



JV

AYURVED SANGRAH

SHALYA TANTRA

JV'n Dr. Narendra Singh Shekhawat

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

UGC Approved Under 2(f) & 12(b) | NAAC Accredited | Recognized by Statutory Councils

Printed by :
JAYOTI PUBLICATION DESK

Published by :
Women University Press
Jayoti Vidyapeeth Women's University, Jaipur

Faculty of Ayurvedic Science

Title: JV AYURVED SANGRAH SHALYA TANTRA

Author Name: Dr. Narendra Singh Shekhawat

Published By: Women University Press

Publisher's Address: Jayoti Vidyapeeth Women's University, Jaipur
Vedant Gyan Valley,
Village-Jharna, Mahala Jobner Link Road, NH-8
Jaipur Ajmer Express Way,
Jaipur-303122, Rajasthan (India)

Printer's Detail: Jayoti Publication Desk

Edition Detail:

ISBN: 978-93-90892-01-3

Copyright © - Jayoti Vidyapeeth Women's University, Jaipur

DEFINATION OF SHALYA ,SHALYA TANTRA AND ITS IMPORTANCE

- DEFINATION OF SHLYA-

Those who enter the body quickly and commit violence towards the body or produce pain in the body are called shlya .Excessive dosas (sharirk evm mansik)and mala (feces) that causes pain to the body and generate pain in the body through jangam athva sthavr pdarth.

śalya (शल्य).— (S) A peg, a pin, a spike, a thorn, a stub or snag, any similar thing considered as a piercing body. Note. This is rather the proper or primitive than the common sense of the word. The following are the current senses and applications.

1 A splint, splinter, or fragment remaining in the flesh.

2 A dead foetus remaining in the womb.

3. An injury or insult rankling and festering; an occurrence or an act of which the remembrance is pungently painful; a troublesome or an afflictive occurrence; a plague, pest, bore: a thorn in all its figurative senses.

4 Any mischiefworking thing (as a corpse, a bone &c.) left below the ground on which a house is rising.

Śalya (शल्य) refers to a type of [fish \(matsya\)](#) according to the Dhanvantari-nighaṇṭu 165.383-85. In the science of Āyurveda (ancient Indian healthcare), the meat of a fish is used and prepared in balanced diets. The Dhanvantarinighaṇṭu is a 10th-century medicinal thesaurus (*nighaṇṭu*) containing characteristics and synonyms of various herbal plants and minerals

DEFINATION OF SHALYA TANTRA-

It was Ayurveda of ancient India that pioneered the modern concepts of surgery! Well, Shalya Tantra is a vital branch of Ayurveda the literal meaning of which is removal of an irritating factor from the body (surgery). From Sushruta's Sushruta Samhita, it is known that thousands of years ago, very sophisticated methods of surgery were employed in India.

Sushruta was emphatically a surgeon, and Sushruta Samhita is only complete

book we have which deals with the problems of practical surgery and midwifery. Sushruta may be attributed the glory of elevating art of surgery as one of the top branches in medical field in his era which was at its peak. Sushruta Samhita, a treasure by Sushruta to the medicos is considered as Bible for learning the Shalya Tantra branch of Ayurveda. As this branch is about Surgery in total, practical surgery requires a good knowledge of practical anatomy.

IMPORTANCE OF SHALYA TANTRA :-

Shalya Tantra embraces all processes aiming at the removal of factors responsible for producing pain or misery to the body or mind. Sushruta took surgery in medieval India to admirable heights and that era was later regarded 'The Golden Age of Surgery' in ancient India. The association of Plastic Surgeons of India offers their salutations to this great Ayurved surgeon by giving him a proud position in the association's emblem. In this review an attempt has been made to highlight the ancient surgical concepts of Sushruta Samhita (Ayurved Medical text) which are practicing today with little modification. Introduction: Regarding the origin of Medicine it is considered that there are no written records. Pre Vedic history would be from the earliest times to the Indus Valley Civilization & then to the Vedic period. During this period disease was considered as magic religious phenomenon. Ayurveda is a system, that helps maintain health in a person by using the inherent principles of nature to bring the individual back into equilibrium with their true self. In essence Ayurveda has been in existence since the beginning of time because we have always been governed by nature's law.

Shalya Tantra – The scope of this branch of Medical Science is to remove (from an ulcer) any extraneous substance such as, fragments of hay, particles of stone, dust, iron or bone; splinters, nails, hair, clotted blood, or condensed pus (as the case may be) or to draw out a dead fetus of the uterus, or to bring about safe parturitions in cases of false presentation, and to deal with the principle and mode of using and handling surgical instruments in general, and with the application of heat (cautery) and alkaline (caustic) substances, together with the diagnosis and treatment of ulcers. When we list out the first to contribute in surgery, in all those first's Sushruta's name is seen, like first to describe dissection, absorbable suture material, instruments, operative procedure for specific diseases. Like this the list almost seems to be so much which shows the contribution of Indian sciences in medical field.

Sushruta Samhita, a systematic study of surgery (General, Orthopedic, Plastic, Gynaecology, ENT, Ophthalmology, etc) is the earliest treatise and also the best which deals with the surgery particularly the principles of surgery in detail.

Sushruta's original text discusses in an elaborate manner about a myriad of surgical methods that include how to handle different types of tumors, fracture of bones, internal and external injuries, complications during child delivery, and obstructions in intestinal loops. In fact, Sushruta was the first ever surgeon to develop cosmetic surgery! The use of numerous surgical instruments is explained in the Sushruta Samhita as well. Instruments were either made from wood, stone or other such materials.

The reason why Shalya Tantra was quite popular is it could provide fast relief compared to the slower process of recovery from herbs or medicines. The most popular physician of Ayurvedic medicine, Charaka, also recommended Shalya Tantra to treat certain diseases that needed immediate attention; for example, haemorrhoids.

Many would be shocked to know one plain truth: It was Ayurveda of ancient India that pioneered the modern concepts of surgery! Well, Shalya Tantra is a vital branch of Ayurveda the literal meaning of which is removal of an irritating factor from the body (surgery).

From Sushruta's Sushruta Samhita, it is known that thousands of years ago, very sophisticated methods of surgery were employed in India!

Sushruta's original text discusses in an elaborate manner about a myriad of surgical methods that include how to handle different types of tumors, fracture of bones, internal and external injuries, complications during child delivery, and obstructions in intestinal loops.

In fact, Sushruta was the first ever surgeon to develop cosmetic surgery! The use of numerous surgical instruments is explained in the Sushruta Samhita as well.

Instruments were either made from wood, stone or other such materials.

The reason why Shalya Tantra was quite popular is it could provide fast relief compared to the slower process of recovery from herbs or medicines.

The most popular physician of Ayurvedic medicine, Charaka, also recommended Shalya Tantra to treat certain diseases that needed immediate attention; for example, haemorrhoids.

According to Sushruta, it is best to use Shalya tantra when the problem with the body is beyond merely medicinal repair.

In cases like cysts, abscesses, enlarged lymph nodes, haemorrhoids, kidney and bladder stones, urinary retention, and breast related diseases, he advised to use Shalya tantra.

The treatment not only gives faster relief to the person suffering but is also beneficial in circumstances when the internal medicine fails to cure.

The procedures employed in this particular branch of Ayurveda give hands-on information about the various pre-operative procedures, general operative procedures, post-operative procedures, marma or significant points and anaesthesia.

In addition to this, it describes the kinds of bandages, yantras or blunt instruments, shastra or sharp instruments, and sutures or stitches used in surgery.

Sushruta Samhita also explains the use of different surgical instruments for the treatment.

Instruments used in Shalya tantra, as described in Ayurvedic texts, were made mainly from wood, stone, broad leaves, branches of trees and various other natural materials.

A creeper or the climbing plant was used in place of ligatures. Shalya tantra treatment was very popular in the ancient times mainly because it provided fast relief compared to other processes.

For illnesses that demanded immediate treatment Shalya Chikitsa was the most preferred method.

The only major drawback of Shalya tantra was probably the lack of appropriate aseptic precautions during those days.

Besides, the instruments used were raw and crude and hence use them caused pain.

In summary, there is no denying the fact that modern surgery has its roots or more precisely seeds in Sushruta Samhita.

Sushruta was the first surgeon to discuss surgical techniques, a bold and steady step towards relief of disease and pain for mankind. Considering the fact that a range of surgical procedures were practised before thousands of years, this valuable and admirable work of the ancient times cannot go without appreciation and recognition

INTRODUCTION TO SHALYA TANTRA

Shalya tantra deals with the extraction of foreign bodies (shalya) , diseases that require surgical /para surgical management (treats diseases,injuries and deformities by manual or operative methods).this discipline finds a paralle modern discipline of surgery.

Contrary to the modern concepts surgery was pioneered by Ayurveda in ancient India. It is a significant branch of Ayurveda. The name of the sage-physician Sushruta is synonymous with surgery. From his treatise Susruta Samhita we come to know that thousand of years ago sophisticated methods of surgery were practiced in India.

The original text of Sushruta discusses in detail about an exhaustive range of surgical methods including about how to deal with various types of tumors, internal and external injuries, fracture of bones, complications during pregnancy and delivery, and obstruction in intestinal loop. Sushruta was the first surgeon to develop cosmetic surgery. His surgical treatment for trichiasis can be compared to some of the modern operative techniques used for this eye disease.

The use of various surgical instruments is also described in the Sushruta Samhita for the treatment. The instruments described were made from stone, wood and other such natural materials.

Shalya Tantra was popular because this could give fast relief as compared to the slow process of recovery from medicines or herbs. Charaka, the best-known physician of Ayurvedic medicine also recommended for Shalya Tantra in treatment of certain diseases, which required immediate attention like hemorrhoids.

Topics of intestinal obstructions, bladder stones, and the use of dead bodies for dissection and learning were taught and practiced under shalya tantra in ancient India.

According to Sushruta, Shalya tantra is best suited, when the problem is beyond just medicinal repair. In cases like, Arbuda (abscesses, cysts), Gandamala (enlarged lymph nodes), Mul- vyadhi (hemorrhoids), Gud-bransh (prolapse rectum), Ashmari (stones), Mutravaodh (retention of urine) and stanarog (breast diseases), Shalya tantra should be used. The treatment would not only give faster relief to the ailing person, but also will be beneficial in situations, where Kayachikitsa will fall short.

This branch describes in detail about the pre-operative procedures, general procedures, post-operative procedures, marma's (significant points) and also about anesthesia. Along with this, it also describes the types of bandages, shastra (sharp instruments), yantras (blunt instruments) and sutures (stitches) used in the surgery. The use of various surgical instruments is also described in the Sushruta Samhita for the treatment.

In Shalya tantra, the instruments described were mainly made from stone, wood, branches of trees, broad leaves and other such natural materials. For ligatures a creeper i.e. a climbing plant was also sometimes used. The treatment of Shalya Tantra was popular, because this could give fast relief as compared to the slow process of recovery from medicines or herbs. Diseases, which requires instant treatment in those cases, Shalya chikitsa was the best method.

The scope of this branch of Medical Science is to remove (from an

ulcer) any extraneous substance such as, fragments of hay, particles of stone, dust, iron or bone; splinters, nails, hair, clotted blood, or condensed pus (as the case may be) or to draw out a dead fetus of the uterus, or to bring about safe parturitions in cases of false presentation, and to deal with the principle and mode of using and handling surgical instruments in general, and with the application of heat (cautery) and alkaline (caustic) substances, together with the diagnosis and treatment of ulcers.

When we list out the first to contribute in surgery, in all those first's Sushruta's name is seen, like first to describe dissection, absorbable suture material, instruments, operative procedure for specific diseases. Like this the list almost seems to be so much which shows the contribution of Indian sciences in medical field. Sushruta Samhita, a systematic study of surgery (General, Orthopedic, Plastic, Gynaecology, ENT, Ophthalmology, etc) is the earliest treatise and also the best which deals with the surgery particularly the principles of surgery in detail.

It was Ayurveda of ancient India that pioneered the modern concepts of surgery. Ancient Surgical science known as Shalya Tantra is a vital branch of Ayurveda and embraces all processes aiming at the removal of factors responsible for producing pain or misery to the body or mind.

According to Acharya Sushruta, it is best to use Shalya tantra when the problem with the body is beyond merely medicinal repair. In cases like cysts, abscesses, enlarged lymph nodes, haemorrhoids, kidney and bladder stones, urinary retention, and breast related diseases, he advised to employ the techniques of Shalya tantra. The treatment not only gives faster relief to the person suffering but is also beneficial in circumstances when the internal medicine fails to cure.

Though modern surgery has advanced in leaps and bounds, the Ayurvedic principles of pre and post operative care still has relevance today. Judicious application of Ayurvedic principles of surgical care can prevent complications and facilitate early recovery from surgical interventions. Ayurveda has historically made foundational contributions to the development of the branch of surgery. The practice of dissecting dead bodies to study anatomy, learning surgical procedures by practicing on dummies, development of sophisticated surgical instruments and the art of plastic surgery constitute the hallmark of classical Ayurvedic surgery.

Sushruta was emphatically a surgeon, and Sushruta Samhita is only complete

book we have which deals with the problems of practical surgery and midwifery. Sushruta may be attributed the glory of elevating art of surgery as one of the top branches in medical field in his era which was at its peak. Sushruta Samhita, a treasure by Sushruta to the medicos is considered as Bible for learning the Shalya Tantra branch of Ayurveda. As this branch is about Surgery in total, practical surgery requires a good knowledge of practical anatomy.

HISTORY OF SURGERY IN AYURVEDA

The definition of an ideal surgeon according to the great surgeon Sushruta is “A person who possesses courage and presence of mind, a hand free from perspiration, tremor less grip of sharp and good instruments and who carries his operations to the success and advantage of his patient who has entrusted his life to the surgeon. The surgeon should respect this absolute surrender and treat his patient as his own son.”

Surgery forms a major role in general medical training. The ancient surgical science was known as Shalya Tantra. Shalya means broken arrow or a sharp part of a weapon and Tantra

means maneuver. Shalya Tantra embraces all processes, aiming at the removal of factors responsible for producing pain or misery to the body or mind. Since warfare was common then, the injuries sustained led to the development of surgery as refined scientific skill.

All the four Vedas are in the form of Shlokas (hymns), verses, incantations, and rites in Sanskrit language. This treatise contains detailed descriptions of teachings and practice of the great ancient surgeon Sushruta and has considerable surgical knowledge of relevance even today.

The Rigveda - the earliest account of ancient Indian civilization - mentions that Ashwini Kumaras known as Dev Vaidya were the chief surgeons of Vedic periods, who had performed rare legendary surgical operations which included the first plastic surgery to re-join the head and trunk of saint Chyavana when Dakshya cut his head. Their other classic work included an eye operation of Reejashva, the implantation of teeth of Phushna in the toothless mouth, and the transplant of head of elephant on Ganesh whose head was cut by Lord Shiva. They transplanted an iron leg on Bispala - the wife of King Khela who lost her leg in war. Ashwini Kumaras had performed both homo- and hetro-transplantation during the very the ancient time of Rigveda which is estimated about 5000 years ago; such miraculous magical surgical skill of the Rigvedic period may seem mere legends or mystery to modern medical sciences. The surgical skill has traversed through the ages ranging from the Ashwini Kumaras, Chavana, Dhanvantari through Atereya Agnivesh and Shushruta. Craniotomy and brain surgery were also practiced in a more sophisticated way.

They do reflect some special surgical skills which laid down the foundation of Ayurveda - the fifth Indian Veda, the classical medical system of India. However, the realistic and systematic earliest compendium of medical science of India was compiled by Charak in Charak Samhita. It describes the work of ancient medical practitioners such as Acharya Atreya and Acharya Agnivesh of 800 BC and contains the Principle of Ayurveda. It remained the standard textbook of Ayurveda for almost for 2000 years. They were followed by Sushruta, a specialist in cosmetic, plastic, and dental surgery (Sandhan Karma around 600BC).

There are many Granthas and Samhitas dealing with Ayurveda; among them, Charak Samhita, Sushrutaa Samhita, and Ashtanga Sangraha are the three main pillars of Ayurveda. Charak Samhita and Ashtanga Samhita mainly deal with medicine knowledge while Sushrutaa Samhita deals mainly with surgical knowledge. Complicated surgeries such as cesarean, cataract, artificial limb, fractures, urinary stones plastic surgery, and procedures

including per- and post-operative treatment along with complications written in Sushrutaa Samhita, which is considered to be a part of Atharva Veda, are surprisingly applicable even in the present time.

Sushruta is an adjective which means renowned. Sushruta is reverentially held in Hindu tradition to be a descendent of Dhanvantari, the mythological god of medicine or as one who received the knowledge from a discourse from Dhanvantari in Varanasi. Sushruta lived 2000 years ago in the ancient city of Kashi, now known as Varanasi or Banaras in the northern part of India. Varanasi, on the bank of Ganga, is one of the holiest places in India and is also the home of Buddhism. Ayurveda is one of the oldest medical disciplines. The Sushrutaa Samhita is among the most important ancient medical treatises and is one of the fundamental texts of the medical tradition in India along with the Charak Samhita.

Sushruta is the father of surgery. If the history of science is traced back to its origin, it probably starts from an unmarked era of ancient time. Although the science of medicine and surgery has advanced by leaps and bounds today, many techniques practiced today have still been derived from the practices of the ancient Indian scholars.

Sushruta has described surgery under eight heads: Chedya (excision), Lekhya (scarification), Vedhya (puncturing), Esya (exploration), Ahrya (extraction), Vsraya (evacuation), and Sivya (suturing).

All the basic principles of surgery such as planning precision, hemostasis, and perfection find important places in Sushruta's writings on the subject. He has described various reconstructive procedures for different types of defects.

His works are compiled as Sushrutaa Samhita. He describes 60 types of upkarma for treatment of wound, 120 surgical instruments and 300 surgical procedures, and classification of human surgeries in eight categories.

To Sushruta, health was not only a state of physical well-being but also mental, brought about and preserved by the maintenance of balanced humors, good nutrition, proper elimination of wastes, and a pleasant contented state of body and mind.

For successful surgery, Sushruta induced anesthesia using intoxicants such as wine and henbane (*Cannabis indica*).

He treated numerous cases of Nasa Sandhan (rhinoplasty), Oshtha Sandhan (lobuloplasty), Karna Sandhan (otoplasty). Even today, rhinoplasty described by Shushruta in 600 BC is referred to as the Indian flap and he is known as the originator of plastic surgery.

He described six varieties of accidental injuries encompassing all parts of the body. They are described below:

- Chinna - Complete severance of a part or whole of a limb
- Bhinna - Deep injury to some hollow region by a long piercing object
- Viddha Prana - Puncturing a structure without a hollow
- Kshata - Uneven injuries with signs of both Chinna and Bhinna, i.e., laceration
- Pichchita - Crushed injury due to a fall or blow
- Ghrsta - Superficial abrasion of the skin.

Besides trauma involving general surgery, Sushruta gives an in-depth account and a description of the treatment of 12 varieties of fracture and six types of dislocation. This continues to spellbind orthopedic surgeons even today. He mentions the principles of traction, manipulation, apposition, stabilization, and postoperative physiotherapy.

He also prescribed measures to induce growth of lost hair and removal of unwanted hair. He implored surgeons to achieve perfect healing which is characterized by the absence of any elevation, induration, swelling mass, and the return of normal coloring.

Plastic surgery and dental surgery were practiced in India even in ancient times. Students were properly trained on models. New students were expected to study for at least 6 years before starting their training. Before beginning the training, the students were required to take a solemn oath. He taught his surgical skills to his students on various experimental models. Incision on vegetables such as watermelon and cucumber, probing on worm-eaten woods, preceding present-day workshop by more than 2000 years are some instances of his experimental teachings. He was one of the first people in human history to suggest that a student of surgery should learn about human body and its organ by dissecting a dead body.

Sushruta considered surgery the first and foremost branch of medicine and stated that surgery has the superior advantage of producing instantaneous effects by means of surgical

instruments and appliances and hence is the highest in value of all the medical tantras. It is the eternal source of infinite piety, imports fame, and opens the gates of heaven to its votaries. It prolongs the duration of human existence on earth and helps human in successfully completing their missions and wearing a decent competence in life.

SHASHTRA

निरुक्ति:

“शस्त्रं हि शरीरहिसकमिति”। (चक्रपाणि)

जिसके कारण शरीर पर हिंसा की जाए या शरीर को कष्ट/पीड़ा दी जाये, उसे शस्त्र कहा जाता है।

The surgical procedures are of eight types. They are- Chedyam (excision), Bhedyam (incision), Lekhyam (scrapping), Vedhyam (puncturing), Eshyam (probbing), Aaharyam (extraction), Visravyam (drainage), Seevyam (suturing). The instruments which are helpful in performing the above procedures are called “SASTRAS”.

संख्या:

आचार्य सुश्रुत अनुसार- 20

आचार्य वाग्भट्ट अनुसार- 26

विंशति: शस्त्राणि, तद्वाथा-

“मण्डलाग्रकरपत्रवृद्धिपत्रनखशस्त्रमुद्रिकोत्पलपत्रकार्धधारसूचीकुशपत्राटीमुखशरारिमुखान्तमुखत्रिकूर्च ककुठारिकात्रीहिमुखारावेतसपत्रकबडिशदन्तशङ्क्रेषण्य इति”।। (सु. सू. 8/3)

- | | |
|--------------|--------------|
| • मण्डलाग्र | • उत्पलपत्रक |
| • करपत्र | • अर्धधार |
| • वृद्धिपत्र | • सूची |
| • नखशस्त्र | • कुशपत्र |
| • मुद्रिका | • आटीमुख |

- शरारिमुख
- अन्तर्मुख
- त्रिकूर्चक
- कुठारिका
- व्रीहिमुख
- आरा
- वेतसपत्रक
- बडिश
- दन्तशंकु
- एषणी

CLASSIFICATION OF SHASHTRA BASED ON KARMA

S. No.	KARMA	NAME OF INSTRUMENT
1.	Chedana and Lekhana	Mandalagra, Karpatra
2.	Chedana and Bhedana	Vridhipatra, Nakhashashtra, Ardhadhara, Mudrika, Utpalapatra
3.	Vedhana	Vetasptra, Aara, Kutarika, Vreehimukha
4.	Aharana	Badisha, Dantasanku
5.	Eshana	Eshani
6.	Visravana	Remaining shashtra

SHASHTRA NIRMANA {Reference – Su. Su. 8/19}

The intelligent physician should get the instruments manufactured from pure and strong, hard iron (steel) by a black smith who has expertise and skill in his work.

1. Mandalaagra (मण्डलाग्र)

Modern Correlation : Circular Knife

- It is shaped like a barber's knife.
- Uses – chedana, bhedana, paatana.
- In unnata sophia(elevated swelling) – it should be straight.
- In gambheera sophia(deep swelling) – it should be curved at back.



2. Karpatra (करपत्र)

Modern Correlation : Bone Saw

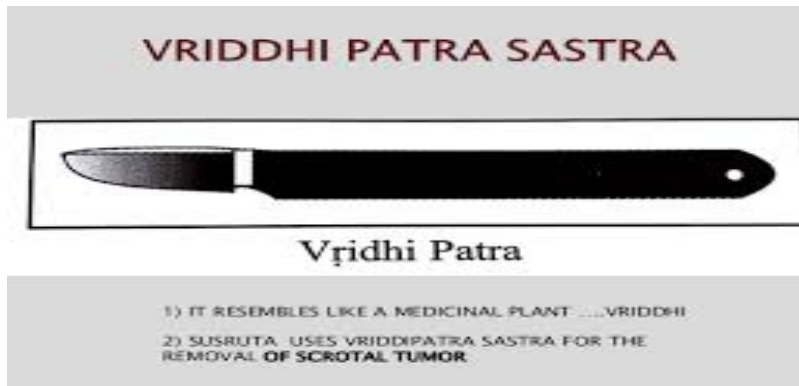
- It is meant for sawing bone.
- Have serrated margins with fine teeth.
- Have length 10 - Angula, width - 2 Angula.



3. Vriddhipatra (वृद्धिपत्र)

Modern Correlation : Scalpel

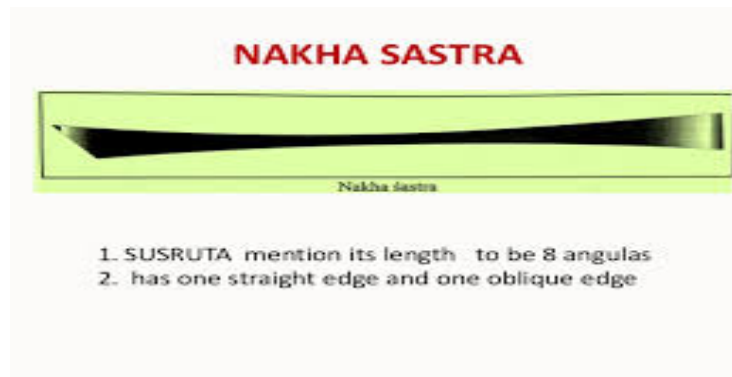
Scalpel is shaped like a boarders knife- Razor, useful for cutting, excision, splitting, incision and tearing/ separating, it, with a straight edge, is for use in elevated – bulging swelling, the same with its tip bent backwards, long or short edge for use in deep seated swelling.



4. Nakhshashtra (नखशस्त्र)

Modern Correlation : Nail Parer/Cutter

- Has curved or straight edge and two faces.
- Length – 9 angulas
- Uses – chedana, bhedana, prachana, lekhana.



5. Mudrika (मुद्रिका)

Modern Correlation : Finger Knife

- Anguli sastra or mudrika sastra is like a ring.
- Having blade length of 0.5 angulas.
- Its function is similar to vriddhipatra and mandalagra.
- It should be worn at the interphalangeal joint of index and secured to the surgeon with a thread.

- Used for excising and incising lesions inside the throat.



6. Utpalpatrak (उत्पलपत्रक)

Modern Correlation : Lancet

Lancets are for the purpose of splitting and cutting.



7. Ardhadhaar (अर्धधार)

Modern Correlation : Single Edge Knife

- It is difficult to ascertain exact shape of this shashtra.
- Some translate it as “ Single edge knife”
- Dakhana explains it as an instrument which has a sharp edge for half of length.
- Length – 8angula

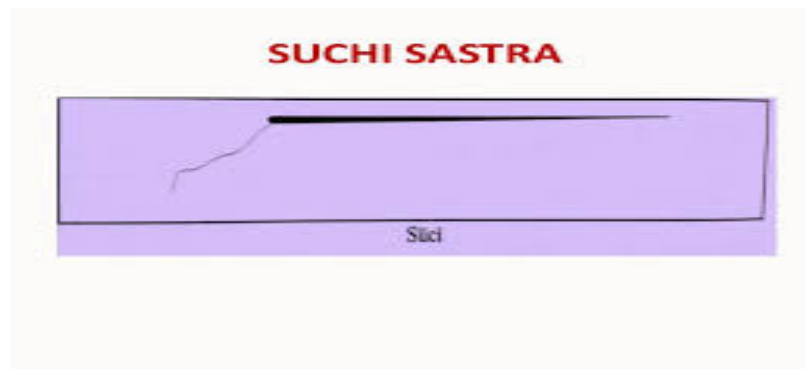
- Blade – 2 angula
- Handle- 6 angula
- Width – 1 angula



8. Suchi (सूची)

Modern Correlation : Suturing Needle

- According to length suchi sastra is of three types-
 - 3 Angulas - Vritta in shape. Used in fleshy parts like thigh
 - 2 Angulas - Used for less fleshy parts
 - 2.5 Angulas - Suchi is like a bow.
- Used in suturing of pakvasaya, amasaya.



9. Kushpatra (कुशपत्र)

Modern Correlation : Bistoury

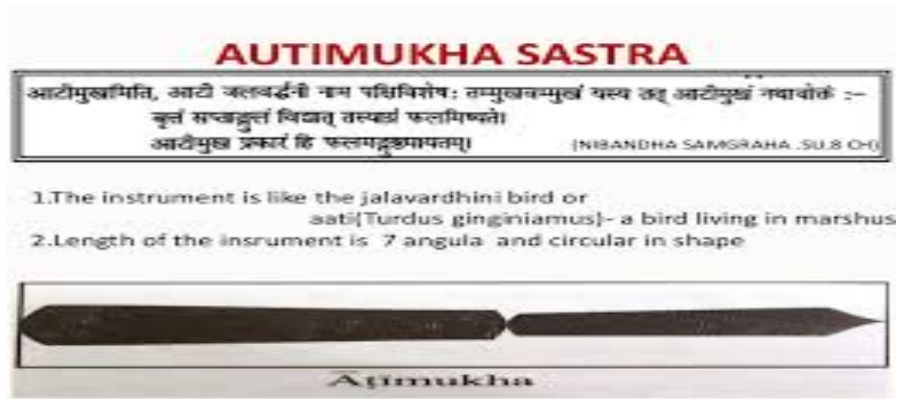
It is Razor like resembling blade of Kusha grass.



10. Aatimukhi (आटीमुख)

Modern Correlation : Lancet

- The instrument is like jalvardhini bird or aati (turdus ginginiamus) bird living in marshus.
- Length – 7 angula
- Circular in shape.



11.Shararimukh (शरारिमुख)

Modern Correlation : Pair of scissors

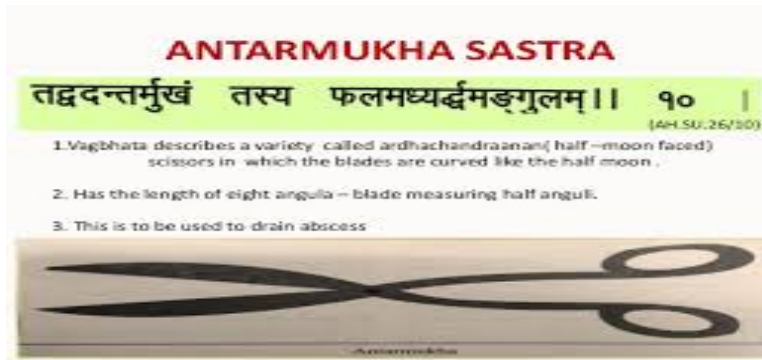
- The instrument is like a pair of scissors resembling the face of the long beaked bird called SARARI.
- It is recommended to be used for evacuating abscess.



12.Antarmukh (अन्तर्मुख)

Modern Correlation : Curved Bistoury

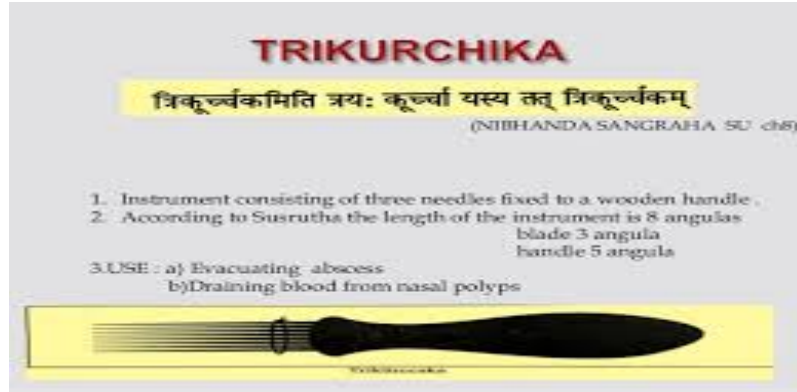
It is meant for draining, its edges are 1.5 Angula in length and Shaped like half mogras.



13. Trikurchak (त्रिकूर्चक)

Modern Correlation : Trocar

- Used for visravana, for cleaning lap instruments, suction tube.



14. Kutharika (कुठारिका)

Modern Correlation : Chisel/Axe

- Small instrument shaped like an axe.
- The blade is like tooth of a cow, it has width of one anguli.
- It is used in venesection of vein situated on bones.



15.Vrihimukha (व्रीहिमुख)

Modern Correlation : Trocar

It is instrument with blade like a grain of rice, its edge being one and half Angula in length and meant for Puncturing veins and the Abdomen.

16.Aara (आरा)

Modern Correlation : Shoe Maker's awl

- It is a quadrangular rod with a conical sharp tip of ½ angula.
- Use – verifying ripeness of abscess puncturing thick ear lobes.
- Used for vyadhana.
- Length – 2 angula



17.Vetasapatrak (वेतसपत्रक)

Modern Correlation : Narrow Bladed Knife Used for puncturing.



18.Badish (बडिश)

Modern Correlation : Hook

It is a sharp hook with a bent blade is meant for holding enlarged Uvula, Arma- Pterygium



19.Dantashanku (दन्तशंकु)

Modern Correlation : Tooth Scaler

- Dental lancet has four angles fused at the tip to one sharp end.
- Meant for scaling teeth in case of danta sarkara.

20.Eshani (एषणी)

Modern Correlation : Sharp Probe

- It is sharp probe meant for exploring sinuses, is smooth and shaped like the mouth of an earthworm.
- Another kind of Eshani- probe meant for splitting has its blade like a needle, with a slit- hole at its root.



GUNA OF SHASHTRA_{Ref. Su. Su. 8/8}

- The shashtra should be handy.
- Made of good metal.
- Possess sharp edges.
- Good looking.
- The business end should be fine and of appropriate size
- They should not be serrated.

SHASHTRA DOSHA {Ref. Su. Su. 8/9}

S. No.	Dosha	Meaning
1.	Vakram	Crooked or bent
2.	Kuntam	Blunt
3.	Khandam	Broken
4.	Khara dharma	Hard
5.	Ati sthulam	Very thick
6.	Atyalpam	Very thin, small
7.	Ati dheergham	Very long
8.	Ati hrasvam	Very short

Yantra

Foreign bodies that cause Manah and Sharir pain are called Shalya and they are called Yantras, the methods to remove them. Yantras can also be countless based on

countless Shalyas. But Acharyas classified Yantras into 101 types to have bird's eye view.[9] Although Yantras are indicated for specific function, Vaidya can use them according to his purpose, applying his Yukti, and can also invent and create new instruments. Yantras can be described in texts as blunt instruments. Yantras are of 6

main types based on the Aakriti or shape: Swastika, Samdansa, Taala, Naadi, Shalaka, Upayantra.[10] In this article, 5 main types of Yantras are discussed.

Description of Types of Yantras

Swastika Yantra: These are 24 in number. They are named so because of their resemblance to Swastika mark (cruciform); being joined by Masura (cereal) shaped nail at edges. These are 18 Angula long and bear resemblance like the face of various animals

like Sinhmukha (lion), Vrikhmukha (wolf), Vyaghramukha (tiger), Rikshamukha (bear) etc. and bird-like Kankamukha (heron), Kaakmukha (crow), Bhasmukha (eagle) etc. At their base (Moola part) they are bent like circular ring to facilitate grasping. These are used to remove Asthigatashalya (foreign bodies from bone).[11] Their use as such hasn't been described in *Striroga* and *Prasutitantra*.

Samdansa Yantra: Samdansa means to catch or hold.

These are of two types:

—Sanigraha (With Catch)

—Anigraha (Without Catch)

—Sanigraha (With Catch)

—Anigraha (Without Catch)

—Sanigraha (With Catch)

—Anigraha (Without Catch)

Sanigraha (With Catch)

—Anigraha (Without Catch)

- Sanigraha (With Catch)
- Anigraha (Without Catch)

→Sanigraha (With Catch)

→Anigraha (Without Catch)

These are 16 Angula long. These are used to extract Shalya from Twak, Mamsa, Sira, Snayu.[12] Acharya Vagbhata has described them as:

→Sanibandhana (with catch)

→Niribandhana (without catch)

One type of Samdanshyantra is six Angula long and half Angula wide. It is used to catch Akshipaksham, Vrana and Adhimamsa.[13]

Based upon above description, various types of forceps, used these days, can be considered under the category of Samdanshyantra:

- With catch: They are also called Locking Forcep e.g. Dressing forceps, Vulsellum (used to catch anterior lip of cervix), Allis forceps, Spongeholding forceps, Needle holder, Artery forceps, Mosquito forceps.
- Without catch: They are also called Thumb Forceps or Dissecting Forceps. It is of two types: Plain forceps (used to catch tissue like mucosa and muscle while suturing episiotomy). Toothed forceps (used to catch or hold skin while suturing).

Ovum forceps (used to extract retained products of conception) can be considered Samdanshyantra as it has no catch. They are also used to hold cotton swab or gauze to clean the wounds.

Taalyantra: They are named so because of their resemblance to palate of fish (scoop like). These are 12 Angula long. They are of two types:

→Ektaal (having scoop at one end)

→Dwitaal (having scoop at both the ends)

They are used to remove Shalya from ear canal, nasal cavity, Naadi.[14]

Though their use hasn't been described as such in Stri Roga & Prasuti Tantra at that time but in the present era, Uterine Curette and Endometrial Biopsy Curette can be taken under this category which are used for scraping of endometrium and endometrial sampling respectively.

Naadiyantra: Naadiyantra are of 20 types.

These are hollow from inside. Briefly they are used for following purposes:

A-(to remove the Shalya/foreign bodies from Srotas)

B-(to visualize disease)

Yonivranakshana Yantra: It is a type of Naadiyantra. It is 16 Angula long, hollow in centre, has four walls, surrounded with a ring from outside and resembles an unblossomed lotus flower. The base of all four walls is attached with small rods, the pressure on which opens or widens the mouth of instrument. It is used to visualize Yoni vrana (ulcers of vagina, cervix). [16] Various speculums used nowadays, to visualize cervix and vaginal like Cusco's speculum, Sims speculum and Hysteroscope can be taken under this category.

C:- In treatment procedure of Stanavidradhi (breast abscess), Acharyas have said that repeated milking (suction) should be done in all the stages i.e. in Aamavastha (inflammation), Vidhavastha (beginning of suppuration) and Pakvavastha (suppurative stage) to prevent suppuration and formation of sinus. [17] Breast pumps used nowadays are a type of Naadiyantra used for suction of milk (Aachushanarth). Other examples are - for Medical Termination of pregnancy - Karman's Cannula, Menstruation Regulation Syringe is used. Ventouse suction device, Mucous sucker are used during delivery.

D-Chikitsa Karma Hetu: Dahana karma (cauterization) and Kshar karma Hetu in Garbhashayagrivamukha-gatavrana (cervical erosion).

Naadi Vrana Prakshalana / Abhyanga Yantra: For Abhyanga (uncting) of Yonisthitanaadivrana and Prakshalana (washing) of Naadivrana, two instruments should be made. These are 6 Angula long just like Bastiyantra and are made up of two parts i.e., bag and nozzle. [18]

It can be compared with wound syringe. Now a days Douche bag and nozzle is used.

Shalaka Yantra: These are not hollow from inside. These are 28 in number. Among these, Yantras that are used in Stri Roga and Prasuti Tantra are:

→Gandupadmukhi Shalaka: The upper end of this

Gandupadmukhi Shalaka: The upper end of this Shalaka is slightly curved e.g. Uterine Sound / Sim's Uterine Probe with centimetre graduations (for examining uterus), Bladder Sound, Hegar's Dilators (used for dilatation of the cervix in various procedures e.g. D&C, D&E, Fothergill's operation,

Hysteroscopy, Cervical stenosis), Sim's Anterior Vaginal Wall Retractor, Bougies.

→Sarpaphanamukhi Shalaka: Its shape is like serpent's hood. It is used to retract the incised part e.g. Landon's Bladder Retractor; during Cesarean section Doyen's Retractor is used.

→Badishmukhi Shalaka: Acharya Sushruta has Sarpaphanamukhi Shalaka: Its shape is like serpent's hood. It is used to retract the incised part e.g. Landon's Bladder Retractor; during Cesarean section Doyen's Retractor is used.

→Badishmukhi Shalaka: Acharya Sushruta has Sarpaphanamukhi Shalaka: Its shape is like serpent's hood. It is used to retract the incised part e.g. Landon's Bladder Retractor; during Cesarean section Doyen's Retractor is used.

included Badisha under Shalakayantra and Shastraboth. These are 2 in number and are a type Shalakayantra. Their length, circumference should be according to the need and are used for extraction of Mudhagarbha.[19] →Karpasakritoshniya Shalaka: It is of 6 types,

cotton is applied on its upper end e.g. Sterile Cotton Swab, Peanut swab used for taking vaginal smear for culture. It is also used for cleaning of wounds and applying Kshar.[20]

JambavavadanaShalaka: Upper part is oblong like seed of Jambu. It is of three types – Sthula, Anu and Dirgha.[21] In Streeroga, its use has been described in Dahana karma (cauterization) in Sannipataj- upadansha. Decayed portion of vulva in Upadansha should be excised and remaining portion cauterized

with Jambuushthashalaka.[22] Above description clearly depicts thermal cautery procedure done nowadays for various gynaecological diseases.

—Mutramarga Vishodhini Shalaka: It is long and broad like Pushpavrinta. It is used for Vishodhana of Mutramarga[23] or dilatation of urethral passage or in urethral stricture e.g. urethral sound or Bougie.

—Garbha Shanku Shalaka: Both Vagbhatas have included Garbhashanku under Shalakayantra. It is eight Angula long, curved like a hook and is used for extraction of Mudhagarbha (obstructed dead fetus).[24]

However in a commentary on Ashtanga Samgraha by Indu, its length is described as 18 Angula. Acharyas have described that after perforating the head with Anguli or Mandalagra shastra and subsequently extracting the flat bones of skull, the surgeon should grasp the chest, axilla, chin, palate with Shanku and extract the dead fetus.[25]

Above description is indicative of decapitating procedure done to extract obstructed deadfetus in modern science e.g. Jardine's Decapitation Hook& knife, Ramsbotham's Decapitation Hook & Saw.

Angulitranyakyantra: As described in Samhitas, it was used to guard fingers while doing Shalya karma e.g. Finger guard or Surgical rubber/ latex gloves used nowadays.

Acharya Vagbhata has described its shape as 'Gostanakriti'.[26] Badishamukhi Yantra: It is also described under Shastra for extraction and its upper end is curved. It is indicated for Aaharana of Mudhagarbha.[27] Various

types of hooked instruments can be taken in this category. For example: Blunt Hook – a destructive instrument used to pull the fetal neck or fetal extremities.

Extraction of foreign body(IUCD) from uterine cavity by using hooked forceps i.e. IUCD removing hook

SHALAKA YANTRAS

Gandupada mukha :-

- Blunt instrument with its end shaped like the head of an earthworm.
- It is used for eshana karma.

- It can be compared to the Blunt probe.

Sharapunkha mukha :-

- The end of this shalaka is shaped like the leaves of sharapunkha.
- It is used for chalana karma.
- It can be compared to Tooth elevator.

Sarpaphana mukha :-

- Ends are shaped like the hood of a snake.
- It is used for vyuhana karma.

Retractors -

Retractors are used to hold aside tissues to explore deeper structures.

Badisha mukha :-

- The tips of badisha mukha salaka resembles a fine finishing hook.
- 2 types – Swanathagram, Nathyanatham.
- Used for Arma nirharana.
- Also to remove the shalya by hooking them and to take them out by force.
- This can be compared to the Hook like instrument.

Masooradalamatra mukha :-

Their ends are shaped like that of a masoora and are slightly curved.

They are used for extracting shalyas from the srothases.

Karpasa krutha ushneesha :-

- They are six in number.
- One end of the shalaka is covered by karpasa or cotton.
- They are used for wiping.

- These can be compared to the Swab probes.

Khalla mukha :-

- These are 3 in number.
- They are shaped like a spoon.
- Used for the application of kshara oushadhis.
- This can be compared to a Spoon shaped instruments.

Jambava vadana :-

- They are 3 in number.
- Their ends resemble jamboo phala hence are known as jambava vadana.

Ankusha vadana :-

- These are also three in number.
- It has the shape of an elephant drives goad.
- Both jambava and ankusha vadana are used for agnikarma.

Kolasthimatra mukha :-

- It is sharp at the periphery and depressed at the middle.
- Used for the extraction of nasa arbuda.
- It can be compared to a Nasal curette.

Anjana shalaka :-

- It is 8 angula in length with a thickness of a kalaya and the ends are shaped like buds.
- Used for the purpose of application of collyrium.

Mutramarga vishodhanartham :-

- Its ends are rounded like the stalk of a malathi pushpa.
- It is used for cleaning the urethral canal.

- It can be compared to a Urethral Sound or Bougie.

Upyantra.

According to Su. Su. 7/16

Rassi

Benika

Patt

Charm

Antarchal

Lata

Vastra

Ashthilagranthi akar patthar

Mugdar

Panital

Padtal

Anguli

Jihva

Dant

Nakh

Mukha

Bal

Ashwakatak (godhe ki kathi)

Vraksh ki shakha

Sthiwan

Pravahana

Harsh

Ayaskant

Shar

Agni

bheishajya

According to vagbhatta

antra kaal

Paka

bhaya

GUNAS YANTRA –

1. Samahitani :- pramana badha, nor more thick neither more small.
2. Kharmukhani :- yantra mukha should be rough according to need.
3. Shalakshan mukhani :- yantra mukha should be smooth according to need.
4. Sudradani :- yantra should be very strong .
5. Surupani :- yantra should be good in appearance.
6. Sugrahani :- yantra should be easy to handle.

यन्त्र के दोष :-

यन्त्र के १२ दोष बताये है।

- **अतिस्थूल** :- यंत्रों की मोटाई अधिक नहीं होनी चाहिए, क्योंकि अधिकमोटा यन्त्र भद्रा प्रतीत होता है।
- **असार** :- यन्त्र सारवान अथवा उत्तम धातु से निर्मित होना चाहिए, यदि शुद्धलोह से निर्मित होंगे तो शीघ्र ही टूट जायेंगे।

- **अतिदीर्घम** :- यन्त्र अत्यधिक लम्बे नहीं होने चाहिए।
- **अतिह्रस्वं** :- यन्त्र अधिक छोटे नहीं होने चाहिए।
- **आग्रही** :- जिस यन्त्र की पकड़ / ग्रहण की क्षमता उत्तम नहीं हो।
- **विषमग्राही** :- जिसकी पकड़ विषम स्वरूप की हो, अर्थात जो सम्पूर्ण शल्य को ना पकड़ सके।
- **वक्रं** :- यन्त्र टेढ़े – मेढ़े नहीं हो।
- **शिथिलं** :- यन्त्र शिथिल होने से पकड़ने में नहीं आता।
- **अत्युन्नतम** :- जिनका कोई भाग ऊपर की ओर उठा हुआ हो।
- **मृदुकीलं** :- मृदु / मुलायम कील युक्त यन्त्र जोर लगाने पर टूट सकता है।
- **मृदुमुखं** :- मुख / पकड़ मृदु होने से शल्य को पकड़ना कठिन होता है।
- **मृदुपार्श्वम** :- ऐसे यन्त्र जिसकी पकड़ ढीली हो चुकी है।



Contact Us:

University Campus Address:

Jayoti Vidyapeeth Women's University

Vadaant Gyan Valley, Village-Jharna, Mahala Jobner Link Road,
Jaipur Ajmer Express Way, NH-8, Jaipur- 303122, Rajasthan (INDIA)

(Only Speed Post is Received at University Campus Address, No. any Courier Facility is available at Campus Address)

Pages : 33
Book Price : ₹ 150/-



Year & Month of Publication- 3/4/2021