



ISSN 2456-3110

Vol 2 · Issue 5

Sep-Oct 2017

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS



Charaka
Publications

Indexed

An appraisal of *Kshara Kalpana*

Shiv Om Dixit,¹ Ravindra Angadi,² Vatsalya D.G.³

^{1,3}Post Graduate Scholar, ²Associate Professor, Department of Rasashastra and Bhaishajya Kalpana, Shri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi, Karnataka, India.

ABSTRACT

Ayurveda describes various dosage forms for the administration of the medicament in human body. These dosage forms are denoted by the term *Kalpana*. Many *Kalpana* have been described in the classical texts along with five basic *Kalpana*. One such *Kalpana* is *Kshara Kalpana*. The utility of *Kshara* is mainly seen in the field of *Shalya Tantra* where it is used in the management of the cases of *Arsha*, *Bhagandara*, *Nadi Vrana* etc. but at the same instance it also provides fruitful results in the cases of *Shwasa*, *Mootrakrichha* etc. *Kshara* proves its utility in the processing of *Parada* whereby it acts as a *Vida* and makes the processing of *Parada* easy. Due importance has been given to *Kshara* preparation in most of the classics but at the same moment, we find differences in the various methods mentioned for the preparation. Hence an attempt has been made to compile the various references available in the classical texts and to justify their probable use in the present paper.

Key words: *Kalpana*, *Kshara*, *Shalya Tantra*, *Parada*.

INTRODUCTION

Acharya Charaka has promptly mentioned the usage of various *Dravyas* as medicines. He has opined that all the *Dravya* we see around have medicinal properties.^[1] In order to extract the active components of any *Dravya* and to instill therapeutic properties into it, it has to be subjected for various procedures. Then it has to be converted into suitable dosage form which is palatable and easy for administration. This also facilitates the dose fixation of the medicament. The aforementioned attributes can be attained by conversion of the drug into specific *Kalpana*.

Address for correspondence:

Dr. Shiv Om Dixit

Post Graduate Scholar, Department of Rasashastra and Bhaishajya Kalpana, Shri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi, Karnataka, India.

E-mail: shivom.dixit@gmail.com

Submission Date : 17/09/2017 Accepted Date: 25/10/2017

Access this article online

Quick Response Code



Website: www.jaims.in

DOI: 10.21760/jaims.v2i05.10272

It can thus be said that a specific drug performs different actions depending upon the *Kalpana* to which it is converted. The same proves to be true for *Kshara Kalpana*. Different methods of preparation of *Kshara* have been mentioned in various contexts according to the desired usage. An attempt has been made to compile those methods and to justify their probable use.

MATERIALS AND METHODS

Source of data

Various classical texts available in the Library of Shri Dharmasthala Manjunatheshwara College of Ayurveda, Kuthpady, Udupi, Karnataka were reviewed and the different opinions cited regarding the method of preparation of *Kshara* were compiled as under.

Charaka Samhita

Though we get profound usage of *Kshara* in varied clinical conditions still the reference regarding the method of preparation of *Kshara* cannot be traced in *Charaka Samhita*.

Sushruta Samhita

Acharya Sushruta has given a vivid narration regarding the method of preparation of *Kshara*.^[2] He has

elaborately described the process for preparation of *Mridu*, *Madhyama* and *Teekshna Kshara*. The whole process can be described under the following sub-titles;

1. Pre-processing

This includes the selection of the plant, collection and drying of the plant. First of all it is told to select a plant which is of *Madhyama Aayu* and situated at an appropriate place, which is not infected by insects, it should be unaffected by the effect of sunlight, fire etc. The collection of plant should be done in *Sharad Ritu*.

It should then be cut into small pieces and allowed to dry at a place which is not exposed to direct flow of wind. Once dried, it should be taken to the suitable fire place where it should be burnt along with *Sudha Sharkara* kept in between the heap of the dried plant material. When the total plant material gets burnt and it becomes cool then the ash should be collected leaving behind the incompletely burnt plant material and the *Sudha* particles.

2. Preparation of Kshara from the ash collected

The ash thus collected should then be soaked in six times of water and stirred very well. Here *Acharya Sushruta* has clearly mentioned that *Gomutra* can also be used as the liquid medium to soak the ash. Then this mixture should be filtered through a clean cloth for twenty one times so as to obtain a clear *Ksharodaka* and remove all particles which are not dissolved in the liquid medium. This *Ksharodaka* thus obtained is taken into an iron vessel (*Kataha*) and kept on fire.

When it attains reddish colour and becomes *Picchila* (slimy) it is again filtered. Then one or one and a half *Kudava* of this *Ksharodaka* is kept aside and rest is again kept on fire for evaporation. Alongside *Katasharkara*, *Bhasmasharkara*, *Shukti*, *Shankha Nabhi* etc. *Dravyas* are collected and heated till they become red hot. Then these red hot *Dravyas* are immediately dipped into the *Ksharodaka* that was separated already. These are then powdered in the same *Ksharodaka* and added to iron vessel and heated till it becomes thick in consistency.

The *Kshara* thus prepared is *Madhyama Kshara*. If *Shankha Nabhi* and other drugs are not added to this, the *Kshara* prepared will be *Mridu Kshara*. For the preparation of *Teekshna Kshara*, *Prativapa* of drugs like *Danti*, *Dravanti*, *Chitraka*, *Langali*, *Hingu*, *Vacha* etc. is told to be done. The quantity of each drug is mentioned to be one *Shukti*.

Astanga Sangraha

We get a detailed description regarding the method of preparation of *Kshara* in *Astanga Sangraha* also.^[3] A separate chapter has been dedicated on the various aspects of *Kshara* including its *Guna*, types, contraindications, procedure of *Kshara* application along with the method of preparation.

Plant *Panchanga* should be collected at right season and time, cut into small pieces and allowed to dry at a place where direct flow of wind isn't present. These pieces are then burnt to ash along with *Sudha Sharkara*. When self-cool, the ash should be separated from the *Sudha* particles. One *Drona* of this ash is taken and then soaked into the liquid medium.

The specificity of this text is that, here the ash is told to be soaked in the mixture of both *Jala* and *Gomutra*. The ratio of *Jala* and *Gomutra* to the ash is told to be four times respectively. Then this is filtered through a clean cloth. Here we do not get any reference regarding the number of times the filtration to be done. It is being told that until we get a clear liquid, filtration should be continued.

We get the same methodology for the preparation of *Mridu*, *Madhyama* and *Teekshna Kshara*. *Acharya Vagbhatta* has mentioned the preparation should be done according to *Sneha Paka Vidhi*. He has also mentioned about the *Siddhi Lakshanas*^[4] which are as follows;

- Appearance of vapours.
- Appearance of bubbles.
- Thicker consistency.
- The final product sticks to spatula.

Astanga Hridaya

The methodology^[5] mentioned in this text is similar to as that mentioned in *Astanga Sangraha*. The

difference which can be ruled out is that, while preparing the *Madhyama Kshara* along with the drugs as mentioned in *Astanga Sangraha* addition of faecal matter of peacock, pigeon etc; *Pitta* of peacock like birds and animals like cows and drugs like *Haratala*, *Manahshila* and *Lavanas* has been advocated.

Sharangadhara Samhita

Acharya Sharangadhara has also mentioned the methodology to be opted for *Kshara* preparation.^[6] He has not mentioned details regarding the name of the plants useful for the *Kshara* preparation and the time of collection. Moreover we also don't get any citation of *Mridu*, *Madhyama* and *Teekshna Kshara*. He has described the types under two headings depending on the consistency as- *Paniya Kshara* and *Pratisaraniya Kshara*.

The dried *Ksheeri* plants should be collected and burnt to ashes. The ash thus obtained has to be soaked in four times of water and stirred well. This has to be kept undisturbed overnight. Next morning the supernatant water should be decanted carefully and kept in an earthen pot. This pot is then kept on mild fire and cooked. It should be heated till all the liquid part gets evaporated. The *Kshara* thus extracted is seen sticking to the base of the vessel which has to be scrapped carefully and stored in air tight containers.

Yogaratanakara

Yogaratanakara follows the method^[7] explained by *Acharya Sharangadhara* for *Kshara* preparation, which has been mentioned earlier.

Chakradatta

We get a detailed description of *Kshara* preparation in *Chakradatta* also. We also get the reference of *Kshara Sutra* preparation at the same instant. Two references for *Kshara* preparation are available.^[8] According to the first reference initially a suitable plant should be selected and burnt to ashes. One *Aadhaka* of this ash should be then dissolved in one *Drona* (four parts) of water. It should be then kept for boiling and when one fourth of the initial quantity remains it should be filtered through a clean cloth. To this filtrate one *Kudava* of *Shankha Churna* should be added and again

kept for boiling. When it becomes concentrated then powders of *Sarji Kshara*, *Yava Kshara*, *Shunthi*, *Maricha*, *Pippali*, *Vacha*, *Ativisha*, *Hingu* and *Chitraka* should be added in quantity of 8 *Masha* each. It should be stirred well and then kept in an iron vessel.

Further more, he has separately described the procedure for *Pratisaraniya Kshara*.^[9] Ash of *Kalamushka* should be taken in one *Aadhaka* amount and six times of water should be added to it. It should be kept in an iron vessel and subjected to heat. Continuous stirring should be done. When one fourth of initial quantity remains it should be filtered through a clean cloth. To this *Ksharodaka* obtained, *Shankha Churna* is added in specified ratio to obtain *Mridu*, *Madhyama* and *Teekshna Kshara*. The ratio told is as mentioned under;

- For *Mridu Kshara* - 1/4th of the *Ksharodaka*
- For *Madhyama Kshara* - 1/8th of *Ksharodaka*
- For *Teekshna Kshara* - 1/16th of *Ksharodaka*.

To see whether the *Kshara Paka* has been completed or not, a dry *Eranda Nala* is put into the solution. If this gets burnt within hundred *Matra Kala*, then it shows the completion of the *Paka* of *Kshara*.

Bhaishajya Ratnavali

Bhaishajya Ratnavali has quoted the reference of *Chakradatta* for the preparation of *Kshara*,^[10] which has been explained earlier.

Ayurveda Prakasha

We get the reference of *Kshara* preparation at two instances in this text. Firstly while mentioning the *Siddhalakshmishwara Tantrakta Vida*, the *Teeka* part explains the methodology opted for the preparation of *Kshara*.^[11] According to this reference, the *Panchanga* of *Kshara Vriksha* are collected and cut into small pieces, then pounded to decrease the particle size. They are then allowed to dry on a *Shila*. Once dried, they are burnt to ashes with the help of *Tila Nala*. The ash thus obtained is soaked in water or in the mixture of *Khara Mutra*, *Gomutra* and

Hayamutra. The ratio of ash and the liquid media is not specified here. It is then filtered through a clean cloth and the filtrate is kept for *Paka* on moderate fire. Once it starts to become dry and vapours appear along with the formation of bubbles which subsides immediately after formation, then powders of *Trikatu*, *Hingu*, *Gandhaka*, *Kshara Traya*, *Shada Lavana* etc. should be added.

The second method is mentioned in the sixth chapter of this text,^[12] where we get the reference similar to as that of the one mentioned by *Acharya Sharangadhara* in his text.

Rasendra Chintamani

Though we do not get a direct reference for *Kshara* preparation in this text still we get the context of *Vida* preparation. The methodology mentioned here is totally similar to that of *Kshara* preparation.^[13] It has been mentioned that *Panchanga* of plants like *Vasa*, *Eranda*, *Kadali*, *Devadali*, *Punarnava*, *Palasha*, *Tila* etc. should be collected and cut into smaller pieces. Once dried, they are burnt along with *Tila Nala* and *Mulika*. The ash thus collected is soaked in any of the liquid media from *Mutra Varga*.

We don't get any direct clarification regarding the ratio of ash and the liquid medium in the verse. However, in the commentary part it is mentioned as eight to ten parts of *Mutra* should be taken. It should then be filtered in an iron vessel and *Paka* should be done in *Hansa Paka Yantra*. Once profuse vapours and bubbles are observed, then powders of *Kamkshi*, *Kasisa*, *Kshara Traya*, *Trikatu*, *Gandhaka*, *Hingu* etc. are added and the final product is collected in a *Loha Patra*. It should be kept in a pit made in the ground for seven days before taking into use.

Rasa Tarangini

Rasa Tarangini is considered to be the most recent text on *Rasa Shastra*. This is the only text of *Rasa Shastra* which has described the methodology opted for the preparation of *Kshara* along with the vivid description regarding the various aspects of *Kshara* in two separate chapters. It has quoted the general method of preparation of *Kshara*^[14] along with the

various *Kshara* and their qualities and therapeutic usages.

The approach seen in this text is quite different from the point of view of other texts. Here it has been told that the wood of the plant or tree out of which *Kshara* has to be prepared should be collected and burnt to ashes. This ash is then soaked in four times of water and proper stirring and maceration should be done for three hours continuously. It should be then filtered through a three folded cloth and then taken into a vessel and kept for boiling. As all the water get evaporated *Kshara* can be seen adhering to the base of the vessel.

We get two clarifications in the *Teeka* part of this reference. Firstly, by the reference of wood it should be understood that for big trees like *Palasha* the wood should be collected but for the shrubs like *Apamarga*, *Panchanga* should be collected. Moreover it also clarifies that iron vessel should be used for *Kshara* preparation.

Ayurveda Sara Sangraha

The methodology mentioned for *Kshara* preparation^[15] is also available in this text also. The text states that *Panchanga* of the plant should be collected and burnt to ashes in an iron vessel. The ash thus collected should be taken into an earthen pot and eight times water should be added to it. Stirring should be done with a wooden stick. It should be then left undisturbed for two to three days and then the supernatant water should cautiously be decanted. It should be filtered through a four folded cloth for seven times. If the filtrate thus obtained is not clear then more water should be added and again filtration should be done on the following day. This filtrate should then be kept for boiling till it becomes thicker in consistency. Then it should be kept in sunlight where it gets completely dried. The *Kshara* thus obtained should be collected and stored in glass bottles.

Ayurvedic Formulary of India

We do get the reference of method of preparation of *Kshara* in AFI Part I also.^[16] It has defined *Kshara* as alkaline substance derived from the ash of drugs.

The method of preparation of *Kshara* is described as follows. The drug is cut into small pieces and dried well. The pieces are put in an earthen pot and burnt to ash. First a few pieces are put and ignited. As they burn, more and more pieces are added. When all the pieces are burnt and reduced to ash, the ash is allowed to cool. Water is added to the ash in the ratio of 6:1 and mixed well. This is then strained through a piece of cloth. This process of straining may be done two or three times till a clear liquid is obtained.

This liquid is then put in an iron or earthen vessel and heated over a moderate fire till the water evaporates, leaving a solid salty white substance which is collected. This is known as *Kshara*.

The opinions of various authors are tabulated in Table 1.

Table 1: Comparative study of method Of preparation of *Kshara*

Reference	Ash : water ratio	Time for soaking	Vessel used	Fold of cloth	Number of filtrations
<i>Sushruta Samhita</i>	1:6	-	Iron vessel	-	21
<i>Astanga Sangraha</i>	4 times water & <i>GoMutra</i> each	-	Iron vessel	-	1
<i>Astanga Hridaya</i>	4 times water & <i>GoMutra</i> each	-	Iron vessel	-	1
<i>Sharngadhara Samhita</i>	1 : 4	Overnight	Earthen pot	-	-
<i>Yoga Ratnakar</i>	1:4	Overnight	Earthen pot	-	-
<i>Chakradatta</i>	1:4 or 1:6	-	Iron vessel	-	1

<i>Ayurveda Prakasha</i>	1:4	Overnight	Earthen pot	-	-
<i>Bhaishajya Ratnavali</i>	1:4 or 1:6	-	Iron vessel	-	1
<i>Rasendra Chintamani</i>	-	-	Iron vessel	-	1
<i>Rasa Tarangini</i>	1:4	3 hours	Iron vessel	Three fold	1
<i>Ayurveda Sara Sangraha</i>	1:8	2-3 days	Earthen pot or steel vessel	Four fold	7 times

DISCUSSION

The first reference regarding the pharmaceutical preparation of *Kshara* can be traced in *Sushruta Samhita*. After that we get plenty of references in various classics including *Astanga Sangraha*, *Astanga Hridaya*, *Sharangadhara Samhita*, *Yoga Ratnakara*, *Chakradatta*, *Bhaishajya Ratnavali*, *Ayurveda Prakasha*, *Rasendra Chintamani*, *Rasa Tarangini*, *Ayurveda Sara Sangraha*, AFI etc.

Acharya Sushruta has explained about the method of preparation in detail. He has mentioned to use either *Jala* or *Gomutra* as the medium to soak the ash of the plant. We do not get a clear indication regarding the time for soaking but it should be allowed to stand still for sometime so as to permit the undissolved particles to settle down. He has mentioned to carry out the preparation in an iron vessel. He has not mentioned about the thickness of the cloth to be used for the filtration but at the same instance he has mentioned that filtration should be done for 21 times. It may be understood that if a single layered thick cloth is taken then also, after filtering it 21 times all the particles which were not dissolved in the liquid medium could have easily been removed out. The reference clearly indicates about the importance of the filtration and

the removal of the particles which could not be dissolved. *Acharya Sushruta* has further mentioned the colour of the *Kshara* as whitish. Probably if any undissolved particles remain in the *Ksharodaka* taken for the *Kshara* preparation may alter with the colour of the final product and also may change the properties. Moreover he has also mentioned to store it in an iron vessel with its lid properly closed. As *Kshara* is hygroscopic in nature so probably to prevent it from absorbing moisture from the environment it has been told to keep it in an air tight container.

In *Astanga Sangraha* also, the method of preparation of *Kshara* has been quoted. The text advocated the use of both *Jala* and *Gomutra* as the media to soak the ash. Each of these media should be taken four times to that of the ash taken. This probably was told by the experience of the author as the total amount of the liquid medium becomes eight times which seems to be sufficient to dissolve the *Kshara* into it. Moreover the use of both the media may help in potentiating the final product obtained. He has not mentioned about the number of filtrations after soaking the ash into the liquid medium but while doing the *Paka* when the product attains *Rakta Varna* and *Picchila Guna*, one time filtration should be done. Continuous stirring is advised which probably facilitates the evaporation of the liquid. He has also mentioned about the *Paka Lakshanas* of *Kshara* which is the only reference available in the *Brihatrayees*. The final product has been told to be stored in an iron vessel. This vessel is again advised to be kept in *Dhanyarashi*. This may probably help in keeping the *Kshara* safe from fluctuating environmental factors.

The method of preparation mentioned in *Astanga Hridaya* is similar as mentioned in *Astanga Sangraha*.

Sharangadhara Samhita also explains about the method of *Kshara* preparation. The methodology opted here is a bit different as compared to the previous references. Here he has mentioned to soak the ash in four times of water. This much of water may dissolve less amount of *Kshara* but its potency may be better as it will be having greater specific gravity. Secondly he has propagated the use of

earthen pot for the preparation. Earthen pot is considered as inert in nature so it may minimise the incidence of any chemical change to occur in the final product. He has mentioned to soak the ash and keep it undisturbed overnight. By this, all the undissolved particles will settle down and the water with *Kshara* dissolved in it can be decanted easily. Keeping it overnight facilitates the settling of the undissolved particles to the full extent and hence the *Ksharodaka* obtained would be clear which ultimately will lead to the formation of white colored *Kshara*.

The reference available in *Yoga Ratnakara* is similar to that of *Sharangadhara Samhita*.

In *Chakradatta*, two references are available regarding the method of preparation. One is entitled as *Kshara Saadhana Vidhi* while the other one is captioned as *Pratisarniya Kshara Nirmana*. It suggests that due importance has been given to the pharmaceutical aspects of the two types of *Kshara* and hence the differentiation has been done. The ratio of ash and water is different in the two types. In the former, it has been told to use four times of water while in the latter six times of water has been advocated. This clearly gives a hint regarding the potency of the two types of *Kshara*. Moreover, he has further differentiated the *Pratisarniya Kshara* on the basis of the *Sankha Bhasma* added to it. The transformation of *Kshara* from *Mridu* to *Madhyama* or *Teekshna* is indeed an attribute of the pharmaceutical procedure.

Ayurveda Prakasha has also described the method of preparation of *Kshara* at two instances. The first reference is seen in the context of *Vida* preparation for the processing of *Parada*. A specific *Vida* named as '*Siddhalakshmeshwaratanrokta Vida*' has been quoted in the main text in the commentary of which the preparation of *Kshara* has been mentioned. The process doesn't specify the ratio of the ash and the liquid medium but the use of water along with mixture of *Khara Mutra*, *Gomutra* and *Haya Mutra* has been advocated to soak the ash of the plant. *Vida* is used to increase the *Bubhuksha* of *Parada* and to do *Jarana* of different *Dravya* into it. This needs *Teekshna*

Dravya or *Kshara*, hence the use of the mixture of *Khara Mutra*, *Gomutra* and *Haya Mutra* in the *Kshara* preparation can be substantiated. The second method mentioned is similar to that of the one mentioned by *Acharya Sharangadhara*.

Bhaishajya Ratnavali has quoted the same reference as that of *Chakradatta* for the *Kshara* preparation.

Rasendra Chintamani has also explained the method of *Kshara* preparation in the context of *Vida*. This clearly indicates the importance of *Kshara* in various processes related to *Parada*. Moreover the methodology mentioned here is also a bit different in terms of the liquid medium to be used for soaking of the ash of the plants. He has advised to take a combination of the *Mutra Varga* to soak the ash which gives a hint regarding the potency of the final product. Furthermore, a specific *Yantra* named as *Hamsa Paka Yantra* has been told to do the *Paka* of this *Kshara*. This probably meant to give a specific quantum of heat and in a proper manner. This also indicates that for the *Vida* preparation *Kshara* has to be prepared by using *Mutra* as the soaking medium which probably helps in the easy processing of *Parada*. The final product has to be stored in an iron vessel and has to be kept in a pit dug in the ground for seven days before taking into use. This can be attributed to the *Kala Prakarsha Samskara* as mentioned by *Acharya Charaka*. This may help in potentiating the drug further.

The reference available in *Rasa Tarangini* states that the ash of the plant should be soaked in four times of water and should be macerated well. It should be kept undisturbed for three hours so as to allow the undissolved particles to settle down and to facilitate the dissolution of *Kshara* in the water. The duration for soaking mentioned here is less as compared to that mentioned in *Sharangadhara Samhita*. Probably due to maceration the dissolution of *Kshara* may be facilitated and the sedimentation of the undissolved particles will occur to a great extent during this period. Further to remove the undissolved particles it has been told to filter it through a three folded cloth till clear *Ksharodaka* is obtained. Folding of cloth may

help in reducing the number of filtrations as the *Ksharodaka* has to pass through three different layers of cloth successively so chances of the particles getting trapped will increase to a great extent.

As per the method quoted by *Ayurveda Sara Sangrha*, the ash of the plant should be soaked in eight times of water and should be kept undisturbed for two to three days. This helps in both easy diffusion and dissolution of the *Kshara* into the water. While keeping it undisturbed for three days helps in proper sedimentation of the undissolved particles. After this the supernatant liquid should be decanted and filtered through a three folded cloth for three times. This seems to be a modification in the methods as mentioned in *Rasa Tarangini* and *Sushruta Samhita*. The process should be carried out in earthen pot or steel vessel both of which are considered to be inert in nature.

CONCLUSION

With the inputs obtained by the present review it can be concluded that *Kshara* and its preparation has been given prime importance in all classical texts. It serves its utility in both aspects of managing the clinical entities like *Arsha*, *Bhagandara*, *Mootrakrichha* etc. and also in the processing of *Parada* and other *Rasa Dravya*. Out of the various methods mentioned for *Kshara* preparation, the selection of any method can be done keeping the desired use of the final product into consideration.

REFERENCES

1. Agnivesha, Charaka Samhita revised by Charaka and Dridhabala with Ayurveda Deepika commentary of Chakrapanidatta edited by Vaidya Jadavji Trikamji Acharya, 1st Ed. Varanasi: Chaukhambha Surabharati Prakasan; 2016; p.138; pp.738.
2. Sushruta, Sushruta Samhita with Nibandha Sangraha commentary of Dalhan Acharya edited by Vaidya Jadavji Trikamji Acharya, 1st Ed. Varanasi: Chaukhambha Surabharti Prakasan; 2017; p.46-48; pp.724.
3. Vagbhata, Astanga Sangraha with Shashilekha commentary of Indu, edited by Shivprasad Sharma,

- 2ndEd. Varanasi: Chaukhamba Krishnadas Academy; 2008; p.260-261; pp.965.
4. Vagbhata, Astanga Sangraha with Shashilekha commentary of Indu, edited by Shivprasad Sharma, 2ndEd. Varanasi: Chaukhamba Krishnadas Academy; 2008; p.261; pp.965.
 5. Vagbhata, Astanga Hridaya with Sarvangasundara commentary of Arunadatta and Ayurvedarasayana commentary of Hemadri, edited by Hari Sadhashiva Shashtri Paradkar, 1st Ed. Varanasi: Chaukhamba Krishnadas Academy; 2009; p.353-355; pp.956.
 6. Sharangadhara, Sharangadhara Samhitha with Dipika commentary of Adhamalla and Gudartha Dipika commentary of Kashirama, edited by Parasurama Shastri Vidhyasagar, 1st Ed. Varanasi: Chaukhamba Surabharti Prakashan; 2013; p.256; pp.398.
 7. Yoga Ratanakara Poorvardha with Vidyotini hindi commentary of Lakshmipati Shastri, edited by Brahmashankar Shastri, 1st Ed. Varanasi: Chaukhamba Prakasan; 2009; p.170; pp.504.
 8. Chakrapanidatta, Chakradatta with Vaidyaprabha hindi commentary of Indradeva Tripathi, 1st Ed. Varanasi: Chaukhamba Sanskrit Bhawan; 2014; p.207; pp.542.
 9. Chakrapanidatta, Chakradatta with Vaidyaprabha hindi commentary of Indradeva Tripathi, 1st Ed. Varanasi: Chaukhamba Sanskrit Bhawan; 2014; p.207; pp.542.
 10. Govind Das Sen, Bhaishajya Ratnavali with Siddhiprada hindi commentary of Siddhinandan Mishra, 1st Ed. Varanasi: Chaukhamba Surabharti Prakashan; 2016; p.333; pp.1196.
 11. Madhava, Ayurveda Prakasha with Arthavidyotini and Arthapraksahini commentaries of Gulrajsharma Mishra, 1st Ed. Varanasi: Chaukhamba Bharati Academy; 2014; p.120; pp.504.
 12. Madhava, Ayurveda Prakasha with Arthavidyotini and Arthapraksahini commentaries of Gulrajsharma Mishra, 1st Ed. Varanasi: Chaukhamba Bharati Academy; 2014; p.503; pp.504.
 13. Dhundhuk Nath, Rasendra Chintamani with Siddhiprada hindi commentary of Siddhinandan Mishra, 1st Ed. Varanasi: Chaukhamba Orientalia; 2011; p.29; pp.395.
 14. Sadananda Sharma, Rasatarangini, with Prasadani commentary of Haridatta Shastri and Rasa Vigyana hindi commentary of Dharmanand Shastri, edited by Kashinath Shastri, 11th Ed. New Delhi: Motilal Banarasilal Private Limited; 2009; p.337; pp.772.
 15. Anonymous, Ayurveda Sara Sangraha, 1st Ed. Allahabad: Shri Vaidhyanath Ayurveda Bhawana Limited; 2012; p.609; pp.736.
 16. The Ayurvedic Formulary of India Part I, 2nd Ed. Government of India, Ministry of Health and Family Welfare; 2003; p.163; pp.488.

How to cite this article: Shiv Om Dixit, Ravindra Angadi, Vatsalya D.G. An appraisal of Kshara Kalpana. J Ayurveda Integr Med Sci 2017;5:160-167.
<http://dx.doi.org/10.21760/jaims.v2i05.10272>

Source of Support: Nil, **Conflict of Interest:** None declared.