An Ayurvedic Literary Review on the Effect of *Rambana Rasa* over Metabolic Dysfunction

*1Dhiman Mazumder, ²Aniruddha Prasad and ³PB Kar Mahapatra

*1, ²P.G. Scholar, Department of Kayachikitsa, Institute of Post Graduate Ayurvedic Education and Research at S.V.S.P Hospital, Kolkata, West Bengal, India.

³Reader, Department of Kayachikitsa, Institute of Post Graduate Ayurvedic Education and Research at S.V.S.P Hospital, Kolkata, West Bengal, India.

Abstract

As per Ayurveda 'Agni' (Digestive & Metabolic fire) plays a great role over digestion, metabolism & maintenance of bodily homeostasis. Preservation of 'Agni' should be the main aim of an individual for keeping healthy state. There are several single herbs and compound medicine have been used by the classics of Ayurveda for promotion of Agni and keeping balance of bodily humours (vata-pitta-kapha). Rambana rasa is a common, age old & reputed herbo-mineral preparation which has been used by our ayurvedic ancestors in the treatment of several metabolic dysfunction like Ajirna (Indigestion), Agnimandya (Hypochlorhydria), Grahani (Mal-absorption syndrome or Sprue), Vatavyadhi (Neuro-musculoskeletal disorder), Vatarakta (Metabolic Arthropathy), Amavata (Rheumatoid Arthritis) etc. Almost all ancient classics have praised this drug as a good deepaka-pachaka (Digestive & Metabolic fire enhancer). As ayurveda believes that all ailments are usually caused by Mandagni (Qualitative & Quantitative reduction of digestive & metabolic components). Through review of the ancient & modern literatures of ayurveda, it has been found that ingredients of Rambana rasa are potent & stimulant towards secretion of enzymes which could cook the 'Ama' (Undigested Chyle). In present study those literatures have been vividly reviewed, appropriate information has been collected & submitted in methodical manner for better understanding of readers. Therefore, the main aims & objectives of the study are to encourage the practitioners as well as scholars of this field towards use of Rambana rasa in cure of metabolic disfunction & preservation of Agni well for maintaining healthy status.

Keywords: Rambana rasa, Ayurveda & Rambana rasa, metabolic disfunction & Rambana rasa

1. Introduction

Naming of any drugs is a vital part where that could signify the characteristics, properties, action, composition, dose, mode of action, therapeutic use etc. Rambana rasa is such a drugs of ayurveda mainly signified by its name where simply it means the arrow of Lord Rama but deeply it could represent some therapeutic action where this medicine acts as a undefeated arrow of Lord Rama which is able to kill the diseases or Evil forces like Sangraha grahani (chronic malabsorption syndrome) like that of kumbha karna, Amavata (Rheumatoid arthritis) like that of khara dusana, Agnimantha (hypofunction of digestive enzymes) like that of ravana, jatharamaya ruja (abdominal pain) like that of tadaka rakshasa, dussadhya aruchi (incurable anorexia) like that of kamandaka rakshasi (Monster). The evidence of the drug Rambana rasa have been found in several ayurvedic text books where almost all the books (Bhaisajya ratnavali, Rasendra Chintamani, rasa prakash sudhakar etc.) have referred its indication in the treatment of 'Agni' (Digestive & Metabolic fire). Though the common composition of Rambana rasa is parada (Mercury), gandhaka (Sulphur), vatsanabha (Aconitum ferox), jatiphala (Myristica fragrans), lavanga (Syzygium aromaticum), marich (Piper nigrum), cinca (Tamarindus indica) Yet some other's different opinion about composition have also been found in some text like Rasaratna samuchaya (RRS), Rasayogasagara (RYS),

Rasendra sara sangraha (RSS) etc. It is very much known to all that the purified & incinerated Parada (mercury) along with Gandhaka (Sulphur) shows some unique result in strengthening the structure of organs, limbs & maintaining the passage of macro & micro channels besides their yogavahi action (transportation of drugs particles by adhering with them to the target cells). Purified mercury & sulphur is known to acts as rejuvenator & stimulate the endocrinal glands against their hypo functioning state. Vatasana is a good antispasmodic, marich is a potent gastric stimulant helps to enhance the gastric secretion & flows in strotas (channel) very fast & spread all over body to maintain thermal regulation. Jaiphala is Usna virus drugs helps to penetrate kapha-avarana (covering of sticky mucous) & activates the dipper endocrinal structure towards their proper secretion. Lavanya by its lekhana properties scraping natures clears the stagnated kapha or ama from the channels & makes the srotha channels free from abarodh (obstruction), as the whole medicine goes under trituration of cinca so the amla (sour) & sara (anti viscous) help to circulate the drugs particles through the channels by enhancing the potency of the drugs. As agnimandya (lowering of digestive power) is caused by kapha prokopa (enhancement of fluidity part of body), amajanan (production of metabolic waste) & srota rodh (obstruction of channels) so, for enhancement of agni those ingredients of Rambana rasa are capable to perform their activities as deepaka-pachaka. Ajirna is related to Hypochlorhydria or achlorhydria, grahani is related to improper functions of the digestive, metabolic & absorptive organ of the alimentary system, vatarakta is related to improper purine (protein) metabolism in those conditions Rambana rasa directly helps to enhance the power of agni & performs the antagonistic action against accumulation of ama (metabolic waste) in the body. Ayurvedic ancestors have stated that if there is less rogi bala (bodily strength of patients) then there will be the less agni bala (metabolic & digestive strength), as parada & gandha in combination acts as rasayana which rejuvenator & nourishes the dhatu (bodily tissues like rasa, rakta, mamsa, meda, Asthi, majja, sukra) one after one so these compositions of Rambana rasa could enhance the rogi bala (bodily strength) & may builds immunity (roga pratirodha khamata/rogi bala),those information established the curing effect of ramaban rasa against immunological disorders like amavata (rheumatoid & degenerative disorder like sandhivata (osteoarthritis). A long series of disease may be treated with Rambana rasa for its analgesic, antipyretics, digestive, antianorexic & channels cleaning activities. In present studies several books related to Rasaushadhi (mercury & other metal preparation) have been reviewed vividly where majority numbers of authors have composed Rambana rasa with aforesaid ingredients. Though some other opinion regarding ingredients have also been found where the incinerated Rajat (silver), Swarna (gold), Vaikrant (Tourmaline), Makshika (Pyrite), Harital (As2o3), Manasila (As2s2), tuttha (CuSo4) etc. have been taken as the ingredients yet those formulation are mostly uncommon & precious one. As because the present ayurvedic practitioner are very much familiar to the common Rambana rasa & frequently use that drug in the management of Agni vikara (metabolic dysfunction).

2. Materials & Method

The ancient ayurvedic literatures of different era like Bhavaprakash Nighantu, dhanvantari Nighantu, Rasaratnasamucchaya, Rasa prakash sudhakar, Bhaisajya Ratnavali etc. have been reviewed vividly with chronological

order & furnishing of the same are described in the table & chart form. Eventually Discussion followed by conclusion done here.

Method of preparation of medicine (*Rambana rasa*) as like *vati* (pill) *Kalpana*:

First prepare the *kajjali* of *suddha parada* & gandhaka by triturating in *khalvya jyantra*. Add the fine powders prepared from the rest of the ingredients to it by through mixing. Then it should be triturated with *triphala swarasa*. Prepare its pills according to dose.

3. Result & Observation Rambana Rasa [1]

Table 1: Showing the Drug name, Part used and Quantity

S. No	Drug name	Part used	Quantity
1.	Suddha parada		1 part
2.	Suddha gandhaka		1 part
3.	Suddha vatsanabha	Root	1 part
4.	Lavanga	Dried flower buds	1 part
5.	Marich	Fruits	2 parts
6.	jatiphala	Seeds	2 parts
7.	Triphala swarasa	Fruit juice	q.s.

Classical Dose: One pill (1000mg)/day in divided doses

Present Time Dose: 250mg. b.i.d.

Anupana ^[2]: Adraka swarasa-kaphanasaka, marich & bilva patra-agnivardhaka, nirgundi swarasa-vatnashak, dhanyaka jala-pittanashak, vasa swarasa-tridoshnashak, sunth, saindhava & haritaki churna-udararoga, punarnava kwath & swarasa-sotha & pandu nasaka.

Pharmacological Properties: Instant jatharagni dipana

Indication: Sangraha grahani, Amavata, Agnimandya, Jatharamaya ruja & Dussadhya aruchi.

Table 2: Showing the pharmacodynamics (*rasa, guna, virya, vipaka & dosa karma*) of rasa & Single herbs present in *Ramabana rasa* as mentioned in various *Nighantu* (Ayurvedic pharmacopeia).

Rasa	Rasapanchaka	Rasendra sara samgraha [3]	Bhavaprakash Nighantu [4] (1500-1600 A.D)	Kaiyadeva Nighantuh [5] (1425 A.D)
Parada	Rasa	-	Shadarasa	-
	Guna	-	Snigdha, sara	-
	Virya	-		-
	Vipaka	-		-
	Dosa karma	-	Tridoshnashak	-
Gandhaka	Rasa	Madhra	-	Katu-tikta-kaseya
	Guna	Usna	-	Sara
	Virya	Usna	-	Usna
	Vipaka	Katu	-	Katu
	Dosa karma	-	-	Pitta Vardhak

Table 3: Showing the pharmacodynamics (*rasa*, *guna*, *virya*, *vipaka* & *dosa karma*) of rasa & Single herbs present in *Ramabana rasa* as mentioned in various *Nighantu* (Ayurvedic pharmacopeia).

Single herbs	Rasapanchaka	Dhanvantari Nighantu ^[6] (1480 A.D)	Bhavprakash Nighantu ^[7]	Madanapalle Nighantu ^[8] (1374 A.D)	Raj Nighantu ^[9] (1400 A.D)
Jatiphala (Myristica fragrans)	Rasa	Kaseya-Katu	Tikta-Katu		Kaseya-katu
	Guna	Laghu	Laghu, Tikshna	Laghu	Laghu
	Virya	Usna	Usna	Usna	Usna

	Vipaka	-	-	-	-
	Dosa karma	Vatahara	Vata Kaphahara	Vatahara	Vatahara
	Rasa	-	Katu-Tikta	-	Tikta
Lavanga	Guna	-	Laghu	Laghu	Sitala, tikshna
(Syzygium	Virya	Sita	Sita	-	Usna
aromaticum)	Vipaka	-	-	-	Madhura
	Dosa karma	Pitta samaka	Kapha-pitta shamaka	kaphahara	Tridosa samaka

Single herbs	Rasapanchaka	Dhanvantari Nighantu ^[6]	Bhavprakash Nighantu ^[7]	Madanapalle Nighantu ^[8]	Raj Nighantu ^[9]
	Rasa	-	-	-	Ati Madhura
	Guna	-	-	Laghu, usna	-
Vatsanabha (Aconitum ferox)	Virya	-	-	-	Usna
(7 teomtum terox)	Vipaka	-	-	-	-
	Dosa karma	-	-	Vata-Kaphahara	Vata – Kaphahara
	Rasa	Katu-Tikta	Katu	Katu	Katu-Tikta
	Guna	-	Guru	Tiksna-Ruksha	Laghu, Usna
Marich	Virya	Usna	-	Usna	-
(Piper nigrum)	Vipaka	-	Madhura	Katu	-
	Dosa karma	Kapha Vata Samaka, pitta karaka	Vara-Kaphahara	Kapha-Vatahara	Kaphanasaka, vatabardhaka
Cinca (Tamarindus indica)	Rasa	Amla-madhu	Amla	Amla	Amla-Madhura
	Guna	Laghu	Guru	Guru (unripe stage)	Laghu
	Virya	Usna	Usna (ripen)	-	-
	Vipaka	-	-	-	-
	Dosa karma	Vata-kapha samaka	Vata Samaka, pittavardhka	Vatahara	Pitta Vardhak, khabar dhaka

Table 4: Showing different ingredients of Ramabana rasa used in different Rogaddhikara according to different Acharya:

Books		Ingredients	Rogadhikara	
1. 2.	Rasaratna samucchaya ^[10] Rasayogasagara ^[11] (i)	Rajat vasma, Swarna vasma, Swarna makshika vasma, vaikranta vasma, rasasindura, rajavarta vasma, gandhaka	Prameha	
3. 4. 5. 6. 7. 8.	Bhaisajya Ratnabali [12] Rasendra Chintamani [2] Rasayogasagara-(ii) Rasa Prakash Sudhakar [13] Rasendra Sara Sangraha [1] Ayurveda Sara Sangraha [14]	Parada, gandhaka, visa, lavanga, marich, jaiphala	Agnimandya (Ajirna, deepana, grahani, aamvata)	
9.	Rasayogasagara-(iii)	Parada, gandhaka, hing, visa, marich, tankan, jamalgota	Jwara	
10.	Rasayogasagara-(iv)	Tuttha, gandhaka, haritala	Jwara	
11.	Rasayogasagara-(v)	Tuttha, rasaka, somala	jwara	
12.	Rasayogasagara-(vi)	Sweta & Pita kshara, parada, vanga vasma, manashila, gandhaka, sweta khadir	Vatavyadhi	
13.	Rasayogasagara-(vii)	Parada, gandhaka, rasakarpura, trikatu, jab akshara, jatiphala, vatsanabha	Jwara (daruna sannipata visama jwara)	
14.	4. Rasayogasagara-(viii) Parada, tankan, Swarna, mukta, vidruma, kanta & tikshna lauha, tamra, vanga & roupya vasma, gandhaka, kasturi, karpura, jaiphala, jatipatri		Rasayana	
15.	Rasayogasagara-(ix)	Jaiphala, lavanga, rasamanikya, somala	jwara	
16.	Rasayogasagara-(x)	Nilangana, tuttha, gauripasana (somala)	jwara	
17.	Rasayogasagara-(xi)	Parada, tuttha, manashila, haratala, kharpara, marich	jwara	
18.	Rasayogasagara-(xii)	Nilanjana, tuttha, somala, khanapara, haritala, manashila, sweta pasana (godanti)	jwara	
19.	Rasayogasagara-(xiii)	Gauripasana,tuttha, sudha	jwara	
20.	Rasayogasagara-(xiv)	Tankana, haritala, parada, gandhaka, sweta & pita somala, nilanjana, rasanjana, manashila, vatsanabha	jwara	
21.	Rasayogasagara-(xv)	Parada, gandhaka, tamra, triphala, tankan, visa	jwara	
22.	22. Rasayogasagara-(xvi) Hingula, kharpara, parada, gandhaka, haritala, manashila, somala, tuttha, tapya		jwara	



Fig 1: Common ingredients of Ramvana rasa

4. Discussion

The brihatrayee (three major treatises) Charaka (1000BC), Sushruta (500BC) & Vagbhata (400AD), have not used the parada (mercury & dhatu (metals) in their formulation for the treatment of diseases but the use of mercury & metal has been found first in the period of Nagarjuna after 4th century AD. As because Nagarjuna is called as the first introducers of Ras Aushadhi (mercurial or metallic preparation) in the field of ayurveda. In literary reviews it has been revealed that a series of diseases related to Agni (metabolic fire) are the area of using Rambana rasa, a mercurial or metallic preparation. It is known to all that aggravated vayu is liable for visamagni (Inconsistent/unstable digestive fire), elevated kapha cusses mandagni (weak digestive power) & excessive pitta causes tikshagni (intense digestive power) but as per the opinion of our classics Rambana rasa especially works against visamagni & mandagni, because of its composition where marich (Piper nigrum), jaiphala (Myristica fragrans), lavanga (Syzygium aromaticum), vatsanabha (Aconitum ferox) are having the properties like vata samaka,, kapanasaka & agni vardhaka. Parada (mercury) is a potent tridoshnashak (maintaining homeostasis by keeping balance among vayupitta-kapha. Interesting to note that another ingredient i.e., gandhaka is known to act as pitta vardhak but when it becomes mixed up with parada then this combination acts as a samsamaniya ousadhi (Adaptogenic agent). In present era agnikarma (metabolic dysfunction) is very much common due to the fau agni vardhaka lty dietary regiments & lifestyle problems of the human & the strength of agni is becoming deranged as a result chronic indigestion followed by formation of metabolic waste leads to aggregation in srotas (Circulatory channels) & formation of different disorders are the usual story. When channels become obstructed then further vataprakopa (aggravation of vata) comes into action which again leads to vishamagni (metabolic dysfunction). Dyslipidaemia, fatty changes of liver, gouty arthritis, hypertension & also diabetes are the common effects which comes from metabolic dysfunction. Ayurveda gives importance to elimination of root causes which are liable for

genesis of the diseases (nidana parivarjana) & keeps eyes over breakdown the pathogenic pathways (samprapti vighatana) & tries to building up the prakriti i.e., prakriti sthapana (maintenance of homeostasis i.e., health). The ingredients of Ramana rasa unitedly causing the correction of Agni (digestive & metabolic fire) whether that is in unbalanced or insufficient stages. So, the common metallic preparation Rambana rasa also useful in diabetics as well fever because of its action over satyasodhana (cleansing the macro/micro channels), amapachana, vatayanasana & kaphahara action.

5. Conclusion

From above discussion it could be concluded that *Rambana rasa* is a common *Rasausadhi* (mercurial cum metallic preparation) useful in the treatment of *Agnikarma* (metabolic dysfunction) in a dose of 250mg in divided doses. The ingredients of *Rambana rasa* are potent *vatnashak, kaphahara & pitta shamaka* which may show the effects like *deepakapachaka* (Digestive & Metabolic fire enhancer), *Rochaka* (desire to eat) *Vedanasthapana* (Pain reliever), *Pramehantak* (Control diabetes) etc.

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