THERAPEUTIC POTENTIAL OF FORMULATIONS OF SHANKHA BHASMA

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ABSTRACT:

One of the drugs of animal origins described in Rasashastra is shankha (conch shell). Shankha is categorized under several names in different sources, including Shukla Varga, Sudha Varga, and Uparasa Varga. Since the Vedic era, it has been used medicinally to cure a variety of illnesses. Aim and objective: The current study's objective is to gather the Shankha Bhasma formulations that are mentioned in the book Bharat Bhaishayaj Ratnakar and determine their potential for medicinal use. Material & Method: From each of the five volumes of Bharat Bheshaja Ratnakar, every formulation containing Shankha bhasma is examined, and then it is further divided into groups based on the dosage forms. Observation & results: A total of 114 formulations containing shankha bhasma that are prescribed for the treatment of gastrointestinal problems and other conditions like hyperacidity (Amlapitta), irritable bowel syndrome (Grahani), abdominal colic (Udarshula), duodenal ulcers (Parinamshula), and diarrhea (Atisara) have been studied. disorders of the skin and eyes. It is recommended that these formulas be taken in several dose forms, including varti, tablets, and powder. Conclusion: The current study will be helpful in identifying more recent Shankha bhasma formulations and their medicinal uses in a range of illnesses.

Key words: Gastrointestinal disorders, Bharat Bhaishajya Ratnakar, and Shankha Bhahasma

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INTRODUCTION

Ayurvedic pharmaceutics' science of alchemy and the creation of medications from substances derived from plants, minerals, metals, and animals is known as rasashastra. The medications are categorized based on their uses. One such medication that *Sudha Varga Dravys* mentions in *Rasashastra is Shankha* (Conch Shell)."The substance which pacifies evil or calamity" is the literal meaning of the word "*Shankha*" [1]. An animal's conical or oblong shell is called a *shankha*. The majority of water sources offer it. Since the Vedic era, it has been used medicinally to cure a variety of illnesses. The round-bodied, smooth-surfaced *Shankha* with a little hole near the base that shines cleanly and brightly like a full moon, and the longer one.

Ayurvedic writings describe two basic types of *Shankha: Vamavarta Shankha* (left sided opening) and *Dakshinavrta Shankha* (right sided opening). Conversely, the *Dakshinavarta Shankha* is a more uncommon type of conch shell. It is used in temples to blow during prayers and is seen as beneficial because it is scarce. In terms of therapy, it can balance out all three *Doshas. Vamavarta Shankha* is widely accessible. It is the one that is utilized to prepare all other compound formulations as well as for purification and incineration. As per the *Rasatarangini*, the *Amla Dravya* is the primary location for the *Shodhan* (purification) of *Shankha*. This is carried out in *Nimbuka, Jambir Nimbu, Tanduliya, Kanji, and Jayanti Patra Swarasa. Shankha* is put through Maran (Incineration) after purification, when it becomes white *bhasma*.

Shankha is categorized under several names in different sources, including Shukla Varga by Rasarnava, Dhanvantarinighantu, and Rasanighantu. Uparasa Varga by Bhavprakasha nighatu, Dhanvantari nighantu, Rasaratnakar, Rasendrachintamani, Rasendra Sara Samgraha, and Ayurveda Prakasha are among the works attributed to Rasamritam, Kaideva Nighantu, Bhavprakasha Nighantu, and Sudha Varga by Bhavprakasha Nighantu. Shankha Bhasma is associated with several illnesses, including hyperacidity (Amlapitta), irritable bowel syndrome (Grahani), abdominal colic (Udarshula), duodenal ulcers (Parinamshula), diarrhea (Atisara), and many more. It also possesses qualities similar to Madhura, Laghu, and Seeta [3]. Therefore, gathering the formulations containing Shankha Bhasma as specified in Bharat Bhaishayaj Ratnakar and determining its therapeutic potential is the goal of the current study.

MATERIAL AND METHODS

All of the formulations from *Bharat Bhaishayaj Ratnakar* are reviewed in this review. Formulations are listed, gathered volume-wise from *Bharat Bheshaja Ratnakar's* five different volumes, and then further divided into groups based on dosage types [4].

OBSERVATION AND RESULTS

Table 1 displays the 114 formulations containing *shankha bhasma* that have been evaluated and gathered from *Bharat Bhaishaya Ratnakar* for this review. These formulations are advised to be taken with different *anupanas* (adjuvants) for various illnesses. As shown in graph 1, it is recommended that these formulations be given in various dosage forms, such as powder, *pills*, *varti*, etc.

Table 1:- List of Formulations Containing Shankha bhasma

S.N.	Name of Formulations	Dosage Forms	Dose	Anupana (Adjuvant)	Therapeutic Indications	Reference
1	Karpuradi Tail	Taila	-	-	Hair removal from the body.	B.B.R.Vol-1,p262
2	Arogvadhadhi Taila	Taila	-	-	Hair Removal from the body.	B.B.R.Vol-1, p149
3	Dvitiya Kulathyadyam Ghruta	Ghruta	-	-	Heart Disease,Gastro - intestinal Disorders,kasa, Jwara	B.B.R.Vol-1, p 257
4	Agnisandipano Rasa	Vati	125mg	Warm Water	Agnimandya, Digestion, Acidity,And shool.	B.B.R.Vol-1, p98
5	Ushiradi Churna	Churna	1	Rice	Bleeding disorders. Kshayaroga	B.B.R.Vol-1, p167
6	Arkalokeshwar Rasa	Vati	250mg	Ghee, Maricha Churna	Amlapitta, Kasa	B.B.B, Vol-1 ,Page119
7	Kas Agnimukho Rasa	Vati	625mg	Warm Water	Shool, Abdominal regurgitation	B.B.B, Volume 1, Page 96
8	kasanhara bhairava	Vati	125 mg	Warm Water	Kasa, Aruchi	B.B.R.Vol-1, p 306
9	Pancham Kaphaketu Rasa	Vati	125mg	Ginger Juice	Sore Throat, Cough and Mumps.	B.B.R.Vol-1, p 288
10	Katphaladi Yoga	Vati	Y all		Netra Roga.	B.B.R.Vol-1, p 278
11	Chaturtham Kaphaketu	Vati	250mg	_	All Kinds of Illness	B.B.R.Vol-1, p 287
12	Kapard Rasa	Vati _	250mg	Warm Water	Prameha _ Q V	B.B.R.Vol-1, p 284
13	Kanady Anjana	Anjana	<u>- urar</u>	ar or Ay	Netra roga	B.B.R.Vol-1, p 277
14	Kanchanni Lepa	Lepa	-	-	Bhagandara	B.B.R.Vol-1, p 306 B.B.R.Vol-1,p275
15	Krumi dhulijalaplavo Rasa	Vati	250mg	Cold water	Krumiroga	B.B.R.Vol-1, p 317
16	Khadiradi Gutika	Vati	250mg	-	Mukharoga	B.B.R.Vol-1, p 326
17	Guduchyadi Modak	Modak	-	Ghee, Honey	Prameha, Ashmari,Bleeding Problems,Agniman dya.	B.B.R.Vol-2,p 108
18	Gunjyadi Lepa	Lepa	-	-	Twakaroga,Kandur oga	B.B.R.Vol-2,p 70
19	Grahanikapato Rasa	Vati	250 mg	Ghee	Digestive Problems	B.B.R.Vol-2,p 120

20	Chandrodaya Vati	Vati			Netra roga	B.B.R.Vol-2,p193
21	Chandraprabha Vati	Varti	-	-	Netra Roga	B.B.R.Vol-2,page no 193
22	Chandrakala Vati	Varti	-	-	Netra Roga	B.B.R.Vol-2,page no 192
23	Grahanigajendra Vatika	Varti	2gm	Goat milk	Twaka Roga Gulma, Anlapitta,Jwara	B.B.R.Vol-2,page no 125
24	Tiladi Vati	Vati	12gm	Cold Water,	Apachan,Agniman dya.	B.B.R.Vol-2,page no 351
25	Talkadi Prayog	Vati	-	-	Hair removal on the body	B.B.R.Vol-2,page no 383
26	Chaturthikari Rasa	Vati	250mg	Ghee,Mishri, Cold Water	Jirna Jwara.	B.B.R.Vol-2,page no 1916
27	Jwarebhasinho Rasa	Vati	250mg	-	Udarshool, Jwara,	B.B.R.Vol-2,page no 308
28	Trinetryakho Rasa	Varti	125mg	Punarnavasa wa rasa	Fissure,Shotha	B.B.R.Vol-2,page no 484
29	Tutthadi Kajwaragsha	Vati	375mg	Mishri	Jwara	B.B.R.Vol-2,page no 474
30	Timirnashini Varti	Varti			Pteregium, Catract	B.B.R.Vol-2,page no 392
31	Tamalpatradi Vati	Vati			Eye Conditions	B.B.R.Vol-2,page no 390
32	Drushtiprada Varti	Varti	- '		Catract	B.B.R.Vol-2,page no 99
33	Drushtipradanam Anjana	Anjana	yaı	11 D	Twakaroga, Netraroga	B.B.R.Vol-3,page no 97
34	Dakshandatvakady Anjana <mark>m Barana</mark>	Anjana	ourn	al of Ayı	Netraroga & Y	B.B.R.Vol-3,page no 98
35	Tryahikari Rasa	Vati	500mg	Jiraka Churna	Jwara	B.B.R.Vol-3,page no 506
36	Padminipangadi Lepa	Lepa	-	-	Twakaroga	B.B.R.Vol-3,page no 388
37	Palnegyandi Guitka	Vati	125mg	-	Netraroga	B.B.R.Vol-3,page no 247
38	Nishadi Lepa	Lepa	-	-	Disorders related to Brest	B.B.R.Vol-3,page no 210
39	Nilkantha Rasa	Vati	250mg	Warm water	Kasa, Shwasa, Jwara	B.B.R.Vol-3,page no 399
40	Pachaniya Kshar	Vati	-	-	Fertility,Spleenom egally,Abdominal Regurgitation.	B.B.R.Vol-3,page no 534
41	Bhaskaro Rasa	Vati	250mg	Warm water	Shoola, Kshudha	B.B.R.Vol-3,page no 668
42	Putikarandvam Churna	Churna	500mg	Kanji	Gatrointestinal Disorders	B.B.R.Vol-3,page no 500

43	Prataplankaeshwar Rasa	Vati	375 mg	Ginger juice	Sarvaroga Shool,Fissure	B.B.R.Vol-3,page no 509
44	Bhairavi Vati	Vati	1gm	-	Kasa, Shwasa	B.B.R.Vol-3,page
45	Pancham Manshiladya Anjana	Anjana	-	-	Pteregium, Itching, Catract	B.B.R.Vol-4,page no 151
46	Tritiya Manashilady Anjana	Anjana	-	-	Netra Roga.	B.B.R.Vol-4,page no 150
47	Manjithadya Anjana	Anjana	-	-	Anjana, Bleeding Disorders	B.B.R.Vol-4,page no 150
49	Mungapottali Rasa	Varti	125mg	-	Sarvaroga	B.B.R.Vol-4,page no 243
50	Manshiladya Varti	Vati	-	-	Anjana,Pteregium, Itching	B.B.R.Vol-4,page no 151
51	Pratham Lokeshwar Rasa	Vati	500mg	Ghee, Maricha Churna	Loose Motions, Gastrointestinal Issues	B.B.R.Vol-4,page no 537
52	Laghushankha Bhasma Yoga	Bhasma	1gm	Warm Water	Shool	B.B.R.Vol-4,page no 514
53	Ravisundaro Rasa	Vati	125 mg	Kulitha	Jwara, Agnimandya	B.B.R.Vol-4,page no 389
54	Rakta Sutshekhar Rasa	Vati	125mg	Kullatha Manda	Jwara	B.B.R.Vol-4,page no382
55	Vantihruda Rasa	Vati	500mg	Ajamoda Churna	Krumiroga	B.B.R.Vol-4,page no 752
56	Vadvanal Vati	Vati	375mg	Ginger Juice	Aruchi, Agnimandya, Gulma	B.B.R.Vol-4,page no 728
57	Vangeshwara Rasa	Vati	125mg		Balyavardhaka	B.B.R.Vol-4,page no 706
58	Vaidehi Varti Inau	Varti	ourn	al of Ayı	Agnimandya, Aruchi, Gulma, Kshyaroga	B.B.R.Vol-4,page no 694
59	Lohamrutunjaya Rasa	Vati	375mg	-	Agnimandya, Spleenomegally, Hepatomegally	B.B.R.Vol-4,page no 550
60	Trutiya Shankhadi Lepa	Lepa	-	-	Lipoma	B.B.R.Vol-5,page no 75
61	Dvitiya Shankhadi Lepa	Lepa	-	-	Removal of Body Hairs	B.B.R.Vol-5,page no 74
62	Pratham Shankhadi Lepa	Lepa	-	-	Removal of Body hairs	B.B.R.Vol-5,page no 74
63	Shankhachurnadi Lepa	Churna	-	-	Hair removal from the Body	B.B.R.Vol-5,page no 74
64	Shankhapushpadi Varti	Varti	-	-	Netraroga	B.B.R.Vol-5,page no 84
65	Shankhanabhvadva Vati	Vati	-	-	Catract	B.B.R.Vol-5,page no 83

66	Dvitiya Shankhadi Vatika	Vati	-	-	Netraroga	B.B.R.Vol-5,page no 84
67	Pratham Shnakhadi Vatika	Vati	-	-	Netraroga	B.B.R.Vol-5,page no 84
68	Shuklari Varti	Varti	-	-	Pterigium	B.B.R.Vol-5,page no 87
69	Shankha drava Rasa	Vati	4gm	-	Splenomegaly, Hepatomegaly,	B.B.R.Vol-5,page no100
70	Shankhadravako Rasa	Liquid	1 Drop		Fissure, Urinary Stone, Kideny Stone.	B.B.R.Vol-5,page no 100
71	Shankha drava	vati	6 Drops	-	Gulma	B.B.R.Vol-5,page no 98
72	Shankha churna	Churna	1 gm	-	Agnimandya	B.B.R.Vol-5,page no 95
73	Shankhachula Rasa	Vati	4 gms	Honey	Kasa, Shwasa	B.B.R.Vol-5,page no 95
74	Shankha garbha pottali Rasa	Vati	125mg	Honey	Balahani.	B.B.R.Vol-5,page no 94
75	Shankhayati	Vati	1gm		Apachan, shoola	B.B.R.Vol-5,page no 104
76	Shankha Yoga	Vati			Jaundice	B.B.R.Vol-5,page no 104
77	Shankheshwar Rasa	Vati	-		Kshayaroga	B.B.R.Vol-5,p110
78	Shitari Rasa	Vati	62.5mg	i D	Jwara	B.B.R.Vol-5,p 139
79	Shulahar kshar	Vati	12gm		Angamarda, Shoola	B.B.R.Vol-5,p 149
80	Sphatikadi Varti 📙 a 🗓	Varti	ourn	al of Ayı	Purush Vandyatva	B.B.R.Vol-5,p 295
81	Sutashekhar Rasa	Vati	250mg	Honey, Ghrita	Shoola, Aruchi, Kasa, Agnimandya	B.B.R.Vol-5,p 372
82	Siskadiyoga	Vati	-	-	Keshya vikara	B.B.R.Vol-5,p 428

*B.B.R.- Bharat Bhaishajya Ratnakar Volume 1-5

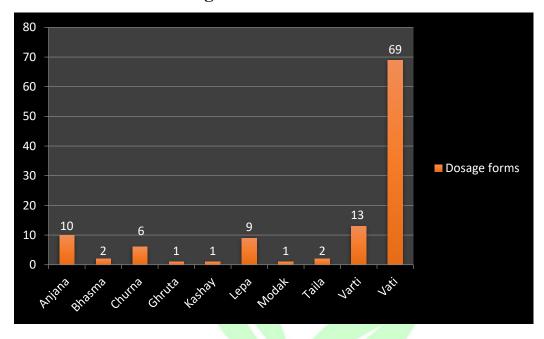


Table 2:- Different dosage forms of Shankha Bhasma.

DISCUSSION

Ayurvedic pharmaceutical formulations, or pharmaceutics, are a significant aspect of Ayurveda that have progressively developed from basic forms to more complicated forms based on combinations of herbs and minerals. Many pharmaceutical preparations, including those produced for medicinal purposes, such as *Anjana* (collyrium), *Bhasma*, *Churna* (powder), *Kashaya* (decoction), *Lepa* (topical applications), *Varti* (suppository), and *Vati* (tablets), are described in all literature. Five volumes, *Bharat Bhaishajya Ratnakara*, were authored during the 20th century by *Vaidya Nagindas Chaganlal Shah*. It is an assemblage of formulas for herbs, minerals, and herbominerals that have been previously published in Rasa books. Table 1 displays a total of 114 formulations in various dosage forms that include *Shankha Bhasma* as one of the ingredients.

Each of these formulations has a unique therapeutic potential and is recommended for a range of conditions, including hyperacidity (*Amlapitta*), irritable bowel syndrome (*Grahani*), abdominal colic (*Udarshula*), duodenal ulcers (*Parinamshula*), and diarrhea (*Atisara*). 69 of

the 114 formulations are in tablet form, which is the most popular form because to its easy administration, non-palatability, and precise dosing [5]. In therapeutics, *anupana* is essential. Certain formulations necessitate special *Anupana*, such as *Shankhodara Rasa*, which should be taken with Navneet. Common *anupanas* include ginger juice, honey, and warm water. *Anuapan* is a carrier that aids in getting the medication to the intended organ and may also increase its effectiveness. Additionally, it facilitates quick digestion and absorption.

Applying medication to the inner side of the lower lid using the fingertip or an *Anjanashalaka* (probe) in the form of *Gutika*, *Raskriya*, *or Churna* (powder) is known as *Anjana kalpana* (application of collyrium) [7]. The BBR offers ten different Anjana

formulations, among which Shankhadyanjana significantly reduced the breadth of Avrana Shukla (Corneal opacity) [8]. For the treatment of eye, skin, respiratory tract, and oral cavity conditions, Manashiladyanjana, a different formulation of Shankha bhasma and Manasila (Red arsenic), is recommended [9]. When it comes to ophthalmia neonatorum, Haritkyadyanjana in the form of Haritkyadi eye drops is demonstrating notable outcomes [10]. Bhasma refers to ash that has been calcined after a mineral, gem, or metal has been purified and treated by triturating it in herbal extracts, then burning, which came next. In addition to increasing the drug's surface area, nanoparticles have distinct therapeutic potential and aid in the drug's effective delivery to the target region [11]. Only two Bhasmas BBR have been reported for gastrointestinal disorders: Laghushankha Bhasma, which has been shown to have antiulcer properties in rats, and Chincha Shankha Bhasma [12]. The term "churna" (powder formulations) refers to powders made from dried forms of one or more medications combined. Specific Churna formulations are created by gathering the pharmaceuticals listed in the formulations, powdering each one separately, and then preparing a fine powder using an 85-number sieve, which is then combined with a specific amount [13]. Approximately six Churna formulations are described in BBR.

It has also been discovered that *Putikaranjyam Churna* (Caesalpinia bonducella Linn.) has a calming, anti-inflammatory effect, making it very advantageous for treating an enlarged prostate [14]. Dusting powder *Shankha Nabhichurna*, so named because of its constituents, has been effectively utilized to reduce symptoms and irritation in children with diaper dermatitis[15]. *Shankha Churna* is utilized to treat gastrointestinal disorders because, in contrast to expectations, it significantly enhanced gastric acid in a pharmacological study [16].

pharmaceutical procedure called *Sneha Kalpana* (Medicated Fatty Formulations) is used to make oleaginous medications. In Ayurveda, it might be referred to as a lipophilic substance. *Ghrita* and *Taila* are two outstanding instances of how food formats are used to deliver medications. A liposome is a Snehakalpana micro-unit that can target a cell either internally or topically by carrying an active component [17]. *Karpuradi Taila* (Camphor oil), one of the two *Taila* formulations and one Ghrita formulation that BBR described, has the ability to lessen pain, cramps, stiffness, and numbness. It contains sesame oil, *Shankha Bhasma*, and camphor (Cinnamomum camphora Linn.) [18]. External application of the herbal preparation is done with *Lepa Kalpana* (Topical dose form). In Lepa Kalpana, many herbal medications are consumed as powders and triturated with various media to used externally as *Lepa* in the form of paste [19]. There are nine different lepa formulations described in BBR, and *Gunjadi lepa* works well in *Vrana* and *Kushtha* [20]. *Shankhadi.Because* they contain *Sarjikshar* and *Shankha, lepa, Swarjikadi lepa*, and *Haritaladi* lepa exhibit *Lomashatana* feature [21].

A well-known Ayurvedic preparation called *Modaka Kalpana* (tablet preparation) is made by combining finely ground medication powders with jiggery, or Guda [22]. Shankha bhasmacontaining Guduchyadi Modaka is highly beneficial for digestive issues. Additionally, it has antispasmodic, antipyretic, and anti-diabetic properties [23]. Formation of Suppository Varti Kalpana fundamentally falls under "Vati" Kalpana. Shape and purpose are the primary differences. Vatis are circular in shape, but Vartis are elongated with tapering ends. Vartis are applied both inside and externally. Vartis are categorized into various categories according on the organ and action [24]. There are twelve Varti preparations in BBR, and among them is Shankha Bhasma. Chandrodaya Varti is utilized in a number of eye ailments, including Cataract, Pterygium, Granular Eyelid Disorder, Itching, Conjunctivitis, and Night Blindness [25]. The term "Vati" refers to tablet preparations, or Vati Kalpana, that are made as pills. These consist of one or more medications derived from minerals, plants, and animals. Vati is a term for finely ground pharmaceutical powder that is manufactured in different sizes and combined with different liquid medium [26].

Agnikumar Rasa observed that 69 of the pill formulations listed in BBR were successful in treating dyspepsia and appetite loss [27]. Treatment for digestive issues involves the administration of *Hiranya Garbha Pottali* Rasa [28]. The *Amlapiita* diseases and the gastrointestinal disorders make extensive use of *Sutshekhar Rasa* [29], *Shankha Vati* [30], and *Shankha Dravaka Rasa* [31]. *Shankha* is advised in hyperacidity because of its ability to lower Pitta Vitiations. These combinations are recommended for certain conditions, but each Ayurvedic composition also has the added benefit of functioning on multiple levels to offer therapeutic benefits due to the synergistic effect of each medicine. They can therefore function as several treatments. As previously said, in numerous ailments, numerous formulas have still to be verified on their effectiveness. Therefore, additional research is needed.

CONCLUSION

About 114 Ayurvedic formulations containing *Shankha bhasma* in various dose forms have been mentioned by Bharat Bhaishajya Ratnakar; these formulations are primarily utilized for digestive ailments. By significantly modifying the basic medications, several dosage forms are created for improved absorption, distribution, metabolism, and excretion. Since treating digestive disorders is a broad topic, *Shankha bhasma* formulations can offer side-effect-free gastro-intestinal protective medications. The current analysis will be helpful in identifying more recent formulations and their potential therapeutic uses. Patients with digestive and other diseases will benefit if further research of this kind is conducted using different formulations.

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REFERENCES

- 1. Raja Radhakant deva. Shabdkalpadrum: Vol.5, 3 edition Chaukhamba Sanskrit Series office: Vara-nasi,1967, p11
- 2. Angadi R. Rasatarangini ,Choukhamba Surbharati Prakashan ,1st ed-2015,Varanasi,12-2,p.192.
- 3. Dukare P, Rathi B. Pharmaceutico-Analytical Study Of shankha bhasma Prepared By Two Different Methods And Evaluation Of Its Relative Oral Bioavailability In Healthy Volunteers. European Journal of Molecular & Clinical Medicine. 2020;7(11):2020.
- 4. Shah Nagindas C. Bharat Bheshajya Ratnakar, Vol I to V B. Jain Publishers Pvt Ltd, New Delhi 2nd edition, 1999.
- 5. Rathi B, Rathi R. Pharmaceutical standardization of Bakuchi vati: A modified dosage form of Dhatryadi Yoga, International Journal of Research in Ayurveda and Pharmacy, 2017;8(1):57-61
- 6. Rathi B, Rathi R. Principals of ethical ayurveda prescription writing in clinical practice: A literature review. Journal of Datta Meghe Institute of Medical Sciences University. 2019;14(6):97.

- 7. Bagde A., Ramteke A. Critical review of anjanakriya (application of collyrium) in ayurvedic literature ,World journal of pharmacy and pharmaceutical sciences, 2019; 8(4): 520-528
- 8. Pawar A. Thorat S. Evaluation And Comparison Between Shankhadi Rasakriya Anjana And Madhu Anjana In The Management Of Avrana Shukla With Special Reference To Corneal Opacity World Journal of Pharmaceutical Research 2019;8(13):1082-1088
- 9. Sharma V., Reddy KRC., Singh G., An Ayurvedic review on therapeutic potentials of manashila –A review, Innovare journal of Ayurvedic sciences, 2016;4(3):1-6
- 10. Srikantha KV, Chethan Kumar VK and Nagaratna SJ, Preparation of Haritakyadi eye drops: An Ayurvedic formulation for ophthalmia neonatorum, The Pharma Innovation Journal 2018; 7(6): 590-593.
- 11. Garde D, Rathi B, Wanjari A, Rajput D. Pharmaceutical standardization of Kapardika Bhasma prepared by three different varieties. Journal of Indian System of Medicine. 2017 Oct 1;5(4):249.
- 12.Pandit S, Sur TK, Jana U, Bhattacharyya D, Debnath PK. Anti-ulcer effect of Shankhabhasma in rats: a preliminary study. Indian Journal of Pharmacology. 2000; 132(6):378-80.
- 13. Shelke S, Rathi B. Review on Dhatryadi Churna: An Ayurvedic Antipyretic Polyherbal Formulation. Indian Journal of Forensic Medicine & Toxicology. 2020 Oct 1;14(4):6968-6972
- 14. <u>Shrivastava</u> A., Gupta V., Various treatment options for benign prostatic hyperplasia: A current update, Journal of Mid Life Health, 2012 Jan-Jun; 3(1):10–19.
- 15. PuranikP., Sharashchandra R. Sariva shankhanabhi churna: A topical dusting powder for diaper dermatitis, The Pharma Innovation Journal 2019; 8(1): 282-284
- 16. Kodlady N, Patgiri BJ. Varieties in ShankhaVati-An Ayurvedic classical formulation for GIT disorders. Annals of Ayurvedic Medicine. 2012;1(3):102-8.
- 17.Singh N, Chaudhary A. A comparative review study of Sneha Kalpana (Paka) vis-a-vis liposome. AYU. 2011 Jan;32(1):103-8.
- 18. Suganya Jenifer F. Effectiveness of camphor oil application on reduction of joint pain among menopausal women at selected rural areas, Coimbatore .Doctoral dissertation, PPG College of Nursing, Coimbatore, 2014
- 19. Dhote M, Rathi B, Rajput DS, Dongre R. A review on Lepa Kalpana: An inherent topical formulations described in Sharangadhar Samhita. Journal of Indian System of Medicine. 2019 Apr 1;7(2):75.
- 20. Dahikar GK, Rathi B, Rathi R. Exploring the therapeutic potential of Gunja (Abrus precatorius Linn.): A classical semi-poisonous herbal drug. International Journal of Botany

Studies, 2020;5(6): 87-94

- 21. Bhagavathi N.N.L, Rajkumar C, Srikanth B, A Bird's Eye View of Trichology In Ayurved, World Journal of Pharmaceutical Research, 2016;6(2):441-451
- 22.ShelavaleV,AtramR,KolteS,Pharmacognostical and Pharmaceutical Evaluation of Guda-Haritakyadi Modak –An Ayurvedic Compounds, European Journal of Pharmaceutical and Medical Resaerch ,2020,7(7),910-914,ISSN2394-3211.
- 23.Mishra G, Pandya D H, A PHARMACOGNOSTICAL AND PHYSICO-CHEMICAL ANALYSIS OF GUDUCHI MODAKA (VATI), International Journal of Applied Ayurved 2018;3(10):1459-1464
- 24. Shevalkar HS, Dubewar A. Review of Netravarti. Journal of Ayurveda and Integrated Medical Sciences. 2021 Apr 30; 6(02):92-5.
- 25. Vyas M, Patgiri V.J. Process Validation of Chandrodaya Varti— an Ayurvedic Ophthalmic Suppository, International Journal of Pharmaceutical & Biological Archives 2012; 3(2):296-299.
- 26. Choudhary A, Review of vati Kalpana w.r.s. to Sharandharokata vatikalpana, International Ayurvedic Medical Journal, 2017;5(12): 4469-4475
- 27. Katterao B, Asore G, Review of Literature of Agnikumar rasa A herbo-mineral Ayurvedic formulation, Ayurlog Natioanl Journal of Research in Ayurved, 2019;7(1):1-8
- 28. Kothari S, Singh R, Math P, Motghare K, Soni D., Rasakalpas & Pottali Kalpana In Rasashastra, World Journal Of Pharmaceutical And Medical Research, 2019;5(4):171-174
- 29. Kumar A, Singhal T, Scientific Explanation Of Mode Of Action Of Sutshekhar Ras In Amlapitta With Special Reference To Acid Peptic Disorders: A Review, International journal of research in Ayurveda and pharmacy, 2018;9(5):47-49
- 30. Kodlady N, Patgiri BJ. Varieties in Shankha Vati-An Ayurvedic classical formulation for GIT disorders. Annals of Ayurvedic Medicine. 2012;1(3):102-8.
- 31. Jibkate BR, Rathi BJ, Wanjari AS, Rajput DS. Critical review on pharmaceutical prospects of acid formulations described in Ayurveda classics with respect to Draavak Kalpas. Journal of Indian System of Medicine. 2019 Jan 1;7(1):33.

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