



## AYURVEDIC REVIEW ON APPLICATION OF ASHTAVIDHA SHASTRA KARMA IN SURGICAL PRACTICE

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### ABSTRACT

*Acharya Sushruta*, is said to be an ancient surgeon who is the author of *Sushruta Samitha* who had given more importance to *Shalya Chikitsa*, he described 8 kinds of surgical procedures which includes *Chedana*, *Bhedana*, *Lekhana*, *Vyadhana*, *Eshana*, *Aharana*, *Visravana* and *Seevana*. All these procedures have relevance even today. The advanced techniques in surgery like excision, incision, puncturing, extraction, draining, suturing have been developed based on these principles. Thus, showing the importance of *Ashtavidha Shastra Karma*.

**KEYWORDS:** *Ashtavidha Shastra Karma*, *Shalya Chikitsa*.

### INTRODUCTION

*Sushruta*, one of the earliest surgeons of the ancient surgery is believed to be the first individual to describe surgical procedures. *Acharya Sushruta* says, there are 3 kinds of procedures in surgical practice which includes *Poorva Karma*, *Pradhana Karma*, *Paschat Karma* and the *Ashtavidha Shastra Karma* comes under *Pradhana Karma*. He says in his *Shaastra (Sushruta Samhita) Shastra Karma* being the main procedure, it will be described first and hence importance is given to *Shastra Karma*. He has classified *Shastra Karmas* into 8 categories, which should be performed appropriately for achieving successful outcome. His surgical principles are relevant even today and advanced techniques have been developed based on his principles.

*Ashtavidha Shastra Karma's* are as follows:<sup>[1]</sup>

*Taccha Shastrakarmastha Vidham; Chedyam, Bhedyam, Lekhyam, Vyadhyam, Eshyam, Aharyam, Visravyam, Seevyamithi.*

#### 1) *Chedana*

**Nirukthi:** *Chedyam Nisheshataschedaneeyam arshaha prabhruthi.*

**Indications:** *Bagandara, Kaphaja Granthi, Tilakalaka, Vrana Vartma, Arshas, Charmakeela, Asthi Mamsagatha Shalya, Jatumani, Mamsa Sanghata, Snayu Mamsa Sira Kotha, Valmika, Sataponaka, Adhrusa.*

**Shastra's and Anushastra's used for Chedana**

*Shastra's - Vriddhipatra, Nakhasastra, Mudrika, Utpala Patra and Ardhadhara.*

*Anushastra's - Sphatika, Kaca (glass pieces), Agni, Kshara, Nakha.*



**Chedana Vidhi**<sup>[2]</sup>

- At eyebrows, cheeks, temporal region of head, forehead, eyelids, lips, gums, axillae, abdomen and groins *Tiryak Cheda* (Horizontal incision) is taken and then excision is done.
- In hands and foot *Chandramandalavat* incision (circular) is taken and excised.
- In anus and penis *Ardhamandalavat* incision (semilunar) is taken and excised.

**Examples****1) Kaphaja Granthi Chedana**<sup>[3]</sup>

- *Doshas* should be removed by *Kaphahara Dravya Lepa* etc.
- *Swedana* is given.
- *Vimlapana* is done by using thumb.
- Paste of *Vikanthaka, Aragwada, Kaakanaanthi* etc drugs should apply on it.
- If *Granthi* is not present on *Marma* and which is not going to become *Pakwa* should be excised in *Apakwa* stage and *Agnikarma* is done.

**2) Jatumani Chedana**<sup>[4]</sup>: This should be excised and *Agnikarma* or *Kshara Karma* is done.

**3) Valmika**<sup>[5]</sup>: It should be excised and *Agnikarma* or *Kshara Karma* is done.

**2) Bhedana**

**Nirukthi:** - *Bhedyam Bhedaneeyam, Vidradyadi.*

**Indications:** - All types of *Vidradhi* except *Sannipataja, Vataja Pittaja* and *Kaphaja Granthi, Vataja Pittaja* and *Kaphaja Visarpa, Vriddhi, Vidarika, Prameha Pidaka, Sopha, Stana Rogas, Avamanthaka, Kumbhika, Anusayi,*

**2) Different types of incisions in Shataponaka Bhagandara**<sup>[7]</sup>

SI. No	Type of incision	Shape described in Ayurvedic text	Shape Incision
1.	<i>Langalaka</i>	Incision having two arms extending on either side	T-shaped
2.	<i>Ardha Langalaka</i>	A similar incision with one arm	L-shaped
3.	<i>Sarvatobhadra</i>	Incision surrounding the anal canal on all four sides	Circular
4.	<i>Goteeryaga</i>	Incision resembling the shape of cow's khur	Semi-Circular

**3) Different type of incision for Parisravi Bhagandara**<sup>[8]</sup>

SL No	Type of Incision	Shape described in Ayurvedic text
1	<i>Kharjura Patraka</i>	Branched incision like the shape of Date palm leaf.
2	<i>Chandrardha</i>	Semi-lunar incision
3	<i>Chandrachakra</i>	Circular like full moon
4	<i>Suchi Mukha</i>	Pin-pointed or inverted cone incision towards the anal margin
5	<i>Awangmukha</i>	Same incision in opposite directions

**3) Lekhana**

**Nirukthi:** - *Lekhyam Lekhaneeyam, Rohinyadi.*

**Indications:** - *Vataja, Pittaja, Kaphaja, Sannipataja Rohini, Kilasa, Medaja Granthi, Medaja Vartma, Adhijihvika, Arshas, Mandala Kusta, Mamsakanda* and *Mamsonnati.*

*Nadi Vrana, Puskarika, Alaji, Ksudra Rogas,* because of *Ashmari* and few diseases caused due to *Medha.*

**Shastra's and Anushastra's used for Bhedana**

**Shastra's** - *Vridhipatra, Nakhasastra, Mudrika, Utpalapatra* and *Ardhadhara.*

**Anushastra's** - *Sphatika, Kaca* (glass pieces), *Agni, Kshara, Nakha.*

**Method of holding Shastra for Bhedana**

*Vridhipatra* should be held in between the *Vrinta* (handle) and *Phala* (blade).

**Examples****1) Vidradhi bhedana**<sup>[6]</sup>

- After performing the *Mangala Karma.*
- Patient is asked to take light food and made him to sit facing east.
- Attendants are asked to hold the patient tight.
- *Vaidya* should sit opposite to him.
- Incision should be taken from above downwards avoiding *Marma, Sira, Snayu, Sandhi, Asthi, Dhamani* and should go deep till the pus is seen. Immediately *Shastra* should be taken out.
- In case of *Mahan Sopha* another incision should be taken at a distance of two or three *Angula.*

**Shastra's and Anushastra's used for Lekhana**

**Shastra's** – *Mandalagra, Karapatra*

**Anushastra's** - *Kshara, Gojihva, Sephalikka, Nakha*

**Method of holding Shastra for Lekhana**

*Vridhipatra* and *Mandalagra* should be held by the hand slightly raised up.

**4) Vyadhana**

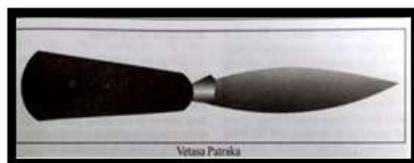
**Nirukthi:** Vyadhyam Alpamukhahi Shastra Vyadhaneeyam Siradi.

**Indications:** Sira Vyadha, Mutra Vriddhi, Dakodara.

**Shastra's and Anushastra's used for Vyadhana**

**Shastra's** - Kutharika, Vrihimukha, Ara, Vetasapatra and Suci.

**Anushastra's** – Kareera.

**Method of Vyadhana**

Kutharika should be held in the left hand, the stroke is given on it by the middle finger of the other hand (right hand) released after holding it with thumb.

**Examples****1) Vyadhana in Dakodara<sup>[9]</sup>**

- Vatahara Taila Abhyanga should be done followed by Ushnodaka Swedana.
- Attendants should hold him.
- Vyadhana should be done by using Vrihimukha Shastra at 4 Angula from the midline of abdomen (Romarajji) on the left side and below the umbilicus. Vyadhana should be done to the depth of Angustha Pramana and the Dvimukha Nadi is inserted. And the vitiated fluid is drained out.
- After removal of Nadi, Taila and Lavana has to be applied.
- Bhandana is done.

**2) Vyadhana in Mutravridhi<sup>[10]</sup>**

- Swedana should be given followed by wrapping of Vastrapatta.
- Vyadhana should be done lateral and below to the Sevani.
- Dvimukha Nadi is inserted to the opening and the urine is drained.
- After the complete drainage of mutra the Nadi is removed and Sthagika Bandhana is done.

**3) Vyadhana in Slepada<sup>[11]</sup>**

- Vyadhana is done in the big toe.

**5) Eshana**

**Nirukthi:** Eshyam Eshaneeyam Nadyadi...

**Indications:** - Nadi Vrana, Sasalya Vrana and Unmargi Vrana.

**Shastra's and Anushastra's used for Eshana**

**Shastra's** – Esani

**Anushastra's** – Anguli, Baala, Kareera



**Method of holding probe:** - Esani should be held at its base.

**Example****Eshana in Nadivrana and Bhagandara<sup>[12]</sup>**

Eshani is passed through the Nadi Vrana/Bhagandara then the Suci having Kshara Sutra is passed till the end of the sinus/fistulous tract. The needle is then lifted up, the end of the Kshara Sutra is pulled out and tight knot is tied.

**6) Aharana**

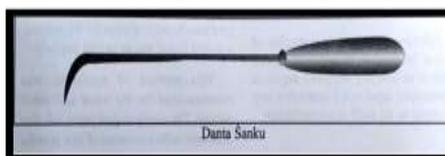
**Nirukthi:** Aharyam Aharaneeyam Sharkaradi.

**Indications:** - Dantamala, Karnamala, Ashmari, Salya, Mudha Garbha.

**Shastra's and Anushastra's used for Aharana**

**Shastra's** - Badisa and Dantasanku

**Anushastra's** – Nakha, Anguli.

**Example****Asmari Aharana<sup>[13]</sup>**

**Procedure**

- ❑ The patient should lie in lithotomy position with head lying on the left of the assistant and legs flexed at knees and thighs supported by hands and then tied with bandage. After placing the patient oil massage should be performed from above and pressing the back of the other hand.
- ❑ The calculi should be allowed to come down as much as possible. Later index and middle finger of left hand should be introduced into the rectum and bladder is massaged from the above downwards till the stone come near perineum and stone removed by incising the bladder and extracting it with *Sarpa Mukha Shalaka Yantra*.
- ❑ It is important to see that the stone is removed as a whole and removed all particles and other stones at one sitting. In ladies it is important to avoid vesicovaginal fistula or wound.



**Method of holding Shastra** – Should be held at its tip.

**Example**

**Visravana in Vidarika<sup>[14]</sup>:** In *Apakwa Vidarika* either *Jalouka* or *Prachanna* is done.

**Visravana in Upadamsha<sup>[15]</sup>:** *Jalouka* or *Sira Vyadha* to be done, *Sira Vyadha* is done at *Medhra Madhya*. In *Alpa Dosh* *Jalouka* can be done, in deep seated *Doshas* *Sira Vyadha* is advisable.

**8) Seevana**

**Nirukthi:** -*Seevyam Seevaneeyam, Taccha "Seevya Medha Samutthascha Bheetva Sulekhitha Gadaha Ithi.*

**Indications:** - Diseases which are due to vitiation of *Medas*, cut wounds, *Sulekhitha Vrana, Sadyovrana* and diseases localized on *Chala Sandhi*.

**Contraindications for Seevana:** - Wounds caused by *Agni, Kshara, Visha*, wounds which emits *Marutha* (gas), wounds which have blood and *Loha* inside should not be sutured.

**Seevana Vidhi:** - Wound edges should be slightly raised up, and it is approximated, and then sutured. The suture bite should not be too far because it may cause pain to the wound edges and it should not be too near as it causes tearing of edges.

**Shastra's and Anushastra's used for Seevana**  
*Shastra's* – *Suci*

- ❑ The patient should be given warm rice, kanji medicated with *Gokshura, Kushmanda, Pashanabheda* together with *Ghee* for 3 days.

**7) Visravana**

**Nirukthi:** *Visravyam Visravaneeyam, Taccha Vidradhi Kushtadi.*

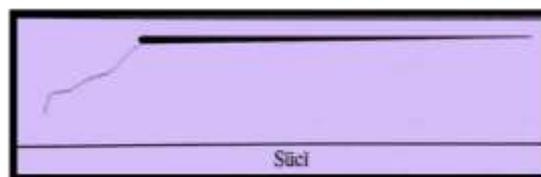
**Indications:** - Five types of *Vidradhi, Ekadeshaja Sopa, Slepada, Visajusta Sonitha*, all kinds of *Arbuda*, all kinds of *Visarpa, Vataja Pittaja Kaphaja Granthi, Vataja Pittaja Kaphaja Upadamsa, Stanaroga, Vidarika, Ksudra rogas.*

**Shastra's and Anushastra's used for Visravana**

**Shastra's** - *Suci, Kushapatra, Atimukha, Sararimukha, Antarmukha* and *Trikurcaka.*

**Anushastra's** – *Jalouka, Nakha*

**Anushastra's** – *Baala*

**Suci**

- a) **Round needle** – Length- two *Angula*, this kind of *Suchi* is used at places where there is less *Mamsa* and at *Sandhis*.
- b) **Triangular needle** – Length – three *Angula*, this kind of *Suchi* is used at places which are broad.
- c) **Curved needle** – used at places like scrotum and abdomen.

**Types of Seevana**

1. *Vellitaka* (Continuous)
2. *Gophanika* (Blanket or button-hole)
3. *Tunnasevani* (Buried / Subcuticular suturing)
4. *Rujugranthi* (Interrupted)

**Example****1) Seevana in parisravi udara<sup>[16]</sup>**

- *Shalya* should be removed and the *Srava* is drained, the cut ends of the antra are brought closer and got bitten by big black ants. When it gets stuck to the wound its body should be cut off leaving its head there only.

## DISCUSSION

Acharya Sushruta explained in a logical manner about *Shastra Karmas* and their indications with the types of *Shastras* to be used for particular *Shastra Karma*. A surgery is an outcome of combined application of *Ashta Vidha Shastra Karmas*'s for achieving the successful outcome. *Shastra – Grahana* (collection), *Dharana* (method of holding), *Avacharana* (performing the surgical procedure) was logically mentioned to prevent injury.

Basic *Shastra Karmas* which are told by Acharya Sushruta are implemented in various forms even in modern surgery, like *Chandramandalavath Chedhan* in *Pada* same procedure we are practicing even today that is circular excision of corn in the foot. Sushruta says, an elevation filled with pus, incision should be made to remove the vitiating materials (pus) completely, this is the suggestive of counter incision and exploration of the abscess. *Vyadana* for the diseases which are told by Sushruta like *Mutravridhi* and *Dakodara* can be considered as tapping in hydrocele and ascites. The definition for probe which he explains holds good for the definition of probe, that is, a slender surgical instrument for exploring the depth or direction of a wound, sinus etc. Suturing techniques mentioned by Sushruta is followed even today for suturing of skin - *Rujugranthi*, fascia - *Gophanika*, muscles - *Vellitaka* and *Gophanika*, and also for cosmetic purpose *Tunnasevani*. *Vridhi Patra* should be held in between the *Vrinta* (handle) and *Phala* (blade), same position as pen holding position for making an incision which we are practicing even today. Incision should be taken from above downwards avoiding *Marma*, *Sira*, *Snayu*, *Sandhi*, *Asthi*, *Dhamani* holds good for the explanation that, it should neither damage any important structure.

## CONCLUSION

Surgeries were performed successfully by Sushruta with the available resources of those days even with lack of proper anesthesia. Surgical instruments mentioned by Sushruta for each *Shastra Karmas* almost correlated to modern surgical instruments.

The principles behind application of *Shastra Karmas* mentioned by Sushruta proved to be logical and thus holds good in present era. Sushruta laid the foundation for the practice of surgical procedures which is even practiced in present days with advanced techniques. Thus, it is evident that Sushruta was way ahead of his time, in his approach to the *Shastra Karmas*.

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