

## THE ANUSHASTRA IN AYURVEDA SURGERY: CLINICAL APPLICATION

\*Dr. Ram Naresh Singh

Assistant Prof., Dept. of *Shalya Tantra*, Shree Moti Singh Jageshwari Ayurved College and Hospital.

\*Corresponding Author: Dr. Ram Naresh Singh

Assistant Prof., Dept. of *Shalya Tantra*, Shree Moti Singh Jageshwari Ayurved College and Hospital.

Article Received on 21/08/2022

Article Revised on 11/09/2022

Article Accepted on 01/10/2022

## ABSTRACT

**Background-** Anushastra is a term used to describe parasurgical operations. In situations involving patients who are shastra karma sensitive, these operations are distinct from major. **Aim-** Exploring conventional parasurgical techniques in different conditions along with surgical procedures. **Material & Methods-** The current theoretical study focuses on the usage of parasurgical methods in modern literature, referred to as Anushastra. The strategies for performing three important parasurgical procedures are presented in this article. Anushastra kinds are particularly important in Ayurveda's classical texts and are still used in various illness plants. Separate anorectal problems such as karma, which is the application of energy to various diseases, are appropriate for shastra leadership. There are two methods-*shastrakritisiravedha* and *prachana* techniques for *ajashakrit*, *danta*, *shalaka* (samples), *ghrita Raktamokshana*. And *ghati* and *ashastrakrita*. **Conclusion-** Anushastras gaining popularity in chronic disease treatment.

**KEYWORDS:** Agnikarma, anushastra, jalaukavcharana, kshara karma.

## INTRODUCTION

An Ayurvedic branch called Shalya Tantra discusses Yantrakriya, Shastra Kriya, and Shalyakriya among other things. The Shalya Tantra also has a number of smaller or parasurgical operations that are described in detail as yantras, in addition to these major tasks. In addition to many surgical procedures that are distinct from major karma-, or main, procedures, many surgical procedures that are distinct from major ashtvidhashastra, or parasurgical procedures, are also mentioned in the classical literature of Ayurveda. These procedures are known as anushastra karma. The anushastra are the primary surgical techniques. Include *Kshara karma*, *Agnikarma*, *Jalaukavcharana*, etc. *Sushruta* explained 15 types of *anushastra*, etc. These are *Twakasara* (bamboo bark), *Sphatika*, *Kancha* (lead), *Kuruvind*, *Jalauka* (leech), *Agni* (flame), *Kshara* (alkali), *Nakha* (nails), *Goji*, *Shephalika* (Harashringar leave), *Shaka-patra*, *Kareera*, *Bala* (hair) and *Anguli* (finger).<sup>[1]</sup> These are suggested in children who are sensitive fearful and do not have surgical tools.<sup>[2]</sup> *Kshara karma*, *Agnikarma* and *Jalaukawacharana* are three most important *anushastra karma* included in *shashtiupakrama* and are used widely in wound management. *Anushastras* used successfully to handle different operating situations. Diagnosis of the various types of sinuses and fistulas by *Eshan karma* is equally useful. For the treatment of *Nadi* (sinus), *Shalyayukta* (Wound with foreign body), *Unmargi* (fistula) and *utsangi* (cavity wounds), we now use

different types of specimens (*eshani*) in general for a few days we can use *bala*, *anguli* or *kareernaal*<sup>[3]</sup> instead of *eshani*. *Sushruta* counts these under *anushastra*. *Aacharya Sushruta*, who is worshipped as the father of surgery, has described different methods of treatment related to both surgical and parasurgical procedures. *Agnikarma* is one of these forms in parasurgery. It has widely been practiced in the various clinical settings depending on the training and exposures of the physician. With renewed interest in recent *agnikarmaparasurgical* procedures, *kshara karma* and *jalaukavcharana* have gained primary appraisal in trying to treat different categories of diseases. Though *agnikarma* is a parasurgical procedure yet is indicated as a therapy of choice in many diseases, formally being indicated in *vata* and *kapha* related morbidities. Moreover, the scope of this therapy is further extended to diseases that are found to be refractory to conventional *sheeta-ushana-snigdha-rooksha* kind of treatment. The final attribute of *agnikarma* can be considered in terms of its immense prophylactic ability to eradicate such diseases and has also evolved as a precursor to modern-day 'cauterization'. *Kshara* is mainly of two types- *Paaneeeyakshara* and *pratisarniyakshara*.<sup>[4]</sup> *Kshara* is best among *shastra* and *anushastra*. *Pratisarniyakshara* is mainly used in wound management, various anorectal disorders such as *Arsha* (Haemorrhoids), *gudabhramsha* (Rectal Prolapse). Along with *pratisarniyakshara*, *kshara sutra* and *ksharavartithese* two are being practiced in a wide variety of diseases like *bhagandara*,

*nadvirana, dushtavrana. Acharya Sushruta*, father of surgery has scientifically classified it in a systemic manner and his principles of management are valid even today. Classification of traumatic wound, its prognostic evaluation and management through 60 procedures, insistence on primary suturing in clean wound, avoidance of sepsis, excision of extruded momentum and careful suturing of intestinal perforation in the management of abdominal wound perforation, etc. are remarkable concepts of *Sushruta Samhita* in modern science. Sixty procedures<sup>[5]</sup> consist of *Apatarpana, Alepa, Parisheka, Abhyanga, Svedana, Vimlapana, Visravana* etc. Among these, he also included the karma (acts) which is performed by *anushastra* known as *Anushastra Karma* means parasurgical procedures performed by non-surgical items or instruments in absence of surgical instruments. Acharya *Sushruta* described different *Anushastra*.

## METHODS

The present study is a literary review of *anushastra karma*, which emphasizes the procedure of *kshara karma, agnikarma* and *jalaukavcharana* as described in *Sushrutasamhita* by ancient *Acharya Sushruta*. As described by *Sushruta*, there are 15 types of *anushastra*. The following are among them popular and practically available at the moment.

1. *Kshara karma*,
2. *Agnikarma*,
3. *Jalaukavcharana*

### ➤ *Kshara Karma*

*Kshara* is a drug from various medicinal plants ash. *Kshara* is primarily of two types-*Paaneeyakshara* and *ksharapratisharneeeya*. Between *shastra* and *anushastras*, *Kshara* is strongest. *Pratisaranyakshara* is mainly used in wound management, various anorectal disorders such as *Arsha* (Haemorrhoids), *gudabhramsha* (Rectal Prolapse). In wound management it is mainly used for *shodhana* (debridement). *Ushna* and *tikshna* properties of *kshara* are helpful in wound debridement. *Sushruta* clearly mentioned those *vranalakshana* - *utsannamansan* (elevated margin and hyper granulation tissue), *kathinana* (hard consistency), *Kanduyukta* (severe itching), *Chiroththitan*<sup>[6]</sup> (chronic wounds) and unhealthy wounds can be cleaned easily i.e. help in wound bed preparation, which is the principal management in chronic wound. *Pratisaranyakshara* also help in *Darana karma* in the large pus pockets having no opening especially in those where one cannot perform surgical intervention, like wounds in children, elder patient, weak patient, panic patients, ladies and wounds over sensitive and vital portion. *Kshara Sutra* & *Ksharavarti* are other two variants of *kshara karma* which are used in the management of *Nadi* (Sinus) and *Bhagandara* (fistulas). These diseases are difficult to treat otherwise. This is because of its undermined edge and unexposed infective site and difficult in wound debridement. These conditions are treated by both methods- *Shastra karma* and *anushastra* (*kshara sutra* & *ksharavarti*). *Sushruta*

mentioned that *Nadi* (sinus) present in emaciated, weak, anxious patient and present over vital parts should be treated by *Kshara sutra*, not by *chhedana* (surgery).<sup>[7]</sup> *Bhagandara* is also treated by *kshara sutra* in same manner. *Ksharavarti* is another cleansing agent which treats *Nadi* effectively described in all Ayurvedic texts. *Kshara* is also used on that places where *Shastra* cannot be effective and appropriate.<sup>[8]</sup>

### Procedure of *Kshara Karma* (*PratisaarniyaKshara*)

**Purva karma (Pre-Operative Care):** A patient who is considered fit for treatment is prepared accordingly. Patients are advised and given explanation of the procedure in order to make them aware of the treatment process. *Agropaharaniya*-Before starting the required procedure material such as *Pratisaranyakshara, nimbuswarasa, spatula, cotton, bowl, proctoscope, Changerighrita / Jatyadi ghrita* or *tailais* kept ready.

**Pradhana karma (Operative Procedure):** In the lithotomy place, the patient is placed on the operating table. Local *anesthesia* is given after cleaning and manual anal dilatation is performed. *Pratisaarniyakshara* is taken in a bowl and spread over the mass of the pile or any other area picked. It remains until the color shifts to the *phalavarna* of *Pakwajambu*.<sup>[9]</sup>

**Pashchata karma (Post-operative Care):** Applied *kshara* is wiped, followed by *nimbuswarasa* with distilled water. The procedure can be repeated for 2, 3 times depending on disease indication and severity. The procedure can be repeated at 21 days' intervals for 2nd or 3rd sessions if required.

### ➤ *Agni Karma*

*Agni karma* is the second important karma of *anushastra* that all Acharya identify. There are so many devices called *dahanupkarana* for *Agnikarma* such as *pippali, ajashakrit, godanta, shalaka* (samples) *ghrita, tail* and *guda*.<sup>[10]</sup>

### According to *Akriti*<sup>[11]</sup> *agnikarma* may be of following types

*Valaya* - Circular shape., *Bindu* - Dot like shape. According to *Acharya Dalhanashalaka* should be of pointed tip. *Vilekha* - Making of different shapes by heated *shalaka*. *Vilekha* type of *agnikarma* is further subdivided by *Acharya Dalhana* into three types according to the direction of line- *Tiryaka* (Oblique), *Riju* (Straight), *Vakra* (Zigzag) *Pratisarana*- Rubbing at indicated site by heated *shalaka* and there is no specific shape.

**According to *Ashtang Hridya* there are 3 more types of *agnikarma* based on *akriti*** *Ardhachandra*- Crescent shape, *Swastika*- Specific shape of *Swastika Yantra*., *Ashtapada* - Specific shape containing eight limbs in different directions. Different types of *agnikarma* performed act to body parts—*twakdagdha, mamsadagdha, sirasnaudagdha* and *asthi sandhi*

*dagdha*. *Dahanaupkarana* are used according to site. So *agnikarma* can be classified as.<sup>[12]</sup>

- **Twakgatavyadhi:** Diseases involving skin; *Pippali*, *Ajashakrita*, *Godanta*, *Shara*, *Shalaaka* are used.
- **Mamsagatavyadhi:** For diseases involving muscles, *Jambavaushtha*, *PanchadhaatuShalaakaKshaudra* are used.
- **Sira Snayu Asthisandhi:** For diseases of *Sira*, *Snaayu*, *Sandhi*, *Marma* diseases *Madhu* (Kshaudra), *Guda* (Jaggery) and *Sneha* are used.

#### Procedure of Agnikarma

**Poorva Karma:** A patient who is considered fit for procedure is prepared accordingly. Patients are counselled and given explanation about the procedure in order to make them aware about the process of treatment.

**Agropaharaniya-** Gas cooker, *shalaka*, *madhuyashtichurna*, and *ghritkumari* are kept ready before starting the procedure. The area is marked and cleaned.

**Pradhana Karma:** For a specific disease, *panchdhatushalaka* or any other *dahanopkarana* is selected. *Panchdhatushalaka*, the *shalaka* on the gas burner is heated red hot and applied over the chosen area. The process is repeated according to indication and need. As frozen shoulder is *snayusandhigatavikara*, thus *guda*, *sneha* or *madhu* is selected as *upkarana* for Agnikarma. Pulp of *ghritkumarimajja* is applied in the area immediately after completion of the procedure followed by *madhuyashtichurna*. Patient is carefully monitored during the procedure for any untoward complications. It is advised that patients keep the area dry, clean, prevent exertion, pain and unhealthy diet. Depending on disease and disease severity, the same procedure can be repeated.

#### ➤ **Jalaukawacharana (Leech therapy)**<sup>[13]</sup>

*Jalaukawacharana*, illustrated by ancient *acharya*, is the third most important *anushastra karma*. *Jalaukawacharana* is *Raktamokshana's* method. In *sushrutasamhita* and *Ashtanghriddya*, *Raktamokshana* has been described. It has two *shastrakrita* and *ashastrakrita* methods. *Shastrakrita* further have two methods- *siravedha* and *pracchana*. *Ashastrakrita* method can be achieved with following tools- *shringa*, *jalauka*, *alabu* and *ghati*. There are mainly two types of *Jalauka*- *Savish* and *nirvisha* having six *jalauka* in each type. *Nirvishajalauka* is of therapeutic use. They are indicated in various diseases e.g. *twakroga*, *raktajaroga*, *dushtaVrana*.<sup>[14]</sup> In wound management *Jalauka* is generally applied in initial phase of wound progress. *Raktamokshan* reduces pain and prevents premature swelling from being suppressed. *Raktamokshana* is used to treat wounds with inflammation, hardness, reddish black colour, tenderness and uneven surface.

#### Application of Jalauka (*Jalaukawacharana*)<sup>[15]</sup>

*Jalaukawacharana* is divided into 3 parts as other procedures-

##### **Purvakarma (Pre-operative Care)**

**a) Purification of Jalauka:** *Jalaukakis* kept in *Haridra Jala*, in a kidney tray half filled with fresh water, containing *HaridraChurna*.

**b) Preparation of Patient:** Before applying *jalauka*, proper counselling for better outcome of *jalaukawacharana* should be done by the patient. Patient should be in a position to lie down preferably. The part to apply *jalauka* is cleaned with antiseptic solution.

**Pradhana karma (Operative Care):** First, part of the body is selected where the indication of *jalauka* is to be applied. The selected site is carefully cleaned. Over the selected part, *Nirvishajalauka* is kept.

*Jalauka* sticks to this section. If a *jalauka* does not stick, use a sterile needle to puncture the site and apply *jalauka*. *Jalauka* sucks the blood through its anterior sucker that is attached by a posterior sucker to the base. During sucking of blood *jalauka* should be covered with cold and wet cotton swab to protect the leech from excessive heat of blood. Number of application of leeches depends on severity and general condition of the disease.

##### **Pashchata karma (Post-operative Care)**

**a. Jalauka Care:** The *jalauka* is removed from the site by sprinkling *haridrachurna* or *saindhava* or, if completely sucked, *jalauka* leaves the site alone. Vomiting is induced into *jalauka* so that sucked blood is drained from the mouth by *haridrachurna* and slowly and gently squeezing from tail to mouth and then holding it in fresh water. *Jalauka* can be applied again after a week's period. The *jalauka* should move freely in water otherwise it is diseased *jalauka*, called *durvanta* by *sushruta*.

**b. Patient Care:** *Triphalakashaya* and *haridrachurna* and *madhu* should be used to dress the affected part as they are haemostatic, antiseptic and analgesic in nature. Tight bandaging should be performed after bleeding has been stopped to prevent risks of re-bleeding. Patient is told to learn between 1-8 hours of blood oozing from the wound.

**Contraindication of Jalaukawacharana:** It is contraindicated in the treatment of haemorrhagic diseases such as haemophilia, severe anaemia, coagulopathy, hypotension, active tuberculosis, fever of high grade, patients with immunocompromised.

#### DISCUSSION

Shastra karma is the most significant and effective technique in *shalyatantra*, but it is also important and effective in the care of surgical sickness. As *acharya* has

indicated, there are some places or ailments where we cannot conduct ashtvidhasastra karma or where we do not have the desired shastra available, so we must use alternative instruments in those circumstances. Therein lies the significance of anushastra karma. In the present period, there are three major anushastra karma. Because of their efficiency, kshara karma, agnikarma, and jalauka karma are gaining popularity. Arsha (haemorrhoids), gudabhransa (rectal prolapse), and kshara sutra for sinuses and fistulas are all treated with kshara karma. When applying kshara, it should remain as pakwajambuphalavarna until 100 matra kala as described by Sushruta and samyakadaghlakshana appear. After that it should be washed with nimbuswarasa to prevent extra caustic effect of kshara. The probable mode of action of Pratisarneeya Kshara is, as it creates a chemical burn on prolapsed rectal mucosal folds which causes cicatrization (in wound healing process) and may strengthen the anorectal ring in rectal prolapse. Its importance lies in its action, because of its ability to cure those diseases which can't be cured by the bshesha, shastra. Agnikarma alleviate all the Vatajaand Kaphaj disorders as Ushnaguna of Agnikarma is opposite to sheetaguna of Vata and Kaphadosha. According to Ayurveda, every Dhatu (tissue) have its own Dhatvagni and when it becomes low, diseases begins to manifest. In this condition, Agnikarmaworks by giving external heat there by increasing the Dhatvagni which helps to pacify the aggravated doshaand hence alleviate the disease. Jalauka's management of dushtaVrana is more effective. Leech saliva contains chemicals such as Bdelins (Trypsin plasmin inhibitor), Hyaluronidase, Hirudin, Carboxypeptidase-A inhibitors, and many other substances that affect the affected part.<sup>[16]</sup> At the wound site, Bdelins are found to have anti-inflammatory action. Antibiotic-like properties are seen in hyaluronidase. Inhibitors of carboxypeptidase-A promote blood flow to the location of the wound. It has been discovered that the histamine and acetylcholine-like chemicals in jalauka saliva work as vasodilators on the microvasculature over the application site. The blood flow is increased by all of these features, which include anti-inflammatory, antibacterial, and vasodilatation, and they are all highly helpful for healing wounds. increased blood flow will result in an increase in oxygen delivery and ultimate removal of harmful substances from the affected area.

## CONCLUSION

For shastrakarma in surgical practise, anushastra is equally crucial. Kshara is frequently mentioned in Ayurvedic writings at different points in the treatment of wounds. Pratisarniya Kshara is used to debride persistent wounds that won't heal. Kshara karma is a convenient, day-care surgery with few and minor post-procedural problems that are negligible under local anaesthetic. It is also very cost-effective. For sthanika participation of vata in vatakaphaja diseases, agnikarma therapy is goal-oriented. It is a low-cost, outpatient treatment option for the average person. Agnikarma uses harsh and destructive natural wounds. Jalaukavacharana has

demonstrated to be quite effective in treating a variety of skin conditions, including chronic non-healing ulcers and others, with a very low cost-effectiveness.

## REFERENCES

1. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(15): 39.
2. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(16-17): 39.
3. Sushruta, Sushruta Samhita with Ayurveda TatvaSandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(18): 39.
4. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 11(6): 46.
5. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsasthana, 2002; 1(8): 5.
6. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsasthana, 2002; 1(88): 13.
7. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsasthana, 2002; 17(29): 109.
8. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 11(3): 45.
9. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsasthana, 2002; 5(4): 46.
10. Sushruta, Sushrutasamhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 12(4): 51.
11. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 12(11): 52.
12. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 12(8): 51.
13. Rishu Kumar Sharma Et Al: Management of Dushta Vrana By Jatyadi Ghrita Followed By Jalaukavacharna, IAMJ, 2017; 5(3): 782-793.
14. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 13(12): 58.

15. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipikahindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 13(19-22): 60.
16. <http://leeches-medicinalis.com/the-leeches/biology/> dated 8/2/19