

CLINICAL APPLICATION OF THE ANUSHAstra IN AYURVEDA SURGERY

Dr. Gaurav Sharma^{1*} Dr. Ajit Kumar Shasamal²

¹Assistant Prof., Dept. of Shalya Tantra, S.B.S.J.S Ayurvedic Medical College and Hospital.

²Prof. & HOD, Dept. of Shalya Tantra, S.B.S.J.S Ayurvedic Medical College and Hospital.

Article Received on
21 Oct. 2021,

Revised on 11 Nov. 2021,
Accepted on 01 Dec. 2021

DOI: 10.20959/wjpr202114-22576

*Corresponding Author

Dr. Gaurav Sharma

Assistant Prof., Dept. of
Shalya Tantra, S.B.S.J.S
Ayurvedic Medical College
and Hospital.

ABSTRACT

Background: In procedures, anushastra is defined as parasurgical procedures. These procedures are separate from big in circumstances where shastra karma sensitive patients are involved. **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-*shastrakritasiravedha* and *prachana* techniques for *ajashakrit*, *danta*, *shalaka* (samples), *ghrita Raktamokshana*. And *ghati* and *ashastrakrita*. **Conclusion:** *Anushastra* is gaining popularity in chronic disease treatment.

KEYWORDS: Agnikarma, anushastra, jalaukavcharana, kshara karma.

INTRODUCTION

Shalya Tantra is an Ayurvedic branch that deals with Shalya kriya, Shastra kriya, and Yantra kriya, among other things. However, in addition to these Shalya Tantra major functions, there are numerous minor or parasurgical procedures that are detailed as yantra. Anushastra karma is parasurgical procedures described in the classical literature of Ayurveda apart from many surgical procedures, which are separate procedures from major karma-, procedures mentioned in the classical literatures of Ayurveda apart from many surgical procedures, which are

separate procedures from major *ashtvidha shastra*, the main procedures. The main surgical procedures are *anushastra*. Include *Kshara karma*, *Agnikarma*, *Jalaukavcharana*, etc. *Sushruta* explained 15 types of *anushastra*, etc. These are *Twakasara* (bamboo bark), *Sphatika*, *Kancha* (lead), *Kuruvid*, *Jalauka* (leech), *Agni* (flame), *Kshara* (alkali), *Nakha* (nails), *Goji*, *Shephalika* (Harashringar leave), *Shaka-patra*, *Kareera*, *Bala* (hair) and *Anguli* (finger).^[1] These are suggested in children who are sensitive fearful and do not have surgical tools.^[2] *Kshara karma*, *Agnikarma* and *Jalaukawacharana* are three most important *anushastra karma* included in *shashti upakrama* and are used widely in wound management. *Anushastra* is 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), *Shalya yukta* (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 *kareer naal*^[3] 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 *agnikarma* parasurgical 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-*Paaneeya kshara* and *pratisarniya kshara*.^[4] *Kshara* is best among *shastra* and *anushastra*. *Pratisaraniya kshara* is mainly used in wound management, various anorectal disorders such as *Arsha* (Haemorrhoids), *guda bhamsha* (Rectal Prolapse). Along with *pratisaraniya kshara*, *kshara sutra* and *kshara varti* these two are being practiced in a wide variety of diseases like *bhagandara*, *nadivrana*, *dushta vrana*. *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^[5] 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 *jalaaukavcharana* as described in *Sushruta samhita* 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. *Jalaaukavcharana*

➤ *Kshara Karma*

Kshara is a drug from various medicinal plants ash. *Kshara* is primarily of two types- *Paaneeya kshara* and *kshara pratisarneeya*. Between *shastra* and *anushastras*, *Kshara* is strongest. *Pratisaraniya kshara* is mainly used in wound management, various anorectal disorders such as *Arsha* (Haemorrhoids), *guda bhramsha* (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 *vraṇa lakshana* - *utsanna mansan* (elevated margin and hyper granulation tissue), *kathinana* (hard consistency), *Kandu yukta* (severe itching), *Chirothithan*^[6] (chronic wounds) and unhealthy wounds can be cleaned easily i.e. help in wound bed preparation, which is the principal management in chronic wound. *Pratisaraniya kshara* 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* & *Kshara varti* 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* & *kshara varti*).

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).^[7] *Bhagandara* is also treated by *kshara sutra* in same manner. *Kshara varti* 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.^[8]

Procedure of Kshara Karma (Pratisaarniya Kshara)

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 *Pratisaarniya kshara*, *nimbu swarasa*, *spatula*, cotton, bowl, proctoscope, *Changeri ghrita* / *Jatyadi ghrita* or *taila* is 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. *Pratisaarniya kshara* 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*.^[9]

Pashchata karma (Post-operative Care): Applied *kshara* is wiped, followed by *nimbu swarasa* 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*.^[10]

According to Akriti^[11] agnikarma may be of following types

Valaya - Circular shape., *Bindu* - Dot like shape. According to *Acharya Dalhana* *shalaka* 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 Hridaya* 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—*twak dagdha*, *mamsa dagdha*, *sira snau dagdha* and *asthi sandhi dagdha*. *Dahana upkarana* are used according to site. So *agnikarma* can be classified as.^[12]

- ***Twakgata vyadhi***: Diseases involving skin; *Pippali*, *Ajashakrita*, *Godanta*, *Shara*, *Shalaaka* are used.
- ***Mamsagata vyadhi***: For diseases involving muscles, *Jambavaushtha*, *Panchadhaatu Shalaaka* *Kshaudra* 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*, *madhuyashti churna*, and *ghritkumari* are kept ready before starting the procedure. The area is marked and cleaned.

Pradhana Karma: For a specific disease, *panchdhatu shalaka* or any other *dahanopkarana* is selected. *Panchdahatu shalaka*, 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 *snayusandhigata vikara*, thus *guda*, *sneha* or *madhu* is selected as *upkarana* for *Agnikarma*. Pulp of *ghritkumari majja* is applied in the area immediately after completion of the procedure followed by *madhuyashti churna*. 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)***^[13]

Jalaukawacharana, illustrated by ancient *acharya*, is the third most important *anushastra karma*. *Jalaukawacharana* is *Raktamokshana's* method. In *sushruta samhita* and *Ashtang hridaya*, *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. *Nirvisha jalauka* is of therapeutic use. They are indicated in various diseases e.g. *twak roga*, *raktaja roga*, *dushta Vrana*.^[14] 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* (*Jalaukavacharana*)^[15]

Jalaukavacharana is divided into 3 parts as other procedures.

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

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

b) Preparation of Patient: Before applying *jalauka*, proper counselling for better outcome of *jalaukavacharana* 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, *Nirvisha jalaauka* 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 *haridra churna* 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 *haridra churna* 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 *jalaauka* should move freely in water otherwise it is diseased *jalaauka*, called *durvanta* by *sushruta*.

b. Patient Care: *Triphala kashaya* and *haridra churna* 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 *Jalaaukavacharana*: 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

Shashtra karma is the most significant and effective technique in shalya tantra, 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 ashtavidha shashtra karma or where we do not have the desired shashtra 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 jalaauka 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 pakwajambuphala varna until 100 matra kala as described by Sushruta and samyaka dagdh lakshana appear. After that it should be washed with nimbu swarasa to prevent extra caustic effect of kshara. The probable mode of action of Pratisarneeeya 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 bhesaja, shashtra. Agnikarma alleviate all the Vataja and Kaphaj disorders as Ushna guna of Agnikarma is opposite to sheeta guna of Vata and Kapha dosha. 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 dosha and hence alleviate the disease. Jalaauka's management of dushta Vrana 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.^[16] At

the wound site, Bdelins are found to have anti-inflammatory action. Hyaluronidase has the property of antibiotics. Carboxypeptidase-A inhibitors increase the blood flow at the wound site. Histamine and Acetylcholine like substances present in saliva of Jalauka are found to act as vasodilatation on the microvasculature over the site of application. All of these properties, such as anti-inflammatory, antibiotic, vasodilatation, increase blood flow and are very useful for a wound healing. Increased blood flow in terms of increasing the supply of oxygen and eventually eliminating toxic materials from the affected part.

CONCLUSION

Anushastra is equally important for *shastrakarma* in surgical practice. *Kshara* is commonly mentioned in *Ayurvedic* texts at various locations in wound management. *Pratisarniya Kshara* is used in chronic non-healing wounds debridging *Kshara karma* is a conducive, day-care procedure and is very cost-effective, with minimal and trivial post-procedural complications that are negligible under local anesthesia. *Agnikarma* therapy is result-oriented in *vatakapahaja* disorders for *sthanika* involvement of vata. It is an outpatient and affordable method of treatment for the common man. *Agnikarma* employs hard and unloading wounds in nature. *Jalaukavacharana* has shown to be very effective in the management of various skin disorders, chronic non healing ulcers etc. with a very cost effectiveness.

REFERENCES

1. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(15): 39.
2. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(16-17): 39.
3. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 7(18): 39.
4. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 11(6): 46.

5. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsa sthana, 2002; 1(8): 5.
6. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsa sthana, 2002; 1(88): 13.
7. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsa sthana, 2002; 17(29): 109.
8. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 11(3): 45.
9. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, chikitsa sthana, 2002; 5(4): 46.
10. Sushruta, Sushruta samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 12(4): 51.
11. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 12(11): 52.
12. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi 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 Sandipika hindi commentary by Ambika Dutta Shastri, Chaukhambha Sanskrit Sansthan Varanasi, sutra sthana, 2002; 13(12): 58.
15. Sushruta, Sushruta Samhita with Ayurveda Tatva Sandipika hindi 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.