

## EXPLORING THE EFFICACY OF SHALYA NIRHARAN (FOREIGN BODY REMOVAL) TECHNIQUES IN ACCORDANCE WITH ACHARYA SUSRUTA: A COMPREHENSIVE LITERATURE REVIEW

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### ABSTRACT

Acharya Susruta defined Shalya Tantra as the science that removes different kinds of Shalya (foreign body) and applies *Yantra*, *Sastra*, *Kshara*, *Agniand Vrana Nidana*. Acharya had given separate chapters for Pranashta Shalya (foreign body) Diagnosis and its removal. The intelligent physician after carefully observing the shape of the foreign body, the place of its lodging and deciding the particular instruments to be used, should pull out the foreign body; those which have ears attached and which are difficult to pull out should be removed with appropriate methods, if necessary with the help of other instruments using them with his intelligence: if not pulled out, these are going to produce swelling, ulceration, severe pain, deformities and even death, hence these should be removed by all efforts.

**KEYWORDS:** *Agantuk Shalya, Avabaddha, Anavabaddha, Anuloma, Pratiloma, Paschat Karma.*

### INTRODUCTION

The Ayurveda described as 'Ayu'- life and 'Veda' means – to know, 'The Science of Life'. Ayurveda is an ancient system of medicine; it has been originated in India many centuries ago. The basic of Ayurvedic concepts firstly mentioned in *Rigaveda* then detailed description of disease and their treatment has been explained in the *Atharva-veda*.<sup>[1]</sup>

Ayurveda is *Upaveda* of *Atharveda* but sometimes it is regarded as sub-division of both *Rigaveda* and *Atharveda*. Ayurveda has been divided in 8 major subjects – Ashtanga for

better understanding with specialty such as *Kaaya Chikitsa* (Internal Medicine), *Baala Chikitsa* (Treatment of Children /Paediatrics), *Graha Chikitsa* (Demonology / Psychology), *Urdhvaanga Chikitsa* (Treatment of disease above the clavicle), *Shalya Chikitsa* (Surgery), *Damstra Chikitsa* (Toxicology), *Jara Chikitsa* (Geriatrics, Rejuvenation) and *Vrisha Chikitsa* (Aphrodisiac therapy). It has been explained by two *sampradaya* (schools of thought) - *Atreya* (Internal medicine branch) and *Dhanvantari sampradaya* (Surgical branch).<sup>[2]</sup>

*Shalya Tantra* is one among these *Ashtanga* which has been explained by *Dhanwantari sampradaya*. *Shalya Tantra* is considered as the prime branch because it provides quick relief from disease by the prompt use of *Yantra-Shastra Kshar* and *Agnikarm* therapy.

Also, diseases treated by surgical intervention are completely eradicated with negligible recurrence.<sup>[3]</sup> Similarly, it is effective in various emergency and traumatic conditions such as head injury, intestinal perforation, foetal distress, urinary retention etc.<sup>[4]</sup>

**Definition Of Shalya:** '*Sarvasharirabadhkaram Shalyam*' (Su. Su.26/4)

According to Acharya Susruta, *Shalya* is that which produces troubles (pain) for the entire body.<sup>[5]</sup>

### Types Of Shalya<sup>[6]</sup>

1.) *Shalya* is of two kinds:

**Sharirik Shalya** – (Derived from the body itself) are the teeth, hairs, nails etc., vitiated dhatus, waste products of food and aggravated *Doshas*.

**Agantuk Shalya**- (Derived from outside/external) are those factors (substances and emotions) which are other than those of the body and which produce pain.<sup>[7]</sup>

2.) *Dvividha Shalya* – two kinds of foreign body-

**Avabaddha** – Fixed/stuck up

**Anavabaddha** – Not fixed/ Free/ Loose

### **Shalya Adhikara – Composition Of Foreign Bodies<sup>[8][9]</sup>**

*Shalya* are made from metals, bamboo, wood, grass, horns and bones of animals; especially from iron itself, because it is chiefly used for slaughtering, even among these made of iron, it is *shara* (arrow) only that is meant here, because it is difficult to be pulled out, of having small mouth and of being suitable for throwing from a distance. It is of two kinds- *Karni*- having an ear (ear like structure attached at its front) and *Slakshna* (smooth rod like without

any attachments). Generally, these are in the shape of leaves, flowers and fruits of different kinds of trees or the face (mouth) of wild animals and birds.

### Methods of removal of foreign bodies which are not fixed (free)<sup>[10][11]</sup>

1. *Svabhava* ; By nature/on its own accord.
2. *Pachana* ; Ripening/Suppuration/creating formation of pus
3. *Bhedana* ; Cutting/Breaking
4. *Darana* ; Bursting/ causing bursting
5. *Pidana* ; Squeezing/ kneading
6. *Pramarjana* : Sweeping/ Clearing
7. *Nirdhmapana* : Blowing/Insufflation
8. *Vamana* : Causing vomiting
9. *Virechana* : Causing Purgation
10. *Prakshalana* ; Washing with water/draining
11. *Pratimarsha* ; Instilling liquids into nose
12. *Pravahana* : Straining/ making effort expel out
13. *Achushana* : Sucking
14. *Ayaskanta* ; Use of magnet to pull out
15. *Harsha* : Creating joy

### *Shalya Aharana Marga- Routs Of Pulling Out*<sup>[12][13]</sup>

1. *Pratiloma*: Pulling out is in backward direction.
2. *Anuloma*; Pulling out is in forward direction.

**Shalya Gati- Directions of movement:** Direction of movements of foreign bodies are only five, such as:

- Upward
- Downward
- Backward
- Sideward
- Straight

**Shalya Ashraya- Dwelling of foreign bodies-** These foreign bodies specially the arrow because of diminished force or because of obstruction, get lodged in the skin and other medium of wounds: or in arteries veins, ligaments, channels, hollow of bones, muscles or

other places of body.

### ***Shalya Lakshana***<sup>[14][15]</sup>

It is of two types.

*Samanya and Visheshika.*

***Samanya Lakshanas*** are *Syavam* (blackish discoloration), *Pidakaachitham Sopha* (Swelling associated), *Vedanavantham Muhurmuhu* (pain often), *Sonitasravinam* (Hemorrhage), *Budbudavadunnatham* (Elevated like Bubble), *Mrdumamsam* (surrounding skin is soft).

### ***Visheshika Lakshana***

***Twak Gata*** - *Vivarnata* (discoloration), *Aayathasopha* (widened swelling), *Katina* (hard).

***Mamsa Gata*** - *Sophaathivrdhi* (increase of swelling), *Salyamargan upasamrohana* (appearance of new growth in the path of the foreign body), *Peedanaasahishnutha* (Inability to tolerate pressing), *Chosha* (Sucking pain), *Paaka* (formation of pus).

***Pesi antara*** – Same symptoms of *Mamsa Gata* except *Chosha* (sucking pain), and *Sopha* (swelling).<sup>[16]</sup>

***Sira Gata*** – *Siraadhmanam* (distention of veins), *Sirashoola* (Pain), *Sira sopha* (Swelling of vein).

***Snayu Gata*** – *Snayujaalotshepanam* (Lifting up of ligament), *Samrambha* (Swelling), *Ugra ruk* (severe pain).

***Sroto Gata*** – *Srotasam Svakarmagunahaani* (loss of function and quality of srotas).

***Dhamani Gata*** – *Saphenam Rakta meeray annanilaha Sasabdo Nirgachath* (vata getting aggravated cause flow of frothy blood associated with sound), *Angamarda* (pain all over the body), *Pipasa* (thirst), *Hrllaasa* (nausea).

***Asthi Gata*** – *Vividhavedana Pradurbhava* (different kinds of pain), *Sopha* (swelling). ***Asthi Vivara Gata*** – *Asthipoornatha* (filling of the cavity), *Asthinisthoda* (constant pricking pain), *Samharsho Balavaamscha* (profound horripilation).<sup>[17]</sup>

***Sandhi Gata*** – Symptoms same as that of *Asthi Gata* along with *Cheshtoparama* (loss of function).

**Koshta Gata** – *Aatopa* (Gurgling noise), *Aanaha* (flatulence), *Mootrapurishaaharadarsanam chavranamukhath* (appearance of flow of urine, *feaces* and food particles from the orifice of the wound).<sup>[18]</sup>

**Marma Gata** – *Marma viddha vacheshta* (symptoms similar to *marmabhighata* mentioned in 25th chapter of Sushruta Samhita *Sutrasthana*. *Sookshma Shalya - Lakshanaanyaspashtani* (Symptoms will be present but slightly).

### **Paschat Karma- Post operative Procedure**

The Patient who has fainted should be sprinkled with cold water, his vital spots (organs) should be protected and he should be assured (given courage).<sup>[18][19]</sup>

Next, the foreign body having been removed, the wound should be made free of blood; if the person is suitable for sudation, then the area (wound) should be burnt (cauterized) by fire or ghee (warmed) etc., smeared with mixture of ghee and honey, bandaged and regimen of food and activities advised.

### **Foreign body near the Heart**

When the foreign body (arrow) is near the heart, then it should be pulled out in the same direction of its entry; comforting (assuring) the patient who is agitated (afraid of the consequences) by the use of cold water; that which is at other places (or in other ways) should be pulled out by cutting it.

### **Foreign body in the throat**

When a foreign body made of shell-lac is found stuck up in the throat, then a hollow tube should be introduced first and a heated metal rod inserted through it till it touches the foreign body. When the foreign body adheres to heated rod it should be bathed with cold water, and after it becomes stable (adhering fast) it should be pulled out.

Foreign body which is not made of shell-lac should be pulled out by using a rod smeared with lac or bees wax in the same manner as described earlier; say some others.

A piece of bone or any similar foreign body, if found stuck up in the throat horizontally, then the patient is made to swallow a ball of hairs, fastened to a strong and lengthy thread, along with liquid food, followed by consuming more liquid food, till his stomach becomes full, then he is made to vomit. During vomiting, after determining that the foreign body has stuck to the

ball of hairs, the thread should be pulled suddenly or a soft tooth brush may be used to pull out the ball of hairs. By these acts, if foreign body does not come out, then it should be pushed deep inside. Any injury to the throat happening by this act, then the patient should be given a mixture of honey and ghee or powder of *triphala* added with honey and sugar, to lick.

#### ***Annagrasa Shalya- Bolus of food acting as foreign body***

When a bolus of food is present in the throat acting as a foreign body, then the person should be made to bend forward and given a hard hit with the fist over his neck without his knowledge, by this the foreign body comes out or he may be made to drink fats, wine or water thus making it enter the stomach.

***Udaka Nirharana- Removing water-*** When any person has his abdomen filled with water due to drowning accidentally or intentionally, he should be held with his head down and his abdomen should be pressed, his body shaken, made to vomit or buried in a heap of ash up to his face.

#### ***Strangulation -Kantha Rodha***<sup>[20]</sup>

When the throat is held tight with force by the arms, rope or creepers, then *vata* gets aggravated along with *kapha* and blocks the passage and brings about flow of saliva, froth in the mouth and loss of consciousness. Such a person should be anointed with oil, given sudation, administered strong purgative therapy to the head, and given soup of meat mitigating *vata*.

### **DISCUSSION**

Foreign body present in the eyes etc. come out naturally during the acts such as flow of tears, sneezing, belching, coughing, expulsion of urine, feces and flatus. Foreign body stuck up inside the muscles and not causing burning sensation, should be made to come out along with pus and blood by creating suppuration. If it is not coming out, it should cut or torn and then made to come out, should be hit or given a blow either with appliances or with the hand. Minute foreign body lodged in the sense organs should be removed by pouring water, blowing air, wiping, sweeping with hairs (made as brush), cloth (edge of cloth) or hand (finger tips). Foreign body such as particles of food, *kapha* (which is thick and adhering) small and minute should be removed by inducing breathing (deep and forceful), coughing and blowing air (into the site). Particles of food may be removed by inducing vomiting by inserting fingers into the mouth.<sup>[21]</sup> Foreign body present in *Pakvashaya* (large intestine) by inducing purgation.

*Vrana dosha* (pus) present in the cavity of wound should be removed by washing with liquids. In case of obstruction of flatus, urine, feces and fetus (these acting as foreign body) it should be removed by straining. In case of accumulation of air (gas), water (serous fluid), poison, blood and vitiated breast milk etc. it should be removed by sucking by mouth or by using the sucking horn. Foreign body which is facing downwards, not fixed, not having ears (ear-like appendages) and the orifice of the wound if wide, that should be removed by using a magnet. Grief produced by many causes which itself is a foreign body present in/ engulfing the heart (mind) should be removed by creating joy.

## CONCLUSION

*Shalya* (Foreign bodies) are of two kinds *savabaddha* (fixed) and *anavabaddha* (not fixed). In brief; methods of removal of foreign bodies which are not fixed are fifteen. For all kinds of foreign bodies whether big or minute, modes of extraction are only two- *Pratiloma* and *Anuloma*. Direction of movement of foreign bodies are only five- upward, downward, backward, sideward and straight. The place which has mild troubles, no swelling, no pain, no complications, clean, soft all around, static, not elevated, searchable thoroughly by probing in all sides through the passage of entry, not having any difficulty for extension and contraction then only the physicians should declare such a place as free of foreign body.

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