



Effect of *Kayyonyadi churna* in the management of *Pandu roga* (Anaemia)

Research Article

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Abstract

Pandu roga is one of the diseases mentioned in Ayurveda characterized by the whitish discolouration 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. So to find a cost effective remedy for the management of anaemia, *Kayyonyadi churna* is taken for the study which contains most of the commonly available plants and *Mandura bhasma*. Both of them act to reduce the Anaemia by virtue of their properties and acts as a supplement of Iron. An open end clinical trial was taken up for the study on 30 patients and 1-2 gms of the *churna* is given twice daily along with *Takra* for 30 days. It was observed from the study that the drug showed marked reduction in the clinical symptoms (p value <0.0001) and improvement in the Hb% (p value <0.0001).

Keywords: Anaemia, *Pandu roga*, *Kayyonyadi churna*, *Bhrungaraj*, *Mandura bhasma*, *Takra*.

Introduction:

Pandu roga is one of the diseases mentioned in Ayurveda characterized by the changes in the skin colour to white (*sweta*), yellowish (*pita*), greenish (*harita*) etc and is typically characterized by the presence of *Ketaki dhuli nibha chaya* (discolouration resembling the colour of the Pandanus flowers). The discolouration can also be seen in the sclera. It is one of the "*Varnopalakshita roga*" i.e., disease

characterized by the change in the colour. The disease is referred with various names like *Vilohita*, *Harima* and *Halima* in *Vedas* and *Panaki*, *Laghavaka* and *Kumbhahwa* by *Sushrutha* (1).

According to *Caraka samhita* the prodromal symptoms in the disease include palpitations, dryness of the skin and mucosal surfaces and malaise. The clinical features mentioned for the disease include pale of the eyes (*pandutwa*), loss of appetite, periorbital oedema, tinnitus and malaise etc (2).

The clinical features of the *Pandu roga* can be compared with the disease Anaemia. The term Anaemia in Greek language means lack of blood or haemoglobin. It is one of the most common disorders in the developing countries because of the poor nutritional

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status. It occurs because of the poor intake of the iron and folic acid rich foods. The disease is most commonly seen in children, adolescent girls, pregnant women and lactating mothers (3).

Hence program like National Nutritional Anemia Control Program (NNACP) have been taken up by the government of India to control the nutritional anaemias. Even now many cases of anemia are recorded every year.

Ayurvedic system of medicine also suggests few lost cost and effective remedies for the treatment of Anaemia. Some preparations can be done with minimal possible effort and with the natural resources available within our vicinity. Hence the present study is aimed at finding out the effect of the *Kayyonyadi churna* in the management of Anaemia.

Aims and objectives of the study:

To study the efficacy of *Kayyonyadi churna* in the management of *Pandu roga* (Anaemia)

Materials and Methods:

Source of data:

The study was an open type clinical trial consisting of 30 patients suffering from Anaemia. They were selected randomly from the OPD and IPD, Post Graduate Unit of Kayacikitsa, Government Ayurvedic Hospital, Hyderabad.

Selection of patients and method of study:

The patients were assessed for the presence of the subjective and objective parameters and the inclusion and exclusion criteria following a special case sheet designed for the study.

Inclusion criteria:

- Patients of both sex between the age group of 5 to 60 years
- Patients presenting with classical signs and symptoms of Anaemia.

- Patients having the Hb% in between 6 to 11 gm/ dl.

Exclusion criteria:

- Patients below 5 yrs of age and above 60 yrs of age were excluded from the study.
- Patients suffering from chronic diseases and haemorrhagic disorders were excluded from the study.
- Hereditary conditions are also excluded.

Assessment criteria:

- Assessment was based on improvement in the clinical features and the laboratory investigation for Hb%.

Laboratory investigations:

- Blood: HB%, TC, DC, ESR,

Assessment criteria:

The patients taken for the study were assessed for the subjective and objective parameters before and after the treatment and the parameters were graded as follows for the statistical convenience.

Subjective parameters:

As the disease is characterized by the changes in the colour (Pandutwa) 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 conjunctiva without the presence of change in colour in the skin and end organs
- 2 – Presence of pale conjunctiva, changes in the skin colour, dryness and brittle nails.
- 3 – Presence of the above symptoms along with symptoms like dyspnoea, weakness and giddiness.

**Objective parameters:**

Haemoglobin percentage is considered as the objective parameter.

Collection of drugs:

The drug selected for the study is Kayyonyadi churna. The herbal drugs for the study were collected from Local market, Hyderabad after proper identification of the material. *Mandura bhasma* is procured from the Govt. Ayurvedic Pharmacy. The composition of the drug is as follows:

Ingredients:

- | | | |
|--------------------------|---|---------|
| 1. Bhrungaraj | - | 4 parts |
| 2. Marica | - | 3 parts |
| 3. Chitraka | - | 2 parts |
| 4. <i>Mandura bhasma</i> | - | 1 part |
| 5. Ajamoda | - | ½ part |
| 6. Shunti | - | ¼ part |

Method:

The above mentioned herbal drugs were shade dried and powdered individually and then they are mixed along with the *Mandura bhasma* to form a uniform mixture. They are made in to packets of 2 gms each.

Dosage:

1-2 gms twice daily

Time of administration:

Morning and evening after principle meal

Anupana:

Takra (Butter milk)

Duration of treatment:

30 days

Rationality for the usage of the drugs:

Bhringaraja is indicated in the Ayurvedic texts for the disease *Pandu roga* and it also invigorates the haematinic centres of the body i.e., the liver and the spleen.

Drugs like chitrak, ajamoda, marica act to improve the digestive power (deepana) and amapachana and increases the appetite.

Assessment of the total efficacy of the therapy:**Response of Subjective parameters:**

- 1) **Marked response:** 80-100% relief in the symptoms.
- 2) **Moderate response:** 60-80% relief in the symptoms.
- 3) **Mild response:** 40-60% relief in the symptoms.
- 4) **Unchanged:** Below 40 % relief.

Laboratory Investigations:

- 1) **Marked Response :** Increase of Hb% above 3gm%
- 2) **Moderate response :** Increase of Hb% between 2-3 gm%
- 3) **Mild Response :** Increase of Hb% between 1-2 gm%
- 4) **Unchanged : :** Below 1% increase in Hb%

Observations and Results:

From the study, the following observations were noted

Table 1: Age wise distribution of patients

Age (in years)	No of patients	%
5-10	2	6.7
11-20	6	19.98
21-30	7	23.3
31-40	6	19.98
41-50	6	19.98
51-60	3	9.99

Table 2: Sex wise distribution of patients

Sex	No of patients	%
Male	14	46.67
Female	16	53.33

**Table 3: Economic status wise distribution of patients**

Economic status	No of patients	%
Poor	13	43.29
Middle	9	29.97
Rich	8	26.64

Table 4: Diet wise distribution of patients

Diet	No of patients	%
Vegetarian	14	46.67
Mixed	16	53.33

Table 5; Doshas wise distribution of patients

Diet	No of patients	%
Vata	15	50
Pitta	5	16.67
Kapha	10	33.33

Table 6: Prakruti wise distribution of the patients

Diet	No of patients	%
Vata	11	36.7
Pitta	9	30
Kapha	10	33.33

Results:**Table 7: Overall effect of therapy in the subjective and objective parameters.**

Symptom	n	Mean		%	SD	SE	't' value	'p' value
		BT	AT					
Pandutwa	30	2.07	0.53	69.23	0.64	0.115	13.35	<0.0001
Hb%	30	8.7	11.86	8.77	1.175	0.092	18.86	< 0.0001

Table 6: Over All Effect of Therapy

Result	No. of Patients	%
Marked	12	40
Moderate	07	23.33
Mild	06	20
Unchanged	05	16.67

Discussion:

Pandu roga is a characterized by the paleness and whitish discolouration of the skin because of the decreased blood. This occurs because of poor nutrition and deficiency of iron and folate. This occurs mostly in the school children, adolescents and pregnant women which is also proved in the present study which showed 23.33% of the affected in the age group of 21-30 years followed by the patients in the age groups 11-20, 31-40 and 41-50 (16.66% each). Female are slightly more affected than the males.

From the results of the subjective and objective parameters it was observed that out of the 30 patients observed it was

found that the subjective parameter i.e. pandutwa was reduced considerably in all the patients with the p value <0.0001 and the change in the Hb% also showed significant result with the p value <0.0001 based on the paired 't' test.

Overall therapy showed that there was a marked relief in 12 patients (40%), moderate relief in 7 patients (23.33%), mild relief in 6 patients (20%) and unchanged in 5 patients (16.67%).

The significance of the results are due to the herbs like Bhringaraj, Mandura etc drugs in the selected Kayyonyadi Churna. Bhringaraj acts to stimulate the haematinic centres like Liver and spleen and Mandura acts a supplement of iron



increasing the blood levels and decreases the disease Pandu roga.

Conclusion:

Thus from the study it can be concluded that Kayyonyadi churna can be used for the management of the Pandu roga.

But as the sample size is small because of the limitations in the study, the same study may be conducted in large number of samples to prove its efficacy.

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