Interpretation of time for Kshara Pratisaran W.S.R. Sushruta Samhita: A Brief Exploration

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Abstract

In Ayurveda, all para-surgical procedures are famed due to their clinical evident approaches. The para surgical procedures mainly described are *Ksharakarma*, *Agnikarma* and different kinds of *Raktamokshana*. Among them, *Kshara* is claimed to be very superior by *Acharya Sushruta* due to its indigenous properties. It is also being used since era in various kind of surgical and nonsurgical disease conditions in general and perianal diseases in particulars. Local application of *Kshara* (alkali) mentioned as *Pratisaraniya Kshara* by Acharya with its usage as local application is to be in defined time limit. This exact time is *Vakashatmatra* as mentioned in classics. But it is not confirmed what exact time in the seconds or minute as per present era. Now a day, most of surgeons make interpretation as a one second as a one *vaka-matra*. But definitive references for this interpretation is not available till date. So, this short communication will be helpful for analysis of time given for *Kshara-Pratisaran* and will define "*Vakshatmatra*" as per recent time unit i.e. in seconds or in minutes.

Keywords: Ano-rectal diseases; *Kshara-pratisaran*; Time duration; *Vakashatmatra*.

INTRODUCTION

Kshara Karma is an important procedure used by Dhanvantari Sampradaya (Surgeons) in many diseases with evident positive outcome. In classics, Kshara is believed to be superior

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to all Sastra and Anusastra due to its multifold properties i.e., Tridoshaghna (mitigates all the three doshas); Chhedan (excision = removal), Bhedan (cutting = dividing) and Lekhan (scraping) and Visheshkriyaavcharanat (suitable for being used by special methods).1 Among two types of Kshara, Paniya Kshara is used as internal application and Pratisaraniya Kshara is used as external application generally in various diseases and its severity of potency should be chosen accordingly condition of the disease. This type of severity of potency depends on its manufactory process and time duration for its application is different according to its severity. Here, severity of Pratisaraniya Kshara based on its alkalinity, higher alkalinity defines higher severity of Kshara and Vice-versa which are named as an Mrudu (mild), Madhyam (medium) and Tikshna (Severe = powerful) by Ayurveda.² More Tikshna Kshara has more efficacy than Mrudu and Madhyam Kshara and it also takes shorter duration for its therapeutic effect in compared to Mrudu or Madhyam Kshara.³

Definitive time is given separately for each type of *Kshara i.e.* Here, Time duration is given in classical parameters which is *Vaka-Shatmatra* by *Acharya Sushruta*⁴ and *Acharya Vagbhatt*⁵, but in recent era, how it should be understood by modern parameters in terms of exact time in seconds or minutes which is widely acceptable as SOP. This is the most baffling or unclear guideline which is not interpreted yet with proper justification. So, this short communication will try to decode this "Ancient time" with modern parameters of time.

AIM AND OBJECTIVE

To find out proper time duration for Classical *Kshara Pratisaran* method.

METHODOLOGY

Classical textbook of *Sushruta Samhita* (*Rutucharya Adhyay of Sutra Sthan*) and all internet sources were analyzed for defining "*Vaka-Shatmatra*" according to modern parameters of Time.

Review of Literature

It was carried out from *Bruhatrayi* Samhitas *i.e.* Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya and available all research engine.

RESULTS

Table 1: Interpretation of Vaka-Shatmatra by modern parameters of Time

Classical reference of time ⁶	Interpretation by Modern parameters (In Seconds)
1 Ahoratra = 1 day=24 hours	86,400
30 Muharat = 1 Ahoratra = 1 day	86,400
1 Muharat	2,880
20+1/10 Kala (=20.1 Kala) = 1 Muharat	2,880
1 Kala	143.2835
30 Kastha = 1 Kala	143.2835
1 Kastha	4.7761
15 Akshi-Nimesh= 1 Kastha	4.7761
1 Akshi-Nimesh = 1 Laghu Akshar Uchhar=1Vaka Matra	0.3184
100 Akshi-Nimesh = 100 Laghu Akshar Uchhar =100 Vaka Matra ⁷	31.84

DISCUSSION

Above table no. 1 showed that 0.3184 seconds are equal to one *Akshi-Nimesh* which is one *Laghu Akshar Uchhar*. So, 100 (Hundred) *Laghu Uchhar* or 100 *Akshi-Nimesh* is understood as 31.84 seconds which is nearer to 32 seconds. So, ideal time duration for *Kshara Pratisaran* is depicted as 31.84 seconds means not more than 32 seconds.

Thus, the time for *Kshara pratisaran* is 32 seconds, but practically it is not applicable. Because, 32 seconds are very short time duration for chemical reaction and will not effective as therapeutic effect. For *Pratisaran*, only *Mrudu* or *Madhyam Kshara* is indicated which needs more time of application as mentioned earlier.

Practically, only 32 seconds are not feasible due to lower potency of today's available drugs or ingredients as compared to drugs of ancient time. *Pratisaraniya Kshara* for 32 seconds is not being useful due to its slow chemical reaction procedure

due to its low efficacy. The procedure for *pratisaran* can be repeat many times. So, as prevention is better than cure, repetition of the procedure is also beneficial to avoid complications.

The surface where *Kshara* should be apply is also plays an important role for ionic reaction process. It is obviously understood that soft tissue will take less time and hard tissue will take more time to chemical burn which is also applicable for chemical reaction. So, time duration for local application and its action for different tissues may be vary as per the applied tissues.

Even though, it is difficult to make *Tikshna Kshara* which can react within 32 seconds. Even in practical aspect, *Kshara* should be kept for 90 seconds⁸ to 120 seconds^{9,10,11,12} for better result.

CONCLUSION

Hence on the basis of ancient literature mentioned in the Sushruta Samhita and Ashtanga Hridaya it

can be concluded that the *Tikshna Kshara* should be applied for 32 seconds on soft tissue while if *Kshara* is *Madhyam* (medium potency) then it should be applied for 90 to 120 seconds on soft tissue as now a days is in practice. On the basis of published data till now, time of application is 90 to 120 seconds depending on the efficacy of *Kshara* and tissue consistencies.

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