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# A CRITICAL REVIEW ON KSHARA- DOSHA

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#### **ABSTRACT**

In the context of Shalya Tantra, Acharya Sushruta, popularly known as 'The Father of Indian Surgery' has devised a number of surgical instruments and appliances for the ailments requiring some sort of minor or major surgeries. More importantly, in the cases that require Chhedana (incising), Bhedana (excising) and Lekhana (scraping), the concept of Kshara (alkalis or alkaline preparations) given by Acharya Sushruta is of great importance than surgical instruments and appliances (both principal and secondary or substitutive); as they possess of the virtue of subduing the three deranged bodily humors namely Vata, Pitta and Kapha. These alkalis or alkaline preparations are termed as 'Kshara' based on their property of corroding (the skin or the flesh of an affected part of the body), or on their peculiar quality in destroying the skin and flesh where such an effect is desired. Besides numerating eight commendable good qualities of an alkali viz., being Na ati tikshna (neither too strong) Na ati mridu (nor too mild), Na ati shukla (white in colour), Shlakshna (smooth), Pichhila (slimy), Avishyandi (not spreading), Shiva (stable), Shighra (acting well and quickly)<sup>3</sup>; Acharya Sushruta has also mentioned its Dosha (adverse effects) which consist in its being Ati mridu (too mild), Ati shweta (of excessive whiteness), Ati ushna (excessive heat producing), Ati tikshna (of excessive strength), Ati pichhila (of over- sliminess), Ati sarpita (greatly spreading), Ati sandra (excessive thickness), Apakva (not well cooked) and Hinadravya (lacking in drugs).<sup>4</sup>

Keywords: Kshara, alkali, Dosha.

#### INTRODUCTION

Acharya Arundatta in his commentary on Ashtanga Hridaya states that Dosha is the one which makes a Dravya (substance) unfit for use<sup>5</sup>. Therefore, such a Kshara must not be used for treatment purposes which consists of doshas.

Acharya Dalhana, in his commentary on Sushruta Samhita, states that the number of Kshara dosha is limited to be 'nine' as Acharya Sushruta mentioned only nine doshas and these doshas should never include the adverse effects of using Kshara in excessive amount eg., infertility etc. He also mentioned that there are other acharyas who do not even consider the concept of Kshara dosha separately because they are of view that Kshara doshas can be considered as just opposite of Kshara guna devised by Acharya Sushruta.<sup>6</sup>

# KSHARA DOSHAS AND THEIR ADVERSE EFFECTS

#### 1) Ati mridu- too mild

'Mridu' means soft or gentle or the one which causes flaccidity. Here in the context of Kshara, Mridu quality leads to desired flaccidity of vitiated skin, flesh and other dhatus which ultimately makes them movable or disoriented hence helping in their corrosion. But if the Kshara is Ati mridu (too mild), then desired flaccidity will not be achieved leading to no or less corrosion.

#### 2) Ati shweta - excessive white

In the process of making *Pratisarneeya* (external application) *kshara*, *Acharya Dalhana* states that *Kshara* should be prepared on *Alpa agni* (low flame) and in the end some amount of liquid should be left in the final product<sup>8</sup> and therefore its colour would be *An ati shukla* (not too white). If *Kshara* is prepared on continuous high flame, it will lead to evaporation of all its liquid portion and making it look *Ati shweta* (excessive white) in colour which is unfit for use.

Acharya Sushruta states that being An ati shukla, Kshara is not only Saumya (gentle) but Ushna (hot) to, by which there is no hindrance to its Dahan (burning), Pachan (ripening) and Daran (bursting) pow-

ers<sup>9</sup>. Acharya Dalhana aids this explanation by giving example of a glacier ('Himani') which is Ati shweta (excessive white) in colour and Ati shita (excessive cool) in nature. He says that like a person stuck in a glacier suffers from wet gangrene causing harm to his skin, flesh and other dhatus, the Ati shweta kshara will also cause more harm to the dhatus. 10.

#### 3) Ati ushna- excessive heat producing.

Due to presence of predominance of *Agneya* aushadhis (drugs with prominent fire element) which are present in a specific proportion in *Kshara*, it is *Ushna* in qualities and hence it is capable of therapeutic burn (*Dahan*), ripen (*Pachan*) and burst (*Daranq*) the vitiated skin, flesh and other dhatus. 11. But, if specified proportion of these *Agneya aushadhis* gets exceeded, then *Kshara* attains *Ati ushnatva*, which leads to excessive destruction of desired flesh and other dhatus, and even healthy nearby skin, flesh and other dhatus.

#### 4) Ati tikshna-too strong

In the process of making *Pratisarneeya* (external application) *kshara*, *Acharya Sushruta* states that after *Kshara* is prepared, certain drugs may be added to it to increase its potency. These adjuvant drugs are known as '*Prativapa*'. In order to increase the potency of the *kshara*, the drugs namely, *Danti*, *Dravanti*, *Chitraka*, *Langali*, *Putika*, *Praval*, *Talpatri*, *Vida*, *Suvarchika*, *Kanakakshiri*, *Hingu*, *Vacha*, *Ativisha* all or as many as available, each equal in quantity of one *Shukti* (20g) are made into fine powder and added. <sup>12</sup> The product thus formed is *Tikshna kshara*.

If these drugs are added in excessive amounts than desired, then the product will be *Ati tikshna*.

Acharya Hemadri says 'Tikshna' guna refers to the one which has Shodhana (cleansing) property<sup>13</sup>. By this, it can be inferred that the Kshara cleanses the affected area of the body by removing the vitiated skin, flesh and other dhatus. If the Kshara is Ati tikshna, then along with the vitiated ones it causes undesired removal of healthy skin, flesh and other dhatus leading to injury.

#### 5) Ati picchila- excessive slimy

Acharya Bhav Prakasha states that Picchila guna is the one which is Tantula (comes up as thread like formations when pressed between finger and thumb pulps), Balya (provides strength), Sandhan (unifying and integrating agent), Shleshmala (consists of mucus), Guru (heavy). 14.

Acharya Hemadri states that Picchila guna is the one which has smearing property<sup>15</sup>. It makes the *Dravya* smear able. Slime is smear-able due to its sticky nature. Slime is basically a polymer which is composed of a long chain of molecules that repeat. These chains are able to slide pass each other<sup>16</sup>.

Therefore, the *Picchila guna* enables *Kshara* to stick or unify or integrate on the desired area to work and show its effect. In procedures like *Kshara lepa*, the *Kshara* sticks to vitiated skin, flesh and other dhatus due to its *Pichhila guna* and burns, ripens and bursts the vitiated parts with the help of other qualities.

By Ati picchila (excessive sliminess) we mean that the molecule chain has become larger and heavier and also has formed some unnecessary bonds too because molecular distances have also decreased. Therefore, these molecular chains now have difficulty in slide passing each other. Hence, Ati picchila kshara will stick very strongly and cause tension in surrounding healthy muscles and tissues along with feeling of excessive mucus, itching, heaviness, hardness in the affected area because of its Shleshmala and Guru character.

## 6) Ati sarpita- greatly spreading.

A Kshara is desired to be 'Shiva' (stable i.e., neither too concentrated nor too liquid). The perfect consistency of Kshara is very important to get its desired effect. In the case of Ati sarpita kshara dosha, the Kshara has an abundance of liquid portion. This liquidity is interpretation of less concentration (low pH, hence weak base), less viscosity (due to greater molecular distances) and less surface tension (caused by decreased cohesive forces between molecules due to greater molecular distance). This will ultimately result in spillage of Kshara in undesired areas causing harm to healthy tissues and also the desired effect

on vitiated skin, flesh and other dhatus will not be achieved as this *Kshara* is a weak base.

#### 7) Ati sandra- excessive thickness

Like *Ati sarpita kshara dosha*, which was due to excessive liquid portion in the *Kshara*, *Ati sandra kshara dosha* is due to scarce liquid portion in the *Kshara*. The *Ati sandra kshara* will be highly concentrated (high pH, hence very strong base), more viscous (due to negligible molecular distance), and will have more surface tension (caused by stronger cohesive forces between molecules due to negligible molecular distances). This *Kshara* will be highly caustic being very strong base and will cause excessive burning, ripening and bursting of vitiated as well as healthy skin, flesh and other dhatus.

## 8) Apakvata/ vipakvata- not well cooked

Optimum cooking during preparation is very important for the formation of good quality Kshara formed. This is responsible for the desired potency and consistency of the Kshara. As discussed earlier, Kshara should be prepared on Alpa agni (low flame) and in the end some amount of liquid should be left in the final product. If Kshara is prepared on continuous high flame, it will lead to evaporation of all its liquid portion and making it look Ati shweta powder (excessive white) in colour which is unfit for use due to its excessive caustic nature and undesired potency. Moreover, in Gulmapratishedha adhyaya, in the process of making Paniya (internal application) kshara, Acharya Sushruta states that the Kshara should be cooked on low flame until 'Leha 'consistency is achieved and then the vessel should be removed from flame and put on ground to cool.<sup>18</sup> Improper cooking will not lead to proper consistency of the Kshara. The consistency of Kshara is responsible for its Pichhila and Shiva guna which will not be present in Apakva kshara. Hence, Apakva kshara will be unfit for use.

# 9) *Hindravyata*- lacking in drugs.

The Kshara is capable of producing desired therapeutic effects because of the drugs used in its preparation. Acharya Sushruta mentions that Kshara exhibits proper Dahan (burning), Pachana (ripening) and Daran (bursting) because it is composed of agneya aushadhis (drugs which are predominant in fire ele-

ment)<sup>19</sup>. The lack of drugs in *Kshara wi*ll lead to formation of *Kshara* which would be unfit for use as it does not qualify for producing desired therapeutic effects.

#### CONCLUSION

It is evident from various Ayurvedic texts that *Kshara* has wide area of applications. Therefore, it is required to be aware of not only its good qualities but also the adverse effects on improper preparation or use of *Kshara* so as to avoid any harm to the patient. *Acharya Sushruta* had versed very well about *Dosha* (adverse effects) of *Kshara*. *Kshara* which is *Ati mridu* (too mild), *Ati shweta* (of excessive whiteness), *Ati ushna* (excessive heat producing) ,*Ati tik-shna* (of excessive strength), *Ati pichhila* (of oversliminess), *Ati sarpita* (greatly spreading), *Ati sandra* (excessive thickness), *Apakva* (not well cooked) and *Hinadravya* (lacking in drugs) should not be used for treatment purpose<sup>20</sup>. In fact, *Kshara* preparations are a boon for therapeutic benefit of the patients.

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