



Review Article

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A CRITICAL REVIEW OF THE THERAPEUTIC POTENTIAL OF *NARASIMHA RASAYANA*

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ABSTRACT

Among the eight branches of Ayurveda, Rasayana chikitsa is an important branch. The term Rasayana means the proper ayana (path), the footstep of nutritional requirements, which is the basis for a younger and healthy life. Ayurvedic classics explain Rasayana's effect as attaining longevity, memory, intellect, freedom from diseases, youth, excellence of lustre, complexion, voice, etc. Among the various Rasayana yogas mentioned in Ayurveda, Narasimha Rasayana (NR) is a unique formulation mentioned in Ashtanga Hridaya containing ingredients like Khadira, Chitraka, Shimshapa, Vijayasara, Haritaki, Vidanga, Vibhitaki, Bhallataka, Lohashakala, go-dugdha, Bhringaraja, Shatavari which are processed in navaneeta. The indications of the formulation include a strong, swift and steady physique with shining black hair, good complexion, good intellect, digestive power, etc. In the present review, an attempt has been made to analyse the formulation, highlighting the properties of individual ingredients from a classical and modern perspective. The study revealed that the ingredients of Narasimha Rasayana possess antioxidant, immunomodulatory, anti-mutagenic and hemopoietic effects, among other qualities, which point towards a possible rejuvenating impact on the human body.

Keywords: Narasimha Rasayana, Bhallataka, Immunomodulator

INTRODUCTION

The treatment principle of Ayurveda is broadly classified into two sections. One for maintenance of health and the other for treatment of the disease¹. Those which are meant for maintaining health are mostly aphrodisiacs and rejuvenating medicines². These rejuvenating medicines come under the concept of Rasayana. Rasayana means the ayana (path) of rasa (essence). To ensure a healthy life, nourishment at the level of every dhatu should be proper. This is attained through Rasayana. Rasayana chikitsa has been explained in classics as a means for achieving dheergha aayu (longevity), smriti (memory), medha (intellect), arogya (freedom from diseases), tarunam vayaha (preservation of youth), kanthi (excellence of lustre), deha-indriya bala (excellent strength of the body and sense organs)³. Scientific studies have already revealed that antioxidant, immunomodulatory, anti-mutagenic and hemopoietic effects, and anabolic, nutritive and neuroprotective activities are possible mechanisms for rejuvenation.

Narasimha Rasayana (NR) is a famous Ayurvedic rejuvenating medicinal preparation mentioned in Ashtanga Hridaya. It contains Khadira (*Acacia catechu* (L.f.) Willd), Chitraka (*Plumbago zeylanica* L.), Shimshapa (*Dalbergia sissoo* Roxb.), Vijaysara (*Pterocarpus marsupium* Roxb.), Haritaki (*Terminalia chebula* Retz.), Vibhitaki (*Terminalia bellirica* Gaertn. Roxb.), Amalaki (*Emblia officinalis* Gaertn.), Shodhitha Bhallathaka (*Semecarpus anacardium* L.f.), shodhitha lohaskakala (purified iron turnings), Bhringaraja (*Eclipta alba* L.), Shatavari (*Asparagus racemosus* Willd.) etc. processed in navaneeta (butter). The formulation has indications like a strong, swift and

steady physique, shining black hair, good complexion, good intellect, excellent digestive power, etc. At the same time, restrictions regarding food and activities, usually seen as a part of the Rasayana administration, have not been mentioned for Narasimha Rasayana.

In the present review, an attempt has been made to compile all the available classical references of Narasimha Rasayana and critically analyse its indication, preparation method and the ratio of its ingredients, etc. The properties of each ingredient were also analysed from a classical and modern perspective to explore the possible mechanisms behind the Rasayana property attributed to the drug.

Literary data was collected from classical textbooks like Ashtanga Hridaya, Gadanigraha, etc. The pharmacological actions of individual ingredients were also compiled from published works and various textbooks. Various databases, like PUBMED, MEDLINE, etc., were searched for relevant literature regarding the pharmacological properties of herbal drugs.

Narasimha Rasayana: Preparation Method and Properties

A search through the classical texts of Ayurveda revealed that the first reference to Narasimha Rasayana is found in Ashtanga Hridaya. In this text, the formulation is mentioned in Rasayanaadhikara.

The uniqueness of the formulation is that it is processed in navaneeta in an iron vessel. Preparation of Narasimha Rasayana involves the preparation of coarse powder of Khadira, Chitraka,

Shimshapa, Vijaysara, Haritaki, Vidanga, Vibhitaki and Bhallataka to which 18 times water and purified iron turnings are added and kept in sunlight for three days. After three days, they are subjected to a decoction process. In the second step, the required quantity of navaneeta is taken in an iron vessel to which the above decoction, along with go-dugdha, Bhringaraja swarasa, and Shatavari swarasa are added and cooked in mild fire like sneha paka. Once the desired characteristics of sneha paka are achieved, the vessel is removed from the fire and filtered.

The same reference has been included in AFI by the name Narasimha ghrita Rasayana. Besides Ashtanga Hridaya, Gadanigraha also mentions a formulation called Narasimha ghrita with similar ingredients. A choorna formulation by the same name is mentioned in Bhaishajya Ratnavali, which includes the majority of the herbal drugs of Narasimha Rasayana. The details of the formulations are mentioned in Table 1. The properties of the individual ingredients are depicted in Tables 2 and 3.

Table 1: Different formulations of Narasimha Rasayana in textbooks

Formulation	Ingredients	Indication	Dose	Anupana	Reference
Narasimha Ghrita Rasayana (NGR)	Kashaya Dravya Khadira Chitraka Shimshapa Vijaysara Haritaki Vidanga Vibhitaki Bhallataka Lohashakala	Daurbalya, Vajikara Rasayana	1 karsha	Honey, sugar, milk, cold water	AFI P.1 st
	Drava dravya Go dugdha Bhringaraja Swarasa Vara kashaya (Haritaki, Vibhitaki, Amalaki)				
	Sneha Dravya (Base) Navaneeta				
Narasimha Rasayana (NR)	Kashaya Dravya Khadira Chitraka Shimshapa Vijaysara Haritaki Vidanga Vibhitaki Bhallataka Lohashakala	Rasayana	5 karsha	Khanda, Madhu	A.H. (39/170-174)
	Drava dravya Go dugdha Bhringaraja Swarasa Shatavari Swarasa				
	Sneha Dravya (Base) Navaneeta				
Narasimha Ghrita (NG)	Kashaya Dravya Chitraka Bhallataka Shimshapa Khadira Haritaki Vidanga Jeevaka Vibhitaki	Andhata Agnimandya Vali- Palitha	1-2karsha	Khanda, Madhu Guda	G. N. part 1/Ghritadhikar
	Drava dravya Shatavari Swarasa Amalaki Swarasa Bhringaraja Swarasa Aja Dugdha				
	Sneha Dravya (Base) Gritha				

Table 2: Proportion of each ingredient of Narasimha Rasayana

Drug	Authoritative textbook		
	Ashtanga Hridaya	Gada Nigraha	AFI
Khadira	1 part	10 pala	1 part
Chitraka	1 part	10 pala	1 part
Shimshapa	1 part	10 pala	1 part
Vijaysara	1 part	--	1 part
Shiva (Haritaki)	1 part	10 pala	1 part
Vidanga	1 part	10 pala	1 part
Vibhitaki	1 part	10 pala	1 part

Bhallataka	1 part	10 pala	1 part
Jeevaka	--	10 pala	--
Lohashakala	8 parts	Add a certain amount of shodhita lohashakala	8 parts
Jala	16 times of total drugs, reduced to 1/4 th	1 drona, reduced to 1/4 th	16 times for total medicines, reduced to 1/4 th
Go Dugdha	Equal to decoction	--	Equal to decoction
Ajadugdha	--	3 times of decoction	--
Bhringaraja Swarasa	2 times of decoction	3 times of decoction	2 times of decoction
Amalaki Swarasa	--	3 times of decoction	--
Shatavari Swarasa	3 times of decoction	3 times of decoction	--
Triphala kashaya	--	--	3 times of decoction
Hayangaveena	4 times of decoction	--	4 times of decoction
Gritha	--	1 Adhaka	--

Table 3: Rasadi Panchaka of Individual ingredients of Narasimha Rasayana

Name of The Drug	Rasa	Guna	Veerya	Vipaka	Karma
Khadira	Tikta, Kashaya	Laghu, Ruksha	Sheeta	Katu	Kaphapittasamaka Kushthaghna Krimighna Raktashodhaka Medhohara Dantya
Chitraka	Katu	Laghu, Ruksha, Tikshana,	Ushna	Katu	Kapha Vatahara Pachana Deepana Shoolahara Shothahara
Shimshapa	Kashaya, Katu, Tikta	Laghu, Ruksha	Ushna	Katu	Varnyam Hikkasophahara Pitha-dahaprasamana Balya
Vijaysara	Kashaya, Katu, Tikta,	Laghu, Ruksha	Ushna	Katu	Kapha pitta hara Rasayana Twachya, Keshya, Sthambhana Raktashodhana Kushtagna
Haritaki	Madhura, Amla, Katu, Tikta, Kashaya	Laghu, Ruksha	Ushna	Madhura	Tridosahara Rasayana, Yogavahi, Chakshushya Hridya Medhya
Vidanga	Katu, Tikta	Laghu, Ruksha, Tikshna	Ushna	Katu	Vata Kaphahara Deepana Anulomana Krimighna
Vibhitaki	Kashaya	Ruksha, Laghu	Ushna	Madhura	Kapha Pitta hara Bhedana, Chakshushyam, Krimighna Keshyam Kasahara
Bhallataka	Madhura Katu, Tikta, Kashaya	Laghu, Snigdha, Tikshna	Ushna	Madhura	VataKaphahara Deepana Pachana Medohara, Chedhana Bhedhana Medhya
Go Dugdha	Madhura	Sheeta, Mridu, Bahal	Sheeta	Madhura	Jeevaniya, Rasayana, Preenanam, Brimhanam, Vrishyam, Medhyam, Balyam
Shodhita Lohashakala	Madhura	Ruksha, Guru	Sheeta	Madhura	Lekhana, Balya, Vrushya Varnya, Aayushya
Navaneeta	Madhura	Laghu, Snigdha,	Sheeta	Madhura	Hridyam, grahi, ruchikaramdeepanam, Arditanut, chakshushyam, Vrishyam.
Bhringraja	Katu, Tikta	Ruksha, Tikshna	Ushna	Katu	Kaphavatahara Balya Dantya, Rasayana, Vishagna

					Twachya Nethrya
Shatavari	Madhur, Tikta	Guru, Snigdha	Sheeta	Madhura	Rasayana, Vrishya
Jeevaka	Madhura,	Guru, Snigdha, Pichila	Sheeta	Madhura	Shukral, Balya
Amalaki	Amla, Kashaya, Tikta, Katu, Madhura	Laghu Ruksha,	Sheeta	Madhura	Tridosahara Vrishya Chakshushya Rasayana

Table 4: Drugs of NR with its scientific name, Family, Part used and Pharmacological action

Drug	Scientific name / English name	Family	Part used	Action
Khadira	<i>Acacia catechu</i> (L.f.) Willd	Mimosoideae	Heartwood	Immunomodulatory activity ⁴ Hepatoprotective activity ⁵
Chitraka	<i>Plumbago zeylanica</i> (Linn Pennel)	Plumbaginaceae	Root	Antioxidant activity ⁶ Antibacterial activity ⁷ Hepatoprotective activity ⁸ Anti-inflammatory activity ⁹ Anti-allergic activity ¹⁰ Anticancer activity ^{11,12,13,14}
Shimshapa	<i>Dalbergia sissoo</i> (Roxb.)	Papilionaceae	Heartwood	Antibacterial activity ^{15,16} Antioxidant activity ¹⁷ Anti-inflammatory activity ¹⁸
Vijaysara	<i>Pterocarpus marsupium</i> (Roxb.)	Papilionaceae	Heartwood	Aphrodisiac activity ¹⁹ Anti-inflammatory activity ^{20,21} Antioxidant activity ²² Antifungal activity ²³ Anticancer activity ²⁴ Hepatoprotective activity ^{25,26} Antibacterial activity ^{27,28}
Haritaki	<i>Terminalia chebula</i> (Retz.)	Combretaceae	Fruit pulp	Immunomodulatory activity ²⁹ Antioxidant activity ³⁰ Cytoprotective activity ³¹ Chemopreventive activity ³²
Vidanga	<i>Embelia ribes</i> (Burm.f.)	Myrsinaceae	Fruit	Antibacterial activity ^{33,34} Anticancer activity ³⁵ Anti-genotoxicity activity ³⁶ Antifungal activity ³⁷
Vibhitaki	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Fruit pulp	Antioxidant activity ³⁸
Bhallataka	<i>Semecarpus anacardium</i> (L.f.)	Anacardiaceae	Fruit	CNS activity ³⁹ Anti-inflammatory activity ^{40,41} Antioxidant activity ^{42,43} Antimicrobial activity ^{44,45} Anti-carcinogenic activity ^{46,47}
Shoditha Lohashakala		-	-	Immunomodulatory activity ⁴⁸ Antimicrobial activity ⁴⁹
Navaneeta				Antioxidant activity ⁵⁰
Bhringraja	<i>Eclipta alba</i> (L.)	Asteraceae	Whole plant	Anti-inflammatory activity ⁵¹ Antimicrobial activity ⁵² Anti-hepatotoxic activity ^{53,54,55,56}
Shatavari	<i>Asparagus racemosus</i> (Willd.)	Liliaceae	Root	Immunomodulatory activity ^{57,58} Anti-inflammatory effect ⁵⁹ Antioxidant effect ^{60,61} Antibacterial activity ⁶² Immunoadjuvant activity ^{63,64,65} potential
Jeevaka	<i>Malaxis acuminata</i> (D. Don)	Orchidaceae	Pseudobulb	Antioxidant activity ⁶⁶ Antimicrobial activity ⁶⁷
Amalaki	<i>Emblica officinalis</i> (Gaertn.)	Euphorbiaceae	Fruit	Anti-ageing activity ⁶⁸ Cardio-protective activity ⁶⁹ Hepatoprotective activity ⁷⁰ Immunomodulatory activity ⁷¹ Cytoprotective activity ⁷² Anti-inflammatory Antipyretic activity ⁷³ Antidiabetic activity ⁷⁴ Antibacterial activity ⁷⁵ Anti-hyperthyroid activity ⁷⁶ Antioxidant activity ⁷⁷ Nephroprotective, Neuroprotective activity ⁷⁸

DISCUSSION

The present study revealed that the classical reference of Narasimha Rasayana is found in Ashtanga Hridaya, which has been referred to by AFI. Though Narasimha ghritha and churna are mentioned in Gadanigraha and Bhaishajyaratnavali, the ingredients of both formulations differ from those of Ashtanga Hridaya. The uniqueness of Narasimha Rasayana of Ashtanga Hridaya is that it is processed with navaneeta in an iron vessel. There are very few formulations in Ayurveda which are processed in navaneeta. However, AFI has included this formulation under the ghritha category since the process is similar to ghritha kalpana even though the general ratio of ghritha kalpana is not followed in this formulation and kalka dravya is absent.

The formula mentioned in Gadanigraha was closer to that of Ashtanga Hridaya. In Gadanigraha, ghritha is the base instead of navaneeta, and ajadugdha replaces go-dugdha of the original formula. While AFI recommends 12 gm as a dose of Narasimha ghritha Rasayana along with anupana like honey, sugar, milk and cold water, Ashtanga Hridaya recommends up to 5 karsha dose, and Gadanigraha mentioned 1-2 karsha as a dose of Narasimha ghritha. Ashtanga Hridaya probably may have included honey and ghritha in the formulation itself while prescribing the dose rather than as separate anupana as can be seen from the many market samples of Narasimha Rasayana prepared as per this reference, comes in avaleha form with honey and sugar mixed with it. This may be why a high dose of Narasimha Rasayana is recommended in Ashtanga Hridaya. Apart from sugar, jaggery has also been suggested as anupana in Gadanigraha.

The present review revealed that the ingredients of Narasimha Rasayana have proven pharmacological action, having antioxidant, immunomodulatory, anti-inflammatory, anti-ageing, aphrodisiac and anti-cancerous activity. While evaluating the pharmacological actions of the contents of Narasimha Rasayana, it was observed that more than 50% of the drugs show antioxidant, antimicrobial and anti-inflammatory activities. Drugs like Amalaki, Shatavari, Haritaki, and Khadira have proven immunomodulatory action. Amalaki, Bhringraj, Vijayasara, Chitraka, and Khadira are hepatoprotective, while Chitraka, Shimshapa, Vijayasara, Vidanga, Bhallataka, Bhringraj, Shatavari, Jeeraka, are best antimicrobial drugs present in the formulation. The drugs like Chitraka, Shimshapa, Vijayasara, Bhallataka, Bhringraj, Shatavari, and Amalaki help counteract inflammation in the body. In Gadanigraha (GN), Shatavari swarasa is replaced with Amalaki swarasa, which has already proven antioxidant, immunomodulatory, anti-ageing, anti-inflammatory and hepatoprotective activity. It also contains drugs like Chitraka, Vijayasara, Vidanga, Bhallataka, etc., which have anticancer activity. Both butter and ghee are good antioxidants. Purified iron turnings are used in each preparation of Narasimha Rasayana, which is later filtered out after final processing. Ashtanga Hridaya even mentions an iron vessel for the preparation of Narasimha Rasayana. Iron may positively enhance the nutritional as well as therapeutic status of Narasimha Rasayana.

CONCLUSION

The concept of Rasayana is more relevant in the present era of pandemics, where the focus has been shifted to the health of the individual rather than disease, and hence, the rasayana formulation of Ayurveda finds more relevance than ever before. The present review revealed that the ingredients of Narasimha Rasayana are proven to be antioxidant, immunomodulatory, anti-inflammatory, antiaging, anticancer and aphrodisiac activity. The formulation can be taken even without the stringent pathya

normally followed while taking Rasayana drugs of Ayurveda. Further clinical studies can prove the prophylactic and curative potential of Narasimha Rasayana.

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