

Rasa Māṅikya: Preparation, Chemical Analysis and Clinical Study in the Management of *Kṣudra Kuṣṭha*.

Dr. Pathiraja, K.A.S.T. K. **Abstract**

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Rasa Māṅikya is a special *Rasa* drug, prepared with *Haritāla*. It was tested in the cases of *Kṣudra Kuṣṭha*. 25 mg of *Rasa Māṅikya* mixed with 1 gram of *Anupāna dravya* was given twice a day to sixty patients. The *Anupāna dravya* consisted of *Haritakī* (*Terminalia chebula*), *Vibhītakī* (*Terminalia belarica*), *Āmalakī* (*Phyllanthus officinalis*) and *Mañjiṣṭhā* (*Rubia cordifolia*) in the proportion of 1 : 1 : 1 : 1 respectively. It was continued for 10 days with an interval of further 10 days for two months. The clinical study has shown significant improvement in the management of *Kṣudra Kuṣṭha*.

Introduction

Skin disorders are a common health problem among the Sri Lankan community. Ayurveda classifies skin disorders into two major categories as *Mahā Kuṣṭha*, consisting of 7 sub types and *Kṣudra Kuṣṭha* of 18 sub types. Many of these skin disorders are caused by incompatible food habits, behavioral patterns, and environmental factors.

Even though Medical systems have a wide range of treatments for the management of skin disorders, certain limitations could be noted. According to Ayurveda the *Rasa* drugs have been used widely in the management of skin diseases. In the present study a clinical trial was conducted to determine the efficacy of *Rasa Māṅikya* in the management of *Kṣudra Kuṣṭhas* found among the Sri Lankan community. *Rasa Māṅikya*, which consists of pharmaceutically processed *Haritāla*, is one of main preparations used in the management of skin diseases.

Kṣudra Kuṣṭha are very common among the community. The common symptoms of these conditions are itching (*Kaṇḍu*), burning sensation (*Dāha*), oozing (*Śrāva*), and pain (*Śūla*). These symptoms may cause anxiety, depression, lack of self confidence and can lead to social isolation.

Aim and Objectives

Although Ayurvedic researches have conducted to evaluate the efficacy of *Rasa Māṅikya* in the management of *Kṣudra Kuṣṭha* in India, efficacy of *Rasa Māṅikya* has not been evaluated so far in the Sri Lankan community. Hence the clinical trial was designed to determine the efficacy of *Rasa Māṅikya* on *Kṣudra Kuṣṭha*.

Materials and Methods

55 patients, who suffered from the following types of *Kṣudra Kuṣṭha* were selected for this study.

1. *Eka Kuṣṭha*
2. *Charma Kuṣṭha*
3. *Kiṭibha*
4. *Vipādikā*
5. *Alasaka*
6. *Carmadala Kuṣṭha*
7. *Pāmā and Kacchu*
8. *Visphoṭa*
9. *Satāru*
10. *Vicarcikā*

All the cases were examined initially in O.P.D. and were selected for the study on the basis of clinical symptomatology and diagnostic criteria. Routine and Microscopic examination of blood and urine were carried out before and after treatment to rule out any other associated pathology.

Method of Preparation

The drug (*Rasa Māṅikya*) was prepared according to *Rasatarāṅgani* of *Ācārya Sadānanda Sharmā*.

Analytical Study of *Rasa Māṅikya*

The prepared drug was analyzed physically and chemically. Under the physical examination organoleptic characteristics of the drug was noted, and determination of loss on drying at 110 °C, Ash value, Acid insoluble ash and pH value of the drug was calculated under the chemical examination in the laboratory of Gampaha Wickramarachchi Ayurveda Institute. The total arsenic value of the drug was tested by using the Atomic Absorption spectrophotometry AoAo (17th Edition – 2002) Method at the S.G.S. Lanka Private Limited to obtain the total arsenic value of the drug.

Administration of the Drug

Ruby coloured, thin flakes of drug was finally powdered. 25mg of the drug was well ground with 1 g of *Sahapāna Cūrṇa* [1 g of *Sahapāna Cūrṇa* consisted of *Harītakī* - 25 mg, *Vibhītakī* - 25 mg, *Amalākī* - 25 mg, and *Mañjiṣṭha* - 25 mg. Patients were advised to take each dose after mixing it with bee honey. The drug was given continuously for 10 days, with an interval of further 10 days. This regimen was applied thrice during the period of two months. Patients were strictly advised to drink more water and milk except salty, sour and pungent foods. Also they were instructed to avoid the exposure to heat of fire and sun and to take little *sahindawa lavaṇa* as salt and sweets. At every 10 days interval (gaping period) all the patients were subjected for investigations and assessment.

Assessment of Results.

The improvement in the patients was assessed mainly on the basis of relief in the signs and symptoms of the disease. For this purpose main signs and symptoms were given scores depending upon their severity, before and after the treatment. The scoring was done as follows;

(1)	“ O “	-	Absent
(2)	“ + “	-	Mild
(3)	“ ++ “	-	Moderate
(4)	“ +++ “	-	Moderately severe
(5)	“ ++++ “	-	Severe

Considering the overall improvement in the signs and symptoms the total effect of the therapy was assessed by using the following categories

- Complete remission (C.R) -100% relief in the signs and symptoms.
- Marked improvement (M.I.) - Above 60% relief in the signs and symptoms
- Satisfactory improvement (S.F.I) - Above 20% relief in the signs and symptoms.
- Unchanged (U) -Below 20 % relief in the signs and symptoms.

Further the effect of the treatment on signs and symptoms were analyzed statistically. During the trial the patients were advised to report on every ten days during the period of study. The follow - up was maintained to study the improvement or recurrence of signs and symptoms of the patients.

Assessment of Special Signs and Symptoms (S).**(1) *Ekakuṣṭha***

- S₁ - No sweating
- S₂ - Wide spreading
- S₃ - Mathsya Shalka Akriti

(2) *Charmakuṣṭha*

- S₁ - Eruptive patches
- S₂ - Dry
- S₃ - Blackish
- S₄ - Thick

(3) *Kiṭṭibha*

- S₁ - Spots very dry
- S₂ - Bluish red

(4) Vipādika

- S₁ - The skin of the hand and feet burst
- S₂ - Severe pain

(5) Alasaka

- S₁ - Patches
- S₂ - Itching
- S₃ - Full of red pimples

(6) Dadru

- S₁ - Spots elevated in round shape
- S₂ - Itching
- S₃ - Full of red pimples

(7) Carmadala Kuṣṭha

- S₁ - Burning
- S₂ - Itching
- S₃ - Eruptions – reddish blue
- S₄ - Large pimples very painful
- S₅ - Flesh become putrid and fall off

(8) Pāmā and Kacchu

- S₁ - Small pimples with purulent discharges
- S₂ - Pama accompanied by excessive burning and Large pimples.
- S₃ - Pimples appearing thickly on the hands and buttocks.

(9) Visphoṭa

- S₁ - Boils either dark or red
- S₂ - With a thing coating

(10) Satāru

- S₁ - Inflammatory eruptions
- S₂ - Red or dark
- S₃ - Burning
- S₄ - Wounds

(11) Vicarcikā

- S₁ - Pimples – dark
- S₂ - Itching
- S₃ - Discharges

Results and Discussion

According to the organoleptic characteristics the colour of prepared drug was reddish brown with shining *Māṇikya* colour.

There were no changes in the original weight of samples of drug in the test of loss on drying, which means the preparation was completely in dried state (No moisture). Ash value of *Rasa Māṇikya* was very low (5.5%) These results proved that there was very less residue in the drug after heating it up to the 1000 °C temperature. The percentage of Acid insoluble ash was 0.07%. This shows that the ingredients of *Rasa Māṇikya* (Arsenic and sulphur) are insoluble in acids. The mean of pH value of 5 Samples is 6.07 It showed that after adding powder of *Rasa Māṇikya* into distilled water (pH 6.6) some acidic properties have increased in the distilled due to the *uṣṇa vīrya* and *tikṣṇa guṇas* of drug. According to the percentage of total arsenic value determined by S.G.S. Lanka Private Limited the percentage of Arsenic has decreased in the prepared drug. Thus, it can be administered successfully to the patient without any adverse effects.

Clinical

According to statement of signs and symptoms of patients of *Ekakuṣṭha* 3 major symptoms (S₁, S₂, S₃) were observed. After treatment the relief percentage of S₁, S₂, S₃ was 75%, 60%, 60% respectively.

From 4 main symptoms of *Carmadalakuṣṭha* highly satisfactory percentage of relief was observed with symptom S₃, S₁ and S₂ also showed good results and percentage 66.67% and 50% respectively. But the progress of symptom S₄ was very low (40%). According to signs and symptoms of *Kiṭṭha* the progress was recorded for two symptoms. The percentage of relief was observed 80% and 60% for symptom S₂ and S₁. After the calculation and assessment of the efficacy of the drug the maximum percentage of relief was seen in S₂ of *Alasaka*. Other two symptoms were on 60% in both.

Dadru is a very common type of *kṣudra kuṣṭha* in society. It was observed that two symptoms (S₂, S₃) were cured 100% and S₁ was cured 80%

Table 1 Distribution of patient's responses for each disease

Disease	Before Treatment		After Treatment		Relief	
	No. of Patients	%	No. of Patients	%	No. of Patients	%
<i>Ekakuṣṭha</i>	14	93.33	5	33.33	9	64.29
<i>Carmakuṣṭha</i>	17	85.00	7	35.00	10	58.82
<i>Kiṭibha</i>	10	100.00	3	30.00	7	70.00
<i>Vipādikā</i>	10	100.00	3	30.00	7	70.00
<i>Alasaka</i>	15	100.00	5	33.33	10	66.67
<i>Dadru</i>	15	100.00	1	6.67	14	93.33
<i>Carmadalakuṣṭha</i>	20	80.00	6	24.00	14	70.00
<i>Pāmā and Kacchu</i>	11	73.33	2	13.33	9	81.82
<i>Visphoṭa</i>	10	100.00	2	20.00	8	80.00
<i>Satāru</i>	18	90.00	5	25.00	13	72.22
<i>Vicarcikā</i>	15	100.00	1	6.67	14	93.33

Table 2 Efficacy of the treatment according to the diseases.

Disease	Z-value	P-value
<i>Ekakuṣṭha.</i>	- 0.9258	0.8227
<i>Carmakuṣṭha</i>	- 1.5403	0.9383
<i>Kiṭibha</i>	- 0.3651	0.6425
<i>Vipādikā</i>	- 0.3651	0.6425
<i>Alasaka</i>	- 0.7454	0.7720
<i>Dadru</i>	1.6398	0.0505*
<i>Carmadala Kuṣṭha</i>	- 0.5164	0.6972
<i>Pāmā and Kacchu</i>	-0.5222	0.3008
<i>Visphoṭa</i>	-0.3651	0.3575
<i>Satāru</i>	-0.2722	0.6073
<i>Vicarcikā</i>	1.6398	0.0505*

* Significant at 10% level

From five main symptoms of *Carmadalakuṣṭha* significant efficacy was observed except symptom S_3 . For the study of *Pāmā* and *Kacchu* 3 main symptoms were taken. Symptom S_3 cured 100% after administration of the drug. In other symptoms (S_1, S_2) 80% efficacy was indicated for each.

During the clinical trial of "*Satāru*" the efficacy of the drug was estimated on S_1, S_2, S_3 , and S_4 symptoms. According to data received after the clinical trial relief percentage of symptoms S_1, S_2, S_3, S_4 was observed 80%, 75%, 60% and 75% respectively.

Vicarcikā is very common in the society. Three significant symptoms were observed with the five patients of *vicarcikā*. According to data observed symptom S_2 and S_3 were cured completely and S_1 cured 80%.

Conclusion

According to clinical results (Table 01) significant statistical relief was found in symptoms like itching discharges pain and burning sensation.

Remarkable improvement (80%) was observed in signs and symptoms of *visphoṭa pāmā* and *kcchu*. Between 58% to 72% relief of signs and symptoms could be seen in remaining kinds of *kṣudra kuṣṭha* like *Ekakuṣṭha*, *Carmakuṣṭha*, *Kiṭibha*, *Vipādikā*, *Alasaka*, *Carmadala kuṣṭha* and *Satāru*.

The highest percentage of relief of signs and symptoms could be seen in *Dadru* and *vicarcikā* (93.3%)

The table 2, shows no any significance at 5% Level but the P-values of *dadru* and *vicarcika* are greater than 1.10. It can be concluded that the treatment is effective for the patient with the above diseases at 10% significant Level. Hence the treatment is effective (>75%) for *dadru* and *vicarcikā*.

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