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A critical review on concept of *Niruha Basti* formulation

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ABSTRACT

Niruha Basti (decoction enema) has been given importance in classical texts of Ayurveda as well as is widely practiced by physicians as it can be given in patients of all ages and of all diseases. *Basti* formulation and administration greatly impact the therapeutic effects. The contents, their dosage, properties, order and method of mixing, characteristics of well-prepared *Niruha Basti*, rationality behind sequential mixing and need for *Basti* formulation should be studied thoroughly so as to understand the essence of science, to achieve desired therapeutic effects and to avoid complications. So, here is an attempt to understand the entire concept of *Niruha Basti* formulation with the help of references from classical texts, textbooks, previous articles on this topic from reputed journals.

Key words: *Niruha Basti*, Formulation, Order of mixing, Therapeutic effects.

INTRODUCTION

Sages of authority hold an application of the *Basti* (enema) to be the best of all measures because on account of its varied functions and of its being compared of various kind of medicinal drugs, it helps to restrain, pacify and cleanse different *Dosha* (humors) of body.^[1] It is considered to be the prime treatment in *Vata* disorders^[2,3,4] and is also efficacious in diseases due to deranged *Pitta*, *Kapha*, *Rakta*, any two or three of them.^[5,6]

Niruha Basti is amongst the types of *Basti* which is used widely by practitioners as it expels the *Dosha* from the system, cures the disease, rejuvenate the organism

and produce longevity.^[7-9] The desired effect of *Niruha Basti* depends on several determinants and *Basti* formulation is one of the important determinant variables.^[10]

The main classical texts of *Ayurveda* have highlighted the contents, their dosage, properties, order and method of mixing, characteristics of well-prepared *Basti*, rationale behind sequential mixing. The endeavours of a man who has studied the entire *Shastra* (classical text) but fails to make a clear exposition of the same, are vain like the efforts of an ass that carries a load of sandalwood.^[11] So, it is important to study the entire concept of *Niruha Basti* formulation from classical texts and to understand the rationale behind it for practical application.

As *Acharyas* has stated that by studying single *Shastra*, a man can never catch the true input of this. Therefore, a physician should study as many altered branches as possible.^[12] So, the logic behind *Niruha Basti* formulation should also be studied with the help of modern principles like emulsion, collision system, particle distribution, etc which makes it easier to understand. The well formed *Niruha Basti* only produces desired therapeutic effects without any complications. So, here is an attempt to study the

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concept of *Niruha Basti* formulation from *Ayurvedic* and modern view.

MATERIALS AND METHODS

References about this topic from three main classical texts of *Ayurveda* along with their commentaries, books and articles from reputed journal were studied; analysed and important things are compiled in this article.

RESULT

The contents, their quantity, properties, order and method of mixing, characteristics of well-prepared *Basti*, rationality behind sequential mixing and need for *Basti* formulation are as explained below.

Contents of Niruha Basti - are explained in table below

Table 1: Contents of Niruha Basti

SN	Samhita	Contents of Niruha Basti
1.	Charak Samhita	Madhu (honey), Saindhav (salt), Sneha (oleaginous substance), Kalka (herbal paste), Kwatha (decoction) ^[13]
2.	Sushrut Samhita	Saindhav, Madhu, Sneha, Madanfaj Kalka, Mamsarasa (meat soup), Ksheer (milk), Kanji (rice gruel), Mutra (urine), Kwatha ^[14,15]
3.	Ashtanga Hriday	Makshik, Lavana, Sneha, Kalka, Kwatha ^[16]

Quantity of contents

Acharya Vagbhata has quoted the *Dash Prasrutik Niruha Matra* (940ml),^[17] while Acharya Charaka,^[18] Sushruta,^[19] Kashyapa,^[20] Chakradatta,^[21] Sharangdhara^[22] and Vangsen^[23] have quoted the *Dwadash Prasrutik Niruha Matra* (1152 ml) as an ideal dosage for an adult. The quantity of each content mentioned by main three classical texts of *Ayurveda* are given in table below-

Table 2: Quantity of contents

SN	Ingredients	Charak Samhita ^[18]	Sushrut Samhita ^[19]	Ashtang Hriday ^[24]
1.	Makshik	192gm	192gm	144gm

2.	Lavana	12gm	12gm	6gm
3.	Sneha	288gm	192gm	144gm
4.	Kalka	96gm	144gm	96gm
5.	Kwatha	480gm	384gm	480gm
6.	Avapa	192gm	192gm	-

However, the quantity of ingredients varies according to the *Dosha* predominance.^[22,25-29] Also, it is only explained as an example and the *Vaidya* (physician) has to fix the dosage of *Niruha Basti Dravya* after complete evaluation of *Vaya*(age), *Rugna Bala* (strength of patient) and *Vyadhi Bala* (strength of disease).^[30]

Properties of ingredients

- Makshik (Honey)** - It is considered as Auspicious drug.^[20] It is having sweet and astringent taste, *Ruksha* (dry) *Guna* (property) and *Ushna Veerya* (hot potency).^[31-33] The most important properties of honey in context of *Basti Karma* are *Yogavahitva* (synergistic) and *Sukshma Marga Anusaritva* (potency to penetrate into minute channels of body).^[32] It acts as emulsifier which stabilises an emulsion.^[34] It is ambiphilic in nature. It has fructose, glucose, sucrose, etc. which get quickly absorbed by digestive system and are converted into energy so acts as instant energizer. It has high nutritive value due to presence of vitamins, minerals, amino acids, fat, etc. It is a very good antioxidant^[35] and has stimulative effect on colonic probiotic bacteria.^[36] It also has specific therapeutic effects like *Vrushya* (aphrodisiac), *Chakshushya* (good for eye health), *Chedan* (excision), *Lekhana* (scraping).^[31-33]
- Lavana (salt)** - It is salty and mild sweet in taste. It has *Laghu* (light), *Sukshma* (minute), *Teekshna* (sharp), *Snigdha* (oily) properties and is of *Anushna Veerya* (not so hot).^[37-39] Due to its *Sukshma* property, it reaches upto microchannels of body. Due to its *Teekshna* property it breaks down the morbid *Malas* and clears the channels. Due to *Snigdha* it liquifies the *Dosha*. Due to its irritant property it helps to eliminate the *Basti*

Dravya.^[40] It contains 21 essential and 30 accessory minerals, 98% NaCl and traces of K.^[35] It helps in absorption and bio purification process of *Basti*.^[36]

3. **Sneha** - *Snigdha Guna* produces unctuousness in body which in turn helps in easy elimination of *Dosha* and *Mala* (wastes). It pacifies *Vata Dosha*, softens microchannels and remove obstruction in channels.^[41] It protects mucous membrane from untoward effect of irritant drugs in *Basti*.^[42] It helps to form emulsion which has got cleaning and healing effect.^[34]
4. **Kalka** - main drug which gives potency to the whole combination.^[35] It helps to disintegrate *Mala* by increasing osmotic permeability of solution.^[42] It helps to form colloidal solution, increase surface area and accelerate absorption of *Basti*.^[35] Irritation property along with other ingredients may induce colonic distension and stimulate the process of evacuatory reflex.^[42] It gives required thickness to *Basti*.^[36] It can be *Utkleshan* (provocation), *Doshahara* (extraction), *Dosha Shamana* (pacification).^[43]
5. **Kwatha** - It increases volume of *Basti* which in turn lead to increased ability to spread in colon and accelerate absorption of *Basti Dravya* by increasing surface area. It helps in spreading and cleaning. It helps in homogenization of mixture. It has different therapeutic effects.^[42] *Kalka* and *Kwatha* drugs are selected on the basis of *Dosha*, *Dushya* (body tissue) and *Srotasa* (circulating body channels) involved in pathogenesis of disease, So, they are the main constituents.^[44]
6. **Avapa** - added if the disease is chronic and obstinate.^[42]

Order of mixing of ingredients

1. *Acharya Charaka*,^[13] *Vagbhata*^[16] and *Kashyapa*^[30] has quoted the order of mixing as -
Makshik – Lavana – Sneha – Kalka – Kwatha – Avapa
2. *Acharya Sushruta*,^[14] *Chakradatta*,^[21] *Vangsen*^[23] quoted the sequence as -
Saindhav – Madhu – Sneha – Kalka – Avapa – Kwatha.

Method of mixing of ingredients

Acharya Charaka^[13] and *Vagbhata*^[16] has explained the mixing of ingredients with the help of churner. While *Acharya Sushruta* explained that it should be mixed in a vessel with hand and once *Kashaya* is added it should be mixed up to time of administration.^[14] Previous research states that if the mixture is done with the help of churning, the mixing is unidirectional with application of manual pressure. Each and every particle passes in between churner and base of vessel and makes the drugs to be miscible with each other and the formulation remains stable for long time.

If the mixture is done with the help of hand in a vessel, it will increase the surface area and aids the formation of more collision, as particle size and surface area of drug are inversely proportional to each other. Thus, the increased surface area exposes drug particles more to the drug media which enhances the rate of reaction. Large surface area exposed to the atmosphere helps in oxidation of active constituents of drug by atmospheric oxygen.

The research conducted on mixing the ingredients with mixer states that the ingredients rotate in single direction with fixed base. No pressure is applied on particles. Moreover, mixer gets heated up while doing the preparation. Hence, the temperature has its impact on final formulation. Separation rate is mild in this method.

If mixed with edge runner, it rotates in circular motion with two stands running opposite to each other. This produces both positive and negative mixing, results in union and separation at the same time. As soon as *Taila* and *Kwatha* are mixed they get separated into 2 layers. Here, particles loose attraction towards each other. So, it takes much time to mix immiscible ingredients like *Kalka* and *Kwatha*. Separation rate is rapid in this method.^[45]

One research states that, in the initial step of *Basti* preparation while mixing *Makshika* and *Saindhava* classically it is said that one has to continue the levigation till the sticky sound goes off and it was observed that sticky sound disappears by 30 minutes of levigation. Homogeneity of final product depends

mainly on these 2 steps. Other steps of mixing depend on initial 2 steps of mixing and if these are properly done then other 2 steps do not require more time to form a harmonized mixture. So, 30 minutes for each step was the fixed duration.^[46]

According to the previous research *Basti* prepared with *Khalwa* (mortar) was stable due to proper trituration while *Basti* prepared by house hold blender was not stable even for some seconds.^[44] According to the previous research conducted on the time required to mix *Basti Dravya* can be fixed for 10-15 mins in each step and complete mixing for 30-45 min. *Basti Sammilana* (formulation) by *Hasta Tala* (palm of hand) stands best method because the homogenous *Basti Dravya* is formed and retention time more compared to the conventional method.^[35]

Criteria's to be observed during mixing of *Basti Dravya* (ingredients)

Ardrata (mixture), *Kardamabha* (mice like consistency), *Samplavan* (immersion), *Ekibhuta* (homogenous mixture).^[35]

Characteristics of a well prepared *Basti Dravya*

1. It should not easily flow off and stick to the palm.
2. It should not form different layers of ingredients added to it.
3. Should form a uniform homogenous mixture.^[47]

Ayurvedic view behind sequential mixing of ingredients of *Basti*

Acharya Kashyapa has stated that honey being auspicious is first of all poured for the preparation. Salt by its sharpness disintegrates sliminess, denseness and astringentness in honey. These results in compound formation, which is the reason after honey, salt is poured. Then when *Sneha* is added it brings about uniformity i.e., the contents are properly mixed together. The *Kalka* added further gets mingled quickly. The decoction brings about homogeneity. The urine poured to this brings sharpness and increases the potency.^[20] *Acharya Arundatta* also stated that the sequential approach towards *Basti* formulation makes it homogenous i.e., *Samarasatam Yati*.^[48]

Modern view behind sequential mixing of ingredients of *Basti*

In the preparation of *Niruha Basti*, honey and salt are mixed together vigorously to form a stabilizing agent - soaping which gives the stability. Sodium in *Saindhava* helps in breakdown of glucose in honey to hydrogen peroxide. Next *Sneha* should be added because it is a dispersed liquid. It also helps in formation of emulsion. Short chain free fats are produced due to the breakdown of this *Sneha*, and these are absorbed fast in rectum and small intestine, more in presence of Na, where is the role of *Saindhava*. Unionized and lipid soluble substances are readily absorbed. Now the mixture is once again subjected to vigorous churning process till the dispersed liquid gets mixed properly with the stabilizer. Next *Kalka* should be added because it forms colloidal solution, increases surface area and accelerates absorption of *Basti*. Next *Kwatha* should be added as after adding it the *Sneha Dravya* gets equally distributed throughout the *Kwatha* with the help of stabilizer which makes it stable. The mixture thus produced acquire a physical state of emulsion which retains it stable for considerable time.^[51]

According to the previous research even if all ingredients were added collectively does not affect the end product but after preparation there were lot of bubbles on the surface which may increase *Vata* in *Basti* and also contain some oil particles, but this does not produce any complications or reduced efficacy.^[48]

Need for *Basti* formulation

1. A highly effective measure having therapeutic value administered through rectal route.
2. Simultaneous administration of multiple drugs of varied nature medium is possible.
3. Difficulty or impractical to use *Kalka* or *Saindhava* as *Basti*.
4. Uniform distribution of fine molecules of *Sneha* and *Kalka Dravya* throughout the *Kwatha* makes it homogenous.
5. The formation makes dispersed particles into exceptionally fine molecules for faster and better absorption.

6. Provides more viscosity by *Kalka* which helps in retention.
7. Warm stage of *Basti* makes it more stable and helps in better absorption.^[49]

DISCUSSION

Basti is described as half of the treatment for almost all diseases and some others opine that it is full treatment even.^[50] *Niruha Basti* is used extensively by physicians because of its varied nature of functions like it prevents ageing, promotes sturdiness, enriches semen, etc.^[9] The properly formed and well administered *Basti* is only able to give the desired therapeutic effects.^[51] So, immense importance has been given to the process of *Niruha Basti* formulation by all classical texts of *Ayurveda*.

It is important to study the contents of *Niruha Basti*, their quantity, properties, order and method of mixing, characteristics of well-prepared *Basti*, *Ayurvedic* and modern view on rationality behind sequential mixing and need for *Basti* formulation for understanding what the proper formulation exactly means which is depicted in figure below –

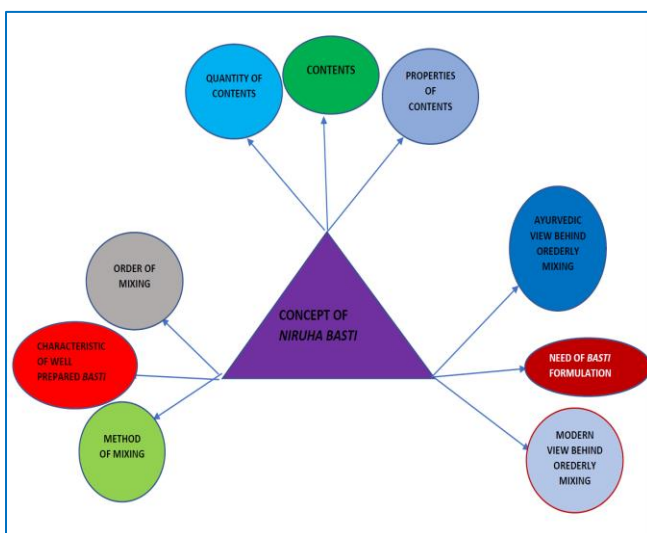


Figure 1: Concept of Niruha Basti formulation

All classical texts have quoted *Makshik* (honey), *Lavana* (salt), *Sneha*, *Kalka*, *Kwatha* and *Avapa* as an ingredient of *Niruha Basti*. Many of the classical texts had given *Dwadash Prasrut* as an ideal dosage of *Niruha Basti* for an adult. But the total amount and quantity of individual ingredients may vary from patient to patient

considering the *Dosha*, *Dushya*, *Bala*, etc. The quantity of ingredients if not decided carefully considering the above mentioned parameters like excess salt or less amount of salt leads to various complications.^[52-56] Every ingredient holds some important characteristics in perspective of *Basti* which are summarised shortly in table below –

Table 3: Properties of ingredients of Niruha Basti

SN	Ingredient of Niruha Basti	Properties
1.	<i>Makshik</i> (honey)	Auspicious, <i>Yogavahi</i> , <i>Sukshma Marganusari</i> , emulsifier, instant energizer, antioxidant, stimulates colonic probiotic bacteria, specific therapeutic effects like <i>Vrushya</i> , <i>Chakshushya</i> , <i>Chedana</i> , <i>Lekhana</i> , etc.
2.	<i>Lavana</i> (salt)	<i>Sukshma</i> , <i>Teekshna</i> , <i>Snigdha</i> , <i>Laghu</i> , helps to eliminate <i>Basti Dravya</i> , helps in absorption and bio-purification process of <i>Basti</i> .
3.	<i>Sneha</i>	<i>Snigdha</i> , <i>Sukshma</i> , <i>Mrudu</i> , protects mucous membrane from irritation, helps to form emulsion.
4.	<i>Kalka</i>	Easy dispersion, most potent, helps to disintegrate <i>Mala</i> , helps to form colloidal solution, irritant and other properties may induce colonic distension and stimulate the process of evacuatory reflex, and gives required thickness to <i>Basti Dravya</i> .
5.	<i>Kwatha</i>	Helps in maintenance of <i>Basti</i> volume, it is having different therapeutic effects, helps in spreading and cleaning, accelerate absorption, helps in homogenization.
6.	<i>Avapa</i>	Adds potency

As these ingredients are immiscible with each other classically, a systematic stepwise procedure is explained for its preparation. Some classical texts have quoted honey as the first drug due to its auspiciousness while others have put salt first. The *Basti* formed by sequential approach makes the mixture uniformly homogenous and helps to retain stability for

considerable time and easily gets absorbed and eliminated in proper time. The mixture done by *Hasta Tala* stands as best method according to previous research as it increases surface area which results in enhanced rate of reaction and aids in formation of more collision which makes the *Basti Dravya* homogenous and retains for longer period. Homogeneity of mixture depends on initial two steps of mixing. 10-15 minutes is the time required for each step and whole procedure completes in 30 - 45 minutes.

The physical tests quoted in classical texts also holds clinical importance as *Basti Dravya* of thin consistency eliminates rapidly^[57,58] while it is difficult to administer thick *Basti Dravya* and it may not come out easily.^[52-54] *Samarasatam Yati* or *Ekibhavay Kalpate* means the formation of homogenous mixture is the ultimate aim behind sequential mixing of ingredients as mentioned in classical texts. The same can be understood with the help of modern concepts like dispersion collision system, emulsion, homogenization, etc. As it is difficult to administer individual contents of various nature simultaneously, also if order of mixing is not followed properly, homogenous mixture is not formed which leads to difficulty in administration and can lead to various complications. So, it is important to formulate the *Niruha Basti* properly as per classics only. The desired therapeutic effects of *Niruha Basti* are dependent on its proper formulation so, it is important to study it thoroughly and apply it clinically.

CONCLUSION

Niruha Basti holds a key place in therapeutics due to its varied actions. Proper formulation and administration of *Niruha Basti* can only give the desired effects. It is important to study the contents of *Niruha Basti*, their quantity, properties, order and method of mixing, characteristics of well-prepared *Basti*, *Ayurvedic* and modern view on rationality behind sequential mixing and need for *Basti* formulation for understanding what the proper formulation exactly means. Formulation of homogenous mixture which can retain stability for considerable period and can give desired therapeutic effect with faster absorption and elimination in proper

time is the basic thing to be achieved by proper *Basti* formulation. The procedure of formulation if not followed properly results in various complications. So, it is important to study every aspect of *Niruha Basti* formulation to understand essence of science, to get desired therapeutic effects and to avoid the complications. Like the concept of *Niruha Basti* formulation every "word" from classical texts should be studied and analysed thoroughly and should be applied in the "ward" clinically.

REFERENCES

1. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 35, Ver. 3, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 189.
2. Yadavji T., editor. Charak Samhita of Agnivesha, Sutra sthana. Ch – 20, Ver. 13, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 114.
3. Yadavji T., editor. Charak Samhita of Agnivesha, Sutra sthana. Ch – 25, Ver. 40, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 131.
4. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 1, Ver. 25, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 5.
5. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 19, Ver. 1, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 79.
6. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 35, Ver. 6, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 189.
7. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 35, Ver. 18, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 191.
8. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 7, Ver. 65, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 712.
9. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 1, Ver. 27, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 682
10. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 3, Ver. 6, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 691.
11. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Sutra sthan, Ch – 4, Ver. 3, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 20.
12. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Sutra sthan, Ch – 4, Ver. 7, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 21.

13. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 3, Ver. 23, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 693.
14. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 38, Ver. 33, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 211.
15. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 38, Ver. 36, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 211.
16. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 19, Ver. 45, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 82.
17. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 19, Ver. 19, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 80.
18. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 3, Ver. 31, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 695.
19. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 38, Ver. 37-40, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 211.
20. Vriddha Kashyap., Kashyap samhita (Vriddha Jeevakeeya Tantra), Khila sthan, Ch – 8, Ver. 36-38, 1st edition, Varanasi: Chaukhamba Sanskrit Samsthan; 2008. p. 280.
21. Ramanath Dwiwedi., editor. Chakrapanidatta., Chakradatta (Vaidyaprabha Hindi Commentary), Niruha adhikara, Ch -73, Ver. 5-7,1st edition, Varanasi: Chaukhamba Sanskrit Bhawan;2011. p. 453.
22. Parasurama Sastri., editor. Sharangdhara, Sharangdhara samhita, Prathama Khanda, Ch – 6, Ver. 3, 7th edition, Varanasi: Chaukhamba Orientalia; 2008. p.330.
23. Saaligramji Vaishya., editor. Vangasena, Vangasena samhita (Vaidyakgrantha Shirobhushan), Ch -760, Ver- 139, 1st edition, Mumbai: Khamaraja Shri Krishnadas Prakashan; 2000. p.994.
24. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 19, Ver. 44, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 82.
25. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 3, Ver. 30, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 694.
26. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 38, Ver. 29, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 210.
27. Ramanath Dwiwedi., editor. Chakrapanidatta., Chakradatta (Vaidyaprabha Hindi Commentary), Niruha adhikara, Ch -73, Ver. 3-4,1st edition, Varanasi: Chaukhamba Sanskrit Bhawan;2011. p. 453.
28. Bramhashankar Mishra., editor. Bhava Mishra, Bhavprakasha, Poorvardha, Ch- 7(5), Ver. 141, 11th edition, Varanasi: Chaukhamba Sanskrit Sansthan;2004. p.627.
29. Saaligramji Vaishya., editor. Vangasena, Vangasena samhita (Vaidyakgrantha Shirobhushan), Ch -760, Ver- 102-103, 1st edition, Mumbai: Khamaraja Shri Krishnadas Prakashan; 2000. p.992.
30. Vriddha Kashyap., Kashyap samhita (Vriddha Jeevakeeya Tantra), Khila sthan, Ch – 8, Ver. 47-48, 1st edition, Varanasi: Chaukhamba Sanskrit Samsthan; 2008. p. 291.
31. Yadavji T., editor. Charak Samhita of Agnivesha, Sutra sthana. Ch – 27, Ver. 245- 248, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 167.
32. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Suta sthan, Ch – 45, Ver. 132, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 232.
33. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 5, Ver. 52, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 21.
34. S. S. Savrikar, C. E. Lagad. Study of preparation and standardization of Madhutaailika *Basti* with special reference to Emulsion stability. AYU 2010; Jan – Mar,31(1): 1-6.
35. Dr. Kavita. B. S., Dr. Santosh L. Yadahalli, Dr. Ananta S. Desai. Conceptual analysis and practical approach on the preparation of Niruha *Basti* (*Basti* sammilana vidhi). IJAR 2019; March, 9(3): 72-74.
36. Bende et al. A critical review on pharmacodynamics of Bast Chikitsa and its action on Enteric nervous system. IJAM 2015; 6 (4) : 301- 304.
37. Yadavji T., editor. Charak Samhita of Agnivesha, Sutra sthana. Ch – 1, Ver. 88- 89, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p.21.
38. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Suta sthan, Ch – 46, Ver. 315, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 269.
39. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 6, Ver. 142, reprint 2012 edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p.34.
40. Mukharjee et al. Efficacy of Vaitaran *Basti* with respective to Ayurveda. JDDT 2018;8(6-5): 246 – 250.
41. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 1, Ver. 7, 3rd edition, Varanasi: Choukhamba Surbharati Prakashana; 2017. p. 678.
42. Lekshmi Vijayan, Prasanth D, Ananth Ram Sharma. A conceptual analysis on the preparation and administration of Niruha *Basti*. Ayurpharm Int J Ayur Alli Sci 2015; 4(12): 226-235.
43. Shastri A., Sushruta Samhita, Hindi commentary, Vol 1, Chikitsa sthan, Ch – 38, Ver. 93 - 95, reprint 2014 edition, Varanasi: Choukhamba Surbharati Prakashana; 2014. p. 215.
44. Dr. Vasant C. Patil. Principle and practices of Panchkarma. 4th ed. Delhi: Chaukhamba publication; 2014.p. 453.
45. Shruthi C S, Prabhakara Upadhyaya Renjal, Sujatha K. Pharmaceutical evaluation of Madhutaailika *Basti* formulation

- prepared by classical and modified methods. JAİM 2017; 1: 85 – 91.
46. Sunitha L, Guda gasatti K S, Prasad B S. Effect of Bhavana samskara on particle size distribution in various stages of preparation of Niruha Basti with special reference to Madhutailika Basti. IJAM 2014; 5(4), 307 – 314.
 47. Ramanath Dwiwedi., editor. Chakrapanidatta., Chakradatta (Vaidyaprabha Hindi Commentary), Niruha adhikara, Ch -73, Ver. 8,1st edition, Varanasi: Chaukhamba Sanskrit Bhawan;2011. p.453.
 48. Harshastri Paradakara., editor. Vagbhata, Ashtang Hridaya (Sarvangasundara and Ayurveda rasayana commentaries by Arundatta and Hemadri), Sutra sthana, Ch – 19, Ver. 45, 2014 edition, Varanasi: Chaukhamba Sanskrit Sansthan; 2014.p.236.
 49. Anand Kumar, Shashidhar H Doddamani, Rashmi Patil. Concept of Basti formulation. IJAR2016; 4(7), 1535–1537.
 50. Garde G., Sartha Vagbhata, Sutra sthana. Ch – 19, Ver. 87, reprint 2012 edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.85.
 51. Vriddha Kashyap., Kashyap samhita (Vriddha Jeevakeeya Tantra), Khila sthan, Ch – 8, Ver. 44 -45, 1st edition, Varanasi: Chaukhamba Sanskrit Samsthan; 2008. p.290.
 52. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 7, Ver. 7, 3rd edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.709.
 53. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 7, Ver. 58, 3rd edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p. 712
 54. Garde G., Sartha Vagbhata, Kalpa sthana. Ch – 5, Ver. 1, reprint 2012 edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.348.
 55. Garde G., Sartha Vagbhata, Kalpa sthana. Ch – 5, Ver. 11, reprint 2012 edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.349.
 56. Garde G., Sartha Vagbhata, Kalpa sthana. Ch – 5, Ver. 23, reprint 2012 edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.350.
 57. Yadavji T., editor. Charak Samhita of Agnivesha, Siddhi sthana. Ch – 7, Ver. 43, 3rd edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.711.
 58. Garde G., Sartha Vagbhata, Kalpa sthana. Ch – 5, Ver. 29, reprint 2012 edition, Varanasi: Chaukhamba Surbharati Prakashana; 2017. p.350.

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