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A COMPARATIVE PHARMACEUTICAL – ANALYTICAL STUDY OF RASAMANIKYA PREPARED BY TWO DIFFERENT METHOD

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Abstract –

The Indian classic of Rasashastra have contribute numerous Rasayoga for various disease, Rasamanikya is one of the simple preparation found in various text.

Rasamanikya is a famous drug, frequently used by Ayurvedic physicians for Vata- Kaphaja diseases like Swasa, Kasa and Kushtha (Skin disorders). Various methods of preparation have been found described in Rasa classics. Generally it is prepared by Shuddha Haratala which is kept between two thin transparent Abharaka Patra (mica sheets) in small scale and in sharava for large scale, heated up to desired level.

In the present study Rasamanikya prepared by Abhrak Patra (Mica sheet) method and Sharava method . Physico- chemical analysis of the drugs was carried out by using current analytical method for better understanding and interpretation of change occurring during and after pharmaceutical processing.

Key words: Shodhana, preparation of Rasamanikya, Analytical study.

Introduction –

Rasamanikya has been described first in Rasendra Chintamani by Dhundhukanath in 13th century A.D. as “Rasam Manikya Prabham” which directly indicates the standard of finished product , Ruby colour. The same product has been described by Krishnaram bhatt in Siddha Bheshaja Manimala as Kumuda Rasa. The product of Kupipakva method of preparation i.e Tala Manikya also was one of the synonym called Rasamanikya.

Various pharmaceutical preparation of hartal are available in the text among that Rasamanikya is one type of preparation made out of only Shuddha Hartal. It is a very famous drug frequently used by different Ayurvedic physician effectively in various respiratory condition, Skin disease, allergic and Obstructive urinary disorders. Autoimmune disorders etc and which has a high demand in current pharmaceutical industry.

Aims and Objective –

-To prepare Rasamanikya by two different pharmaceutical method.

- Physicochemical analysis of rasamanikya along with qualitative and Quantitative properties by following particle size, X- Ray diffraction.

Material and Method

Selection of Raw material –

The crude patra hartal was selected and collected as per Grahya lakshans of rasagrantha.

Method of Hartal Shodhan

Haratal Shodhan was carried out by doing Swedana kriya in Churnodoka for 1 Yama (3hrs) each time as mentioned in the Rasa tarangini.

Method of Preparation of the Rasamanikya by Sharava Samputa Method

Sudha Patra hartal Churna is taken and it kept in lower sharava, one sharava is kept over it having a hole of 1 angula in its centre, the gape between the 2 Sarava was enclosed which is sealed with the help of multani mitti. This Sharava samputa was kept on fire and heated till the lower sharava turn aruna varna. After swang shita Rasamanikya is collected from the lower sharava.

Method of Preparation of the Rasamanikya by Abhrak patra method

Sudha patra hartal churna is put in between two Sweta abhrak patras and placed over stove/charcoal fire and mild heat is given by blowing the coal with the help of vankanala. when the color of hartal inside Abhrak patra turns to manikya varna , patras are then taken out of the fire, After swanga shita rasamanikya is collected from the Abhrak patras.

Pharmaceutical Study

The shodhan of hartal was done by Swedana kriya by (Churnadoka) as mentioned in Rasa tarangini and preparation of Rasamanikya as per classical guidelines carried out in Rasashastra department at SSN Ayurved College and RIPaikmal..

Analytical study

The analysis of the drugs rasamanikya prepared with two differents methods was carried out on the basis of their Organoleptic Characters, Physico – chemical properties, Qualitative and Quantitative analysis.

Results and Discussion –

1-**Pharmaceutical Study** –

a- Output –

Maximum yield of Rasamanikya was observed in the Abhraka patra method.

b- Time duration –

Minimum time for the preparation of rasamanikya was observed in the Abhraka patra Method.

C- Color of Rasamanikya

Depending open the use of materials for the preparation of Rasamanikya, The manikya Varna was appreciated in Abhraka patra method but different colored powders were obtained after griending and sieving.

D- Advantages & Disadvantages of Rasamanikya prepared by Abhraka patra Method

Advantages-

- It takes very small time to prepare.
- Characteristic of manikya varna can be appreciated.

Disadvantages –

- Only little quantity of rasamanikya can be prepared.
- Sweta Abhraka Patras are not easily available.
- Same patras can't be used as they leave their layers and become blackish on repeated heating.

E- Advantages & Disadvantages of Rasamanikya prepared by Sharava Samputa Method

Advantages-

- Large quantity of Rasamanikya can be prepared in a single sharava.

- A Shalaka can be inserted in the Sharava through the hole in order to observe the paka lakshan which was taken as assessment criteria for the preparation of the drugs.

Disadvantages –

- After opening of Sharava it was observed that most of the Hartala remained as it is insides of lower Sharava without any color change.
- Less yield of rasamanikya and no appreciation of manikya varna.

2.Analytical Study –

A- Organoleptic Character

The characters of the sample are tabulated

B- **Qualitative Analysis** (Physico – Chemical Parameters)

The samples of Rasamanikya were evaluated for physic chemical parameters like ash value, Acid insoluble ash, total water soluble ash, Moisture content, pH values. The parameter followed was taken from Ayurvedic pharmacopeia of India.

C- **Quantitative Analysis** –

Particle size assessment-

The particle size of the two sample was Abhraka patra method 51.19 and Sharava method – 74.28 % respectively with the help of Mechanical shaker, The assessment as per API protocol was found to be as moderately fine powder . In the assessed sample the size of the particle was increased consecutively in the Oder of the samples, lesser the particle size is better absorption in the body. The size of the particle is influenced by the kind of heat given, pressure applied for the powdering & the filter medium used during the pharmaceutical process.

Final results of Rasamanikya prepared by different method w.r.t. time duration, Paka lakshan colour

Table -1

Method	Output %	Time duration	Paka lakshan	Colour after grinding sieving
Abhrak Patra	85	6min	Manikya varna	Reddish brown
Sharava Method	73	13min	Manikya varna not appreciated	Brick red

Organoleptic Character of Rasamanikya prepared by two Methods-

Table -2

Sr.No	Organoleptic Characters	Abhrak Patras	Sharava method
1	Colour	Reddish brown	Brick red
2	Odour	Odourless	faint
3	Taste	Tastless	Tastless
4	Touch	Soft	Soft
5	Appearance	Powder form	Powder form

Physico –Chemical Parameters of Rasamanikya prepared by two Methods

Table -3

Sr.No	Parameters	Abhrak Patras	Sharava method
1	pH	6.87	6.61
2	Moisture Content	0.05	0.01
3	% of total Ash	0.48	1.07
4	% of Acid Insoluble ash	0.31	0.24
5	% Water soluble ash	0.22	0.16

Particle Size assessment of Rasamanikya prepared by two Methods

Table -4

Sr.No	Particle size	Results
1	Abhrak Method	51.19 %
2	Sharava Method	74.28 %

Elemental Analysis of all samples –

Table -5

Elements	Raw Hartala Sample	Shuddha Hartal	Abhrak patra	Sharava method
Fe	362.6165	276.1788	356.4576	354.7055
Mg	94.98543	95.45633	108.1546	109.586
Si	5954.8	5796.8	5680.2	100675.3
As	422567.1	408876.5	4330876.3	423934.7
S	309616.6	302678.1	314345.4	289754.4

CONCLUSION –

Patra hartal variety of hartal is considered as shrestha in maximu grantha , Shodhan is necessary because of proven toxicity effect and was conducted by subjecting it to the Swedan following dola yantra method in churnadoka. Rasamanikya is such yoga which is derived out from only one single drug, hartal. Rather it can be said as a modified form of hartala obtained from the sudha patra hartala.

Rasamanikya prepared by classical Abhrak method is very easy but only a little quantity of the product can be prepared on a small scale. The other classical Sharava samputa method with suitable modification is laborious but appreciable for large scale of pharmaceutical preparation.

The above pharmaceutical discussion that considering quality wise proper paka lakshana, time duration, heat factor and the output gain , the Abraka patra method holds good for proper and genuine preparation of Rasamanikya at a small scale but as the quantity used for this procedure is very less giving less yield, from commercial point of view it depends open the demand and supply.

Analytically there were minimal differences found in all the two samples of Rasamanikya but considering from standardization point of view and also to establish standard for quality control of rasamanikya the abhraka patras method holds good for proper and genuine preparation of Rasamanikya.

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