CLINICAL EVALUATION OF TARAMANDOOR GUDA IN THE MANAGEMENT OF PANDU W.S.R.TO IRON DEFICIENCY ANAEMIA

Gupta Poonam

Asst. Prof. PG Dept. of KayaChikitsa, Jammu Institute of Ayurveda & Research, Jammu (J&K), India

Email: sanjeevgupta1530@gmail.com

ABSTRACT

Pandu roga is one of the diseases mentioned in Ayurveda characterized by the whitish discoloration of the skin due to the loss of blood. The disease is comparable with Anaemia in the modern medical literature. The incidence of the problem is high in school going children, adolescents and pregnant women. Ayurveda has abundance of number of useful drugs belonging to herbal, animal, mineral origin used as a single drug or in compound formulations. The present study was proposed to evaluate the efficacy of Taramandoor Guda in the management of Pandu w.s.r to Iron Deficiency Anaemia. The study was conducted on 15 patients of IDA for a period of 60 days. Clinical features and haematological parameters were documented before, during and after treatment. The results thus obtained were finally subjected for statistical analysis of the therapy. The results showed improvement in majority of these parameters like Hb% showed an increase of 21.6%.

Keywords: Pandu, Taramandoor Guda, Ayurveda

INTRODUCTION

Pandu roga is one of the diseases mentioned in Ayurveda characterized by the changes in the skin colour like white (shwet), yellowish (peeta), greenish (harita) etc. The disease Pandu is characterized by the presence of Ketaki dhulini bhachaya (discolouration resembling the colour of the Pandanus flowers¹). The disease manifests with the vitiation of pitta dosha which in turn vitiates rakta Dhatu and consequently other Dhatus are vitiated as well². Pandu roga as mentioned in Ayurvedic texts has a close resemblance with the disease anaemia available in modern texts. This resemblance is in the form of Nidana, Samprapti, Laksanas and Chikitsa. Anaemia is the most prevalent nutritional deficiency disease. Globally, 30% of the total world populations are Anaemic and half of these have Iron Deficiency Anaemia. Nutritional Iron Deficiency Anaemia is the most common cause of Anaemia in India³. IDA is a very common disease prevalent in the society and side effects of oral allopathic iron preparations are very frequently encountered.

The aim of present study is to prepare a herbomineral medicine to be effective in managing Pandu roga/ Iron Deficiency Anaemia without any side effects, the present study was carried out to study the efficacy of an Ayurvedic compound Taramandoor Guda over a period of 60 days.
Materials and Methods:

1. **Source of data.** Patients suffering from Pandu were selected from OPD and IPD of Jammu Institute of Ayurveda and Research and Hospitals after fulfilling Inclusion and Exclusion criteria.

   - **Selection of Drug:** The proposed trial drug is an Ayurvedic classical Yoga described in *Bhaishajya Ratnavali, Shoolaroga Chikitsaprakarna* and *Chakradatta Parinamashoolaroga-adhikara*, appears to be safe since it contains *Triphala, Trikatu, Chavya, Chitraka, Vidanga, Mandoor-Basama, Guda* and *Gomutra* which are routinely used in practice.

Table 1: Constituents of *Taramandoor Guda*.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Sanskrit Name</th>
<th>Latin Name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vidanaga</td>
<td>Embelia ribes</td>
<td>1 Part</td>
</tr>
<tr>
<td>2</td>
<td>Chitraka</td>
<td>Plumbago zeylancia</td>
<td>1 Part</td>
</tr>
<tr>
<td>3</td>
<td>Chavya</td>
<td>Piper chavya</td>
<td>1 Part</td>
</tr>
<tr>
<td>4</td>
<td>Haritaki</td>
<td>Terminalia chebula</td>
<td>1 Part</td>
</tr>
<tr>
<td>5</td>
<td>Vibhitaki</td>
<td>Terminalia bellerica</td>
<td>1 Part</td>
</tr>
<tr>
<td>6</td>
<td>Amalaki</td>
<td>Emblica officinails</td>
<td>1 Part</td>
</tr>
<tr>
<td>7</td>
<td>Shunthi</td>
<td>Zingiber officinale</td>
<td>1 Part</td>
</tr>
<tr>
<td>8</td>
<td>Marich</td>
<td>Piper nigrum</td>
<td>1 Part</td>
</tr>
<tr>
<td>9</td>
<td>Pippali</td>
<td>Piper longum</td>
<td>1 Part</td>
</tr>
<tr>
<td>10</td>
<td>MandoorBhasma</td>
<td>****</td>
<td>9 Parts</td>
</tr>
<tr>
<td>11</td>
<td>Gomutra</td>
<td>****</td>
<td>18 Parts</td>
</tr>
<tr>
<td>12</td>
<td>Guda</td>
<td>****</td>
<td>9 Parts</td>
</tr>
</tbody>
</table>

2. **Plan of the Study.**

   - A detailed Clinical proforma was prepared to study the patients and disease. A single group comprises of 15 patients was given *Taramandoor Guda* 500mg BD for 60 days with *Sukhoshna Jal*.

3. **Inclusion Criteria.**

   - Patients of both sexes between the age group of 15 to 60 years.
   - Patients presenting with classical signs and symptoms of Anaemia.
   - Patients having the Hb% in between 6 to 11 gm/dl.

4. **Exclusion Criteria.**

   - Patients below 15 years of age and above 60 years of age were excluded from the study.
   - Patients suffering from chronic diseases and haemorrhagic disorders were excluded from the study.
   - Hereditary conditions were also excluded.
   - Pregnant and lactating women.

**Criteria for Assessment**

The following clinical findings were assessed before, during, and after the treatment: *Panduta* (pallor), *Daurbalyata* (weakness), *Bhrama* (confusion), *Aruchi* (anorexia), *Shwasa* (dyspnea), *Hridspandanam* (palpitation), *Rookshata* (dryness) and *Pindikodwestana* (muscular cramps).

Table 2: Main symptoms wise distribution of 15 patients of *Pandu roga*.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>No. of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panduta</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Daurbalya</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Hridspandanam</td>
<td>10</td>
<td>66.7</td>
</tr>
<tr>
<td>Bhrama</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>Rookshata</td>
<td>9</td>
<td>60</td>
</tr>
<tr>
<td>Shwas</td>
<td>12</td>
<td>80</td>
</tr>
<tr>
<td>Aruchi</td>
<td>10</td>
<td>66.7</td>
</tr>
<tr>
<td>Pindikodwestana</td>
<td>11</td>
<td>73.3</td>
</tr>
</tbody>
</table>
Laboratory Assessment:

Blood- Hb%.

Subjective parameters: As the disease is characterized by the changes in the colour (Panduta) of the skin, conjunctiva and other end organs of the body, the subjective assessment is given as follows:

0 – Normal skin colour in all parts of the body.
1 – Presence of pale palpebral part of conjunctiva without the presence of change in colour in the skin and nails.
2 – Presence of pale palpebral part of conjunctiva, changes in the skin colour and nail colour, dryness and brittle nails.
3 – Presence of the above symptoms along with symptoms like palpitations, weakness and giddiness.

Results

Table 3: Effects of Taramandoor Guda on the Pradhan Laksanas of Pandu.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>%Relief</th>
<th>SD</th>
<th>SE</th>
<th>T</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panduta</td>
<td>2.41</td>
<td>1.5</td>
<td>37.8</td>
<td>1.08</td>
<td>0.33</td>
<td>3.03</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Daurbalya</td>
<td>2.58</td>
<td>1.41</td>
<td>45.3</td>
<td>1.38</td>
<td>0.39</td>
<td>3.0</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Hridspandanam</td>
<td>1.92</td>
<td>1.25</td>
<td>34.9</td>
<td>0.91</td>
<td>0.26</td>
<td>2.57</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>Bhrama</td>
<td>3.0</td>
<td>2.0</td>
<td>33.3</td>
<td>1.22</td>
<td>0.35</td>
<td>2.83</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>Ruksata</td>
<td>1.83</td>
<td>1.08</td>
<td>41</td>
<td>1.11</td>
<td>0.32</td>
<td>2.34</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Shwas</td>
<td>2.33</td>
<td>1.75</td>
<td>24.9</td>
<td>1.03</td>
<td>0.29</td>
<td>2.0</td>
<td>&lt;0.05</td>
</tr>
<tr>
<td>Aruchi</td>
<td>1.75</td>
<td>1.08</td>
<td>38.2</td>
<td>0.91</td>
<td>0.26</td>
<td>2.54</td>
<td>&lt;0.02</td>
</tr>
<tr>
<td>Pindikodwestana</td>
<td>2.41</td>
<td>1.83</td>
<td>24</td>
<td>0.76</td>
<td>0.22</td>
<td>2.63</td>
<td>&lt;0.02</td>
</tr>
</tbody>
</table>

Table 4: Effects of Taramandoor Guda on Hb%.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Relief %</th>
<th>S.D</th>
<th>S.E</th>
<th>t score</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb%</td>
<td>9.95</td>
<td>11.25</td>
<td>21.6</td>
<td>1.47</td>
<td>0.42</td>
<td>3.09</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

DISCUSSION

In this study, it is observed that most of the patients were females. Since we know that this disease is more prevalent in females. Significant fact is that one among five women are Iron deficient all over the world and IDA is the 8th leading cause of diseases in females in developing countries. Reason behind this may be firstly, regular loss of blood due to menstrua-
tion makes them more prone to develop Anemia. Secondly, the diet, as females are mostly found inclined towards spicy, sour, and bitter ahara rather than a balanced diet. Moreover, following menarche, females often do not consume enough iron to offset menstrual losses. As a result, a peak in the prevalence of iron deficiency frequently occurs among females. About age, 43.3% of patients belonged to age group of 36-50 years; followed by 26.4% patients to 15-25 years, 24.5% patients belonged to 26-35 years of age group. As the working persons are maximum in the age group 36-50 & they don’t take food on time & in proper quantity. In case of females, mostly mothers are found in this age group & they share their own food with family.

It was found that maximum i.e. 52.8% were housewives and 18.8% were in Service and 13.2% were students. The reason might be excessive labour and improper diet as well as inadequate diet. Also, most of housewives take divaswapaṇa which causes agnimanḍya subsequently dhatwagnimandya and ultimately rasa rakta dhatu dusti.

As Pandu is the most important sign as well as symptoms of Pandu. Rakta dhatu, Pitta dosha and Oja are responsible for the Varna and Prabha. So, when rakta and pitta dushṭi occurs, oja also gets affected simultaneously and the Varna(complexion) and Prabha(luster) get affected and Pandu occurs. Daurbalya is the most prominent feature in Pandurogi. The reason for this is Raktalpata and Ojakshaya which causes the debility to do anything. In modern point of view, as blood cells are responsible for the oxygen supply to the all body tissues, so in anemia the metabolic activities are hampered & when this condition persists for a long period, debility appears.

Hridspandanama or Palpitations in Pandu roga is due to lack of proper nourishment and Raktalpata due to which heart must pump quickly to provide rapid blood flow to body tissues and that is the reason of Palpitation.

Maximum no of patients of Pandu have daurbalya due to specific reason, and bhrama happens in Pandu mainly due to Daurbalya. Pitta Dosha, Rakta dhatu and Oja are responsible for varna and prabha. In Pandu all get disturbed so patient becomes Hataprabha (lusterless) and Ruksata appears.

Dyspnea on exertion or Shwasa in Pandu is due to lack of proper nourishment and Raktalpata due to which Respiratory organs must work quickly to provide rapid blood flow to body tissues and that is the reason of Shwasa.

Due to decrease Ranjak Pitta & increase Drava guna of Pitta, Aruchi occurs. In other words, due to Aruchi, malnutrition happens consequently and then Panduta. Vaigunyaaprapta pittadosha goes to the mamsa dhatu, which causes Pindikodweshtana. In Modern point of view, due to decrease oxygen delivery to the muscle, cramps are seen in anemia.

Panduta, Daurbalya, Hridspandanam, Bhrama, Rukkshata, Shwasa, Aruchi, Pindikodwestana have been relieved after treatment in complain to before treatment and are 37.8%, 45.3%, 34.9%, 33.3%, 41%, 24.9%, 38.2% & 24% respectively where the ‘p’ value is <0.01 (Highly Significant), <0.01 (Highly Significant), <0.02 (significant), <0.02 (significant), <0.05 (significant), <0.05 (significant), <0.02 (significant), <0.02 (significant) respectively. Hb % improved after treatment in respect to before treatment is 21.6 % where the ‘p’ value is <0.01(Highly Significant).

Patients who were treated with Taramandoor Guda showed ‘Moderate’ effect probably due to the presence of Triphala, Trikatu, Chavya, Chitraka etc. which stimulates the gastric mucosa & produces maximum level of pachakagni, Vidanga and Gomutra are potent enough to eradicate Krimi (worm manifestations) Mandoorbhasma and Guda are the iron sources in the drug and moreover Mandoorbhasma which is in the purest and simplest form was potent enough to cure Pandu.

**CONCLUSION**

Taramandoor Guda was subjected to a clinical study on patients suffering fromIDA. It contains Gomutra, iron in the form of Mandoorbhasma and herbal ingredients are Triphala, Trikatu, Chavya, Chitraka, Vidanga and Guda. Herbal ingredients present in the
trial drug increased the bioavailability of iron. Hemat- 
tinic action of Taramandoor Guda was due to the 
presence of iron contents of good bioavailability. The 
present clinical study clearly indicates that the herbo- 
mineral formulation Taramandoor Guda is an 
effective, well-tolerated, and clinically safe formul- 
ation in the management of IDA.

REFERENCES
1. Charaka, CharakaSamhitha, vidyothoniteeka, Chau- 
2. Sushrutha, SushruthaSamhithaAyurveda Tatwa 
Sandeepika;14th edition; ChaukhambhaKrishnadas 
Academy. Varanasi; p.57.
3. Iron Deficiency Anaemia Assessment, Prevention, and 
4. Bhaishajyaratnavali of Govinddas, Pandu rogchikitsa- 
prakaranam: Chapter 12, verse 38-43. Varanasi Chau- 
khamba Sanskrit Sansthan, 1993; 270-271.
5. Brahmanand Tripathi, Hindi Commentator, Charaka 
Samhita. Varanasi, ChaukhambhaSurbharatiPrakashan; 
1997.
6. Ambika Datta Sastry, Sushruthasamhita, Uttara tantra, 
7th Edition, Chaukambha Sanskrit Samsthan, Varanasi, 
7. PV Sharma Caraka Samhita English commentary, 1st 
edition, Chaukambha Orientalia,Varanasi, 1983, 
273p.
8. Banerjee A. Clinical Physiology. 1st ed. New York: 
Published in the United States of America by Cam- 

Source of Support: Nil 
Conflict of Interest: None Declared

How to cite this URL: Gupta Poonam: Clinical Evaluation Of 
Taramandoor Guda In The Management Of Pandu W.S.R. To 
Iron Deficiency Anaemia. International Ayurvedic Medical 
Journal {online} 2019 {cited December, 2019} Available 
from: 