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## Review Article

# A REVIEW ON THE YANTRAS WITH SPECIAL REFERENCE TO COMMONLY USED YANTRAS IN RASOUSHADHI NIRMANA

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#### ABSTRACT

Rasasastra is an integral part of Ayurveda, dealing with various metals, minerals, drugs of animal origin, their properties, varieties, processing, therapeutic uses etc. For the various processing of rasa uparasadi dhatus and for the preparation of medicines, specific apparatuses called 'Yantras' are needed. A literary search through the treatises of Rasasastra revealed a number of yantras, of which many are uncommon in use today. In light of this fact, it is inevitable to have an understanding of the yantras that are put to use in today's times. The present article throws light on the yantras commonly employed in the pharmaceutical preparation of rasoushadhis and also a clear representation of the subject concerned.

Keywords: Yantras, Rasoushadhi nirmana, Rasasastra

## INTRODUCTION

Rasasastra deals with metallic, mineral and poisonous drugs. These drugs are pharmaceutically processed and rendered fit for internal administration. For the various processing of rasa uparasadi dhatus and for the preparation of medicines, specific apparatuses called 'Yantras' are needed. Metals and minerals are required to undergo certain processes like shodhana, jarana, marana, satwapatana etc before they could be administered into the body and all these processes could only be achieved with the help of yantras. In Rasasastra, ashta samskara of parade is reckoned of great importance in enhancing the potency of parada both from the therapeutical and alchemical point of view. Specific yantras are needed for each process. For exploring and utilising the knowledge of Rasasastra, a better understanding of yantras is needed

Textbooks of Ayurvediya Rasasastra including Rasatarangini, Rasaratna samuchaya, Rasarnavam and Rasendra Choodamani have been the sources of literature along with other published works on Rasasastra. Only the yantras used in Rasasastra were considered for the study and the yantras mentioned in the context of Salyatantra, Salakya tantra for its use in treatment were excluded.

#### Literature review

## Yantra

Yantras are apparatuses used for the shodhana, marana, swedana etc purposes of rasa, uparasa, lohadis.<sup>2</sup> Yantras are instruments which are used to control parada by performing processes like swedana etc.<sup>3</sup>

## Naming of Yantras

- a) Based on their shapes: Damaru yantra, kachapa yantra, Ghata yantra etc
- Based on their functions: Swedani yantra, jarana yantra, patana yantra
- Based on materials used: Lavana yantra, valuka yantra, bhasma yantra<sup>4</sup>

Table 1: Number of yantras in various texts

S. No.	Name of the text	Number of Yantras
1.	Rasarnavam (12 <sup>th</sup> cent AD) <sup>5</sup>	5
2.	Rasendra Choodamani (12 <sup>th</sup> cent AD) <sup>6</sup>	30
3.	RasaRatna Samuchaya (13th cent AD)	32
4.	Rasendra Sara sangraha (16 <sup>th</sup> cent AD) <sup>7</sup>	9
5.	Rasa Tarangini (20 <sup>th</sup> cent AD)	20

Table 2: Yantras mentioned in Rasasastra literature

S. No.	Yantra	RA	R Chu	RRS	RSS	RT
1.	Dola yantra	+	+	+	+	+
2.	Damaru yantra		+	+		+
3.	Sthali yantra		+	+		+
4.	Nalika yantra		+	+		+
5.	Lavana yantra		+	+		+
6.	Bhasma yantra					+
7.	Swedani yantra		+	+	+	
8.	Valuka yantra		+		+	+
9.	Puta yantra			+		+
10.	Darvika yantra					+
11.	Vidyadhara yantra		+	+	+	
12.	Ghata Yantra		+	+		
13.	Patana yantra		+	+	+	+
14.	Adhapatana yantra		+	+	+	+
15.	Tiryakpatana		+	+	+	+
16.	Bhudhara yantra			+	+	
17.	Patala yantra					+
18.	Kachapa yantra		+	+		+
19.	Dipika yantra			+		
20.	Khalva yantra		+	+		+
21.	Taptakhalwa		+	+		+
22.	Ulukhala yantra					+
23.	Kanduka yantra			+		
24.	Somanala yantra	+	+	+		
25.	Hamsapaka yantra	+		+		
26.	Jarana yantra	+				+
27.			+	+		
28.	Valabhi yantra		+	+		
29.	Koshti yantra		+	+	+	
30.	Palika yantra		+	+		+
31.	Ishtika yantra		+			+
32.	Mrdanga yantra					+
33.	Garbha yantra		+	+		
34.	Grasta yantra		+	+		
35.	Dhupa yantra		+	+		
36.	Nabhi yantra		+	+		

Table 3: Yantras and their uses

Sl No.	Yantras	Uses	
1.	Dola Yantra	Swedanam, sodhana	
2.	Swedani yantra	Swedanam	
3.	Patana yantra	In parada samskara for patana	
4.	Adhapatana Yantra	In parada samskara for patana	
5.	Tiryak patana	In parada samskara for patana	
6.	Kachapa yantra	gandhaka jarana	
7.	Dipika yantra	Jarana	
8.	Deki yantra	For rasa sandhanam	
9.	Jarana yantra	Gandhaka jarana	
10.	Vidyadhara yantra	Patana	
11.	Somanala yantra	Abhrakajarana	
12.	Garbha yantra	Bhasma of pishtika	
13.	Hamsapaka yantra	For bida paka	
14.	Valuka yantra	Form a karadwaja preparation, Kupipakwa rasa	
		preparation	
15.	Lavana yantra	For rasakarma, Mriganga rasa preparation	
16.	Bhudhara yantra	Puta	
17.	Puta yantra	Incineration of lohas	
18.	Koshti yantra	Extraction and purification of satwa	
19.	Valabhi yantra	Make rasa potent	
20.	Palika yantra	Gandhaka jarana	
21.	Ishtika yantra	Gandhaka jarana	
22.	Hingulakrshtavidyadhara yantra	For extraction of hingula from parada	
23.	Damaru yantra	Gandhaka shodhana, Rasabhasma preparation,	
		Rasabandha	
24.	Nabhi yantra	Nirdhumajarana of parade and gandhaka	
25.	Grasta yantra	tra For parade bandhana	
26.	Sthali yantra	For making dhatus mridu	
27.	Kanduka yantra	Swedana	

28.	Khalwa yantra	Grinding processes	
29.	Mridanga yantra	Artificial hingula preparation	
30.	Darvika yantra	Shodhana of gandhaka, naga etc	
31.	Palika yantra	Kapardabhasma preparation	
32.	Nadika yantra	Preparation of distillates, Arka etc	
33.	Patala yantra	For oil extraction	
34.	Ulukhala yantra	Pounding	
35.	Akasa yantra	For oil extraction	
36.	Koshti yantra	Extraction of satwa	

Table 4: Commonly used yantras in Rasoushadhi nirmana

S. No.	Yantras	Construction	Uses
1.	Dola Yantra	An earthen vessel filled with dravadravya and potali is tied on a rod inserted across the mouth and immersed in the liquid. Heat given for	Swedana, Shodhana
_		prescribed time.	
2.	Damaru Yantra	An earthen pot filled with the drugs and closed with a pot kept inverted over mouth of lower pot and edges sealed. Heat applied for a definite time.	Gandhaka shodhana, Rasabhasma preparation
3.	Sthali Yantra	An earthen vessel filled with prescribed drug and closed with an earthen lid and heat given for required time.	Softening of dhatus
4.	Valuka Yantra	An earthen pot filled with 1/3 <sup>rd</sup> sand and a long necked glass bottle filled 1/3 <sup>rd</sup> with drugs for heating and covered with mud smeared cloth is kept in pot. It is then filled with sand leaving neck and closed with earthen lid. Heat given in a definite pattern.	In Kupipakwa preparations
5.	Lavana Yantra	Similar as Valuka Yantra with the exception of salt instead of sand.	Mriganka rasa preparation.
6.	Vidyadhara yantra	Similar to damaru yantra, but the pots are similar sized and heat given from four sides	Extract parada from hingula
7.	Patana Yantra	A pot of definite dimensions are taken and inverted over the mouth of a small pot with drug and joints are sealed. A water container is constructed over the base of upper pot	Parada samskara
8.	Patala Yantra	A pot with the material to be extracted is covered with an earthern lidhaving many holes and edges sealed. It is inverted over a suitable vessel and joints sealed, kept in a pit and heat given from above	Oil extraction
9.	Ulukhala Yantra	Made of iron, strong, shiny and smooth in middle and 16angula /20 angula height	For pounding
10.	Koshti Yantra	Hearth of earthen walls and 16 angula in dimensions, filled with coal up to half and saravasamputa kept over it and coal filled and ignited	Extraction of satwa
11.	Palika Yantra	A small concave vessel of iron is fixed with a rod and the other end is bent outside	Gandhaka jarana, Taking out oil from vessels

Table 5: Current instrumentation in Rasoushadhi nirmana

S. No.	Modern Instruments	
3.110.		
1.	Ball mil	
2.	End runner mill	
3.	Edge runner mill	
4.	Roller mill	
5.	Pulveriser	
6.	Power ammi	
7.	Pounding machine	
8.	Juice extractor	
9.	Dryers	
10.	Pill rolling machine	
11.	Pill cutting machine	
12.	Polishing pan	
13.	Tablet compressing machine	
14.	Distillation apparatus	
15.	Electrical muffle furnace <sup>8</sup>	

### DISCUSSION

Yantras are apparatuses used for the shodhana, marana, swedana etc processes in rasa, uparasa, loha etc. There are a number of yantras described in Ayurvediya Rasasastra texts. In the current era, only a few among these yantras are commonly used in the preparation of Rasa drugs. The most commonly used yantras now in rasoushadhinirmana are viz. dola yantra, damaru yantra, sthali yantra, patanayantra, valukaandlavana yantra, ulukhala, koshti, vidyadhara and palikayantra. These yantras finds its use from processing to preparation of drugs. Heating medium is unique for

valuka yantra and lavanayantra which make use of sand and salt for the media respectively. The construction of yantras is described in the ancient literature with definite measurements and details for each arrangement. In Rasendra choodamani, in the context of dola yantra, it is said that if parada is to be done shodhana, then it is first covered in bhurjapatra and then covered with cloth to tie a potali. For Valuka yantra, it is said in Rasatarangini that the mouth of the glass bottle should be closed with khatika and then placed in bhanda. And a dried grass kept on the sarava covering bhanda if gets burnt indicates completion of paka. Droni rupa and vartulakara khalwayantra is said in

Rasatarangini and in Rasaratna samuchaya, tapta khalwa is added along with droni rupa and ardha chandrakara. Acharyas have described about yantras in a way that it can be easily adapted into the modern times

## **CONCLUSION**

Yantras play an important role in parada samskara and rasoushadhi nirmana. As per Rasasastra, metals and minerals needs to undergo specific procedures like shodhana, marana etc before they could be administered into the body. All of this could be achieved with the help of yantras.

From a review of yantras said in classics, it can be seen that even before the advent of modern instruments currently being used in the pharmacies, acharyas have devised yantras specific to meet the needs of each and every processes described. And all these were designed suitably to unravel the therapeutic potentials of various metals, minerals and drugs. Also the current instrumentation in Ayurvedic pharmacies manufacturing rasoushadhis, have effectively reduced the human efforts needed, still keeping at par with the principles of yantras laid down in classics. It can be concluded that our acharyas have set a benchmark for all the existing mechanisations and for future advancements.

## **ABBREVIATIONS**

- R.A Rasarnavam
- R. Chu Rasendra Choodamani
- R. R. S Rasaratna samuchaya

- R. S. S Rasendra Sara Sangraha
- R. T Rasa Tarangini

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