

Brihatrayees Approach to the Application of Surgery in Toxicology

Dr Sheethal Raj¹, Dr Shaithya Raj², Dr Devan Reghunathan³

¹BAMS MD, Associate Professor, Department of Agada Tantra, Yenepoya Ayurveda Medical College, Mangalore, Karnataka, India

²BAMS MS, Associate Professor, Department of Shalya Tantra, Amritha School of Ayurveda, Kollam, Kerala, India

³BAMS MS, Assistant Professor, Department of Shalya Tantra, Yenepoya Ayurveda Medical College, Mangalore, Karnataka, India

Abstract: *Charaka Samhitha, Susruta Samhitha and Ashtanga Hridaya are the three text books which are considered as Brihatrayees in Ayurveda, Acharya Charaka mentioned Shalya karmas like Utkarthanaie incision, Upadhanaie medicinal application on incised scalp, Rakthamokshanaie bloodletting, Prathisaranaie bloodletting by rubbing with leaves, Agnikarmaie thermal cauterization, under Chaturvimshathiupakramasie twenty four treatment modalities of the treatment of Visha. There are references of Chedhanaie excision, and lekhanaiie scrapping also in Visha Chikitsa. This article is an attempt to emphasize different Shalya Karmas in Visha Chikitsa as per Brihatrayees.*

Keywords: Charaka Samhitha, Susruta Samhitha, Ashtanga Hridaya, Rakthamokshana

1. Introduction

Agada Tantra and Shalya Tantra are two branches of Ashtanga Ayurveda. Agada Tantra or Visha Chikitsa is a branch of medicine which deals with different types of Poison, its diagnosis, combination of poison and its treatment. Shalya Tantra is a branch of medicine which deals with different types of foreign bodies and the different types of instruments and techniques used for its extraction¹. Agada Tantra is Toxicology and Shalya Tantra is Surgery as per modern parlance.

Rakthamokshana, Agnikarma and upadhana are the main Shalyakarmas for Visha Chikitsa mentioned in Brihatrayees. Rakthamokshana, Agnikarma, Utkartana, Prathisarana and Upadhana are mentioned in Charakoktha Chaturvimshathi upakrama². Rakthamokshana is done by Prachchanna, Shringa, Jalouka and Siravyadhana³. Rakthamokshana is indicated in Visha Chikitsa, when the patient is suffering from discoloration, hardness, swelling and pain in the affected area⁴. The phenomenon by which Visha moves from one dhathu to another dhathu penetrating the kala is called Vega⁵.

Utkartana

Utkartana is an incision done at the site of bite⁶. Visha remains at the site of bite for hundred matra kala, (Matra is the time needed to blink the eyes once) and then it vitiate the dhathus like raktha and spreads all over the body. In that case, utkartana should be done immediately at the site of bite⁷. This site should not be a marma sthana⁸. In Snake poisoning, after removing the tourniquet, incision is indicated⁹. In spider poisoning, the first line of treatment is Utkartana¹⁰.

Prathisarana

Prathisarana is bloodletting by rubbing the area with leaves. If blood does not come out of the site of bite, then rub the area with drugs like trikatu (Zingiber officinalis, Piper nigrum, Piper longum), Grihadhooma (soot), Rajani (Curcuma longa) etc¹¹. In poisoning caused by poisoned toothbrush, prathisarana is indicated.

Prachchanna

Prachchanna is bloodletting done by pricking with fine needles. In the first Vishavega of Darveekara Sarpa and Mandali Sarpa^{12, 13}, Prachchanna is indicated. In Kaanda Sarpa, a Snake which is mentioned in Ashtanga Hridaya, Prachchanna is indicated¹⁴. In rat poisoning also prachchanna is indicated¹⁵.

Siravyadhana

In Visha Chikitsa, Siravyadhana should be done in a sira which is nearer to the site of bite. If the Visha spreads throughout the body, then Siravyadhana should be done on leg, hand and temples¹⁶. When Visha is situated in Kaphasthana or rakthasthana or in case of Dooshi Visha, Sira Vyadhana is indicated¹⁷. In the first Vishavega of Darveekara and Mandali Sarpa, Siravyadhana is indicated^{18, 19}. In rat poisoning and in Spider poisoning, Sira Vyadhana is indicated^{20, 21}. But Siravyadhana is contra indicated in pregnant ladies, children and elderly²².

Jaloukavacharana

Jaloukavacharana is bloodletting done with leeches. In case of patients effected with poisonous weapon, the area get putrified and then bloodletting in the form of jalouka is indicated²³. In poisoning cases with the predominance of pitta, jalouka is indicated²⁴. If sira which is near to the site of bite is invisible, then jalouka is indicated²⁵. In Krishna

Sarpa, a snake mentioned in *Ashtanga Hridaya* also *jaloukais* indicated²⁶.

Shringavacharana

Shringa is a method of inducing bloodletting using horns of animals, by creating a vacuum. In the first *Vishavega* of *Darveekara*²⁷ and *Mandali Sarpa*²⁸, *Shringa* is indicated. If *Sira* which is nearer to the site of bite is invisible, due to *Shobha*, then *Shringa* is indicated²⁹. In Spider poisoning, *Shringa* is indicated³⁰.

Alabu

Alabu is another method of inducing bloodletting using a hollow vegetable on the principal of cupping. In the first *Vishavega* of *Rajila*, *Alabu* is indicated for performing *rakthamokshana*³¹.

Upadhana

Medicines kept on incised scalp is known as *Upadhana*. It is one among the Chathurvimsathupakrama. It is called *Upadhana* because '*bheshajadhana*' which is application of drug which can absorb poison, after making an incision, is done in this treatment modality³². When the channel of circulation of kapha gets vitiated by poison, then this causes obstruction in the channels and thus stops the movement of *vayu*. As a result of this, the patient develops breathlessness as if he is going to die. If the patient is free from the signs and symptoms of incurability, then an incision in the shape of paws of crow is made and one *bilwa* amount of *Charmakashaya* (*Sapthala*) or its paste should be applied over it. *Upadhana* is also called '*Kakapada*' since the incision is in the shape of paws of crow. The meat of cock, buffalo or goat can also be applied over the incision to absorb the poison³³. In the process of regaining the life of a patient who is apparently dead, which is called *Mritasanjjevana*, *Kakapada* is indicated³⁴. In the seventh *samanya Vishavega*, *Kakapada* is indicated³⁵. In *Susrutha Samhitha*, it is mentioned that a sharp instrument is to be used for making the incision in *Kakapada* and flesh, blood and skin of animals should be kept over the incision to absorb the poison³⁶. In the seventh *Vishavega* of *Darveekara*, *Mandali* and *Rajila Sarpa*, *Kakapada* is indicated^{37, 38}. In the seventh *Vishavega* of *Sthavara Visha* (immobile poison) also, *Kakapada* is indicated³⁹. If the patient is bitten by a poisonous creature at the lower part of his body, then *kakapada* should be done at the scalp and meat as well as blood of cock, crow and peacock should be applied over it. If the bite is in the upper part of the body, then *kakapada* should be done on the feet and meat as well as blood of cock, crow and peacock should be applied over it⁴⁰.

Chedhana and Lekhana

Chedhana is excision and *Lekhana* is scrapping. *Chedhana* and *Lekhana* are indicated when *Visha* is *kaphaja* in nature⁴¹. In case of formation of *Karnika* which is a hard mass formed at the site of bite, *Chedhana* is done⁴². In case

of insects which are having the predominance of *Kapha*, *Chedhana* and *Lekhana* are indicated⁴³.

Agnikarma

Agnikarma or thermal cauterization is done, when *Visha* is situated in skin and flesh⁴⁴. If it is not possible to tie the tourniquet at the site of bite, then *Agnikarma* is indicated⁴⁵. In rat poison and in rabies, *Agnikarma* is done with hot ghee at the site of bite^{46, 47}. In spider poisoning, *Agnikarma* is done with an instrument called *Vridhipatra* or else with *jambavoshashastra* at the site of bite^{48, 49}. There is another reference that in rat poisoning, *Agnikarma* is done with a piece of stem or trunk or with a hot glass piece⁵⁰. If a patient is suffering from a wound produced by a poisonous weapon, *Agnikarma* is done with a hot iron piece⁵¹. *Agnikarma* is contraindicated in *Mandali Sarpa* because *Mandali Sarpa* is having the predominance of *pitta* and if *Agnikarma* is done, it leads to the vitiation of *pitta*, resulting in burning sensation and vesicles⁵². *Agnikarma* is also contraindicated in spider poisoning which is having predominance of *pitta*⁵³. If the site of bite of spider is hard, devoid of hair and is situated in *Marma*, then *Agnikarma* is contraindicated⁵⁴.

Rakthamokshana is considered as the most important treatment procedure in *Visha*, because vitiation of *raktha* vitiates other *dhathus* and leads to the death of the person⁵⁵. By doing *rakthamokshana*, entire poison is eliminated from the body⁵⁶. *Utkarthana* also plays a similar role where as *Upadhana* and *Pratisarana* are pacifying measures. *Agnikarma* is also important because *agnikarma* can destroy the poison from its roots with in a very short time period⁵⁷. Depending upon the conditions of the patient, the appropriate treatment should be adopted wisely. Though these treatment modalities are used rarely in practice, there remains a large scope of research in this area.

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Author Profile

Dr Sheethal Raj, Associate Professor, Department of Agada Tantra, Yenepoya Ayurveda Medical College, Mangalore, Karnataka, India.

Dr Shaithya Raj, Associate Professor, Department of Shalya Tantra, Amritha School of Ayurveda, Kollam, Kerala, India

Dr Devan Reghunathan, Assistant Professor, Department of Shalya Tantra, Yenepoya Ayurveda Medical College, Mangalore, Karnataka, India