



**PROPERTIES AND APPLICATION OF VARIOUS TYPES OF INSTRUMENTS USED IN  
SHALYA CHIKITSA: A REVIEW**

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**ABSTRACT**

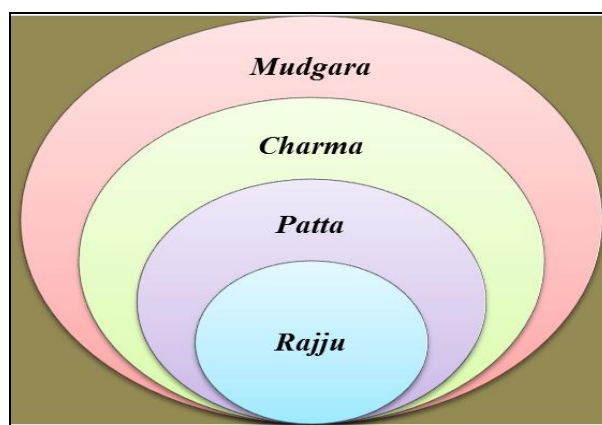
The Ayurveda *Shalya* branch works around surgical & para surgical approaches to treat diseases, deformities, injuries and fractures, etc. The Ayurveda *Shalyatantra* practice is recommended to cure diseases such as; *Jalodar*, *Mutravriddhi*, *Baddhagudodar*, *Chhidrodar*, *Arsha*, *Bhagandar* and *Mudhagarbha*, etc. The *Sushruta* presented the uses of Ayurveda *Shalya Chikitsa* for various types of tumors, injuries, fracture, child birth and obstruction, etc. There are different types of surgical instruments made from stone, wood, bones, bark, metals and other natural materials which are used in Ayurveda *Shalya Tantra*. *Shalya Chikitsa* utilizes various equipments like *Mandalagra*, *Vrudhipatra*, *Karpatra*, *Mudrika*, *Utpalpatrak*, *Nakhgashastra*, *Eshani*, *Badish*, *Kutharika*, *Nakha*, *Dantashanku*, *Shararimukh*, *Aatimukh* and *Trikurchak*, etc. for different therapeutic purpose. Present article elaborated properties and application of various types of instruments used in *Shalya Chikitsa*.

**KEYWORDS:** *Ayurveda*, *Shalya Chikitsa*, *Shastra Karma*, *Instruments*, *Equipments*.

**INTRODUCTION**

*Shalya tantra* is very important aspect of Ayurveda surgery which offers *Ashukriya karnaat* action. *Shalya tantra* utilizes sharp & blunt instruments, *Kshar*, *Agnikarma*, *Yantra* and *Shastra* for therapeutic purpose. *Upanyantra* or *Anuayantra* are tooltools which can be used as surgical instruments for surgical & para-surgical purposes. *Shalya tantra* used to treat diseases like; *Arbuda*, *Gandamala*, *Gud-bransh*, *Ashmari*, *Mutravarodh* and *Stanarog*, etc. *Shalya tantra procedures* are performed in three stages as pre-operative, main and post-operative procedures.<sup>[1-4]</sup>

The instruments of *Shalya tantra* are mainly prepared from different materials including wood, branches of trees, stone, leaves, metals, teeth and bones, etc. The *Ashta Vidha Shastra Karma* utilizes various equipments and instruments for procedures like *Chhedana*, *Bhedana* and *Lekhana*, etc. *Visravana*, *Sivana* and *Eshana*, etc. are another surgical procedures which utilizes sharp and blunt instruments for curing conditions like; *Ashmari*, *Stana vidradhi*, *Jalodara*, *Visarpa*, *Sadyo Vrana* and *Pakva vidradhi*, etc.<sup>[4-7]</sup> **Figure 1** depicted some important equipments used in Ayurveda surgery.



**Figure 1: Equipments used in common practices of *Shalya tantra*.**

**Rajju**

It is a rope formed by *Munja* fibers and used for tying purpose; this is required for restricting spread of poison during snake bite and loss of blood after injury. Classically this technique is termed as *Arista bandhan*.

**Venika**

This is made by poly filament of *Rajju*, used for tight knots and used for tying purpose.

**Patta**

*Patta* is used in *Vranabandha*, there are many *Patta* described in classical Ayurveda texts like; *Chin patta*, *Kshaum*, *Karpas*, *Dukool* and *Kausheya*, etc. *Patta* is also applied for *Bhagna chikitsa*.

**Charma**

*Charma* means leather used for bandaging purpose in Ayurveda surgery, it is considered good for rectal prolapse, *Charma* is recommended for *Jalodara* and also used for abdominal cramps.

**Antarvalkal**

It is internal part of bark of trees named *Kanchnaar*, it known as *Antarvalkal* possessing soft nature and used in *Vrana bandhana* and *Vrana seevan* purposes.

**Lata**

It is stem of creeper plants, soft and flexible in nature, offers good strength, used for tying purposes.

**Vastra**

It is sterile cloth, used for surgical interventions, used in Operation Theater as masks, cap, bed sheets and bandaging purpose. *Vastra* is used to prepare *Vikeshika*, *Kavalika* and *Pichu*.

**Mudgara**

*Mudgara* is stone tied at the one end of a stick and acts like hammer, used for nailing purpose during orthopedic surgeries.

**Danta**

*Danta* is used to make instruments like *Arsho yantrayantra*. *Godanta* is used on surface as *Daran lepa* for pus removal purposes.

**Nakha**

It is tissues which are grasped with nail. Fascia is separated by nails during surgical interventions; *Nakha* offers approaches where fine debris is to be removed.

**Mukha**

*Mukha* is used for suction purpose for imparting negative pressure during poisoning conditions and purification of blood. Suction ball and *Shringa* are artificial instruments used for suction purpose.

**Baal**

*Baal* means hair used for *Seevan* purpose. Mainly hairs of horse are used for various purposes. *Baal Varti* is recommended for cranial injuries and *Keshonduk* is used for removal of *Asthi shalya* and foreign body while *Kesh* ligation is also done for warts.

**Ashwakatak**

The iron like a ring attached with horse bridle is used to induce jerk and heavy pulling to dislodge deeply located *Asthigata shalya*. In this equipment one end is attached with *Ashwakatak* and another end is attached with *Shalya*.

**Shakha**

*Shakha* of a tree is used to remove *Shalya* by pulling one end with the help of rope which is attached to the *Shakha*. This technique suddenly converts static energy into kinetic energy.

**Ayaskanta**

Magnet is used to pull out small particles of iron from the injured part of cornea. *Sushruta* suggested its uses in *Anuloma*, *Anavbaddha* and *Analpmukha Vrana*, etc.<sup>[6-10]</sup>

**General equipments used in modern surgery**

- Forceps.
- General Dissecting equipments.
- Scissors.
- Scalpel Handle.
- Needle
- Suture
- Retractor
- Blade
- Curette
- Surgical mesh

**Desirable qualities of surgical equipments**

- Sharp instruments should be sharp enough to facilitate process of extraction of *Shalya*
- Blunt instruments should not be sharp from their edges.
- Non toxic and non reactant so that they won't produce any extra biological action
- Sterile or free from microbial contamination
- Well documented equipment should be used along with their standardized procedures.
- Should not cause undesirable harm or obstruction
- Surgical equipments should be discarded whenever required and one time use materials should not be used repeatedly.

**CONCLUSION**

Ancient instruments were used in surgical interventions mainly for removing foreign bodies, debris, tying, bandaging and suturing, etc. Surgery is not possible without equipments which are made from various sources. The surgical equipments are also made from animals and birds like; *Simhamukha* and *Shararimukha*, etc. The various instruments used in *Shalya Tantra* are

*Vrudhipatra, Mandalagra, Mudrika, Utpalpatrak, Eshani, Badish, Nakha, Dantashanku, Kutharika, Shararimukh* and, etc. These equipments are used for different therapeutic purposes including treatment of *Mutravriddhi, Baddhagudodar, Jalodar, Chhidrodar, Arsha, Mudhagarbha* and *Bhagandar*, etc. These instruments are sharp and blunt in nature, perform extraction of *Shalya*, non toxic and non reactant, sterile, free from microbial contamination and do not cause undesirable harmful effects.

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