



RASA-AUSHADHI IN THE MANAGEMENT OF YAKRUT VIKARA WSR TO RASENDRA SARA SANGRAHA AND RASARATNA SAMUCHCHAYA - A REVIEW

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ABSTRACT

Introduction: *Yakrut Vikara* encompasses a broad spectrum of structural and functional disorders of the *Yakrut* (liver), which occupies a significant position in *Ayurveda* as the *Mula Sthana* of the *Raktavaha Srotas*. Liver diseases represent a major global health burden and are important causes of morbidity and mortality. Approximately two million deaths occur annually worldwide due to liver-related diseases, with nearly one million attributed to complications of cirrhosis and another one million to viral hepatitis and hepatocellular carcinoma. In *Ayurveda*, *Yakruta Vikara* is understood in relation to derangement of *Dosha*, *Dushya*, *Agni* and the *Raktavaha Srotas*, leading to impairment of the structural and functional integrity of the *Yakrut*. Several Ayurvedic drugs and formulations possess potential hepatoprotective properties and may contribute to the prevention and management of liver disorders. *Rasaushadhis* occupy an important place in the Ayurvedic management of *Yakruta Vikara* owing to their potent therapeutic action, small dosage, rapid onset of action, and ability to act upon multiple pathological processes. Classical Ayurvedic texts describe various *Rasaushadhis* and herbo-mineral formulations indicated in disorders involving the *Yakrut* and *Pliha*, as well as in conditions associated with *Kamala*, *Pandu*, *Shotha* and impairment of *Agni* and *Raktavaha Srotas*. **Aim and Objectives:** To collect, summarize and critically analyze the information of various *Rasaushadhis* indicated in *Yakrut Vikara* (Liver Diseases). **Material and Methods:** Ayurvedic classical textbooks *Rasendra Sara Sangraha* and *Rasaratna Samuchchaya* are reviewed, related information is collected and critically analyzed. **Discussion:** Minerals like *Parada* (Mercury), *Gandhak* (Sulphur), *Tuttha* (Blue Vitriol), *Hartala*, *Manshila* (Arsenic compounds-disulphide and trisulphide), *Dhatu Bhasmas* (incinerated metals like gold, silver, copper, iron, mica). These minerals are used internally to treat *Yakrut Vikara* (liver diseases) and found very effective. Their therapeutic actions may include *Deepana*, *Pachana*, *Rasayana*, *Shothahara*, and correction of *Dosha* and *Dhatu* imbalance, thereby supporting the normal physiological functions of the liver.

KEYWORDS: *Rasa-Aushadhi*, *Yakrut Vikara*, *Rasendra Sara Sangraha*, *Rasaratna Samuchchaya*.

INTRODUCTION

In *Ayurveda*, the *Yakruta* is recognized as a vital organ located within the *Koshta*, or abdominal cavity. In *Vedas*,

"*Takima*" or '*Yakna*' is the name given to the liver.^[1] *Yakruta* is originated from *Rakta* and maternal in origin.^[2] *Yakruta* and *Pliha* are the *Mula Sthana* of

Raktavaha Srotasa.^[3] *Yakrut Vikara* refers to disorders affecting the structural and functional aspects of the liver (*Yakrut*) due to various etiological factors. In Ayurveda, *Yakrut Roga* is primarily associated with the vitiation of *Rasa* and *Rakta Dhatu*. Impairment of *Agni*, particularly *Mandagni* and *Vishamagni*, results in the formation of *Ama*. The accumulated *Ama* causes *Srotorodha* (obstruction of channels) in the *Yakrut*, leading to *Dosha-Dushya Sammurchana*. Consequently, these pathological processes contribute to the manifestation and progression of *Yakruta Vikara*.^[4]

Liver diseases and its treatment are described in Ayurveda in scattered form. *Yakrut Vruddhi* (Hepatomegaly), *Yakrut Dalludara*, *Yakrutdora*, *Yakrutgata Dosha*, *Yakrutkshya* (Cirrhosis Of Liver), *Yakrut Vidradhi* (Liver abscess), *Yakrut Granthi* (Hepatic cyst) are different diseases found in Ayurvedic literature based on its mass, architectures and morphology whereas *Kamala*, *Kumbhakamala*, *Panaki*, *Halimak* are clinical features based on the function of Liver diseases.

Liver Diseases are among the common causes of morbidity and mortality in India and globally. Liver disease accounts for over two million deaths annually (cirrhosis, viral hepatitis, and liver cancer) and accounts for 4% of all deaths worldwide (1 out of every 25 deaths); 1 out of 3 liver-related deaths occur among females. Within this estimate, liver cancer accounts for 600,000 to 900,000 deaths. Currently liver disease is the eleventh-leading cause of death, but liver deaths may be

underestimated.^[5]

In Ayurveda, *Rasashastra* is a specialized branch that deals with the pharmaceutical processing and therapeutic applications of medicines prepared from metals, minerals, mercury and other mineral-origin substances. *Rasaushadhis* hold significant importance in Ayurvedic therapeutics owing to their rapid onset of action, high therapeutic efficacy, and effectiveness even when administered in small doses. Classical texts describe four major categories of *Rasa Kalpas*: *Kharaliya Rasayana* e.g. *Arogyavardhini Vati*, *Parpati Rasayana* e.g. *Tamra Parpati*, *Kupipakwa Rasayana* e.g. *Tamrasindoor*, and *Pottali Rasayana* e.g. *Tridhatugarbh Pottali*.^[6] Present study includes contemplations of main *Rasachikista* texts like *Rasendra Sara Sangrah*, *Rasaratna Samuchchaya* for listing of *Rasakalpas* used in the management of *Yakrut Vikara* mainly contain mercury, sulphur, blue vitriol, arsenic compounds (disulphide, trisulphide), incinerated metals (gold, silver, copper, iron, mica).

AIM

To collect, summarize and critically analyze the information of various *Rasaushadhis* indicated in *Yakrut Vikara* (Liver Diseases).

MATERIAL AND METHODS

After thorough reviewing the text *Rasendra Sara Sangraha* and *Rasaratna Samuchchaya*, it was observed that approximately 58 *Rasaushadhi* formulations were indicated in *Yakrut Vikara*. Details of these formulations is presented in table no.01.

Table No. 01: Details of formulations indicated in *Yakrut Vikara*.

Sr. No	Name of Formulations	Reference	Ingredients	Indication	Dose	Anupana
1.	<i>Nisha Loha</i> ^[7]	R.S.S.	<i>Loha Bhasma</i> , <i>Haridra</i> , <i>Daruharidra</i> , <i>Triphala</i> , <i>Kutaki</i> - Each Equal part	<i>Kamala</i> , <i>Pandu</i>	500mg-1gm	<i>Madhu</i> , <i>Ghruta</i>
2.	<i>Dhatri Loha</i> ^[8]	R.S.S.	<i>Loha Bhasma</i> , <i>Aamlaki</i> , <i>Shunthi</i> , <i>Marich</i> , <i>Pimpali</i> , <i>Haridra</i> -Equal part	<i>Kamala</i> , <i>Halimak</i>	500mg-1gm	<i>Madhu</i> , <i>Ghruta</i> , <i>Mishri</i>
3.	<i>Panchanan Vati</i> ^[9]	R.S.S.	<i>Shuddha Parada</i> , <i>Gandhak</i> , <i>Tamra Bhasma</i> , <i>Abhrak Bhasma</i> , <i>Guggulu</i> , <i>Jaypal Beej</i> -Each Equal Part <i>Bhavana Dravya</i> - <i>Ghruta</i>	<i>Pandu</i> , <i>Shotha</i>	120mg-250mg	
4.	<i>Pranvallabha Rasa</i> ^[10]	R.S.S.	<i>Shuddha Parada</i> , <i>Gandhak</i> , <i>Keshar</i> , <i>Loha Bhasma</i> , <i>Tamra Bhasma</i> , <i>Kapardik Bhasma</i> , <i>Tuttha</i> , <i>Hingu</i> , <i>Triphala</i> , <i>Yavakshar</i> , <i>Snuhiksheer</i> , <i>Jaypal Beej</i> , <i>Danti</i> , <i>Trivrutta</i> - Each 3gm <i>Bhavana Dravya</i> - <i>Ajadugdha</i>	<i>Kamala</i> , <i>Pandu</i> , <i>Shotha</i> , <i>Halimak</i>	120mg-250mg	<i>Koshna Jala</i> , <i>Madhu</i>
5.	<i>Kameshwar</i>	R.S.S.	<i>Parada</i> , <i>Gandhak</i> ,	<i>Pandu</i>	120mg-	

	<i>Rasa</i> ^[11]		<i>Haritaki, Chitraka-1 Pala Musta, Ela, Tamalpatra-1 ½ Pala Trikatu, Vastnabha, Erand Beej-1 Pala Nagakeshar-1 Karsh Guda-equal part of above ingredients Bhavana Dravya-Dhatura Swarasa</i>		375mg	
6.	<i>Trikatrayadya Loha</i> ^[12]	R.S.S.	<i>Mandur, Goghrita, Mishri, Madhu-1 Pala Kantloha Bhasma-1 Karsh Bhavana Dravya-Triphala, Trikatu, Trigandha Kwatha, Ghruta.</i>	<i>Kamala, Pandu, Halimak</i>	375mg-500mg	
7.	<i>Vidangadi Loha</i> ^[13]	R.S.S.	<i>Vidang, Musta, Triphala, Devdaru, Trikatu, Pimpalimul, Chavya, Chitraka-Equal Part. Loha Bhasma-Equal part of above ingredients. Gomutra- 8 times of Loha Bhasma</i>	<i>Kamala, Pandu</i>	250mg	
8.	<i>Vidangadi Loha</i> ^[14]	R.S.S.	<i>Vidang, Triphala, Trikatu-Equal Part. Loha Bhasma-Equal part of above ingredients.</i>	<i>Shotha, Pandu, Halimak</i>	250mg	<i>Purana Guda</i>
9.	<i>Trailokya-Sundara Rasa</i> ^[15]	R.S.S.	<i>Parada-1 Part, Abhraka-6 Part, Loha Bhasma-8 Part Gandhaka, Triphala, Trikatu, Mochras, Musali, Guduchi Satva-5 Part Bhavana Dravya-Triphala, Shigru, Chitrakamoola Kwatha</i>	<i>Shotha, Pandu</i>	375mg-500mg	<i>Madhu, Mishri</i>
10.	<i>Darvyadi Loha</i> ^[16]	R.S.S.	<i>Daruharidra, Triphala, Trikatu, Vidang-Equal part. Loha Bhasma-Equal part of above ingredients.</i>	<i>Pandu, Kamala</i>	250mg	<i>Madhu, Ghruta</i>
11.	<i>Chandra Suryatmak Rasa</i> ^[17]	R.S.S.	<i>Parada, Gandhak, Loha Bhasma, Abhrak Bhasma, Gokshura Beej Churna – 1 Pala Shankh Bhasma, Kapardika Bhasma-1/2 Pala. Bhavana Dravya-Patol, Parpatatak,</i>	<i>Pandu, Kamala, Halimak, Shotha</i>	125mg-500mg	<i>Godugdha, Mand, Mudga Yusha, Koshna Jala, Madya, Guduchi, Triphala, Vasa</i>

			<i>Bharangi, Vidari, Shatpushpa, Vasa, Guduchi, Danti, Kakamachi, Indravaruni, Punarnava, Keshraj, Shalishak, Dronpushpi-1/2 Pala</i>			<i>Swarasa</i>
12.	<i>Pandusudan Rasa^[18]</i>	R.S.S.	<i>Parada, Gandhak, Tamra Bhasma, Jaypal, Guggulu-Equal Part Bhavana Dravya–Goghrita</i>	<i>Pandu</i>	120mg	
13.	<i>Mandur Vajravatak^[19]</i>	R.S.S.	<i>Panchkola, Marich, Devdaru, Triphala, Vidang, Musta-3 Pala. Mandur Bhasma-2 part of above ingredient. Processing Liquid-Gomutra</i>	<i>Pandu Pliharoga</i>	360mg-500mg	<i>Takra</i>
14.	<i>Laghvanand Rasa^[20]</i>	R.S.S.	<i>Parada, Gandhak, Loha Bhasma, Visha, Abhrak Bhasma-1 Part Marich-8 Part Tankan- 4 Part Bhavana Dravya-Bhringraj Swarasa, Amlavetas Kwatha</i>	<i>Pandu</i>	250mg	<i>Nagavalli Patra Swarasa</i>
15.	<i>Sammoha Loha^[21]</i>	R.S.S.	<i>Trikatu, Triphala, Chitraka, Vidang, Loha Bhasma, Abhrak Bhasma-Equal Part Bhavana Dravya-Goghrita</i>	<i>Pandu, Kamala, Shotha</i>	500mg	
16.	<i>Tryushanadi Mandur^[22]</i>	R.S.S.	<i>Trikatu, Triphala, Daruharidra, Chitraka, Devdaru, Vidang, Musta-Equal Part Mandur Bhasma-Equal part of above ingredients. Processing Liquid-Gomutra 8 times of Mandur</i>	<i>Pandu, Kamala, Halimak, Shotha</i>	500mg	<i>Takra, Odana</i>
17.	<i>Rohitak Loha^[23]</i>	R.S.S.	<i>Rohitak, Triphala, Trikatu, Trimad-Equal Part Loha Bhasma-Equal part of above ingredients.</i>	<i>Yakrut Roga, Pliha Roga</i>	120mg	
18.	<i>Lokanatha Rasa^[24]</i>	R.S.S.	<i>Shuddha Parada, Shuddha Gandhak, Abhrak Bhasma- 1 part Loha Bhasma, Tamram Bhasma– 2 part Kapardik Bhasma-6 part Bhavana Dravya-Nagavalli Swarasa</i>	<i>Yakrut Roga, Plihodar, Shotha</i>	120mg-250mg	<i>Pimpali Churna, Madhu, Guda, Haritaki Churna, Jeeraka Churna, Gomutra</i>
19.	<i>Bruhat Lokanath Rasa^[25]</i>	R.S.S.	<i>Shuddha Parada and Shuddha Gandhak Kajjali, Abhraka Bhasma - 1part</i>	<i>Yakut Roga, Pliha Vruddhi,</i>	360mg	<i>Pimpali Churna, Madhu, Guda,</i>

			<i>Shuddha Gandhak, Tamra Bhasma, Loha Bhasma, Kapardik Bhasma-2 part Bhavana Dravya-Kumari Swarasa, Kakamachi Swarasa, Jambeer Nimbu Swarasa</i>	<i>Shotha</i>		<i>Haritaki Churna, Jeeraka Churna, Gomutra</i>
20.	<i>Tamreshwar Vati^[26]</i>	R.S.S	<i>Hingu, Trikatu, Apamarga Patra, Arka Patra, Snuhi Patra – 1 part Saindhav Lavana, Tamra Bhasma, Loha Bhasma-7 part</i>	<i>Yakrut Roga, Pliha Vriddhi, Pandu, Halimak, Shotha</i>	120mg-250mg	
21.	<i>Agnikumar Loha^[27]</i>	R.S.S	<i>Tuttha Bhasma, Hingu, Tankan, Saindhav Lavana, Dhanyaka, Jeeraka, Ajmoda, Marich, Shunthi, Lavang, Ela, Vidang-1 Tola Loha Bhasma-12 Tola Shuddha Parada-Gandhak Kajjali-1 Pala</i>	<i>Yakrut Roga, Plihodar, Halimak</i>	250mg	<i>Ghruta, Madhu</i>
22.	<i>Pranvallabha Rasa^[28]</i>	R.S.S	<i>Loha Bhasma, Tamra Bhasma, Kapardik Bhasma, Tuttha Bhasma, Hingu, Triphala, Snuhiksheera, Yavakshar, Shuddha Jaypal, Tankana, Nishotthar- 1 Pala Bhavana Dravya-Ajadugdha</i>	<i>Kamala, Pandu, Halimak</i>	120mg	<i>Koshna Jala, Madhu</i>
23.	<i>Yakrudari Loha^[29]</i>	R.S.S	<i>Loha Bhasma-2 Karsh Abhrak Bhasma-1/2 Pala Tamra Bhasma-1 Karsh, Jambeer Nimbu Moola-1 Pala, Mrugcharma Bhasma-1 Pala</i>	<i>Yakrut Roga, Plihodar, Kamala, Halimak</i>	120mg-250mg	
24.	<i>Plihashardul Rasa^[30]</i>	R.S.S	<i>Shuddha Parada-Shuddha Gandhak Kajjali, Trikatu, Manshila, Kapardik Bhasma, Tuttha Bhasma, Hingu, Loha Bhasma, Jayanti, Rohitak, Yavakshar, Tankan, Saindhava Lavana, Bida Lavana, Chitraka, Jaypal Beej-1 part Tamra Bhasma-3 part Bhavana Dravya-Nishotthar, Pimpali, Chitraka Kwatha, Aardraka Swarasa</i>	<i>Yakrut Roga, Pliha Roga, Shotha</i>	250mg	<i>Pimpali Churna, Madhu</i>

25.	<i>Plihari Rasa</i> ^[31]	R.S.S	<i>Loha Bhasma-2 Karsh Tamra Bhasma-1 Karsh Parada-Gandhak Kajjali-1 Karsh, Mrugcharma Bhasma-1 Pala, Jambher Nimbu Moola Churna-1 Pala</i>	<i>Yakrut Roga, Pliha Roga</i>	500mg	
26.	<i>Plihari Rasa</i> ^[32]	R.S.S	<i>Hartala Bhasma-1 Karsh Swarna Bhasma-1/4th Karsh Tamra Bhasma- 1/2 Pala</i>	<i>Pandu, Yakrut Roga, Pliha Roga</i>	250mg	<i>Chitraka Churna, Madhu</i>
			<i>Abhrak Bhasma-1/2 Pala Mrugcharm Bhasma-1 Karsh Jambher Nimbu Moola Churna-1 Karsh</i>			
27.	<i>Loha Mrutunjay Rasa</i> ^[33]	R.S.S	<i>Shuddha Parada, Shuddha Gandhak, Loha Bhasma, Abhrak Bhasma, Manshila, Tamra Bhasma, Shuddha Kuchala, Kapardik Bhasma, Tuttha Bhasma, Shankh Bhasma, Rasanjan, Jatiphala, Kutaki, Yavakshar, Sarjjikshar, Jaypal Beej, Trikatu, Hingu, Saindhava Lavana-1 Part Bhavana Dravya- Suryamukhi Swarasa, Bilvapatra Swarasa</i>	<i>Yakrut Roga, Pliha Roga, Shotha</i>	250mg	
28.	<i>Maha Mrutunjay Rasa</i> ^[34]	R.S.S	<i>Shuddha Parada, Shuddha Gandhak, Loha Bhasma, Abhrak Bhasma, Manshila, Tamra Bhasma, Kapardik Bhasma, Tuttha Bhasma, Shankh Bhasma, Bakuchi, Rasanjan, Jatiphala, Kutaki, Yavakshar, Sarjjikshar, Jaypal Beej, Chitraka, Trikatu, Hingu, Tankana, Jayanti, Saindhava Lavana, Bida Lavana-1 Part Bhavana Dravya-Aardraka Swarasa, Guduchi Swarasa</i>	<i>Yakrut Roga, Pliha Vruddhi</i>	120mg	<i>Madhu</i>
29.	<i>Bruhad Gudpimpali Rasa</i> ^[35]	R.S.S	<i>Vidang, Trikatu, Hingu, Kushtha, Panchlavana, Kshartraya, Samudrafen, Chavya, Gajapimpali, Krushna Jeeraka, Talpushpa, Kushmanda, Apamarg Kshar, Chinch Kshar, Chitraka-1 Part Guda, Pimpali Churna-2 part of the total weight of all above ingredients</i>	<i>Pandu, Kamala, Yakrut Roga, Pliha Roga, Shotha</i>	500mg	

30.	<i>Tamrakalp</i> ^[36]	R.S.S	Shuddha Parada- 2 Karsh Shuddha Gandhak-2 Karsh, Bibhitak-2 Karsh, Tamra Bhasma- 6 Karsh Bhavana Dravya- Jambeer Nimbu Swarasa, Suryamukhi Swarasa, Pimpali Kwatha, Mochras Kwatha	Yakrut Roga, Pliha Roga, Shotha	120mg- 2gm	
31.	<i>Kumbhakeshari Rasa</i> ^[37]	R.S.S	Parada, Gandhak, Tamra Bhasma, Trikatu, Yavakshar, Sajjikshar, Tankan, Pimpalimul, Chavya, Chitraka, Panchlavana, Ajmoda, Hingu-1 Part Bhavana Dravya-Jambeer Nimbu Swarasa	Yakrut Roga, Pliha Roga	250mg- 500mg	Madya, Jala
32.	<i>Daru Bhasma</i> ^[38]	R.S.S	Shuddha Somala, Saindhav Lavana, Shuddha Gandhak-Equal Part	Yakrut Roga, Pliha Roga	30gm- 60gm	
33.	<i>Sarvato- bhadra Rasa</i> ^[39]	R.S.S	Parada, Gandhak, Tamra Bhasma, Abhrak Bhasma, Kantloha Bhasma-1 Part Bhavana Dravya- Aardraka Swarasa	Pandu, Kamala, Yakrut Roga, Pliha Roga	120mg	Shefali Swarasa Madhu
34.	<i>Katukadya Loha</i> ^[40]	R.S.S	Kutaki, Trikatu, Danti, Vidang, Triphala, Chitraka, Devdaru, Nishotthar, Gajapimpali-1 Part Loha Bhasma-2 part of all above ingredient	Yakruta Roga, Pliha Roga, Shotha	250mg	Godugd ha
35.	<i>Souvarchala i Loha</i> ^[41]	R.S.S	Souvarchala, Chitraka, Kutaki, Chavya, Devdaru , Ajmoda-1 Part Loha Bhasma-Equal to above ingredients	Pandu, Shotha	250mg	
36.	<i>Kshara Gutika</i> ^[42]	R.S.S	Yavakshar, Sajjikshar, Panchlavana, Loha Bhasma, Trikatu, Triphala, Pimpalimul, Vidang, Musta, Ajmoda, Devdaru, Bilva, Indrayava, Chitraka, Patha, Yashtimadhu, Ativisha, Palash, Hingu-1 Karsh Moolak Bhasma-1 Drona	Pandu, Halima k, Pliha Roga, Shotha	1gm	Koshna Jala
37.	<i>Gandhakadi Pottali Rasa</i> ^[43]	R.R.S.	Gandhak, Hartala, Swarnmakshik Bhasma, Manshila-1 Part Bhavana Dravya-Pimpali Kwatha, Snuhiksheer, Gomutra	Yakrut Roga, Pliha Roga	1gm	Madhu, Ghruta, Panchko l Kwatha, Palash Twak Kwatha
38.	<i>Agnikumar Rasa</i> ^[44]	R.R.S.	Shuddha Parada, Shuddha Gandhak, Tamra Bhasma, Haritaki Churna, Pimpali Churna- 1 Tola Bhavana Dravya- Gomutra	Yakrut Vruddhi, Pandu Roga	1gm- 2gm	Koshna Jala
39.	<i>Sarvangsund ar Rasa</i> ^[45]	R.R.S.	Shuddha Parada, Shuddha Gandhak, Abhraka Bhasma-1 part Kshartraya, Panchlavana, Triphala, Trikatu, Hingu,	Kamala, Pandu, Pliha Roga	1gm	Ushnoda ka
			Guggulu, Gunja Beeja, Chitraka, Ajmoda, Indrayava-Equal part of above ingredient Bhavana Dravya- Talmooli Swarasa			
40.	<i>Mrutouttha- pana Rasa</i> ^[46]	R.R.S.	Abhrak Bhasma, Tamra Bhasma, Loha Bhasma-1 Pala Vidang, Triphala, Trikatu, Chitraka-1 Pala Processing liquid-	Yakrut Roga, Pliha Roga	1gm- 8gm	Madhu, Ghruta, Madya, Godugd ha, Narikela Jala

			<i>Goghruta, Godugdha</i>			
41.	<i>Vadvalanal Gutika</i> ^[47]	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak, Hartala Bhasma, Swarnmakshik Bhasma, Swarna Bhasma, Shuddha Manshila, Kantloha Bhasma, Tamra Bhasma- 1 Part Vastnabha Churna, Ajmoda Churna, Trikatu Churna-Equal part of all above ingredients Bhavana Dravya-Hingu Jala, Jayanti Swarasa, Kakamachi Swarasa, Nirgundi Swarasa, Aardraka Swarasa</i>	<i>Pandu, Shotha</i>	250mg	<i>Ushna Jala</i>
42.	<i>Agnikumar Rasa</i> ^[48]	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak-1 Part, Vatsnabha Churna-1/4th part, Shukti Bhasma-1/16th part, Vastnabha Churna-Equal part of all above ingredients Bhavana Dravya-Hanspadi Swarasa, Aardraka Swarasa</i>	<i>Pandu, Shotha, Pliha Roga</i>	250mg	
43.	<i>Hansmandur Rasa</i> ^[49]	R.R.S.	<i>Mandur Bhasma, Triphala, Trikatu, Musta, Vidang, Chavya, Chitraka, Daruharidra, Pimpalimul, Devdaru-Equal Part Processing liquid-Gomutra</i>	<i>Pandu, Kamala, Halimak,</i>	10gm	<i>Takra</i>
44.	<i>Kala Vidhwansan Rasa</i> ^[50]	R.R.S.	<i>Shuddha Parada, Swarna Bhasma, Rajat Bhasma, Tamra Bhasma-1 Part Gandhak-6 part Loha Bhasma-1 Part Vastnabha Churna-1/12th Part Processing Liquid -Jambira Nimbu Swarasa, Dhatura Swarasa, Kantkari Swarasa, Chitraka Kwatha, Arkaksheer, Karanj Panchang Kwatha</i>	<i>Pandu</i>	120mg	
45.	<i>Panchanan Rasa</i> ^[51]	R.R.S.	<i>Kantloha Bhasma, Swarna Bhasma, Tamra Bhasma, Rajat Bhasma, Abhrak Bhasma-1 Aksha Shuddha Parada, Shuddha Gandhak-Equal Part Kajjali Swarnmakshik Bhasma-2 ½ Pala Tamra Bhasma, Shuddha Manshila-2 Pala Vaikrant Bhasma-1/16th Part Bhavana Dravya-Jambeera Nimbu Swarasa</i>	<i>Pandu, Halimak</i>	250mg	
46.	<i>Aarogyasagar Rasa</i> ^[52]	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak- 1 Pala Swarnmakshik Bhasma-2 Pala Hartala Bhasma, Shuddha Manshila, Abhrak Bhasma-1 Pala Tankan Bhasma-1 Karsh Shuddha Tamra-3 Karsh Vaikrant Bhasma-20 Part</i>	<i>Pandu, Shotha</i>	250mg	
47.	<i>Pandu Pankshoshan Rasa</i> ^[53]	R.R.S.	<i>Tamra Bhasma, Rasasindur, Vatsnabha Churna-Equal part Bhavana Dravya-Chitraka Swarasa</i>	<i>Pandu</i>	250mg	
48.	<i>Pandvari Rasa</i> ^[54]	R.R.S.	<i>Shuddha Parada-4 Part Loha Bhasma-2 Part Chitraka, Musta, Vidang, Trikatu, Triphala, Kutaj Churna-1 Part</i>	<i>Pandu</i>	250mg	<i>Madhu</i>
49.	<i>Trailokya Sundar Rasa</i> ^[55]	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak, Loha Bhasma, Abhrak Bhasma, Guduchi Satva, Varahi Kand Churna, Triphala Churna,</i>	<i>Pandu</i>	250mg	<i>Ghruta, Madhu, Mishri</i>

			<i>Shigru Churna-Equal Part Bhavana Dravya-Bhringraj Swarasa</i>			
50.	<i>Jaypal Rasa^[56]</i>	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak, Tamra Bhasma, Shuddha Jaypal, Shuddha Guggulu-Equal Part Bhavana Dravya-Goghruta</i>	<i>Shotha, Pandu</i>		
51.	<i>Panduh⁶⁷ari Haritaki^[57]</i>	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak-3 Pala Saireyak, Bhringraj, Shatavari, Punarnava-7 Pala Guduchi Satva-8 Pala Processing Liquid-Haritaki Kwatha, Godugdha</i>	<i>Pandu</i>	125mg	<i>Madhu</i>
52.	<i>Vijaya Vatika^[58]</i>	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak-1 Pala Haritaki, Chitrakmula-3 Pala Ela, Twak, Tejpatra, Musta, Renuka Beej-1/2 Pala Nagkeshar-1/4 Pala Trikatu, Pimpalimula, Vastnabha-1 Pala Purana Guda-1/2 Tula</i>	<i>Pandu, Shotha</i>	125mg	<i>Shuddha Tanka, Meghnada Swarasa</i>
53.	<i>Kamalapranud Rasa^[59]</i>	R.R.S.	<i>Loha Bhasma, Swarnmakshik Bhasma, Kantloha Bhasma, Abhrak Bhasma, Tamra Bhasma, Parada Bhasma, Hartala Bhasma-Equal Part Guduchi Satva, Nilkamal Churna, Kand Churna, Draksha-Equal Part</i>	<i>Kamala</i>	125mg-250mg	<i>Madhu, Mishri</i>
			<i>Bhavana Dravya-Devadali Swarasa, Yashtimadhu Kwatha</i>			
54.	<i>Triyoni Rasa^[60]</i>	R.R.S.	<i>Shuddha Parada-1/4th Part Shuddha Gandhak-1 Part, Shuddha Tamra-1 Part Matsyakshi Churna Bhavana Dravya-Jambeera Nimbu Swarasa</i>	<i>Pandu, Shotha</i>	120mg	<i>Haritaki Churna, Guda</i>
55.	<i>Kameshwar Rasa^[61]</i>	R.R.S.	<i>Shuddha Parada, Shuddha Gandhak-1 Pala Snuhiksheer, Haritaki Churna-3 Pala Ela, Musta, Tejpatra, Musta, Trikatu, Pimpalimula, Shuddha Vastnabha-1 Pala Nagkeshar-1 Karsh Renuka Beej-1/2 Pala Purana Guda-1/2 Tula Bhavana Dravya-Kumari Swarasa, Goghruta</i>	<i>Pandu, Shotha</i>	250gm	
56.	<i>Sindur-bhushana Rasa^[62]</i>	R.R.S.	<i>Shuddha Parada-1Pala Shuddha Gandhak-4 Pala, Loha Bhasma-10 times of above mixture</i>	<i>Pandu, Kamala</i>	10gm	<i>Takra</i>
			<i>Bhavana Dravya-Vasa Swarasa, Rasona Swarasa</i>			
57.	<i>Sudhapanachak Rasa^[63]</i>	R.R.S.	<i>Kansya Bhasma, Shuddha Manshila, Tikshna Loha Bhasma, Tamra Bhasma, Shuddha Parada-Equal part</i>	<i>Halimak</i>	120mg-360mg	<i>Dadhi, Madhu</i>
58.	<i>Mustadi Churna^[64]</i>	R.R.S.	<i>Musta-1 Part Guduchi Satva-2 Part Chitrakmul-3 Part Yashtimadhu-4 Part Pimpalimula-5 Part Vidang-6 Part Shunthi-7 Part Haritaki-8 Part Bibhitaki-9 Part Amalaki-10 Part Swarnmakshik Bhasma-11 Part Loha Bhasma-12 Part</i>	<i>Pandu</i>	250mg	<i>Madhu</i>

The therapeutic application of *Parada Bhasma* in *Yakrit Vikara* has been described in the classical literature of

Rasashashtra. *Rasaratna Samucchaya* mentions the use of *Parada* based preparations in various disorders

associated with *Yakrit* and *Pliha*, particularly conditions such as *Kamala*, *Pandu*, and *Shotha*. The following table summarizes the classical references pertaining to the therapeutic use of *Parada Bhasma* in *Yakrit Vikara* as

described in *Rasaratna Samucchaya*, along with the respective formulation, indication and relevant textual reference.

Table No. 02: *Parada Bhasma Prayoga in Yakrut Vikara as per Rasaratna-Samucchaya.*

Name of the <i>Dravya</i>	Indications	<i>Anupana</i>
<i>Parada Bhasma</i> ^[65]	<i>Pliha Vruddhi</i>	<i>Nyagrodhadi Gana Kwatha</i> <i>Asnadi Gana Kwatha</i>
<i>Parada Bhasma</i> ^[66]	<i>Kamala</i>	<i>Yashtimadhu Kwatha</i>
<i>Parada Bhasma</i> ^[67]	<i>Pandu, Kamala, Shotha</i>	<i>Triphala Kwatha</i>

DISCUSSION

There are near about 58 formulations in *Rasendra Sara Sangraha*, and *Rasratnasamucchaya* containing minerals (*Rasaushadhis*) which are used internally for the treatment of *Yakrut Vikara*. Out of the described formulations in the classical texts approximately 16 formulations were indicated for *Kamala*, 40 for *Pandu*, 14 for *Halimak*, 19 for *Yakrut Vikara*, and 24 for *Shotha* respectively and reviewed for their therapeutic indications.

Although numerous *Rasaushadhis* are described in the classical Ayurvedic literature, many of them are not commonly used by practitioners. Their limited clinical use may be attributed to factors such as restricted market availability, complex pharmaceutical procedures, safety concerns, and limited familiarity with their preparation and therapeutic applications. Consequently, *Kharaliya Rasayana* preparations are comparatively more commonly used in clinical practice and are frequently discussed in the context of *Rasaushadhi* therapeutics.

In *Yakrut Vikara*, mineral preparations combined with herbal decoctions act as *Rasayana* to support tissue regeneration and metabolic regulation. *Abhrak Bhasma* act as a *Rasayana* (rejuvenating agents) and cellular regenerator used with specific herbal decoction as a carrier agents (*Anupana*) targeted at correcting *Agni Dushti* and metabolic improvement in *Yakrut Vikara*.^[68] *Parada-Gandhak Kajjali* act as a vital carrier and having *Yogvahi* property so useful in *Yakrut Vikara*. Its mechanism involves correcting *Mandagni*, clearing blockages (*Srotorodha*) and pacifying vitiated *Pitta* and *Kapha* through its *Sukshma Srotogami* property.^[69]

The mineral compound counteracts disruptions in liver lipolytic and lipid associated enzymes induced by toxic stress. *Lauha Bhasma* possess *Kashaya* (astringent), *Tikta* (pungent), and *Madhura* (sweet) *Rasa*, along with *Dipana* (appetizer), *Pachana* (digestive), *Srotoshodhaka* (channel-cleansing), *Tridoshaghna*, *Raktadhatu Vardhaka* (promoting blood formation), *Rasayana* (rejuvenative), and *Balya* (strength-promoting) properties.^[70] *Mandur Bhasma* possess *Vrushya*, *Sheeta*, *Agnideepak*, *Ruchikarak*, *Raktavardhak* properties.^[71] The *Panduhara* (alleviating pallor) effect is particularly attributed to *Haritaki*, *Shunthi*, *Lauha*, and *Mandura*. *Lauha Bhasma* and *Mandura Bhasma* possess significant

Raktavardhaka properties. *Lauha* is also present in *Amalaki*, *Musta*, and *Madhu* (honey), with trace amounts reported in *Ghrita*. Furthermore, the presence of ascorbic acid (Vitamin C) in *Amalaki* enhances iron bioavailability and may thereby facilitate its absorption and utilization.

Tamra, owing to its *Ushna*, *Tikshna*, *Lekhana*, and *Srotoshodhaka* properties, exerts a therapeutic effect on *Yakrit* and supports the proper secretion and circulation of *Pitta*. Its *Lekhana* action may help reduce inflammation and pathological accumulation in hepatic tissues. *Tamra Bhasma* is used particularly in conditions associated with hepatomegaly and splenomegaly. By promoting bile secretion and facilitating digestion, it may contribute to the proper functioning of *Agni* and gastrointestinal motility. The combined *Ushna*, *Tikshna*, *Lekhana*, and *Srotoshodhaka* properties may aid in reducing hepatic congestion and inflammation.^[72] *Suvarnamakshik Bhasma* possess *Madhur*, *Tikta Rasa*. Its *Param Yogvahi* property along with *Vrushya*, *Rasayana* facilitates its hepatoprotective action.^[73]

Herbs like *Punarnava*, *Guduchi*, *Kutaki*, *Daruharidra*, *Pimpali*, *Yashtimadhu*, *Dhataki*, *Gokshura* contain diverse bioactive constituents with significant antioxidant potential, including flavonoids, alkaloids, saponins, vitamins such as A, C, E, and K, carotenoids, and essential minerals such as selenium, copper, manganese, zinc, chromium, and iodine. Antioxidants help protect cellular structures from oxidative damage by neutralizing or scavenging free radicals, which are highly reactive oxygen-containing molecules capable of causing cellular and tissue injury.

Thus, the antioxidant activity of herbal medicines may contribute significantly to their hepatoprotective effects. It possesses *Kapha Pittahara* properties, thereby helping to maintain the equilibrium of *Kapha* and *Pitta Dosha*. Its *Katu* and *Tikta Rasa*, along with *Laghu* and *Ruksha Guna* and *Ushna Virya*, contribute to its metabolic activity. These properties may enhance metabolic processes, particularly catabolism, and facilitate the elimination of accumulated metabolic waste products resulting from impaired metabolism. Thus, it may support the restoration of normal metabolic functions and contribute to the maintenance of physiological homeostasis.^[74]

Although numerous Rasaushadhis are described in the classical Ayurvedic literature, many of them are not commonly used by present-day practitioners. Their limited clinical use may be attributed to factors such as restricted market availability, complex pharmaceutical procedures, safety concerns, and limited familiarity with their preparation and therapeutic applications.

SCOPE AND LIMITATIONS OF THIS REVIEW WORK

- The present review provides a comprehensive compilation and critical assessment of the available classical Ayurvedic literature and previously published preclinical and clinical research related to the *Rasaushadhis* useful in *Yakrit Vikara*.
- It may serve as a useful literature base for designing and conducting future clinical and preclinical studies.
- A meta-analysis of the previous research studies could not be performed, owing to heterogeneity and/or insufficient comparable quantitative data among the available studies. Therefore, the findings should be interpreted cautiously and require validation through well-designed preclinical and clinical studies.

CONCLUSION

After reviewing the texts *Rasendra Sara Sangraha*, *Rasaratna Samucchaya* as well as the previous research work done, this review work can be concluded with following points.

- There are approximately 58 *Rasa Kalpas* described in *Rasendra Sara Sangraha* and *Rasaratnasamucchaya* which are used in the management of *Yakrit Vikara*.
- Among these 44 are *Kharaliya Kalpana*, 4 are *Kupipakwa Rasayana*, 8 are *Bhasma Kalpana*, 1 is *Pottali Kalpana*, 1 is *Parpati Kalpana*.
- Consequently, commonly available *Kharaliya Rasayana* preparations are more frequently used in contemporary Ayurvedic practice.
- The common indication of several formulations in *Kamala*, *Pandu*, *Shotha* and *Yakrit Vikara* suggests an interrelationship among these disease conditions and their underlying *Dosha-Dhatu* and *Agni* disturbances. Therefore, the same formulation may be used across these conditions, with its application determined by the predominant *Dosha*, clinical presentation and *Samprapti*.
- *Kajjali* is the most commonly used form of mercury in formulations may be due to it contains more free sulphur than other *Kalpas*, having *Yogvahi*, *Sukshma Srotogami* property used in the management of *Yakrit Vikara*.
- *Abhrak Bhasma*, *Suvarnamakshik Bhasma* helps in regeneration of tissues by its *Vrushya*, *Balya*, *Rasayana* properties.
- As per the previous research, *Tamra Bhasma* has greater emphasis on correcting the pathological process involving *Yakrit-Pliha*, by clearing the

obstruction of *Srotasa* due its *Lekhan* property.

- Whereas *Lauha Bhasma* and *Mandur Bhasma* is more beneficial due to its hematinic property when *Yakrit Vikara* is accompanied by *Pandu* and *Rakta-Related* manifestations.
- *Triphala*, especially *Amalaki*, contains vitamin C (ascorbic acid), which enhances the bioavailability and intestinal absorption of non-heme iron by facilitating its conversion from ferric (Fe^{3+}) to ferrous (Fe^{2+}) form. This may support iron availability for erythropoiesis and consequently contribute to the maintenance of *Rakta Dhatu*, while its antioxidant and *Rasayana* properties may provide additional supportive effects in *Yakrit-Rakta Vikara*.
- *Gomutra* employed as a *Bhavana Dravya* in many formulations used in *Yakrit Vikara*. Its *Ushna*, *Ruksha*, *Tikshna* and *Kshara* attributes may aid in correcting *Agni Mandya*, reducing *Kapha-Meda* accumulation and mitigating *Srotodushti*.
- Herbs like *Punarnava*, *Guduchi*, *Kutaki*, *Daruharidra*, *Pimpali*, *Yashtimadhu*, *Dhataki*, and *Gokshura* as having antioxidant activity may contribute significantly to their hepatoprotective effects.

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