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Review Article

KUTAJA KSHARA- A COMPREHENSIVE LITERATURE REVIEW Tasleem Banu^{1*}, M.N. Hiremath², Raghuveer³

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KEYWORDS: Kutaja, Kutaja Kshara, Hollarhena antidysentrica, Wrightia tinctoria Vatsaka kalpa.

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ABSTRACT

The word 'Kshara' can be derived from either of the two roots, Ksarana or Kshanana. Ksharana means to dislodge, to melt away and Kshanana means to kill or to destroy. The literal meaning of the word 'Kshara' is the substance which is corrosive, caustic, pungent, saline and acrid in its properties. This *Kshara Kalpana* is known to have a wide scope in *Shalya Tantra* branch of Ayurveda. Because of this wider scope many research works are at present undertaken in order to treat many ailments and avoid few surgical procedures. Apamarga Kshara is mainly used in practice and many experiments are already done on the same, in order to study the properties and effects of other drugs or *Ksharas*, one such drug is chosen here i.e., *Kutaja*. *Ksharas* are superior to *Shastras*, *Anushastras*, because of their capability to perform Chedana (excision), Bhedana (incision), and Lekhana (scraping). It alleviates all the three Doshas. Ksharas can be used where Shastra Chikitsa is contra-indicated or where instruments cannot be used i.e., *Marmasthana*, for women, children or on those who are afraid of surgery. Acharya Susruta, while describing the process of Kshara extraction has mentioned 23 drugs and Kutaja is first and foremost drug. There are no direct references of properties and extraction of *Kutaja Kshara* in classics and other compilation done on the same were also not found while searching through internet. Present paper throws light on the complete description of Kutaja as a Kshara and preparation of Kshara Sutra mentioned in different texts of Ayurveda.

INTRODUCTION

Kutaja^[1] (i.e., *Hollarhena antidysentrica/ Wrightia tinctoria*) tree grows throughout India, more common in forests. It is a species of flowering plant, belongs to family Apocynaceae. Its seeds are called as *Indrayava*^[2] which are useful in treating *Arshas, Atisara, Shoola*. It is *Vamaka*, does *Tridosha Shamana, Dipana* and *Pachana*. 18 *Yogas* of *Kutaja* (*Vatsaka Kalpa*) mentioned in *Kalpasthana*^[3] of *Charaka Samhita*.

Kutaja^[4-6] also known as *Kurchi* or Conessi tree in English. It is a herb used in treating skin disorders, diarrhea, bleeding disorders and haemorrhoids.^[7] It has various synonyms^[8] like *Kautah, Vatsakah, Girimallika, Kalinga, Mallikapushpa, Indravrksha, Vrkshaka*. There are various formulations used in day-to-day practice like *Kutajarishta*^[9], *Kutaja ghanavati*^[10], *Kutajadya* *ghrita*^[11] and extractions like *Kutajarasa kriya*^[12], *Kutajaleha*^[13], one among them being *Kutaja Kshara*. Acharya Susruta^[14] has mentioned 23 drugs suitable for *Kshara* extraction. There are 2 varieties of *Kutaja*^[15] mentioned, *Strikutaja* and *Pum Kutaja*, *Strikutaja*^[16]- the plant which has flowers and fruits of red colour, smaller *Vrunta*. *Pumkutaja*^[17]- the plant which has fruits of bigger size, flowers are white and its leaves are unctuous. Both are used in alleviating ^[18] diseases like *Raktapitta*, *Kaphaja Vikaras*, *Hridroga*, *Jwara*, *Vatarakta* and *Visarpa*.

Properties [19]

Rasa: Katu, Tikta, Kashaya Guna: Laghu, Ruksha Virya: Sheeta (Raja Nighantu- Ushna) Vipaka: Katu Karma: Kapha- Pittahara, Grahi, Dipana. Indications: Raktapitta, Atisara, Grahani, Kushta, Krimi, Amavata, Visarpa, Vatarakta, Jwara.

Part Used: Panchanga

Samhita	Gana	
Charaka	Arshogna ^[20] , Kandughna ^[21] , Stanyasodhana ^[22] , Asthapanopaga ^[23]	
Susruta	Aragvadhadi ^[24] , Pippalyadi ^[25] , Haridradi ^[26] , Lakshadi ^[27]	
Astanga Hridaya	Aragvadhadi ^[28] , Vatsakadi ^[29]	

Botanical Description^[30]

H. antidysentrica: A small deciduous tree, leaveselliptic oblong, ovate or ovate-oblong, flowers- in corymbose cymes, whiter fragrant, fruits- follicks, slander, parallel, coriaceous with long white spots, seeds narrowly linear- oblong glabrous.

W. tinctoria: A small tree, branchlets yellow or light brown, leaves- elliptic, ovate or lanceolate or ovateoblong, obtusely acuminate, flowers- white, in lax terminal cymes, fragrant, fruit- of 2 distinct pendulous, slender follicles, cohering at the top only. Seeds are linear, plabrous.

Chemical Constituents^[31]

H. antidysentrica: Conessidine, conessimine, conkurchine, holadiene, holarrhenine, kurchine, kurchinine, kurchaline, holantosines A & B, holacetine.

W. tinctoria: Isoricinoleic acid, β - sitosterol, β -me amyrin, lupeol, rutin, cycloartenine, wrightiadione.

Kshara Extraction^[32]

Yoga Ratnakara has mentioned the process in 'Kshara Kalpana Vidhi'.

- Dry stalk of the required *Kshara* plant is taken and burnt till ash
- This ash is collected in a vessel.
- Add 4 parts of water and mixed well and kept overnight.
- Next day, the upper clear water is collected and boiled.
- It is boiled till the entire water gets evaporated and only the residue is left.
- The powder collected at last is nothing but *Kshara*.

Kshara Sutra

Kshara Sutra^[33,34] is a medicated thread which is prepared by applying the coatings of particular *Kshara* drug, *Haridra* and *Snuhi Ksheera* as binding agent. The thread is then sterilized by UV radiation. The cumulative effect of the above mentioned 3 drugs exerts powerful debridement effect and induces healing by the fresh and healthy granulation tissue.

Snuhi Ksheera	11 coatings
Snuhi Ksheera+ Kutaja Kshara	7 coatings
Snuhi Ksheera+ Haridra	3 coatings

There are a few scattered references in classics where the extraction of *Kshara* from *Kutaja* has been mentioned and those references are mentioned as follows.

Susruta Samhita

Acharya Susruta in the chapter *Ksharapaka Vidhi Adhyaya*^[35] has mentioned a detailed description of preparation of *Kshara*. The whole plant including *Mula*, *Phala*, *Patra*, *Shakha* of the following trees should be collected for preparation of *Kshara*. *Kutaja*, *Palasha*, *Asvakarna*, *Paribhadraka*, *Bibhitaka*, *Aragvadha*, *Tilvaka*, *Arka*, *Snuhi*, *Apamarga*, *Patala*, *Naktmala*, *Indravrksa*, *Vrsa*, *Kadali*, *Chitraka*, *Putika*, *Sphota*, *Asvamaraka*, *Saptachada*, *Agnimantha* and *Gunja* and all four types of *Koshataki* should be burnt.

Then one *Drona* (12,288gm) of the ash should be dissolved in 6 *Dronas* of water or cow's urine as prescribed and filtered 21 times and should be treated on fire in a big pan while it is slowly stirred by a ladle. When it becomes *Accha* (clear), *Rakta* (red), *Teekshna* (sharp) and *Picchila* (slimy), it should be re-filtered through a wide piece of cloth and filtrate should be placed again on fire after removing the separated residue.

Astanga Sangraha^[36]

Parts of plant like Nimba, Palasha, Amlatasa, Mahavruksha, Vrukshaka, Indravriksha (Kutaja), Vrsha, Asphota, Saptachhada, Naktamala, Tilwaka, Kadali, Vibhitaka, Ashwamara, Putika, Chitraka, *Kakajangha, Apamarga, Agnimantha* are collected in Vasanta Rtu. Same way pieces of 4 types of Koshataki (Brhatphala, Alpaphala, Pitapushpa, Shwetapushpa) are collected. The pieces of all above mentioned plants are dried. Then the heap is set on fire using dry stalk of *Tila*. This ash is collected and treated with 1000 Pala (40lt) of water and 1000 Pala of Gomutra and filtered through a thick cloth. Clear, red, slimy water is collected and treated with mild fire stirring it continuously with a ladle. Further, the collected residue is mixed with lime stone, Shankhanabhi depending on the type of Kshara required (i.e., Mrudu, Madhyama, Teekshna).

Astanga Hridaya^[37]

Moist roots, branches and other parts of trees such as Kalamushkaka, Shyamaka, Kadali, Paribhadraka, Ashvakarna, Mahavrksa, Palasha, Asphota, Vrikshaka, Indravriksha (Kutaja), Arka, Putika, Naktamala, Ashwamaraka, Kakajangha,

AYUSHDHARA, 2021;8(3):3344-3348

Apamarga, Agnimantha, Tilvaka, are cut into small pieces and placed on clean stone slabs, separately in heaps. Pieces of the four kind of *Koshataki* plants, the spikes and reeds of Yava plants are also similarly heaped. Into the heap of Kalamushkaka, pieces of lime stone (*Sudha*) are put in. All the heaps are set on fire by making use of dried chaff of *Tila* plant. After the heaps have been burnt and fire has disappeared, one Drona of ash of lime stone together with ash of Kalamushkaka and one and a quarter Drona of ash of others are taken, mixed together, dissolved well in half Bhara of water and cow's urine separately, and filtered through a thick cloth till a slimy, reddish, clear and penetrating alkaline material is obtained. It is then transferred into an iron cauldron and cooked, stirring it constantly with a ladle. When it begins to emit fumes, bubbles come up and attain a solid consistence like Avaleha, the cauldron should be taken out of fire. When it gets cool, it is transferred into an iron vessel which is kept concealed inside a heap of Yava for some days.

Dhanvantari Nighantu^[38]

Author has enlisted *Kshara Shatkam* just as *Kshara Dwaya, Kshara Traya* etc but individual properties have not been explained. Among those 6 *Ksharas, Kutaja* is one of them.

Ksharashatkam: (6 Ksharas)

Krishnatila (Sesamum indicum) Palasha (Butea monosperma) Vacha (Acorus calamus) Apamarga (Achyranthus aspera) Kutaja (Hollarhena antidysentrica) Mushkaka (Schrebera swietenioides)

Bhaishajya Ratnavali^[39]

Author *Bhava Mishra*, while explaining *Kshudra Roga* has explained the following formulation in which the extraction of *Kshara* from *Kutaja* has been observed.

Kshara Ghrita

Ingredients

Mushkaka, Kutaja, Gunja, Chitraka, Vasa, Arka, Snuhi, Apamarga, Asvamara, Bibhitaka, Palasha, Paribhadra, Karanja.

Above drugs are taken, dried and burnt. Ash collected is sewed, to this 6 parts of water is added and filtered through a cloth. The filtrate left undisturbed for 12-24 hours is transferred to other vessel. *Murchita Ghrita* and *Triksharas* (*Yava Kshara, Sarjikshara, Tankana Kshara*) is added to the filtrate and heated on a mild fire. Once the water content has been evaporated the *Ghrita* is sewed, collected and stored in a container. This *Ghrita* is used in *Mashaka*,

Tilakalaka, Padminikantaka, Chippa, Alasa, Dadru, Sidhma Roga.

Vangasena Samhita^[40]

Under *Grahani Roga Adhikara* a formulation has been mentioned.

Duralabhadi Kshara

Ingredients

Duralabha, Karanja, Saptaparna, Vatsaka (Kutaja), Madana, Murva, Patha, Aragvadha.

Gomutra is added and burnt, the powder is collected and this *Kshara* enhances *Bala* and *Agni*.

DISCUSSION

The process of Kshara extraction has been described in many Samhitas and indicated in alleviation of many diseases. Due to its properties^[41] like Slakshna (smooth), Na Ati Tikshna (neither too strong), Na Ati Mrudu (nor too mild), Picchila (slimy), Shigra (spreading quick), Sita (white), Shikhari (remaining like a mountain peak at the site of application), Sukha Nirvapa (easily removable), Na Ati Vishyandi (producing neither too much of exudation), *Na Ati Ruk* (nor severe pain); does all the functions of the *Shastra* and *Agni*. By actions such as Aachusha (sucking quickly), Samrambhad Gatra *Peeda* (tormenting the whole body), *Sarvato* Anusaran (spreading everywhere), it pulls out all the *Doshas* by their roots, after such action when the pain or disease disappears, the *Kshara* also subsides of its own accord. In the same way, *Kshara sutra* prepared by applying a particular *Kshara* is very much significant and has been proved effective in treating ano-rectal disorders like fistula-in-ano. sinuses. *Arsha*. Since there is wide scope of this treatment in day-to-day practice, different effects of various Ksharas mentioned in classics are to be examined. There are few research works conducted on Apamarga Kshara, Palasha Kshara, Arka Kshara and their effects have been determined. In a previous study conducted on Palasha Kshara and Kutaja Kshara in Arshas, it was found that Kutaja Kshara had shown better result than Palasha Kshara in reducing pile masses.^[42] Apart from this the efficacy of *Kutaia* Kshara in treating other diseases is also to be studied, henceforth this research is being undertaken.

CONCLUSION

Kutaja Kshara has been described in different Samhitas like Astanga Sangraha, Bhaishajya Ratnavali, Vangasena and in accordance can be used in treating Grahani, Mashaka, Tilakalaka, Padminikantaka, Chippa, Alasa, Dadru, Sidhma Roga. Kutaja Kshara can be also used in Kushta, Nadi Vrana, Arbuda, Bhagandara, Arsha and in other diseases where application of Pratisaraniya Kshara has been indicated. From the above references it can also be inferred that the application of *Kshara* holds utmost importance in variety of ailments and henceforth, mentioned in majority of treatises.

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