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AN UPDATED REVIEW OF HINGULESHWARA RASA – A HERBO-MINERAL FORMULATION

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ABSTRACT

The oldest surviving healing system is the Ayurvedic system. Rasashastra is a branch of Ayurveda that is considered a therapeutic utilization of metallic-mineral substances for treating various diseases. There are several famous classical formulations successfully practised in Ayurveda for treating disease, but there is a lack of data regarding their proper pharmacokinetics & pharmacodynamics. One of the widely practised Ayurvedic formulations is *Hinguleshwara Rasa. Hinguleshwara Rasa* is a known herbo-mineral *Kharaliya Rasayana* formulation. Different classical references of *Hinguleshwara Rasa* are created with different compositions. The present study is focused on compiling all available literature regarding the pharmacological actions and properties of in-vivo, in-vitro, and clinical studies done on *Hinguleshwara Rasa*.

Keywords: *Hinguleshwara Rasa, Kharaliya Rasayana,* In-vivo, In-vitro, Clinical study

INTRODUCTION

Kharaliya Rasayana is produced in *Khalwa Yantra* without *Agni Samskara*. As per various classical references, *Hinguleshwara rasa* is one such *Kharaliya Rasayana* effective in *Vataja Jwara*. *Hinguleshwara Rasa*, as the name suggests, contains Hingula, the main ingredient of the formulation, along with *Pippali* and *Vatsanabha*. Various classical references to Hinguleshwara Rasa are found in Bhaishajya Ratnavali, Rasa Tarangini, *etc.* The present paper highlights the information about the *Hinguleshwara Rasa*.

Hinguleshwara Rasa

In *Bhaishajya Ratnavali, Hinguleshwara Rasa* is quoted. Generally, *Hinguleshwara Rasa,* a herbomineral formulation, is prepared as per reference of *Bhaishajya Ratnavali, which consists of Shuddha Hingula, Shuddha Vatsnabha* and *Pippali Churna*. All three *dravyas* are made into fine powder and triturated with *Jala* till the homogenous consistency of *Vati* is accomplished. Then, the *Vati* of *Gunjaardha* (*1/2 Ratti* = 62.5 mg) dose is formed[1]. It is indicated especially for Vataja Jwara, which means it shows antipyretic activity. In *Rasa Tarangini*, *Hinguleshwara Rasa* is indicated in *Amavata, Navajwara, Jirnajwara, Savirama jwara* and *Vataja Jwara*[2]. *Hinguleshwara Rasa* is described in *Rasa Ratna Samucchaya as Brihat Jwarankusha Rasa*. Through assessment of different Rasashastra texts, total no. of three ingredients i.e *Shuddha Hingula, Shuddha Vatsanabha & Pippali* were analysed in *Hinguleshwara Rasa*. *Hingula* is the principal ingredient in all the references. This reference is mainly taken for research work because of its effectiveness and low dose.

Table 1: Ingredients, Anupana, Dose of *Hinguleshwara Rasa* as per Classical texts.

Sl.No	Ingredients	Anupana/ Sahapana	Matra	Bhavana with Duration
B.R[1]	*1)Shuddha Hingula-1Pala* *2) Shuddha Vatsanabha-1Pala* *3)Pippali-1Pala*	*Madhu*	*½ Gunja*	-
B.B.R(1)[3]	*1) Shuddha Hingula-1 Tola* *2) Shuddha Gandhaka-Tola* *3)Tamra Bhasma-2Masha*	*Madhu,Dhanya kwatha, Jeeraka kwatha*	*2 Gunja*	*Salmali satwa bhavitha/ 1 yama*
B.B.R(2)[3]	*1) Shuddha Hingula-1Pala* *2) Shuddha Jayaphala-3Pala* *3) Shuddha Parada-1Pala*	*Mishari*	*1 Gunja*	*Dantimula kwatha/ dinardha*
B.B.R(3)[3]	*1) Shuddha Hingula-1Pala* *2) Shuddha Vatsanabha-1Pala* *3) Pippali-1Pala*	*Sheetala jala*	*Mulika beeja*	-
B.R.R.S[4]	*1) Shuddha Hingula-1Pala* *2) Shuddha Vatsanabha-1Pala* *3) Pippali-1Pala*	*Madhu*	*2 Gunja*	-

R.K[5]	*1) Shuddha Hingula-1Pala* *2) Shuddha Vatsanabha-1Pala* *3) Pippali-1Pala*	*Madhu*	*2 Gunja*	-
R.T[6]	*1) Shuddha Hingula-1Pala* *2) Shuddha Vatsanabha-1Pala* *3) Pippali-1Pala*	-	*½ Ratti (sardha yava)*	-
R.R.S[7]	*1) Shuddha Hingula- 2Pala* *2) Shuddha Jayaphala-3Pala* *3) Shuddha Parada-1Pala*	*Mishari*	*1 Gunja*	*Danti kwatha/ dinardha*
R.M[8]	*1) Shuddha Hingula- 1Pala* *2) Shuddha Jayaphala-Pala* *3) Shuddha Parada-1Pala*	*Madhu*	*2 Gunja*	-
A.F.I-Part2[9]	*1) Shuddha Hingula- 1Pala* *2) Shuddha Jayaphala-Pala* *3) Shuddha Parada-1Pala*	*Madhu* *Mandoshna jala*	*½ Gunja*	*Jala*

Note: *B.R-Bhaishajya Ratnavali, B.B.R-Bharat Bhaishajya Ratnakar, R.K-Rasa Kamadhenu, R.T-Rasa Tarangini, R.R.S-Rasa Ratna Samucchaya, R.M-Rasa Manjari,* A.F.I.-The Ayurvedic Formulary of India.

DRUG REVIEW

The *Rasa Panchaka* of *Hinguleshwara Rasa* is annotated as follows:

Table 1: *Rasa Panchaka* (Ayurvedic Pharmacology) of contents of *Hinguleshwara Rasa*[10]

Drugs	***Rasa***	***Guna***	***Virya***	***Vipaka***	***Doshaghnata***	***Karma***
Cinnabar (Hgs)	*Tikta, Kashaya, Katu*	*Laghu, Ruksha, Tikshna*	*Ushna*	*Katu*	*Tridoshahara*	*Jwaraghna, Vishahara*
Vatsnabha (Aconitum ferox Wall ex)	*Madhura*	*Laghu, Ruksha, Tikshna, Vyavayi, Vikasi*	*Ushna*	*Madhura*	*Vatakaphahara*	*Jwarahara, Jangama Vishahara*
Pipali (Piper longum Linn).	*Katu*	*Laghu, Snigdha, Ushna*	*Ushna*	*Madhura*	*Vatakaphahara*	*Deepana, Pachana, Vrushya, Rasayana*

Table 2: *Rasa Panchaka* (Ayurvedic Pharmacology) of *Hinguleshwara Rasa*[11]

Rasa Panchaka	***Rasa***	***Guna***	***Virya***	***Vipaka***	***Doshaghnata***	***Karma***
Hinguleshwara Rasa	*Katu, Tikta*	*Tikshna*	*Ushna*	*Katu*	*Tridoshahara*	*Jwaraghna, Pachana, Rasayana*

Table 3: Chemical constitution and Pharmacological actions of *Hinguleshwara Rasa*[12][13]

Drug	Part used	Phytoconstituents	Pharmacological action
Hingula **(Red sulphide of mercury)**	-	-	**Antimicrobial activity** [11]
Vatsanabha ***(Aconitum ferox Wall ex)***	**Root**	**Indaconitine, Chasmanine, Chasmaconitine**	**Antipyretic, Analgesic, Sedative**
Pippali ***(Piper longum Linn.)***	**Fruit**	**Piperine, Piplartine, Piperundecalidine**	**Anti-inflammatory, Antibacterial, Antimalarial, Immunostimulatory**

Hingula**(Cinnabar)**: *Hingula* is a red sulphide of mercury. It contains about 14 % of sulphur and 86% of mercury. *Hingula* owns *Jwarahara*, *Pachan* property.[14]

***Aconitum chasmanthum Stapf. Ex Holmes.* (Fam. Ranunculaceae)**Rasatarangini describes the Antipyretic, Appetizer, Digestive, & Anti rheumatic properties of *Vatsanabha*.[15] Drugs with the Yogavahi property can adopt the qualities of the substances with which they are combined without losing their unique properties. As a result, such drugs can be used in different formulations to enhance the activity of those formulations. Bhavaprakasha and Rasatarangini mention Vatsanabha as Yogavahi, i.e., bioenhancer. If we want any formulation to react quickly in an emergency, at least one medication with Vyavayi should be added.[16]

Aconite is alleged to be a marked antipyretic, with temperature reduction due to various causes 1. The depressing action of the drug upon all muscle tissue; 2. This causes dilatation of the cutaneous blood vessels due to the peripheral action of aconite; 3. The slowing of the circulation reduces the metabolism.[17]

Piper longum Linn. (Fam.-Piperaceae): It is Piperine is the main active constituent in the Piper longum Lin. Piperine is an alkaloid found naturally in plants belonging to the Piperaceae family, such as Piper nigrum L.(black pepper) and Piper longum L.(long pepper). It possesses antipyretic, anti-inflammatory, and analgesic properties. [18] The LD_{50} value of piperine in mice was 750-800 mg/kg.

Piperaceae family, such as Piper nigrum L. (black pepper) and Piper

[5]

longum L. (long pepper).

Pharmaceutical and Analytical Study of *Hinguleshwara rasa*[19]

Hinguleshwara Rasa contains marker integral Glycosides, Alkaloids, Steroids, Terpenoids, and Reducing sugar.

Table 4: Pharmaceutical and Analytical Study of *Hinguleshwara Rasa*

Physico-chemical Analysis	Value
Loss on drying	4.02%
Total Ash Value	7.82%
Water Soluble Extractive	18.2%
Alcohol Soluble Extractive	16.81%
pH	8.82%
Appearance	Slightly crimsons red
Odour	Strong
Taste	Bitter
Moisture Content	1.3%
Acid Insoluble Ash	0.16%

Mercury Content	22.56%
Sulphur Content	18.39%
Average Diameter	0.250 cm
Average Length	0.674 cm
Average Weight	119mg
Friability	2.2
Hardness	<1Kg/cm^2
Disintegration Time	5 min

Evaluation of Hing*uleshwara Rasa* by ICP AES Elemental Qualitative Analysis for Standardization[20]

ICP AES elemental qualitative analysis is used for precious metal estimation at low levels and heavy metal estimation at sub-ppm levels & in pharmaceutical industries. In *Shuddha Hingula* (purified Cinnabar), we found elements like Chromium (Cr), Sodium (Na), and Tungsten (W), but these elements were not present in a sample of unpurified raw *Hingula*. In the sample of *Shuddha* (purified) and *Ashuddha* (un-purified) *Vatsanabha, we did not find any* significant element in this test. In a sample of Hinguleshwara rasa, we have not found elements which are present in *Shuddha Hingula* & *Shuddha Vatsanabha* like Chromium (Cr), Gallium (Ga), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Tungsten (W). While preparing any formulation, we concluded that some elemental changes occurred after purification and trituration. No significant peculiar element was found in *Hinguleshwara Rasa.*

Clinical indications of *Hinguleshwara Rasa:* an experiential and scientific view[21]

Rasaaushadhi preparation destroys the infection as well as increases the immunity in the patients. *Hinguleshwara Rasa* is a preparation commonly given for various types of fevers and respiratory infections. It contains major ingredients like *Shuddha Hingula* and *Shuddha Vatsanabha*; Pippali is *Dipana, Pachana, Amahara* and *Rasayana* in action. *Hingula* is *also rejuvenating, antibacterial, immunomodulatory, anti-infective, bactericidal, and anthelminthic*, but Hinguleshwara Rasa is fruitful in allergies, respiratory infection, and pyrexia. After the administration of *Hinguleshwara Rasa*, less adverse drug reactions are observed. It has shown desired actions when given with specific adjuvants in specific diseases.

Amayika Prayoga

Disease	Adjuvant Medicine
1. Acute bronchitis	*Vasakarishta*
2. Bronchiectasis	*Shwasakuthara Rasa/Pushkara Mulasava/Soma Choorna.*
3. Chronic bronchitis	*Dashamoola Katutraya Kashaya / Vasakarishta*
4.Chronic bronchial asthma	*Shwasakuthara Rasa/ Pushkaramoolasava / Soma Choorna*
5. Cor pulmonale	*Prabhakara Vati / Arjunarishta / Vasakarishta*
6. Deviated nasal septum	*Laghu Sootha Shekhara Vati / Roudra rasa / Pushkaramoolasava.*
7. Emphysema	*Poornachandrodaya Rasa/Talisadi Choorna/Vasakarishta*
8.*Galashotha*	*Vranapahari Rasa/Pippalyasava*
9. *Jeerna Jwara*	*Arogyavardhini Vati/Amritarishta*
10. Laryngitis	*Sheetamshu Rasa/Pippalyasava*
11. *Nava Jwara*	*Amruthothara Kashaya/Amritarishta*
12. Nasal polyps	*Roudra rasa /Sheetamshu Rasa/Dashamoolarishta*
13. *Pratishyaya*	*Naradiya Lakshmivilasa Rasa/Pushkaramoolasava*

14. *Pinasa*	*Naradiya Lakshmivilasa Rasa/Pushkaramoolasava*
15. Pharyngitis	*Sheetamshu Rasa/Pippalyasava*
16. Pulmonary Kochs	Anti Kochs Treatment*/Pushkaramoolasava*
17. *Purana Jwara*	*Godanti Bhasma/Mahasudarshana Kashaya*
18. Rheumatoid arthritis	*Simhanada Guggulu/Maharasnadi Kashaya/Kshara Basti*
19. SLE	*Hemagarbha Pottali/ Maharasnadi Kashaya/ Pippalyasava*
20. Tracheitis	*Sheetamshu Rasa/Somasava*
21. *Udara Krimi*	*Krimimudgara Rasa/Vidangarishta*
22. *Vishama Jwara*	*Sudarshana Ghana Vati/Puta Pakwa Vishamajwarantaka lauha/Saptaparna Kashaya*

Evaluation of the antibacterial activity of *Hinguleshwara rasa*[22]

Hinguleshwara Rasa was tested against pathogenic bacteria strains Staphylococcus aureus, Streptococcus pyogenes, Escherichia coli, Salmonella typhi and Pseudomonas aeruginosa for the antibacterial activity which causes the infection in the human body—to study antibacterial action in a vitro well diffusion method used. *Hinguleshwara Rasa* was trailed with bacteria at different concentrations.

Bacteria	**12.5% Concentration**	**10.0% Concentration**	**5.0% Concentration**
Streptococcus aureus	Moderate sensitive	Highly sensitive	Insensitive
Streptococcus pyogenes	Highly sensitive	Highly sensitive	Highly sensitive
Escherichia coli	Moderate sensitive	Less sensitive	Less sensitive
Salmonella typhi	Highly sensitive	Highly sensitive	Highly sensitive
Pseudomonas aeruginosa	Highly sensitive	Highly sensitive	Highly sensitive

Hinguleshwara Rasa was highly potent against *Streptococcus pyogenes, Salmonella typhi, and Pseudomonas aeruginosa.*

Mode of Action of *Hinguleshwara Rasa*[10]

In biomedical science, Fever occurs due to an imbalance of body temperature, which is controlled by the hypothalamus. This temperature regulation is affected by Pyrogens, which can increase the thermostat, causing a rise in body temperature. When these pyrogens flow through the hypothalamus, they bind to specific receptors in the hypothalamus, which is why body temperature increases, finally producing fever.

Jwara is caused by Ama, which is formed by *Mithyahara-Vihara*. *Hinguleshwara Rasa* has Tikshna, Ruksha, and Ushna properties, which will enter into the Srotas and directly work on the hypothalamus to control the body temperature and decrease the fever. *Ama* is considered the main reason for Jwara; the Deepan and Pachana guna of these Dravyas help complete Ama Pachana and relieve the *Sroto-Avarodha*. In such a manner, it cures the *Jwara.* One should also have a better knowledge of which organ & how the medicine will work for the good line of treatment. In *Jwara Roga,* one such unique formulation with minimal ingredients that has proven useful is *Hinguleshwara Rasa*.

Effect of *Hinguleshwara Rasa* in *Jwara*[23]

Jwara- At the time of birth and death it is present. It afflicts the body, the senses and the mind. The certain symptoms of Jwara are an increase in the temperature of the body, anorexia, excessive thirst, malaise, body ache with heaviness, and pain in the cardiac region. *Vatsanabha* have active principles like aconitin, pseudoaconitine, these acts as inflammatory, analgesic, diaphoretic. These properties reduce phlegm, inflammation, and fever. It increases the absorption and smooth transportation of the drug into the cell membrane. Pippali contains active principle Piperine, which acts as an immuno-modulator & anti-inflammatory.

In ayurveda, *Jwara* is caused by the weakness of *Jatharagni* and the formation of *Ama*. In the *Jwara*,

the dosha is "Vata", Dushya is "Rasa Dhatu", Adhishthana is "Amashaya", and Srotas are Swedavaha and Annavaha, Lakshana of Srotodushti is "Vimarga gamana or Sanga", and effect on *Agni* is "*Agnimandhya*". *Hinguleshwara rasa* contains three ingredients: Shuddha Hingula, Shuddha Vatsanabha, and *Pippali. Hinguleshwara rasa* contains *Hingula*, which acts on *Jwara*. *Hingula* has the property of *Katu, Kashaya, Tikta Rasa, Ushna Virya, Laghu, Ruksha, Tikshna Guna, Katu Vipaka, Jwaraghna, Tridoshahara, Vishahara,* it acts as *Agnideepaka*, reduces *Ama dosha* here with these properties. *Vatsanabha* reduces the fever with the help of *Vyavayi* and *Vikasi Guna. Vatsanabha* has the property of *Ushna Guna, Yogavahi, Katu, Tikta, Kashaya Rasa, Katu Vipaka, Ushna Virya, Kapha-Vata Shamaka*. It is act as *Shoolahara, Jwarahara, Shwasahara, Kasahara Rasayana, Deepana, Pachana.* The *Vyavayi, Vikasi Guna, Tikshna* and *Ushna Veerya of Shuddha Vatsanabha* pass through the *Sukshma Srotas* by *Yogavahitwa* and perform to *Swedajanana* which is *Lakshana of Jwara Muktiawastha. Pippali* has the properties of Katu Rasa, Laghu, Snigdha, Teekshna guna, Anushna Virya, Madhura Vipaka, and *Kapha-Vata Shamaka*. It causes Deepana, Pachana, Jwarahara, Rasayana, Kasahara, and Shwasahara to reduce Ama and act as *Agnideepak. Hinguleshwara Rasa* are *Katu, Tikta Rasa, Laghu, Ruksha, Tikshna Guna, Ushna Virya, Katu Vipaka* and act as *Jwarahara, Deepana, Pachana, Tridoshahara, Amadoshahara.* If we treat *Mandagni, Jwara* will also resolve. *Hinguleshwara Rasa* is *Ushna, Tikshna* and *Sweda Janak,* so it unblocks *Srotas. So, Hinguleshwara Rasa* is beneficial for the treatment of *Jwara.*

Role of *Bhavana* Process in the antipyretic effect of *Hinguleshwara Rasa*[24]

Bhavana is a kind of *Samskara* performed to modify the properties of the drug. *Hinguleshwara Rasa* is a formulation mentioned under *Jwaradhikara, which has Jwaraghna property that* is potentiated by giving *Bhavana* with *Nimbu Swarasa*. As per the experimental study, Bhavita Hinguleshwara Rasa has a long and sustained antipyretic activity profile compared to *Hinguleshwara Rasa* without *Bhavana*. Paracetamol provides only temporary symptomatic relief, whereas Hinguleshwara Rasa resolves the basic pathology of the Jwara through Ama Pachana and thus produces sustained results.

In-vitro anti-inflammatory and antioxidant activities of *Hinguleshwara Rasa-based* herbomineral formulations[25]

In the first sample, *Hinguleshwara Rasa* (HR1) was prepared as per the methodology described in Rasatarangini using *Shuddha Hingula* (10 g), *Shuddha Vatsanabha* (10 g), and *Pippali* (10 g). In the second and third samples, *Hinguleshwara Rasa* was prepared by replacing *Shuddha Hingula* with *Kajjali* where *Kajjali* made from *Hingulotha Parada* and *Shodhita Parada* constitutes two varieties of *Hinguleshwara Rasa*, i.e. HR2 and HR3. In vitro, antioxidant activity was studied using 2,2-diphenyl-1-picrylhydrazyl, and the absorbance was recorded at 517 nm. For evaluating the in vitro anti-inflammatory studies, the inhibition of albumin denaturation technique was performed. The results showed that the formulation of *Hinguleshwara Rasa* has shown dose-dependent activity, which was observed in 100 g concentration. HR1, HR2, and HR3 showed 36.11, 17.22, and 16.11% radical scavenging activity. It could be concluded that the changes made in the formulations did not affect the in vitro anti-inflammatory and antioxidant effects of the herbomineral formulations.

Efficacy of *Hinguleshwara Rasa* in *Amavata*[26]

All ingredients of *Hinguleshwara Rasa* are *Ushna Virya*. This synergetic effect of the constituents of *Hinguleshwara Rasa* helps to pacify *Amavata* with its predominance of *Ushna virya*. It has promising results on the ailments of Jwara, Sotha, Agnidourbalya, Gaurav, Aruchi, School, and *Angamarda* in *Amavata.* It also cures *Sthabda Gatra* (stiffness of the body).

In-vivo Histopathological Efficacy Study of *Hinguleshwara Rasa* and Indomethacin on FCA-induced Rheumatoid Arthritis in Paw Model of Rats[27]

Rheumatoid arthritis resembles *Amavata* disease. The effect of *Hinguleshwara Rasa* on *Amavata* is mentioned in the text of *Rasatarangini* in Ayurveda. In this study, the investigation was made to catch pre-

ventive & curative changes in the rat paw of Freud's Complete Adjuvant induced RA model. Indomethacin was kept as standard control, and Hinguleshwara Rasa was used as a treatment. Histopathology studies help to know the changes that happen before and after in the paw of standard drug rats; this study reveals that compared to indomethacin, preventive and curative action are found in *Hinguleshwara Rasa*. It may help in the treatment of rheumatoid arthritis in humans. We concluded that *Hinguleshwara Rasa* showed better restoration of joint histopathological changes that occurred due to FCA damage in microscopic examination of tissue samples of the bones of rats. It proves that Hinguleshwara Rasa's efficacy on *Amavata* was better than that of indomethacin treatment.

Analytical, Sub Acute Toxicity and In Vivo Efficacy Study of *Hinguleshwara Rasa* on *Amavata* [Rheumatoid Arthritis (RA)][28]

Hinguleshwara Rasa, which is prepared, and an analytical study was done through analysis of the sample. ICP AES qualitative analysis was done for some elements in the sample. This study helps to find elemental changes in the sample. The XRD report shows that the structure of Hingula was not changed in Ashuddha Raw Hingula, Shuddha Hingula, and *Hinguleshwara Rasa*. The peak of the *Hingula* was increased in *Shuddha Hingula* and *Hinguleshwara Rasa*. The intensity of the peak increased, but the atomic structure was not affected in all samples. FEG-SEM for images of the formulation. We produced images of Raw *Hingula, Shuddha hingula, Ashuddha Vatsanabha, Shuddha Vatsnabha, Pippali, Hinguleshwara Rasa*. HPTLC method was used to develop fingerprint patterns to precisely identify plant & mineral materials in their form. Regarding the subacute toxicity of Hinguleshwara Rasa, we obeyed OECD 407 guidelines. Histopathology reports of different Organs and Biochemical reports show that five times the therapeutic dose of *Hinguleshwara Rasa* i.e. 30 mg/kg was found may be safer in this repeated dose '28' days toxicity study. A 60 mg/kg dose was found to be mildly toxic in the male and female animals. In male animals, 240 mg/kg dose was mild to moderately toxic. In female animals in '28' a day sub-acute toxicity study (Repeated single dose toxicity study), we found it is toxic. *In vivo* study of *Hinguleshwara Rasa* in rheumatoid arthritis shows that *Hinguleshwara Rasa* compared with indomethacin help to reduce swelling in FCA induced Rheumatoid Arthritis rat model in 14 days. Compared to indomethacin treated animals, In *Hinguleshwara Rasa* treated animals shows focal and minimal pathological changes, focal and minimal congestion of blood vascular tissue & normal histo-architecture in the rats of bones of tissue samples.

CONCLUSION

Hinguleshwara Rasa is an eminent formulation for clinical practice in Ayurveda. Its contents are Shuddha Hingula, Shuddha Vatsanabha, and Pippali. The importance of Hinguleshwara Rasa has been described through various studies. Hinguleshwara Rasa is a Rasaaushadhi. In this modern era, it is required to evaluate the toxicity of drugs and their efficacy in treating diseases by doing different studies in the future.

REFERENCES

1. Sen Govind Das, Mishra Prof. S. N., Commentary Siddhiprada on Bhaishjya Ratnavali, Varanasi, Surbharti Prakashan, 2015, C chapter 5(473), 131.
2. Sri Sharma Sadanand, Shri Kasinath Shastri, Rasa Tarangini, Varanasi, Motilal Banarasidas Publication, 2004, Page 663.
3. Rasavaidya Saha Naginadas Chaganalal, Bharat Bhaishajya Ratnakar, Varanasi, Mothilal Banaras sidasa Publication, 1985, Page 491.
4. Pandit Datta Rama, Bruhath Rasaraja Sundara, Uttara khanda, Varanasi, Chaukhambha Orientalia, 2000, Page 253.
5. Sri Misra Chudamani, Rasa Kamadhenu, Sri S. M. Gulraj and Vaidya K. S. Santosh, Rasa Kamadhenu, Varanasi, Choukhambha Orientalia, 1992, Page 28.
6. Sri Sharma Sadanand, Shri Kasinath Shastri, Rasa Tarangini, Varanasi, Motilal Banarasidas Publication, 2004, Page 662.
7. Sri Vagbhatacharya, Intra Dev Tripathi, Rasa Ratna Samucchaya, Varanasi, Choukhambha Sanskrit Bhawan, 2006, Page 137.

8. Acharya Shalinath, Rasa Manjari, Choukhambha Orientalia, 2003,Page 77.
9. Anonymous, Ayurvedic Formulary of India, Part 2, New Delhi, The Controller of Publication,2000, Page 297.
10. Pahwa P. et al., An Insight into Mode of Action of Hinguleshwara Rasa. Sch Int J Tradit Complement Med, 2022, 5(6):134-136.
11. Rani P. et al., Antipyretic & Antimicrobial study of Hinguleshwara Rasa and Godanti-Mishrana.,2017.
12. Lavekar G.S. et al., Database on Medicinal Plants used in Ayurveda, Vol 8, CCRAS, New Delhi.,2007.
13. Sharma P.C. et al., Database on Medicinal Plants used in Ayurveda, Vol 3, CCRAS, New Delhi.,2005.
14. Saxena, J., & Saxena, A., Hingula (Red sulphide of mercury): a conceptual review. World J Pharma Med Res,2020, 6(5), 168-173.
15. Shastri K.N, Ras Tarangini, 11th ed, Motilal Banarasidas, Delhi,1979, Chapter 9, Verse No. 18, P-202.
16. Gajanan Masal, A., & Abhay Shinde, A., (Vatsanabha (Aconitum ferox Wall. ex Seringe): A known Visha but potent medicine W.S.R. Rasa Ratna Samucchaya. *International Journal of Ayurvedic Medicine*,2023, *14*(3), 640–651. https://doi.org/10.47552/ijam.v14i3.3684
17. Shende, S. U., & Suryawanshi, S. S., ROLE OF VATSANABHA IN INFECTIOUS DISEASES: A REVIEW.,2021.
18. Dhargawe, Nikhil & Mahakalkar, Sunil & Mohod, Bhagyashree & Raj, Jeffrey. (2020). Evaluation of analgesic, anti-inflammatory, and antipyretic activity of piperine: An experimental study. Pharmacognosy Research.,2020, 12:176-80.
19. Shahane Amol Manohar, Hinguleshwara Rasa-Pharmaceutical and Analytical study, 2014,Vol 3, 2(4): 1-7,http;//www.ayur log.com.
20. Sonawane, A. B., & Gharote, A. P., Evaluation of Hinguleshwara Rasa by ICP AES Elemental Qualitative Analysis for Standardization. International Journal of Ayurvedic Medicine,2021, 12(1), 141–143.
21. Prof. Shripathi Acharya G, & Miss Rajeshwari S. Acharya. Clinical indications of Hinguleshwara Rasa are from an experiential and scientific view. J Ayurveda Integr Med Sci,2021., Vol 6, Issue 5.
22. Upadhaya D. et al., Evaluation of Antibacterial Activity of *Hinguleshwara Rasa*, AYUSHDHARA,2023., Vol 10, Issue 2.
23. Dr. Vairagi S.,Effect of Hinguleshwara rasa in jwara, IJARESM,2023,Vol 11, Issue 3
24. Saokar, Reshma & Sujatha, Dr., ROLE OF BHAVANA PROCESS IN THE ANTIPYRETIC EFFECT OF HINGULESHWARA RASA,European Journal of Biomedical and Pharmaceutical Sciences,2021.,Vol-6,Issue 8,451-455.
25. Chatterjee A. et al., In vitro anti-inflammatory and antioxidant activities of Hinguleshwara Rasa based herbomineral formulation. Asian Journal of Pharmaceutical and Clinical Research,2018, Vol 11, special issue 2, 24-27.
26. Kumar Anil & Pal Guru Sharan. Efficacy of Hinguleshwara Rasa in Amavata. International Ayurvedic Medical Journal.2017.
27. Sonawane, A. B., Gharote, A. P., & Karande, V. V., In-vivo Histopathological Efficacy study of Hinguleshwara rasa and Indomethacin on FCA induced Rheumatoid Arthritis in Paw model of Rats. International Journal of Ayurvedic Medicine,2021., 12(1), 35–38.
28. Sonawane A. B., Analytical Sub-acute toxicity and In vivo efficacy study of Hinguleshwara Rasa on Amavata Rheumatoid Arthritis (RA).2021,http://hdl.handle.net/10603/367509

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