INTRODUCTION

In Ayurveda, all the skin diseases are described under the heading of Kushtha, which are further classified into Maha Kushtha and Kshudra Kushtha.1 Kushtha is produced invariably by the vitiation of the seven factors i.e. three Doshas and four Dushyas.2 But different types of pain, shape, specific manifestation etc. are found in Kushtha because of Anshashakalpana (proportional variation), association and location of the Doshas.3 Although all Kshudra Kushthas are Tridoshaj but there is always predominance of Pitta either with Vata or with Kapha. Pitta dosha is always vitiated in all Kshudra Kushthas and is responsible for different morphological presentations in different lesions of Kshudra Kushtha. The different signs and symptoms are due to percentage (tartam) of involvement of Pitta dosha along with other dosha in Kshudra Kushtha. Tvak Daha is mentioned both as a disease and as a symptom at many places in our classical texts. Acharya Charaka has mentioned Tvak Daha due to vitiation of Pitta under Pitta Nanatmaj Vyadhi in Maharo gaadhyaya.1 It was seen that the Tejomahabhuta predominates in Pitta, because of which Pitta performs functions identical to Agni and the action as Dahana (burning, oxidation and combustion), Pachan (digestion), vision and maintenance of normal body temperature. It seems that action of cofactors (metal ions and prosthetic group) of enzyme is like a Tejas aspect of Pitta. According to modern physiology and bio-chemistry a co-factor is a non-protein compound whose presence is necessary for some types of enzymatic action and catalyzing the reactions. It is seen, that enzyme performs analogous functions viz., splitting or Sanghatabheda,5 transforming or Parinaman, mutation or Paravritti, oxidation and Dahana etc. just like the functions of Pitta. Enzymes are also present, universally, in and are built up by the body from appropriate substances derived from Ahara-dravyas (nutrition) as Pitta. Thus in Pitta, we have substances that are similar to enzymes. In Ayurveda for treatment of Daha, Dahaprashmana Mahakashaya is mentioned.6 It is combination of group of ten drugs i.e. Laza, Chandan, Gambhari, Madhuka, Shankara, Nilotpal, Ushir, Sweta Sariva, Guduchi and Tagar. All combined in equal proportion. It is prepared in the pharmacy of R. G. G. P. G. Ay, College, Paprola, HP, India. Evaluation of a drug is considered incomplete until and unless it is tried clinically. Clinical study has its importance in assessing the efficacy of a test drug in treating the disease. It plays an important role in the evaluation of the efficacy of the drug and in assessment of mechanism of action. Standard pharmaceutical parameters are also decided by the successful clinical trials. Tvakadaha or sense of heat is due to vitiation of Pitta. The therapy which is Pitta Shamaka will be effective in relieving Tvakadaha. In Dahaprashmana Mahakashaya, most of drug which is Pitta shaman was selected for the present study.

Aims and Objectives

- To study the involvement of Pitta dosha in etiopathogenesis of Kshudra-Kushtha
- Role of Pitta dosha in etiopathogenesis and principle management of Tvakadaha or sense of heat.
- To assess whether the drug Dahaprashma Mahakashaya is effective in relieving Tvakadaha in patients of Kshudrakushtha.
Plan of the Study

To fulfill the above objectives, present study has been planned.

Clinical Study

Clinical study was done to verify the effect of Dahaprashmana Mahakashaya on patients of Kshudra-Kushtha having Tvakadaha as cardinal symptom.

MATERIAL AND METHODS

Patients for the present study were selected from OPD/IPD of R. G. G. P. G. Ayurvedic Hospital Paprola, Himachal Pradesh, India and fulfilling the criteria for diagnosis. They were selected randomly, irrespective of their Desha, Jati, Vaya, Prakriti, Sattva etc.

Inclusion Criteria

- Patients willing to participate in the trial.
- Patients of Kshudrakushtha having Tvakadaha (Sense of heat) as chief complaint.

Exclusion Criteria

- Patients unwilling to participate in the trial.
- Patients having any other systemic disorder.
- Patients having sense of heat of psychogenic cause.
- If the condition of patient deteriorated during the trial, he/she was excluded from the study.

Laboratory Investigations

Estimation of Hb %, TLC, DLC, ESR, LFT, RFT, FBS, Urine and stool examinations were carried out in the patients to rule out any systemic diseases.

Trial Group

Total 23 patients were selected for the present study that fulfilled the criterion of diagnosis and consented for the study. All the selected patients were studied under a single group and the decoction of Dahaprashmana Mahakashaya was given to all the patients in a dose of 40 ml B.D. for one year.

Criteria of Assessment

The improvement in patients was assessed on the basis of relief in the Tvakadaha. For this purpose Tvakadaha was given scoring according to their intensity, frequency, aggravation and duration.

OBSERVATION AND RESULT

A total of 23 patients took part in the present study. Each participant was given the decoction of Dahaprashmana Mahakashaya in a dose of 40 ml B.D. However three patients left out the study before the completion of trial due to various reasons and therefore were considered as dropped out. The results obtained in the trial group of 20 patients are described below:

Effect of Trial Drug on Profile of Patients

The trial medicine did not show any noticeable effect on the Hematological status of the volunteers who participated in the trial. All the variables exhibited a very little change after the completion of the trial which was not significant (Table 1).

Table 1: Effect of the Trial Medicine on Hematological Profile of Patients

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Mean values</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before Trial</td>
<td>After Trial</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Hb (g %)</td>
<td>11.22</td>
<td>11.045</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>TLC (cu mm)</td>
<td>7184</td>
<td>7255</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>DLC (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Polymorphs</td>
<td>61.64</td>
<td>62.25</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Lymphocytes</td>
<td>33.7</td>
<td>32.75</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Monocytes</td>
<td>01.1</td>
<td>01.35</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Eosinophils</td>
<td>03.35</td>
<td>03.20</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>Basophils</td>
<td>0.15</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>ESR (mm fall in 1 h)</td>
<td>12.26</td>
<td>12.26</td>
<td></td>
</tr>
</tbody>
</table>

The trial medicine did not show any noticeable effect on the biochemical profile of the patients who participated in the trial. All the variables exhibited a very little change after the completion of the trial which was not significant (Table 2).

Table 2: Effect of trial drug on the biochemical profile of patients

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variable</th>
<th>Mean Score</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before Trial</td>
<td>After Trial</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>FBS (mg/dl)</td>
<td>94.25</td>
<td>92.85</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Blood Urea (mg/dl)</td>
<td>23.5</td>
<td>23.95</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>S. Creatinine (mg/dl)</td>
<td>0.817</td>
<td>0.8165</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Uric acid (mg/dl)</td>
<td>4.885</td>
<td>4.895</td>
<td></td>
</tr>
</tbody>
</table>
In this study, 100% of Hindus were afflicted. The reason may be due to presence of more Hindu population in this region.

The mean gradation of intensity of sense of heat before treatment was 2.4 which decreased to 0.3 after the completion of the treatment. This 87.5% relief was statistically highly significant (P < 0.001). The mean gradation of frequency of sense of heat before treatment was 2.3 which reduced to 0.35 after the completion of the treatment. This 84.78% relief was statistically highly significant (P < 0.001). The mean gradation of aggravation of sense of heat before treatment was 3.5 which decreased to 0.45 after the completion of the treatment. This 87.14% relief was statistically highly significant (P < 0.001). The mean gradation of Duration of sense of heat before treatment was 4.8 which reduced to 0.5 after the completion of the treatment. This 89.58% relief was statistically highly significant (P < 0.001).

### Table 3: Effect of trial drug on Sense of heat in terms of grades

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sense of Heat</th>
<th>Mean value</th>
<th>MD</th>
<th>% Relief</th>
<th>SD (σ)</th>
<th>SE</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Intensity</td>
<td>2.4</td>
<td>0.3</td>
<td>2.1</td>
<td>87.5</td>
<td>0.79</td>
<td>0.175</td>
<td>12</td>
</tr>
<tr>
<td>2.</td>
<td>Frequency</td>
<td>2.3</td>
<td>0.35</td>
<td>1.9</td>
<td>84.78</td>
<td>0.82</td>
<td>0.182</td>
<td>10.43</td>
</tr>
<tr>
<td>3.</td>
<td>Aggravation</td>
<td>3.5</td>
<td>0.45</td>
<td>3.3</td>
<td>87.14</td>
<td>1.74</td>
<td>0.38</td>
<td>8.68</td>
</tr>
<tr>
<td>4.</td>
<td>Duration</td>
<td>4.8</td>
<td>0.5</td>
<td>4.1</td>
<td>89.58</td>
<td>1.69</td>
<td>0.375</td>
<td>10.93</td>
</tr>
</tbody>
</table>

BT: Before Treatment, AT: After Treatment

Overall effect of therapy shows that complete remission was observed in 70% of patients and in 15% of patients marked improvement and 15% of patients partial improvement were noticed.

### DISCUSSION

Discussion of the findings observed in the present study is as under:

**Age**

In present study the entire patients were grouped into 15 years age group difference. Among them maximum 65% patients were belonging to 31 – 45 years of age group. This age is golden period for individuals at work when mental stress and other exposure i.e. occupational, environmental, where unwholesome food is more, which are etiological factors for dermatitis.

**Sex**

Higher incidence was found in females (75%) in comparison to males, but it cannot be said that there is any role of sex in the manifestation of Tvakadaha.

**Habitat**

Among 20 Patients in present study, 15 patients were belonging to rural habitat. Reason being, this hospital is situated in rural area.

**Religion**

In this study, 100% of Hindus were afflicted. The reason may be due to presence of more Hindu population in this region.

### Table 4: Total effect of therapy in 20 patients

<table>
<thead>
<tr>
<th>Total effect</th>
<th>No. of patients</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Markedly improved</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Partially improved</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Unchanged</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Marital Status

Maximum numbers of the patients i.e. 75% were married. According to this data burning sensation is more common in married person may be due to possibility of disturbance in the level of hormone in that particular age due to various physiological and emotional stimuli.

### Socio-economic status

In this series, maximum number of patients i.e. 55% from middle class. It can be postulated from the data, the middle class persons are more likely to have this disorder because they are having frequent chances of sun-exposure during the earning of their lively hood.

### Occupation

Out of 20 patients of Tvakadaha reported, maximum number of patients i.e. 35% were laborer, followed by 25% patients were housewives, and 15% of both student and farmer. Out of remaining 2 patients, 1 (5%) were from service class and other one (5%) retired. This reflects that laborers are more involved in outdoor activities and over exposed to sun rays, which are common causes of Tvakadaha. Housewives are more exposed to household appliances and activities, which are common causative factors of Kshudrakushtha (Allergic dermatoses). Sun exposure is another factor of Tvakadaha in farmers and students. Servicemen like teachers, engineers are also exposed to one or the other environmental hazards or some allergen, which may provoke the burning sensation. Retired person may have degenerative changes by virtue of their age group. So they may have Tvakadaha along with senile pruritus.
Aahara

32% patients were vegetarian and 68% patients were taking mixed type of diet. Tvakadaha in the patients who were taking mixed and spicy type of diet may be due to hot flushes and vasodilatation in the body.

Appetite

Maximum number of patients i.e. 75% were having normal appetite followed by 25% of the patients were having increased appetite. No inference can be drawn from here although increased appetite may be due to increase in Pitta dosha (BMR).

Bowel Habit

Maximum number of patients i.e. 80% was having normal bowel habit. Hence no relevance of bowel habit with Tvakadaha was found.

Nidra

Maximum numbers of patients i.e. 85% were having Khandhita (Asamyaka) nidra. This may suggest that the patients were having irritability due to Tvakadaha which seems to be responsible for Khanditanidra.

Chronicity

75% of the patients, which included in the trial, were having sense of heat in acute form where as rest of the patients were having chronic form of disease. This may be due to the severe intensity of Tvakadaha in acute form which gradually slows down in the chronic cases.

Affected parts

According to observations, site of the involvement was mostly in whole body i.e. 75%. 20% of the patients were having complaint in both the extremities; whereas only lower limb was involved in 5% of patients. This may be due to the fact that maximum numbers of patients were having generalized sense of heat and very few were having localized sense of heat.

Prakriti

In Shariraparakriti, maximum number of patients i.e. 80% were belonging to Pittaj-Vatajprakriti, 15% of patients were of Pittaj-Kaphajprakriti and 5% of patients were having Vataj-Kaphajprakriti. So, it can be said that role and level of Pitta in Kshudra Kushtha was more than Kapha and Vata.

CONCLUSION

It has been emphasized in present study that Pitta dosha is responsible for physiological and pathological activities in our body. The activity of agneyaguna of Agni mahabhuta is aggravated in the Pitta dosha which causes Tvakadaha. With the analytical study of available Ayurvedic texts, Acharyas have advocated the cause of Tvakadaha or sense of heat directly related with Aatapavasena or sun-exposure, which also corporate the view point of present study. Burning sensation, erythma, swelling and itching were the chief complaints in maximum patients in this study. Keeping in view the etiopathogenesis and principle management of Tvakadaha, Daharaprashman Mahakashaya shows highly significant effect in reducing Tvakadaha or burning sensation. In nut- shell it can be concluded on the basis of above cited points that the trial drug has shown significant role in the management of Tvakadaha.

REFERENCES


Cite this article as:


Source of support: Nil, Conflict of interest: None Declared