama and Moksha.

Ayurveda explains the judicial administration of drugs in different formulations depending upon various parameters such as dosha dooshya samoorchana, satmya and prakrthi of each individual. Depending upon the different conditions Ayurveda provides a huge variety of treatments both internally and externally. Lepa kalpana is one among external treatment provided by Ayurveda in treating different conditions.

The importance of Beauty and Personality is increasing now a day as it is a competitive era. Sayings such as “Beauty lies in the eyes of the beholder” and “A thing of beauty is a joy forever” denote the subjective and objective aspects of beauty respectively.

“Samadosha samagnischa samadathu malakriyaha Prasannatmendriyaamanah swasthaityabhideeyate”1

The first half of the sloka points out the physical state of health with the balanced functioning of dosha, datu, mala and agni. The second half denotes the aspect of psyche and eternal soul into focus which is the inherent uniqueness of the science of life. Certainly the feeling of well being is impossible without a basic sense of social acceptability and self assurance which is a result of an appealing outward appearance. Ultimately as per the definition of health by WHO, health is not merely the absence of disease but also the physical, mental, and social well being, which finally merges with the concept of swastha as per Ayurvedic science.

Kshudrarogas are considered as the minor diseases having simple etiology and symptoms but in exceptional case these can produce a marked cosmetic disability and give rise to much mental stress. The disease Vyanga is one such disease counted under Kshudraroga2, which mainly affects the glowing complexion of a person by producing shyavavarna mandalas on mukha pradesha3.

According to the modern view the Vyanga can be considered as a pigmental disorder and to be precise it can be correlated with hyper pigmentation disorder, facial melanosis. The treatment varies according to the primary cause of the disease. But it includes an external application of creams containing hydroquinone and hydrocortisone, which is found to be sensitive in few patients4. Sometimes frequent and long term usage of these preparations may produce the irritation. So there is a need for an alternative, effective and safe treatment to overcome this problem.

Ayurveda relatively proved to be efficacious in treatment of skin diseases. Shodana and Shamana are the two important therapies that can be adopted in these conditions. To remove the aggravated doshas locally Lepa is considered to be the best form of treatment5.

Hence lepa was selected as the mode of treatment. In pathology of vyanga vata, pitta and rakta are vitiated. Hence the dravyas which pacifies these vitiated doshas and improves the complexion should be considered while treating.

Considering all these above facts for attaining a better, safe and effective treatment the present study has been taken up, where the preparation of the Lepas was carried out classically and the efficacy of both the lepas were compared.

**AIM OF THE STUDY**

To evaluate clinical study of Arjuna twak lepa and Vatankuradi lepa and to compare the efficacy of both on the disease Vyanga

**OBJECTIVES OF THE STUDY**

1. To do comprehensive literary review on the Arjuna twak lepa, Vatankuradi lepa and the disease Vyanga.
2. To prepare arjuna twak lepa according to Chakradatta.
3. To prepare Vatankuradi lepa as per the reference of Yogaratnakara.
4. To compare the clinical efficacy of these two formulations on the disease Vyanga.

**Material & Methods**

**Source of the data:**

[A] **LITERARY SOURCE**
Information will be collected from Ayurvedic classi-cal text books, relevant modern texts and research literatures.

[B] **PHARMACEUTICAL SOURCE**
1. Raw drug for the preparation of arjuna twak lepa and vatankuradi lepa will be obtained from S.D.M. Ayurvedic Pharmacy, Udupi.

2. Preparation of arjuna twak lepa and vatankuradi lepa will be carried out in practical hall of Rasashastra and Bhaishajyakalpana of S.D.M College of Ayurveda, Udupi.

[D] **CLINICAL SOURCE**
A minimum of 40 patients will be selected for study, irrespective of sex from the campus of SDM Ayurveda Hospital, Udupi.

**Method of Data Collection**

1. **Pharmaceutical study:**
Arjuna twak, vatankura and masoor dal will be taken and respective lepa will be prepared as mentioned in classics.

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Drug</th>
<th>Latin name</th>
<th>Part used</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Arjuna</td>
<td>Terminalia arjuna Robx (wight &amp; Arn)</td>
<td>Bark</td>
<td>1 part</td>
</tr>
<tr>
<td>2</td>
<td>Madu</td>
<td></td>
<td>Quantity sufficient</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Drug</th>
<th>Latin name</th>
<th>Part used</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vata</td>
<td>Ficus benghalensis</td>
<td>Leaf bud</td>
<td>1 part</td>
</tr>
<tr>
<td>2</td>
<td>Masoor</td>
<td>Lens culinaris</td>
<td>seeds</td>
<td>1 part</td>
</tr>
<tr>
<td>3</td>
<td>Water</td>
<td></td>
<td>Quantity sufficient</td>
<td></td>
</tr>
</tbody>
</table>

2. **Clinical study**

**Table 3:** The sample of arjuna twak lepa and vatankuradi lepa prepared will be given to 2 separate groups contain 20 patients each.

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Group</th>
<th>No. of patients</th>
<th>Formulation</th>
<th>Method of application</th>
<th>Duration of study</th>
<th>Follow up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>20</td>
<td>Arjuna twak lepa</td>
<td>External application</td>
<td>3 months</td>
<td>After each month</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>20</td>
<td>Vatankuradi lepa</td>
<td>External application</td>
<td>3 months</td>
<td>After each month</td>
</tr>
</tbody>
</table>

**Intervention:**
- Duration of study: - 3 months (follow up after each month).
- Time of application: - applied on affected area for one time at morning hour.
- Duration of application: - lepa will be removed soon after it dry over the place.
- Thickness of application: - ½ angula (0.97 cm)
- Mode of application:
  - (a) Arjuna twak churna is applied along with honey.
  - (b) Vatankuradi churna is applied along with water.
  
**Method of collection:** A special Performa will be prepared with all points of history taking, physical signs and symptoms of vyanga. Accordingly, patients will be selected and will be subjected to detailed clinical history and complete examination.

**Study design:** It will be a comparative clinical study on 40 patients diagnosed as vyanga using the diagnostic parameters as mentioned in classics.
Inclusion criteria
1. Age group: 15 - 55 years.
2. Chronicity less than 5 years.
3. Shavavarnayukta, Niruja Mandalas present over the face.

Exclusion criteria: Any specific diseases underlying the cause of Vyanga like
1. Inflammatory pigmentation
2. Malignant melanoma
3. Acne vulgaris

CRITERIA FOR ASSESSMENT:
The changes in signs and symptoms such as colour variation of hyper pigmented patch, size reduction of the patch and reduction in number of patches

Table 4: Level of discolouration

<table>
<thead>
<tr>
<th>No</th>
<th>N</th>
<th>Group 1 (N)</th>
<th>Group 2 (N)</th>
<th>Mean rank</th>
<th>Sum of rank</th>
<th>U value</th>
<th>Z value</th>
<th>P value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gr 1</td>
<td>Gr 2</td>
<td>Gr 1</td>
<td>Gr 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BT-30 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>12</td>
<td>26</td>
<td>300</td>
<td>520</td>
<td>90.00</td>
<td>-3.474</td>
</tr>
<tr>
<td>BT- 60 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>14.48</td>
<td>26.53</td>
<td>289.50</td>
<td>530.50</td>
<td>79.00</td>
<td>-3.539</td>
</tr>
<tr>
<td>AT-BT</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>14.45</td>
<td>26.55</td>
<td>289.00</td>
<td>531.00</td>
<td>79.00</td>
<td>-3.915</td>
</tr>
</tbody>
</table>

Between the group analysis it showed that the individuals in both the group were shown highly significant improvement in level of discoloration from before treatment to first 30 days, from before treatment to 60 days and from before treatment to after treatment.

Table 5: Size of discoloration

<table>
<thead>
<tr>
<th>No</th>
<th>N</th>
<th>Group 1 (N)</th>
<th>Group 2 (N)</th>
<th>Mean rank</th>
<th>Sum of rank</th>
<th>U value</th>
<th>Z value</th>
<th>P value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gr 1</td>
<td>Gr 2</td>
<td>Gr 1</td>
<td>Gr 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BT-30 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>19.00</td>
<td>22.00</td>
<td>380.00</td>
<td>440.00</td>
<td>170</td>
<td>-1.049</td>
</tr>
<tr>
<td>BT- 60 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>16.50</td>
<td>24.50</td>
<td>330.00</td>
<td>490.00</td>
<td>120</td>
<td>-2.498</td>
</tr>
<tr>
<td>AT-BT</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>15.50</td>
<td>25.50</td>
<td>310.00</td>
<td>510.00</td>
<td>100</td>
<td>-3.273</td>
</tr>
</tbody>
</table>

Between the group analyses of size of discoloration it showed
1. Non significant results from before treatment to 30 days
2. Significant results from before treatment to 60 days
3. Highly significant results from before to after treatment.
Table 6: Number of patches

<table>
<thead>
<tr>
<th>No</th>
<th>N</th>
<th>Group 1 (N)</th>
<th>Group 2 (N)</th>
<th>Mean rank</th>
<th>Sum of rank</th>
<th>U value</th>
<th>Z value</th>
<th>P value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT-30 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>17.00</td>
<td>24.00</td>
<td>340.00</td>
<td>480.00</td>
<td>130</td>
<td>-2.448</td>
</tr>
<tr>
<td>BT-60 Days</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>16.00</td>
<td>25.00</td>
<td>320.00</td>
<td>500.00</td>
<td>110</td>
<td>-3.000</td>
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<tr>
<td>AT-BT</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>15.65</td>
<td>25.35</td>
<td>313.00</td>
<td>507.00</td>
<td>103</td>
<td>-2.973</td>
</tr>
</tbody>
</table>

Between the group analysis it showed that the individuals in both the group were shown significant improvement in number of patches from before treatment to first 30 days, from before treatment to 60 days and from before treatment to after treatment.

**DISCUSSION**

This is a comparative observational clinical study with 20 patients each in two different groups of *Arjuna twak lepa* and *Vatankuradi lepa* to see its effect on Vyanga. 40 patients between the age group 15 to 55 suffering with the symptoms of *vyanga* with chronicity less than 5 years and without any other underlying disease and irrespective of gender and religion were selected for the study. The study design was for 90 days with a follow up period after every 30 days. It was found that there is a significant relief in all the signs and symptoms of *Vyanga*. The study of *Arjuna twak lepa* and *Vatankuradi lepa* was found to be effective in reducing the symptoms of *Vyanga* and also helped in increasing the complexion too. Honeys possess *madhura rasa* with *kashaya anu rasa*. It has *laghu, vishada* and *rooksha guna*. Have *madhura vipaka* and *ushna veerya* and it balances the *kapha* and *pitta dosha*. It also possesses *lekhana karma*. With all these property it might have contributed largely to have a wonderful action on skin along with *Arjuna twak choorna* which might have made it most efficacious than *Vatankuradi lepa* while comparing both.

**CONCLUSION**

The dominant *doshas* involved are *Vata, Pitta* and *Raktha*. Among the two respective lepas *Arjuna twak lepa* was found to be more effective than *Vatankuradi lepa* even though both the drugs helped in curing the condition.

**REFERENCES**


**Source of Support:** Nil

**Conflict Of Interest:** None Declared