INTRODUCTION

Beauty is that quality or combination of qualities which afford keen pleasure to the senses or which charms the intellectual or moral faculties. Any unhealthy state of the body is reflected by the skin as beauty manifests through the complexion of the skin. Importance of beauty and personality is at its bloom in this aesthetics era as it determines the social perceptions, value judgments and interpersonal relationships. Vyanga is one such personality detrimenting hyper pigmentation. It is a chronic, acquired cutaneous, relapsing hypermelanosis characterized by hyperpigmented patches on the face which are exposed to the sun.

As per Āyurvedic classics Vyanga is a condition where in vāta pitta doṣa as well as mānasika niḍānas such as krodha, soka, āyasa are the main culprits.1,2 The symptoms of Vyanga (dark spots on face) appear abruptly without prodromal sign and symptoms.3 The cardinal symptoms of Vyanga (dark spots on face), Shyava Varṇa (darkening of the skin), Niruja (painless), Tanu (thin) and Mandal (patch) are described by Acharya Sudraka.4,5,6 Melasma should not be dismissed as simply a cosmetic entity because it often evokes emotional distress. Vyanga (dark spots on face) is locally manifested over the skin of the face.

In Ayurveda, many local applications are advocated to have better results and to eliminate the characteristic features of the Vyanga (discoloration, roughness of the skin, burning sensations, itching etc.) The methods advised for the drug application are Pralepa or Lepa (paste application),1,2,3,4,6 Siravedha (bloodletting),1,2,3,4,6,9 Abhyanga (massage),3,4,9 Nasya (nasal drop)2,9 Virechana3 etc.

METHODS

Study Design
Randomized controlled study

Selection of Patients
For the present study clinically diagnosed cases of Vyanga were randomly selected irrespective of age, sex, religion, occupation etc. from OPD of Govt. Ayurvedic College & Hospital, Guwahati.

- The study was conducted at Govt. Ayurvedic College & Hospital, Guwahati.
- The maximum duration of treatment of patients was 60 days.
- The study was performed among 100 selected patients of Vyanga (Melasma).
- The variables are in relation to age, sex, religion, socio-economic status etc.

Materials
1) Ointment of Manjistha along with Arjuna for local application.
2) Tablet of mixture of Manjistha along with Arjuna in equal proportions.

Packaging
Packaging of the ointment was done with 50 gm ointment in a container. Tablets were packed with 100 tablets in each packet.

Report of analytical study
Organoleptic properties of tablet
- Colour : Reddish brown
- Shape : Round
Physico-chemical analysis of tablet
Tests & Results
Moisture content/LOD - 12.8300 %
Tablet ash - 14.2900 %
Acid insoluble Ash - 01.0380 %
Disintegration time - 23 minutes (at 37°C, 30 cycle per minutes)
Uniformity of weight - 0.514 mg
Water soluble extractives - 13.7440 %
Alcohol soluble extractives - 2.4727 %

Organoleptic properties of ointment
Colour : Yellow
Shape : Semisolid preparation

Physico-chemical analysis of ointment
Tests & Results
Moisture content/LOD - 06.534%
Ph - 5.60
Specific Gravity - 0.9696
Spreadability - Well

Informed consent
An informed written consent was taken from all selected patients for the study.

Ethical clearance
Ethical clearance was obtained from the Institutional Ethical Committee, Govt. Ayurvedic College, Guwahati.

Grouping of Patients
All the 100 patients will be kept in the same group.

Simple random sampling
The selection of patients for the study was done in a randomized design.

Criteria of assessment
Improvement from the therapy was assessed on the basis of degree of remission of sign/symptoms and reduction on clinical scoring. Photographs were also taken before and after the treatment.

Laboratory investigations
For proper diagnosis of the causes of the disease, its assessment of severity and clinical improvement, certain routine and specific investigations were performed in some selected and suspected patients.

- Haematological: TLC, DLC, ESR, Ha%, blood group.
- Liver function test (mainly SGOT, SGPT).
- Hormone essay: T₃, T₄, TSH, Oestrogen, Progesterone, Prolactin.
- Serum ferritin.

Dose
The ointment was given to massage on the areas of pigmentation twice daily, after properly washing the face. The dosage of the tablet was one tablet twice daily.

Follow up
A total of three follow ups were done during the 3 months course with an interval of 30 days between each follow up.

Statistical Analysis
All the information based on various parameters was gathered and statistical calculation was carried out in terms of mean, standard deviation and finally the results were incorporated in terms of probability. The data collected from the clinical study was analyzed by applying paired ‘t’-Test.

RESULTS
Assessment was done on the basis of specific research proforma. The data collected in the clinical study is presented in tabular form in Table 1. The observations and results obtained were analyzed statistically to evaluate the efficacy of the drug in Vyanga.

Table 1: Observation table

<table>
<thead>
<tr>
<th>Observations (Findings)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group, majority of 31-40 years</td>
<td>40%</td>
</tr>
<tr>
<td>Sex – female</td>
<td>100%</td>
</tr>
<tr>
<td>Religion – Hindu</td>
<td>60%</td>
</tr>
<tr>
<td>Socio-economic status – APL</td>
<td>70%</td>
</tr>
<tr>
<td>Occupation – service &amp; study</td>
<td>59%</td>
</tr>
<tr>
<td>Family history – positive</td>
<td>20%</td>
</tr>
<tr>
<td>Astrology – pregnancy</td>
<td>46%</td>
</tr>
<tr>
<td>Mental Status – tense</td>
<td>56%</td>
</tr>
<tr>
<td>Addiction – tea &amp; betel nut</td>
<td>62%</td>
</tr>
<tr>
<td>Menstrual History – regular</td>
<td>73%</td>
</tr>
<tr>
<td>Use of OCP – use OCP</td>
<td>58%</td>
</tr>
<tr>
<td>Previous disease history - malaria</td>
<td>12%</td>
</tr>
<tr>
<td>Skin type – brown</td>
<td>35%</td>
</tr>
</tbody>
</table>

The response of the treatment after the target period of 60 days is observed. 88% of the cases obtained complete relief due to the treatment and 12% of the total cases showed partial relief as shown in Figure 1.

Table 2: Effect of treatment on 100 patients of vyanga

<table>
<thead>
<tr>
<th>Result</th>
<th>Number of Patients</th>
<th>Percentage of relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial Relief</td>
<td>12</td>
<td>12%</td>
</tr>
<tr>
<td>Complete Relief</td>
<td>88</td>
<td>88%</td>
</tr>
<tr>
<td>No Relief</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

Effect of Therapy
All study information based on various parameters was gathered and statistical calculation was carried out in terms of mean, standard deviation and t – Test as tabulated in Table 3, 4 and 5.

Table 3: Paired sample statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT: Before Treatment</td>
<td>.26</td>
<td>100</td>
<td>.630</td>
<td>.063</td>
</tr>
<tr>
<td>AT: After Treatment</td>
<td>.13</td>
<td>100</td>
<td>.367</td>
<td>.037</td>
</tr>
</tbody>
</table>
DISCUSSION

The mode of action of the drug under trial can be understood on the basis of inherent properties of the drug. Arjunatwak is having Pitta Shamaka and Rakta Prasadaka properties. Kashaya Rasa of Arjunatwak encounter Pitta and Rakta Dosha removes the twak Vaivarnyata and helps to attain the normal skin color. Sheeta Veerya of Arjunatwak encounters the Pitta Dosha. Sheeta Veerya with its Prasadana property purifies the accumulated Doshas in Vyanga. The Rakta Prasadaka and Twak Prasadaka actions of Arjuna (Terminalia arjuna) help in pacifying the Sanchita Doshas locally.

Kasaya and Madhura rasa of Manjistha (Rubia cordifolia) subdues the Pitta which is the main cause of the disease. Ruksha guna of Manjistha (Rubia cordifolia) alleviates the Snigdha guna of Pitta. Guru guna of Manjistha subdues the Laghu guna of Vata. So, both guna break the samprapti of Vyanga. Again Manjistha is having Rakta sodhak, Kusthaghna and Varnya property by which possibly significant efficacy is observed.

Finally, it can be concluded that Manjistha (Rubia cordifolia) along with Arjuna (Terminalia arjuna) is very much effective in management of Vyanga.

REFERENCES


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