DEVELOPMENT OF RASASASTRA IN MEDIEVAL PERIOD*

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ABSTRACT: The paper deals with the historical development of Rasasastra in Medieval period. Knowledge of Rasa has been in existence from the time immemorial. Exploration of natural resources for the benefit of human beings is the object of this therapy. It is a medical science recognized during vedic periods for the betterment of even Devas. Medieval period can be treated as a golden age for the development of this science. Looking at its aim and objects, methodology and therapeutics, it was recognized as a medical science with an independent philosophical background in 14th century, by Madhavacharya in his Sarva Darsana Samgraha.

Introduction:

Rasasastra is the study of mercury and the drugs of Mercurial Kingdom.

The word “Rasa” covers more than forty things in the literary sense. But mainly it means (1) liquid, (2) the finest or prime part of anything, (3) potion, (4) poison, (5) nectar, (6) a constituent fluid or essential juice of the body, serum, especially the primary juice of the body called, chyle, (7) Mercury, (8) regarded as Quintessence of the human body, (9) as the seminal fluid of Siva, (10) any mineral or metallic salt, (11) a metal or mineral in a state of fusion.

Looking at these meanings of the word ‘Rosa’ it could be said that natural sources were used, even in the pre-historic period, siva was supreme by whom this knowledge was spread all over the world. In Vedas, we find the use of spring water, hard water which contains metallic or mineral salt (as in 11 above) in a state of fusion for medicinal use (1).

The water was medicine as nectar (2) which may be proved for our betterment (3).

References of Rgveda on (4,5) and (6) show the use of water as medicine.

Same practice can be noticed in Atharva Veda also, by the references (7) and (8) etc. where “Apam Bhesaja” is predominant.

Thus, we see the use of Rasa during Vedic period, which means Rasa theory has been existing right from the creation of universe. As in Rgveda (9) we find the reference of Ausadhi, showing its origin before three Yugas of devine age.

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Quotations in the Vedic literature, recognized the originator of Rasa theory as lord Siva and paid regards to its Gana who is Rudra as:-

“Namaste Rudra Manyava Uto” (10) and ‘Adhyavocadadhivakta – Prathamo-Daivyo-Bhisak”(11)

Rudra was the first physician of Devas.

We find few medicaments in Caraka, susruta and Vagbhata where the mineral sources are used for internal and external application. It appears the drugs were used for curative and preventive purposes for patients and for healthy persons respectively.

To observe the effect of a drug, the Rasa, Guna, Virya, Vipaka and Prabhava theory was predominant during this period. Doses were enormous and the cure was also a time-taking process.

They tried to manufacture drugs of better and sustained efficacy. The Caraka school had in traduced Asavas and Aristas. The Susruta school has improved Ausadhayaskrti and Mahausadhoyaskrtis.

The significant results of different types of Rasas, water as well, was a point of study, right from Vedic period and the notations are there in Caraka, susruta etc. about the water of Vapi, Kupa, Tadaga, Hamsodaka etc.

The first name comes of Nagarjuna-I here, who edited Susruta Samhita and might have written some book of Rasasastra as Hound says on the existence of Rasa Ratnakara in 4th or 5th century (12).

**Conceptual development of Rasasastra I Medieval period:-**

Basically Rasasastra is a science of longevity, which considers each and every material of the universe as useful for the longevity of human beings. Under the study any natural resource, Mineral or metal, is to be used in a fusion state. To manufacture such liquid, ‘Druti’, various processes of treatment were discovered for converting natural drugs from poison to nectar. And efforts were made for putting them into a fixed potion with a proper form to enhance the quintessence of the human body towards emancipation. Absorption and stability of such minerals and metals in the tissue of the body is called Sthirikarana and the state of such drug is called Rasibhavana. Every medicine is required to come to this stage. This whole science with the philosophy of liberation as an ultimate aim is called Rasasastra.

In this science no importance is given to the theory laid by caraka school as rasa-Guna-virya-vipaka but prabhava, the specific action only was the main factor to observe the effect of a drug (14) Rasadis described only by one word Amrtopama here. No details are given for rasa-Guna-virya-vipaka of mercury. This is an example here which points only towards a specific action of a drug.

Secondly, potion was minimised (15).

Thirdly, manufacturing processes were modified by which the preparation will not be deteriorated and its effect will be retained for a longer period (16). The medicine was defined as under:

The medicine must be in a lesser potion and good looking, tasty, odourous, polished, agreeable, not harmful, neat and clean, always proved for its quicker action and praiseworthy, after thorough consideration, declared as effective and wellpreserved (17).
This way the basic principles of medicine laid down by Caraka school were modified in Rasasastra which was considered as Rasatantra or Rasavada \(^{(18)}\) during Medieval period.

The aim claimed by this Rasavada is the protection of body. \(^{(19)}\)

The standard of the person of this category was considered to be highest \(^{(20)}\). He must be well versed in his subject.

**Development of Materia Medica in Medieval India**

Development of manufacturing of drugs was labelled as dhatuvada and use of these drugs on the body was labelled as Dehavada during Medieval period. Many books have been written on these two different subjects with the aim of lively liberation, jivanmukti. Many life promoting medicines were also discovered.

The knowledge of Rasasastra was being kept guarded to maintain its secrecy. Its use on human-beings was done through medicated water. Thus the Tantra therapy developed more in medieval rather than Atharvaveda period. In Mahayana class of Buddhists and in Jains, this practice was very popular. Saivas could not tolerate it an started writing their experiments in some book for while stating it very secret. \(^{(21)}\)

Thus, so many books came into existence. Nandikesvara wrote a Tantra in 8th Century. He is being quoted as an authority of Rasa by Rajasekhara in Kavya Mimamsa during 9th century. Nandi \(^{(22)}\) was preceptor of Ugradityacarya who wrote \(^{(23)}\) Kalyanakaraka in 9th century during the time of Nrpatunga Vallabhendra, Amoghavarsa-1. Nagarjuna-11, (Siddhanagarjuna), the disciple of Sarhapa came forward and proved so many aspects of Dhatuvada in Lohasastra and its use on the body in Ascaryayogamala and soon, kaksaputa Tantra etc. became popular in the society and Rasaratnakara type of work brought a maritime flow in the beginning of Medieval period. We find 58 books named on this great Siddha who is renowned as preceptor of Rasasastra. Every person was keeping his knowledge very secret. That is why it did not appear in other books so commonly. But we find the use of low metals converted \(^{(24)}\) into higher metals and higher metals into colloidal state, which was labelled as Rasibhavana during this period. Thus Nagarjuna adds to the knowledge of medicine with the help of mercury. He writes the procedures for melting metals from its ores mixing them with each other and getting the Anjana form for medicine. \(^{(25)}\)

The scientists of this period tried to convert every natural product including water into Rasibhavana stage with the help of mercury (Rasa) and its allies (Uparasas).

The manufacturing processes were modified an Rasasastra developed in many aspects viz. Rasa Mandapa (Rasasala), Yantras, Musas, Agni of various types and the Bhesaja as described by ugradityacarya.

Vyadi in 9th century tried to bifurcate these two separate branches by writing two different books. Viz.(1) Rasasiddhi sastra and (ii) Dhatuvadasastra.

Bhiksu Govindabhagavatpadacarya had written Rasahrdyatanastra which deals with the 18 specific processes to be done on Mercury.
Even we do not find such popularity of this science among other sampradayas of medicine following caraka school like vrnda, cakrapani and sodhala etc. but we find a definite influence on their books siddhayoga, cakradatta and Gadanigraha respectively, where the use of metals and minerals available in a different form, apart from their race ie. Ayurveda of Punarvasu Atreya. As they define the purpose of the study\textsuperscript{(26)} of Ayurveda was only for Dharma, Artha and kama not or Moksa (liberation) even they tried for Paraloka, and they defined ways and means for Mumuksus\textsuperscript{(27)}.

Here, the Rasasiddhas treat Moksa (liberation) in present like only, which carries a basic difference with the aim and object of Rasasastra.

**Dhatuvada:-**

Many processes were developed for melting ores on fire Pradhamana using various types of Musas. Many new kalpanas were evolved. Systematic development of the Rasasastra took place in medieval India. As an example here are few references from Rasarnava which in of 12\textsuperscript{th} century\textsuperscript{(28)} under heads:-

A-Processes  B- Yantras  C- Agnis
D- Musas  E- Kalpanas  F- Experiments
G- Conversion of metallic forms  H- Standards
I-Therapeutic uses  J-Preventive use
K- Dehavedha (Ksetrikaranam)

**A.PROCESS:- References of Rasarnava:**

1. Bhasmibhavati  
2. Bhavita  
3. Bhudharaputa

4. Curnayitwa  
5. Dolayet  
6. Dravasamskara  
7. Grasate  
8. Jarayet  
9. Lohasamputa Madhyastham Masam Dhanye Pratisthitam  
10. Marayet  
11. Marditah  
12. Putapaka  
13. Putet  
14. Ranjayet  
15. Sudhmatah  
16. Sveditah

**B- Yantras:-**

1. Bhramarayantram  
2. Bhudhara Yantram  
3. Dola Yantram  
4. Cakra Yantra  
5. Garbha Yantram  
6. Patana Yantram  
7. Valuka Yantram

**C- Agni:-**

1. Aranya Gomayaputa  
2. Dipayet Mrnmaye Patre  
3. Ravi Tapa

Page 158-164
4. Dhamayet Khadiranariah 15-123
5. Sudhmatah Khadiragnina 15-132
6. Dhamana 16-115
7. Tusagni 15-161
8. Mrdusveda 15-296
9. Karisagni 15-296

D- Musas:-
1. Musa 15-87
2. Andhamusa 14-93
3. Prakasamusa 15-201
4. Vajramusa 14-151
5. Mukamusa 15-4

E- Kalpana:
1. Avaleha 12-366
2. Bhasma 15-80
3. Druti 7-121
4. Gutika 12-351
5. Kalka 18-2
6. Khota 15-10
7. Mulabandha 13-7
8. Nigala Bandha 15-169
9. Paka Bandha 13-7
10. Pistika 15-85
11. Rasa Bandhana 13-7
12. Satva 6-135

F- Experiments:-
1. Yatha Lohe Tatha Dehe Kramate Natra Samsayah 14-8
2. Purvam Lohe Parikseta tato dehe prayojayet 17-166
3. Grhitva suska Vamsam Tu ksipet Toyasya Madhyatah 12-240
   Jayate Haritam- Snigdham Ahoratrena Nicitam Muncantyankura – Patrani Drsyate Tanmanoharam
4. Vsdsnsms zbufbfsnsms Ca Bahunamudgamo Yada 9-13
5. A vartamane kanake pita tare sita subha Sulve Nilanibha Tiksne Krsnavarna Suresvari 4-49

G- Conversion of Metallic form:- Reference of Rasarnava
   1. Bhumistham Masa “Satkam Tu” Taramayati Kancanam 15-105

H- Standards:-
   1. Tad Bhasma Jayate Bhasma Sankha-Kundendu Sannibham 14-95
   2. 3.Na Visphulingo Na Ca Budbudasca Yada Na Rekhapatalam 4-52
   3. Na Sabdm Musagatam Ratnasamam Sthiram Ca Tada Visuddham Pravadanti Loham
   4. Tatksanajjayate Bhasma Sankha-Kundendu-Sannibham 18-68
   5. Tad Bhasma Jayate devi Sunduraruna sassnibham 18-79
   6. Agnimanavit

I- Therapeutic uses:-
   1. Udvratanam tu Tenaiva Kustharogasya Nasanam 15-106
2. Ghrtena Saha Samyuktam Vrana Roga Vinasanam 15-106
3. Palasabija Jantughna Guda Modaka Bhaksanat 18-6
4. Sarvavyadhiharo Devi Palaike Tasya Bhaksite 18-80
5. Satpale Bhaksite Devi sadasiva Tanurbhavet 15-82
6. Vigatasakaladosah Sarvadigdivya caksuh Matta Maranga Darpah Madanaiva Sukhantih Kamininam Pravarah 12-366
7. Navinam Jayate vapuh 12-379
8. Roga-Mrtyu-jara Hanti Vaktrastho Natra Samsayah 12-351
9. Lepamatrena Tenaiva Kusthanastadasan Priye Arso-Bhagandaram-Lutam siro Rogam Sca Nasayet 12-12

J- Preventive use:-

1. Sarva Roga Vinirmuko jived Vaktre Vidharanat 12-353
2. Ekaikam Bhaksayennityah Varsamekam Nirantaram 12-356
3. Jived Varsa Sahasrani Rudratulyo Mahabalah
4. Abhrajirna Palaikena Vyadhibhirnabhisuyate 18-56

K-Dehavedha Krama (Ksetrikaranam):-

1. Prathamam Sodhayed Deham, Pascat Kalkam Samacaret 18-2
2. Anyatha Na Bhavet Siddhii Rase Caiva Rasayane
3. Snehana karma 18-3
4. Svedana Karma 18-4
5. Samyag jate Virecane 18-5

This was an improvement in the practice of Rasa therapy in the vedic period. By the preparation of Druti they tried to potentiate Rasa more and minimise the potion. Secondly, method of Satvapatana an converting metal and minerals into Rasabhavana stage by Dvandvameapana, jarana, Marana and Amrtikarana processes the material medica was enriched during medieval period, which we do not find in Vedic and samhita times.

In separate chapter (Patala), Yantra-Musa-Agni and Varna where the standards and test are described, and a systematic classification of drugs along with the specification of their quality are the evidences of the development of Dhatuvada in Rasa.

Finding out of certain waters naming them Candrodaka, Visodaka, Usnodaka, Sailodaka sanjivana –Jala and disclosing particular place of their habitat geographically, is a revolutionary change in the theory of Rasavada where the secrecy was predominant and reference of Aabehayat is visualized through the memory.

Influence of Unani-Tibb on Rasa Shastra:-

In the material medica of Rasasastra, we find the addition of certain drugs, preparations and processes. New formulae were evolved for sex-disorders and beauty aids.

Drugs and Doses:-

Opium, Akkalkara, Khurasani Ajavain, Jamalgota, Jayaphala, Majuphala, Gulab and Bhang are drugs worth reporting here, which we do not find in the books of earlier Medieval period but amended during 13th Century A.D.

Defubutuib if Virya as Tasr is somewhat modified. Doses were minimised by potentiating medicaments.
Poisonous drugs were frequently being used in the preparations. So new ourmulas were adopted to meet the demands of that age. And due to the quicker effect of poisonous drugs the potion is minimised, which is relavent to the basic concept of Rasasastra.

Process & Apparatus:-

Fermentation and distillation process were amended by addition of Arkayantra (Bhapaka) in the old traditional Tiriypkata Yantra and Vidyadhara-Yantra, resulting new names of such apparatuses as Tejo Yantra, Mayura-Yantra, Mocika-Yantra and Varuni-Yantra. Rudra-Druti, Jayanir (Tejojala) etc. Kalpanas are the result of this addition.

Kaca-Kupi is a modification is KasiKuppi of this age.

Preparations and Books:

Arka-Kalpana as such, is an addition to Rasasastra in Medieval period.

Volatile properties of every drug of natural source are taken through this process into water, This is the addition in Rasasastra. We fing a book names Arkaprakasa as a conversation of Ravana and Mandodari, where the measurement of Agni is described. Dipagni Hathagni Bhatagni etc. are defined in a peculiar way in this book. Doses and therapeutics are mentioned of different Arkas.

There is a similarity here between the therapeutics of Vedic period, Samhita period and Medieval period where we find the use of water for the treatment of ailing human beings.

Recognition of Development of Rasa Sastra

The Bhasmikarana process is the outcome of these experiments, whereas in Caraka and susruta we find this process less developed. Neither Puta was applied nor mercury was the addition the metals. Whereas in this age the Maana through mercury was considered as the best method.

But the Marana within the enemy group (Satrvara) metals is considered to be incompatible\(^{35}\).

By certain experimentations, the therapeutic properties were measured and reported that the effects of drug is ten times better in its satwa, ten-times more in its Druti and more efficient with quicksilver\(^{36}\). So many preparations are containing mercury as an ingredient.

Thus. We find a systematic development of Rasasastra in Medieval India in its conceptual and medicinal use for human beings.

Therefore this science-cum-philosophy was placed as a separate darsana by Madhavacarya, Prime Minister of Bukka-I of Vijayanagara in 14\(^{th}\) Century who was elected as a head priest of srngeri in 1331 A.D who has written Sarvadarsana Sangraha. In this book he has given a place to these sixteen philosophical systems current in his life time He quotes under Rasesvara Darsana \(^{37}\) we find similar quotations in the text of Rasahrdaya Tantra \(^{38}\)

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