



PHARMACEUTICAL AND ANALYTICAL STUDY OF NARASIMHA RASAYANA

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ABSTRACT **Background:** In BhaishjyaKalpna pharmaceutical preparation of various formulations are mentioned since Samhita period. Asthangahridaya, one among the major ancient Ayurvedic treatise by Acharya Vagbhata describe the preparatory method, action and indication of Narasimha Rasayana in detail. Narasimha Rasayana is a different formulation because of its unique method of preparation. **Aim:** Pharmaceutical and Analytical Study of Narasimha Rasayana **Objectives:** 1. To study the pharmaceutico – analytical aspect of Narasimha Rasayana 2. To develop standard manufacturing procedure of Narasimha Rasayana **Material and Method:** Classical reference of Narasimha Rasayana is Asthangahridaya, Main ingredients of Narasimha Rasayana are Navneeta, Godugdha, Triphala kwath, Bhringraj niryas and other herbal drugs. All the procedure was done systematically, observation and result were noted. **Discussion:** Cause and effect of pharmaceutical and analytical findings discussed in this paper. Aim of this study is to set the standard manufacturing procedure through all pharmaceutical and analytical parameters like Refractive index, Viscosity, Acid value, Iodine value, Specific gravity, pH was assessed **Conclusion:** The detailed pharmaceutico-analytical study of Narasimha Rasayana in logical, sequential manner helps in developing a Standard manufacturing procedure for Narasimha Rasayana for its quality and purity. Data obtained by this study may helpful in standardization of Narasimha Rasayana

KEYWORDS : Ayurveda, Bhaishjyakalpna, Rasayana, Narasimha, Ghrita

INTRODUCTION

Bhaishjyakalpna is one of the most important branches of Ayurveda, which deals with awareness of drugs, including identification, procurement, processing, preparation, and application. This formulation is based on primary kalpna like Swarasa, Kwath, Kalka, Hima, and Phanta. For more self-life, more palatability, some secondary kalpnas explained in Samhita. Sneha kalpna is among one of most common which is widely used. It is pharmaceutical process to prepare oleaginous medicaments from the substance like Kalka, Kwath, or Drava Dravya taken in specific proportion and by subjecting them to unique heating pattern and duration to fulfil certain pharmaceutical parameters according to the need of therapeutics.¹

Ayurveda teaches us how to live and how to maintain a good health in aspect of Dincharya, rutucharya, pathya -apathya, sadavrutta, Rasayana, Vajikaran.² To achieve better mental and physical health a specific aahar-vihar, rasayan chikitsa is describe in text.

In this study Narasimha Rasayana preparade according to reference of Ashtanghridaya Rasayana Chikitsa. Main ingredients of Narasimha Rasayana are Navneeta, Godugdha, Triphala kwath, Bhringraj niryas and other herbal drugs. This study is aimed to set standard manufacturing procedure of Narasimha Rasayana by Ayurvedic and modern parameters.

AIMAND OBJECTIVES:-

1. To study the pharmaceutico – analytical aspect of Narasimha Rasayana
2. To develop standard manufacturing procedure of Narasimha Rasayana

MATERIALANDMETHODS:-

This study has been done in following two steps –

1. Pharmaceutical study
2. Analytical study

Pharmaceutical study

The preparation of Narasimha Rasayana was done according to the reference of Ashtanghridaya Rasayana Adhyay.³

All the raw material for this study was procured from authentic source and examined by the expert to confirm the identity, purity and strength.

Ingredients:

Table no.1: - Showing the ingredients of Narasimha Rasayana.

Sr.no	Ingredients	Latin Name	Quantity
1	Khadira	Acacia Catechu	5 gm
2	Chitrak	Plumbago Zeylanica	5 gm
3	Shimsipa	Dalbergia Sissooides	5 gm
4	Vijayasar	Pterocarpus Marsupium	5 gm
5	Haritaki	Terminalia Chebula	5 gm
6	Vidanga	Embelia Ribes	5 gm
7	Bibhitaka	Terminalia Bellirica	5 gm
8	Bhallatak	Semicarpus anacardium	5 gm
9	Ayas		40 gm
10	Water		1280 ml
11	Godugdha		320 ml
12	Bhringraj Niryas		640 ml
13	Triphala Kashay		960 ml
14	Navneet		1280 ml

Procedure: -

➤ Bhallatak shodhana⁴

- 100 gm of sunken bhallatak fruits was taken, thalamus portion of fruits was removed and pricked with needle.
- Pricked bhallatak was kept in jute bag containing brick powder (Ishtika churna) and rubbed thoroughly with proper precautions.
- Then bhallatak shifted in plastic jar containing 300 gm of brick powder and it was allotted for 7 days.
- On 8 th day bhallatak removed from brick powder, washed with hot water and dried under shade.

➤ Preparation of Bhrungraj Niryas⁵

- 320 gm dry raw bhrungaraj was procured from local market
- It was cleaned and washed properly then taken in stainless steel vessel.
- 5120 ml water was added to it and reduced to 1/8th on mild fire.
- Then obtained kwath was filtered through clean cotton cloth.

➤ Preparation of Triphala Kwath

- 480 gm clean triphala bharad was taken in stainless steel vessel.
- 7680 ml water was added to it and reduced to 1/8 th on mild fire.
- Then triphala kwath was filtered through clean cotton cloth.

➤ Method of preparation of Narasimha Rasayan

- Ingredients 1 to 9 (Khadira, Chitrak, Shimsipa, Vijayasar, Haritaki, Vidanga, Bibhitaka, Bhallataka, Ayas) was taken in clean loha

- kadhai.
- 18-part water added into it, and exposed to the sunlight for 3 days with all precautions.
 - After 3 days this whole mixture was allowed to boiled on mild fire till ¼ th kwath
 - was reduced. Then the obtained kwath was filtered through a clean cotton cloth.
 - Ingredients 11 to 14 (Godugdha, Bhringraj niryas, Triphala kashay and Navneet) was added into kwath one by one in above mentioned quantity with continuously stirring was done.
 - On 2nd day homogeneous mixture formed, heat was given 3 hrs then after swangshitikaran, lid placed on vessel.
 - On 3rd day, when mixture attaining all Sneha siddhi lakshnas, agni was stopped.
 - After slightly cooling about 70oc Narasimha Rasayana was filtered through cotton cloth and stored in SS container.

Observations: -

Organoleptic character of Narasimha Rasayana. Shabda – No Sound
Sprasha – Snigdha

Roop – Semi liquid, Light Greenish

Rasa- Madhur

Gandha – Navneet Gandhi

Table No.2: - Showing Observation during preparation of Narasimha Rasayana

Day	Time	Temp.	Observations
1st day	11.00 am	50°C	Prepared Kwath put on Agni
1st day	11.10 am	30°C	Bhringraj Niryas, Triphala Kwath, Navneet, Godugdha added one by one. Mixture became Light brown coloured.
1st day	12.00 am	100°C	Whole mixture started boiling
1st day	12.30 am	95°C	Navneet Layer seen on surface, Navneet gandha observed
2nd day	12.00 am	95°C	Homogeneous mixture formed
2nd day	12.30 am	94°C	Kwath and Navneet separate layer observed
2nd day	1.00 am	94°C	Brown coloured mixture, bubbles seen
3rd day	12.00 am	92°C	Kalka getting separated (Mrudupaka)
3rd day	12.30 pm	94°C	Kalka sticking to vessel, continuous stirring done
3rd day	1.30 pm	95°C	Phenshanti
3rd day	1.45 pm	90°C	Madhyampaka
3rd day	2.00 pm	70°C	Filtration done

Showing Time required for pharmaceutical procedure -

Kwath Nirmana – 4 hrs

1st day of Snehpaka – 3 hrs

2nd day of Snehpaka – 3 hrs

3rd day of Snehpaka – 4 hrs 30 min. Total Duration – 14 hrs 30 min

The prepared Narasimha Rasayana passed the following Siddhi lakshnas.

Siddhi lakshnas⁶

1. Phen pariksha - Subside of froth in case of ghrita i.e phenshanti.
2. Varti pariksha – When kalka rolled between thumb and index finger to make varti.
3. Agni pariksha – No sound produced when kalka was put on fire.
4. Colour, odour and taste of ingredients was appreciable.

Precautions

1. Mandagni should be maintained throughout the procedure.
2. Continuous stirring should be maintained to avoid sticking of kalka to vessel and maintained the temperature throughout procedure.
3. The vessel was taken out from the agni immediately after observing Sneha paka lakshas.

Analytical Study

Analysis of Narasimha Rasayana

Table no.3: -Showing the analytical parameters of Narasimha Rasayana

Parameters	Values Obtained
Refractive index	1.45494
Viscosity	39.52 cps
Acid Value	9.11 mgKOH/g
Iodine Value	35.85 gI/100g
Specific Gravity	0.884
PH	6.10

DISCUSSION

Ayurvedic pharmaceuticals is one of the fastest growing sections in the market. Pharmaceutical and analytical studies are expected as a result of globalization to improve product acceptability.

Narasimha Rasayana was prepared according to reference of Ashtanghridaya, Rasayan Chikitsa. As per reference mixture of drug kept in sunlight for 3 days. All Kwath prepared by using 16 times of water and reduced 1/8th. Narasimha Rasayana prepared by Snehakalpana procedure and it took 3 days for complete snehpaka maintaining temp. 90-1000C throughout the procedure, so that the active constituents of drugs are came into final drug.

Analytical Test

By using Analytical parameters, we can conform the quality of prepared formulation. Parameters like Refractive index, Viscosity, Acid value etc. to determine the standard of formulation.

Refractive index

It is the ratio of velocity of light in a vacuum to its velocity in the substance. The refractive index of a medium is measure for how much the speed of light is reduced inside the medium.⁷

Refractive index of Narasimha Rasayana is 1.45494 Which is due to addition of kwath, godugdha.

Viscosity

Viscosity is a measure of a fluid's resistance to flow. It describes the internal friction of moving fluid.⁸

Viscosity of Narasimha rasayana is 39.52 cp which indicates the formulation is viscous due to addition of Navneet and Godugdha.

Acid Value

Acid value is the mass of KOH in milligram that required to neutralize one gram of chemical substance. It normally reflects the amount of acidity which is due to free fatty acids.⁹

Here acid value is 9.11, it may be due to more conversion of triglyceride to fatty acid, and using triphala Kashaya n Navneet.

Iodine Value

It indicates the degree of unsaturation. Here iodine value is 35.85. this indicates the possibility of product become rancid due to atmospheric oxidation.

Specific Gravity

Specific gravity is the ratio between the density of an object to a reference liquid.¹⁰

Specific gravity of Narasimha rasayana is 0.884. it may be due to incorporation of ingredients during Snehpaka.

PH

It indicates acidity or alkalinity of substance. Acidic and Alkaline pH influence the rate of decomposition of drugs. pH of Narasimha rasayana is 6.10 indicates product is stable.

CONCLUSION

Many Practitioners used Narasimha Rasayana in their practice to cure khalitya and palitya. There has not yet been done pharmaceutical-analytical study of the formulation. This study concludes that the detailed pharmaceutical and analytical evaluation mentioned step-by-step explanation and scientific, logical approach helps in the development of standard manufacturing procedure and the standardisation of Narasimha Rasayana.

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