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Review Article

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# ASHTA VIDHA SHASTRA KARMA IN SURGICAL PRACTICE

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#### **ABSTRACT**

Ayurveda is the an ancient life science which deals with eight different branches (Ashtanga Ayurveda) related to different therapeutic aspects. Shalya Tantra deals with surgical and para surgical concept. Acharya Sushruta, father of surgery has documented surgical principle under the heading of ashta vidha Shastra karma. Ashta vidha Shastra Karma (eight principles of surgery) is an unique contribution in the field of surgery with Chhedana (excision), Bhedana (incision), Lekhana (scrapping/debridement), Eshana (probing), Aharana (extraction), Visravana (drianage), Seevana (suturing) Karmas. Till date, these eight surgical procedures are being used in modern surgical science to combat the surgical disorders. This article summarizes the applicability of Ashta vidha Shastra Karma in current surgical practice.

**KEYWORDS:** Ayurveda, Ashta vidha Shastra Karma, Shalya Chikitsa.

#### INTRODUCTION

Ayurveda means "knowledge of life", described for healthy humanity. It comprises with all kind of medical & surgical, spiritual concepts and herbal, mineral remedies for treatment as well as prevention of diseases.

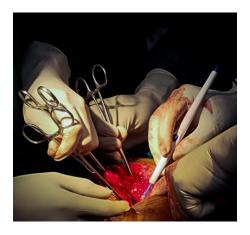
Sushruta (500BC) was an ancient Indian surgeon, written Sushruta Samhita which deals with different surgical conditions and to remove factors responsible for producing pain or misery from the body or mind called as Shalya. Shalya Chikitsa is an important specialty among Ashtanga Ayurveda, having detail description of different treatment modalities like Asta vidha Sastra karma, Saptopa karma, Kshara karma, Agni karma, Rakta mokshana. To obtain better results in all types of surgical procedures Sushruta has described three type of Karmas

(i.e. Poorvakarma, Pradhankarma and Paschatkarma). However, the Pradhankarma mainly encompasses eight techniques which are termed as Ashtavidha Shastra Karma. <sup>[1]</sup> The priciples of eight basic surgical procedures are being used in day to day surgery and many advancement made in modern surgery in terms development of minor surgical instruments to Robotic surgery. But, the principles of surgical treatment is remained same even today.

#### Ashtavidha Shastra Karma

It is composed of eight surgical procedures viz.

Chhedana (excision), Bhedana (incision), Lekhana (scrapping), Vyadhana (puncturing), Visravana (drainage), Eshana (probbing), Aharana(extraction), Seevana (suturing). These all techniques offer relief in various surgical adversity like; Sadhyovrana, Nadivrana, Bhagandara, Vidradi, Granthi etc.

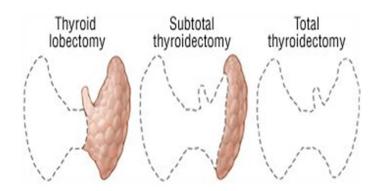


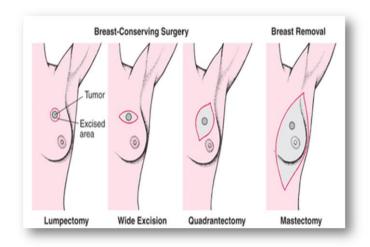
# 1) Chhedana Karma (EXCISION\_) छेध्यं निःशेषतश्छेदनीयमर्शःप्रभृति |- सु.सू ५/५ टीक

It involves excision of part from the body with the help of shastra like Mandalagra, Karpatra, Vrudhipatra, Mudrika and Utpalpatraka. Anushastra used in Chhedana Karma are Sphatika, Kacha, Agni, Kshara, Nakha. Indications of Chhedana Karma - Bhagandara, Kaphajgranthi, Vranavartama, Charmakeela, Asthimamsagata Shalya. Scalpel, Scissors etc. are modern instruments used for this purpose.



**EXCISION:** In surgery, excision refers to removal of an organ or mass. These are compared to other surgical techniques like resection and excisional biopsy. The surgical terminology suffix "Ectomy" which means "act of cutting out" is utilized when referring to an excision of tissue, such as with an appendectomy, the removal of an infected appendix. An excision is done specifically for curative treatment, generally for the removal of diseased tissue or organs.













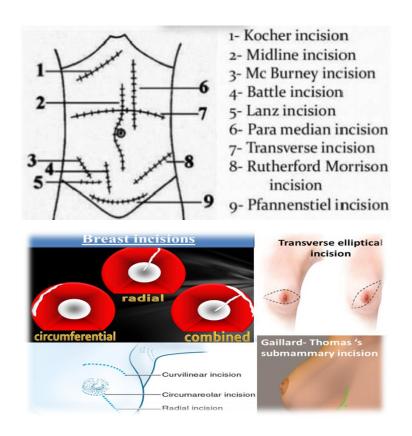


# 2) Bhedana Karma (INCISION) भेद्यं भेदनीयं, विद्रध्यादि । - सु.सू ५/५ टीक

It is defined as incision to lay open a cavity for draining out tissue debris, blood and pus with the help of Shastra like Vrudhhipatra, Nakhashastra, Mudrika, Utpalapatraka and Ardhadhara. Anushastra used in Bhedana Karma are Sphatika, Kacha, Agni, Kshara, Nakha. Indications of Bhedana Karma - all types of Vidradhi except Sannipataja. Vatajpittaj and Kaphaj Granthi, Vataj Pittaj and Kaphaj Visarpa, Stana Roga, Shopha, Prameha Pidika Alaji, Kshudra Rogas. Bhedana Karma is also indicated in deep/superficially seated abscesses, pocket of puss in fistula / sinus tract. [5]

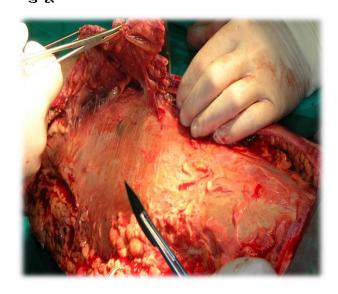


**INCISION-** A surgical incision is a cut made through skin to facilitate an operation or procedure or to drain out the pus.





# 3) Lekhana Karma (Surgical debridement) लेख्यं लेखनीयं; रोहिण्यादि । - सू.सू ५/५ टीक



Lekhana Karma is perfomend to scrap out of debris from affected part with the help of shastra like Mandalagra, Vridhhipatra. Anushastra used in Lekhana Karma are Kshara, Gojihva, Sephalika, Nakha. Indications of Lekhana Karma - Vataja Pittaja Kaphaja and Sannipattaja Rohini, Kilasa, Medaja Granthi, Adhijihvika, Arsha, Mandala Kushta, Mamsakanda and Mamsaunnati. Acharya Sushruta has explained certain parameters to asses proper and improper Lekhana Karma. Absence of bleeding from the site, itching, Oedema and appearance of lid like finger nail are characterstic features of Samyak Lekhana Karma.

### Surgical debridement

It is also called as Sharp Instrument Debridement. Done by using scalpel, scissors or other instrument to cut dead tissue from a wound.



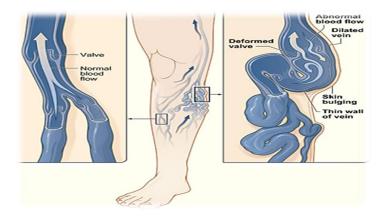
# 4) Vyadhana Karma (PUNCTURING)

# वेध्यम् अल्पमुखैः शस्त्रैर्व्यधनीयं, सिरादि... - सु.सू ५/५ टीक

Vyadhana Karma means puncturing, by this technique a affected part is punctured with the help of Kutharika, Vrihimukha, Ara, Vetaspatra and Suchi[8] and Anushastra used for Vyadana Karma is Kareera. Indications of Vyadhana Karma - Siravyadhana[9] and to remove the fluids from the cavity.



**PUNCTURING** - The act of piercing or penetrating with a pointed object using instruments like needles of different gauges.



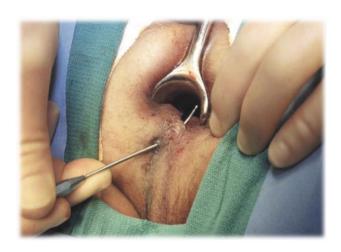
# 5) Eshana Karma (Probing) एष्यम् एषणीयं, नाड्यादि ....- सु.सू ५/५ टीक

It involves probing with the help of Eshani.<sup>[10]</sup> from affected body parts and Anushstra used in Eshana Karma are Kareera, Bala, Anguli. Indications of Eshana Karma - Nadivrana, Sashalyavrana, Unmargivrana.<sup>[11]</sup>

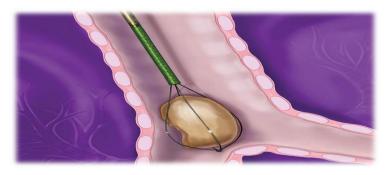


### **PROBING**

A slender surgical instrument for exploring the depthor direction of a wound, sinus etc. A probe is passed through the external opening into the internal opening along the direction of the tract.



6) Aharana Karma (Extraction) आहार्यम् आहरणीयं, शर्करादि - सु.सू ८/५

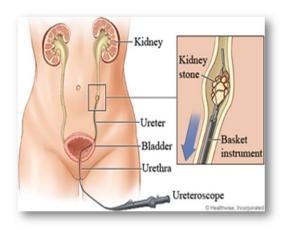






It involves extraction of waste from diseased body part with the help of Badisha and Dantashanku. [12] Shastra and Anushastra used for Aharana Karma are Nakha and Anguli. Indications of Aharana Karma - Dantamala, Karnamala, Ashmari, Shalya, Moodagarbha. [13]

**EXTRACTION** - Process of removing something, especially by force as in case of ureteroscope.



### 7) Visravana Karma (Drainage)

# विस्राव्यं विस्रावणीयं, तच्च विद्रधिक्ष्ठादि- स्.स् ५/५ टीक

In this procedure, blood letting and drainage of pus is done with the help of Suchi, Kushpatra, Atimukha, Antarmuka and Trikurchaka. <sup>[14]</sup> and Anushastra used for the purpose of Visravana are Jaloka and Nakha. Indications of Visravana Karma are - Five types of Vidhradhi, Ekdeshajshopa, Sleepada, Vishajhushta Sonitha, all kinds of Arbuda, all kinds of Visarpa, Vataj Pittaj Kaphaj Granthi, Vataj Pittaj Kaphaj Updansha, Stanaroga, Vidarika, Kshudra Rogas. <sup>[15]</sup>



#### **DRAINAGE**

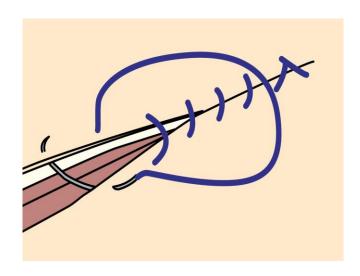
The act or process of draning off fluids or pus from a cavity or wound by means of suction or gravity.

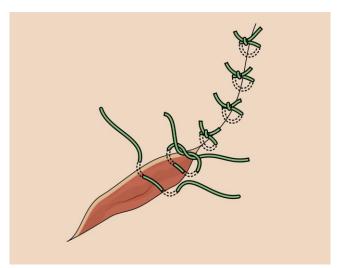
### 8) Seevana Karma (Suturing)

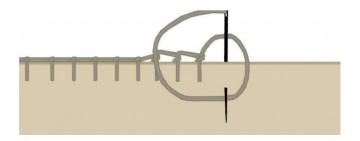
सीव्यं सीवनीयं, तच्च " सीव्या मेदःसमुत्थाश्च भित्त्वासूलिखिता गदाः " इति । - सु.सू ५/५ टीक

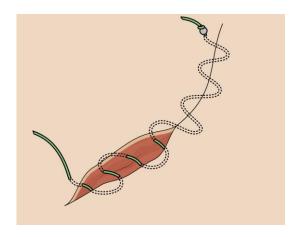
It is a techniques to approximate the margins of incised and excised area by using suitable needles and threads.<sup>[16]</sup>

Rhijugranthi, Anuvellita, Gofanikaa and Tunnasevaniare various types of Seevan a used in this therapy. Indications of Seevana Karma are - Sadyovrana, Sulekhita Vrana, diseases which are due to vitiation of Medas, cut wounds and disease localized on Chalasandhi. [17]









#### **SUTURING**

Suture denotes sewing by means of a needle and a thread, made up of different suture material. They are used in an attempt to improve and speed healing. They are commonly used on the skin, tissues, muscles, tendons, organs, and blood vessels.

#### DISCUSSION

Acharya Sushruta, explained Shastra Karmas, their indications and particular Shastra used in a Logical Manner. The reconstructive surgery like Karna sandhana, Nasa sandhana and Ostha sandhana, where performed successfully by Acharya Sushruta, which is popular even today. Thus, Acharya Sushruta is called as "The First SURGEON". Basic Shastra Karmas which are told by Acharya Sushruta are Implemented in the Modern era.

According to Sushruta Samhita,

त्रिविधं कर्म- पूर्वकर्म, प्रधानकर्म, प्रश्चात्कर्मेति; तदृव्याधिं प्रत्यूपदेक्ष्यामः ॥ - सू.सू ५/३

There are 3 procedures in Surgical practice which includes poorva, pradhana, paschat. अष्टविध शस्त्रकर्म comes under Pradhana Karma.

Acharya Sushruta, further explains, शस्त्रकर्म under 8 categories, which when performed appropriately gives successful outcome. Acharya Sushrutas' principles are relevant even today and advanced techniques have been developed based on his principles.

### 1) छेदन- In Pada चन्द्रमण्द्रलवच्छेदान्

Even today, same procedure is practiced i.e. Circular Excision for corn in the foot.

### 2) भेदन - महत्स्विप च पाकेषु द्वयङ्गुलान्तरं त्र्यङ्गुलान्तरं वा शस्त्रपद्रमुत्तम्

Acharya Susruta, says about Counter incision. Incision should be made on elevation filled with pus, to remove the vitiated materials (pus). This is suggestive of Counter Incision and Exploration of the abscess.

3) व्यधन -Acharya Sushruta, told Vyadana in diseases like मूत्रवृध्दि, दकोदर which can be considered as tapping in Hydrocele and Ascites.

### 4) एषण – एष्य इति लोहादिशलाकयाऽन्तरन्वेषणीया इत्यर्थं ॥सू सू २५/९०॥

This statement holds good for Definition of probe.

A slender surgical instrument for exploring the depth or direction of a wound, sinus etc.

- 5) शीवन-Suturing Techniques mentioned by Sushruta is followed even today for suturing of
- √ Skin ऋजुग्रिन्थ
- ✓ Fascia गोफणिकां
- ✓ Muscles वेल्लितकं, गोफणिकां
- ✓ Cosmetic purpose तुन्नसेवनी
- 6) থাকা (মু মু ২৬/४४)- Methods of using Shastras like,
- 1) স্বহুण Collection
- 2) धारण Method of Holding
- 3) अवचारण Performing the surgical procedure were logically mentioned to prevent self injury.
- 7) शस्त्र धारण वृध्दिपत्रं वृन्तफलसाधारणे भागे गृण्हीयात् ॥

Pen holding position practiced today for an incision was told by our Acharya's.

8) Complications - মুমু ২৬/३१

If sastra karma is not elicited properly, then it leads to various other विकास's. Like, if the incision is not done properly. Then, it may lead to formation of Keloid (व्रणज ग्रन्थि) and Hypertrophic Scar.

#### **CONCLUSION**

Even with lack of anesthesia, surgeries were performed successfully by Acharya Sushruta with the available resources of those days. Surgical instruments mentioned by Sushruta in each shastra karmas correlated to modern surgical instruments. The Principles of shastra karmas mentioned by Sushruta proved to be logical and thus holds good in present era. Sushruta lead a Foundation for the practice of surgical procedures which holds good with advanced techniques.

Thus, it is evident that Susrutha was way ahead of his time, in his approach to the Shastra Karmas!

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