Traditional Poison-healing System in Kerala: An Overview

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1. Introduction

Kerala state is located in the southwest region of the Indian subcontinent. The west side of Kerala faces to the Arabian Sea and the east side borders high mountain range of the Western Ghats. The long southeastern coastal plain or the Malabar Coast rises to mountain slopes of the Western Ghats by gradual steps. Kerala has a tropic monsoon climate of high temperature and high humidity with rainy days in almost one third of the year. These geographical and climatic conditions of Kerala provide suitable environments for a wide variety of plants and animals. Some kinds of poisonous creatures including highly venomous snakes, spiders and scorpions as well as poisonous plants are also found.

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As for venomous snakes in Kerala, broadly speaking, four species are mainly observed in land territory according to modern biology, namely, (1) the Indian cobra or the spectacled cobra: *Naja naja* (Linnaeus, 1758); (2) the Russell’s viper: *Daboia russelii* (Shaw & Nodder, 1797); (3) the saw-scaled viper: *Echis carinatus* (Schneider, 1801) and (4) the common krait: *Bungarus caeruleus* (Schneider, 1801). Snakebite incidents occur in rural areas mainly during monsoon, paddy-planting and harvesting seasons especially at night. Inhabitants in rural and mountainous areas and agricultural workers who have no footwear have been the most likely victims of poisonous snakebite in low light or dark conditions. Today, modern medicine has spread in Kerala and modern physicians can treat the patients of poisonous snakebite effectively in most situations. On the other hand, a fair percentage of patients of poisonous snakebite relies on the practitioners of the native poison-healing system even today, especially in rural areas. In this paper, we will attempt to present an overview of the indigenous toxicology or the native poison-healing system (*Viṣavaidya*) in Kerala with special attention to its tradition and history. This report is based on our preliminary investigations on the native poison-healing system and our interviews with some native practitioners in Kerala. Our investigations and interviews were conducted as a part of the activities of the Indo-Japanese research project P ADAM (Program for Archiving and Documenting Āyurvedic Medicine directed by Tsutomu Yamashita and P. Ram Manohar) supported by the Japan Society for the Promotion of Science (JSPS) during 2001-2007.

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4 As for the present situation of snakebite and treatment, see Chippaux 1998; Warrell 1999; Whitaker 2006; Kasturiratne, Wickremasinghe, de Silva, et al. 2008; Warrell 2010; Williams, Gutiérrez, Harisson, Warrell, et al. 2010. According to the WHO report in 1998 (Chippaux 1998), annual incidences of snakebite are 66-163 cases per 100,000 people and the mortality rate is around 17-20% per year in all India. Kasturiratne, Wickremasinghe, de Silva, et al. 2008: 1598 reports: ‘According to our most conservative country estimates that were used to calculate the regional estimates, India had the highest number of deaths due to snake bite in the world with nearly 11,000 deaths annually.’

Most modern physicians and researchers of western medicine (biomedicine) refuse any traditional treatments for snakebite. Warrell 1999: 35-36 says: ‘Local people may have great confidence in traditional (herbal) treatments, but they must not be allowed to delay medical treatment or to do harm. MOST TRADITIONAL FIRST AID METHODS SHOULD BE DISCOURAGED : THEY DO MORE HARM THAN GOOD!’.
2. Traditional Poison-healing System (Viṣavaidya) in Kerala

Traditional medical system of India or Āyurveda has eight clinical branches (aṣṭāṅga). Therapeutics of poisonings (viṣacikitsā) or toxicology (agadatantra) is one of the eight clinical branches. This branch has been developed especially in Kerala by native practitioners of poison-healing (viṣavaidyas) in order to meet the needs of patients of poisoning by venomous animals and plants. In other words, the native practitioners of poison-healing in Kerala have evolved this special branch with their original knowledge and skills in the framework of Āyurveda. The practitioners of this branch have dealt with almost all kinds of common poisonings. The native practitioners in Kerala have put their expert knowledge down in writings mainly in Malayalam language. There seems to have been some schools of traditional poison-healing system in Kerala and many practitioners who came from different social origins have been trained by these schools. The traditional method of treatment for poisonings in Kerala is classified broadly into two categories, namely, Viṣavaidya and Viṣavidyā. The former, Viṣavaidya is medical practice using only medicinal plants and mineral drugs following the theory of Āyurveda. The latter, Viṣavidyā includes chanting of mantras and ritual practices in the process of treatment for poisonings and is mainly based on the tantric concept. It is likely that there was no obvious distinction between Viṣavaidya (medical treatment for poisoning) and Viṣavidyā (medical treatment associated with mantra for poisoning) in olden days, but gradually the distinction seems to have become more prominent. Then the

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5 See, for example, CS Sū 30.28; SS Sū 1.7; AHS Sū 1.1.5.
8 Varier 2005: 317 (Malayalam ed.: 495-496). Vaidya means a learned person especially medical specialist or physician, sometimes it denotes medicine itself. Viṣavaidya can be rendered as both of ‘a poison-healer’ and the ‘traditional poison-healing system’. On the other hand, Vidyā means knowledge or learning in general, but in this context, it denotes a spell, incantation or magical skill, therefore Viṣavidyā can be rendered as ‘a magical skill for cases of poisoning’. Cf. Meulenbeld 1999-2002, IIB: 519, footnote no.618.
9 Both the tantric portion including mantras and the non-tantric medical portion focused on medical treatments are found in some other texts of the traditional poison-healing system; for example, the Tantrasārasaṅgraha and the Kāśyapasamhitā. Some descriptions of mantras are also found in the chapters of poison-healing in the classical works of Āyurveda, for example, CS Ci 23.35-37, 61, 90-94, 223; SS Ka 5.8-13, 51, 7.59-62; AHS Utt 35.24-32, 36.42, 89, 38.38; AS Utt 40.13, 156-159, 41.75, 42.5, 99, 103-104, 46.79-81, 47.59-64, 48.1-2. Cf. Zysk 1989.
question arises: from when onwards was any distinction drawn between medical practice and ritual or religious practice in this particular clinical branch in Kerala? It is difficult to find a definitive answer to this question, but we may find glimmer of a clue as to this question in the stories of the living practitioners of native poison-healing system. In our interviews, some practitioners told that their teachers (gurus) applied mantras along with medical practices, but the same teachers (gurus) advised them (the disciples) not to apply medical treatments with mantra, because if mantra is practised improperly in the process of medical treatments, it would affect not only the lives of patients, but also those of practitioners and their family members through the mantra’s effects on their karmans. That is to say, in the previous generation of some living practitioners of the native poison-healing system, it seems that the Viṣavidyā (medical treatment associated with mantras for cases of poisoning) had been commonly employed. However, today’s living practitioners of poison-healing system in Kerala depend mainly on Viṣavaidya (non-tantric medical treatment for poisoning) following their teachers’ advice.

Viṣavidyā or tantric method in therapeutics of poisoning and worship of serpents are obviously important cultural elements in Kerala, but in this paper, we will focus only on the tradition of Viṣavaidya or non-tantric medical treatments for poisoning.

Even today, in rural and mountainous areas far from town in Kerala, a considerable number of victims of poisonous snakes or venomous insects are taken to the native practitioners’ dispensaries for treatment. It has been well known in Kerala that the practitioners of traditional poison-healing system, especially the doctors belonging to Nampūtiri Brāhmin never receive treatment fees from their patients, because Nampūtiri doctor’s treatment has been regarded as free service to general public.

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11 Apart from the Viṣavaidya practitioners, there are some families specialized in mantra practices (Viṣavidyā) for poisonings in Kerala still now. It might be that the duties of the native practitioners (viṣavaidya) of the poison-healing system and the tantric practitioners (viṣavidyā) had set apart at any point in time. Cf. Shankar 2004: 147-150.
3. Textual Tradition of Viṣavaidya

3-1. Sanskrit and Prākrit Texts

In Kerala, the seven literary works in Sanskrit or Prākrit language have traditionally been regarded as the authorized texts of the traditional poison-healing system. These seven works are commonly referred as (1) Aṣṭāṅgahṛdaya, (2) Nārāyaṇīya, (3) Uḍḍīṣa, (4) Utpala, (5) Mekhala, (6) Kālavañcana and (7) Lakṣaṇāmṛta.12 Among these works, (3) Uḍḍīṣa, (4) Utpala and (6) Kālavañcana are known only by name and the details of them are unknown today.

(1) Aṣṭāṅgahṛdaya is formally the Aṣṭāṅgahṛdayasamhitā (AHS) by Vāgbhaṭa.13 This work is the most prestigious treatise for āyurvedic physicians in Kerala, especially for the Aṣṭavaidyas who are specialized āyurvedic families belonging to the Nampūtiri Brāhmin. In AHS Utt14 the 35th-38th chapters are devoted to āyurvedic toxicology. The 35th chapter contains the general theory of poison and its treatment (viṣapratiṣedha); the 36th chapter: the treatment of poisonous snakebites (sarpaviṣapratiṣedha); the 37th chapter: the treatment of poisonous insects, spiders, scorpions and so forth (kīṭalūtādiviṣapratiṣedha); the 38th chapter: the treatment of poisonous bites of mice and dogs (mūśikālarkaviṣapratiṣedha).

(2) Nārāyaṇīya is also known as Viṣanārāyaṇīya and formally the Tantraśarasaṅgraha by Nārāyaṇa. This work is essentially a tantric treatise, but it deals with Agadatantra (toxicology) in the chapters 1-10.

(3) Uḍḍīṣa15 is an unspecified text, it may be available somewhere in manuscript form.

(4) Utpala is known only by the name today.

(5) Mekhalā is Māhuka or Mādhuka’s Prākrit work, the Haramekhalā of around the 10th century C.E.16

(6) Kālavañcana is an unspecified text, but it is said that some parts of this work have been rendered and adopted in the Malayalam works of the poison-healing system (Viṣavaidya).

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13 Vāgbhaṭa is popularly known as ‘Vāhaṭa’ in Kerala.
14 The Utt (Uttarasthāna) section may be the latter part of AHS. As for the position of the Utt of AHS and the Aṣṭāṅgasamgraha of Vāgbhaṭa, Meulenbeld says “An Uttarasthāna is added, in the same way as the Uttaratantra of the Suśrutasamhitā, but, as its title indicates, it forms an integral part of the treatise.” in Meulenbeld 1999-2002, IA: 653.
15 There is a tantric text called Uddiṣatantra, but this text seems to have little relation to the poison-healing system in Kerala. Cf. Meulenbeld 1999-2002, IIA: 538-539.
(7) *Lakṣaṇāmṛta* is a work on traditional toxicology by Bhaṭṭasundara, Sundara or Sundarabhaṭṭācārya. The author of this text is known as the teacher (guru) of the author of the *Tantrayuktivicāra*, Nīlamegha.¹⁷ In addition to the above mentioned seven works, the *Carakasamhitā* (CS), the *Suśrutaśamhitā* (SS) and other classical works of Āyurveda, especially the chapters of āyurvedic toxicology¹⁸ have been referred to by the native practitioners in Kerala. These Sanskrit and Prākrit authoritative medical works gave the fundamental knowledge of Āyurveda and its theoretical framework to the native toxicology and poison-healing system in Kerala.

Some other old manuscripts of traditional toxicology and therapeutics of poisonings in Tamil language, for example, *Puḷḷayārpatalam*¹⁹ as well as Tamil mantras are also found in places in Kerala.

### 3-2. Malayalam Texts

A number of Malayalam texts of traditional toxicology and therapeutics of poisonings have been written in Kerala by the native practitioners on the theoretical basis of Āyurveda. Some of these Malayalam texts have been published and others have been kept in manuscript-form in Kerala so far. Among these Malayalam texts, three works, namely, (1) *Jyotsnikā*, (2) *Prayogasamuccāya* and (3) *Kriyākaumudī*, are generally regarded as the significant texts of the native poison-healing system in Kerala. These three works have been published on several occasions by local publishers and are referred to by native practitioners in Kerala even today.

(1) The *Jyotsnikā*²⁰ might be the oldest text of native toxicology and therapeutics of poisoning in Kerala written in an old style of Malayalam language (maṇipravāḷam). This text is of the Kārāṭṭu Nampūtiri’s school which is regarded as the foremost and still authoritative school of the native poison-healing system in Kerala.

(2) The *Prayogasamuccāya* is written by Koccuṇṭi Tampūrān (1870-1937) in Malayalam. This text is relatively new, but the author says that some old

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¹⁷ According to Meulenbeld 1999-2002, IIA:143, 457-458; IIB: 470, the *Lakṣaṇāmṛta* of Sundara Bhaṭṭācārya has been edited with a Sanskrit commentary called *Marmaprakāśikā* and a Malayalam translation, by E.P.Subrahmanya Śāstri, has published in Palghat, 1905. Meulenbeld (ibid. IIA: 457) remarks also that in Kerala, Nārāyaṇa, the author of the *Tantrasārasaṅgraha* is regarded as the author of the *Lakṣaṇāmṛta*. Several manuscripts of the *Lakṣaṇāmṛta* is reported in Sastry 2002: 184, No.2807; 192, Sup. 26.

¹⁸ CS Ci 23; SS Ka 1-8; AS Utt 40-48, etc.

¹⁹ MSS No.583 in Manuscript Library of the Government Sanskrit College, Tripunithura.

texts, for example, the Kālavañcana, which is one of the seven authoritative works as mentioned above, are rendered into Malayalam and incorporated into this work. The author, Koccuṇṇi Tampurān was one of the Cochin Royal family members.

(3) The Kriyākaumudī is, just as the preceding one, a compilation work of the old texts of the traditional poison-healing system. The author is V. M. Kuttikrishna Menon (V. M. Kuṭṭikṛṣṇa Mēṇōn) (1907-1995) who is one of nephews of the author of the Prayogasamuccaya, Koccuṇṇi Tampurān.

Some other literary works of this field have been published or are kept in manuscript-form; for example, the Viṣacandrikā, the Viṣacikitsā, the Viṣacikitsāpraveśika, the Viṣamocana, the Viṣavaidyasāra, the Viṣavaidyasārasaṅgraha, the Viṣavaidyasārasamuccaya, the Viṣavaidyapāṭṭū, the Sāradarpaṇa and so forth. The native practitioners’ clinical experiences, knowledge of materia medica in Kerala region, newly-created treatment techniques and prescribed drugs are organized into these Malayalam works on the theoretical basis of Āyurveda. We can see here an example that the traditional medical system of India or Āyurveda provides the framework of basic theory as ‘a great tradition’ to the local variation of medical knowledge and skills as ‘a little tradition’. A similar relationship may be found between Sanskrit classics and their local commentaries written by native authors in various regional languages.

Furthermore, we can find influences of the Rasaśāstras and the Dravidian medical system in Tamil Nadu on the native poison-healing system (Viṣavaidyā) in Kerala. One of the instances is the use of heavy metals, for example, mercury, arsenic and sulphur as ingredients of prescribed detoxicant drugs prepared by native practitioners in Kerala.

4. Clinical Tradition of Viṣavaidyā

4-1. Kārāṭtu Nampūtiri’s tradition

As we mentioned above, the Jyotsnikā is one of the Malayalam texts of the native poison-healing system (Viṣavaidyā) and this work has been an authoritative text for the practitioners in Kerala till today. The author of the Jyotsnikā

21The Viṣavaidyasārasamuccaya is exceptionally written in Sanskrit.

22For the manuscripts of the Viṣacandrikā, see Sastry 2002: 185, No.2828; the Viṣacikitsā, see Sastry 2002: 185, No.2829; 192: Sup. 27; the Viṣamocana, see Sastry 2002: 185, No.2837; the Viṣavaidyasāra by Koṭṭayam Rājā, see Sastry 2002: 185, No.2841. For the printed editions of each text, see Bibliography, Primary Sources of this paper.
describes himself as “Nārāyaṇa” from Kārāṭṭu Nampūtiri family of Kāśyapa gotra in this text. Kārāṭṭu Nampūtiri’s tradition has been the main stream of Viṣavaidya practices in Kerala and the residence of Kārāṭṭu Nampūtiri’s family still exists in Kurumbranād near Kozhikode (Calicut). It seems that there are no successors who master the poison-healing system among Kārāṭṭu Nampūtiri family members, but some practitioners who were direct or indirect disciples of now deceased members of this family have kept the tradition to the present. These disciples of Kārāṭṭu Nampūtiri’s tradition were not only Nampūtiri Brāhmīns, but also there were some disciples belonging to other social positions including Nairs. Some eminent practitioners of the Kārāṭṭu Nampūtiri’s tradition had taken active part in the history of the native poison-healing system in Kerala, for example, Kōkkara Nampūtiri, Tamattūr Nampūtiri and Tamattūr’s disciple Cerukuḷappurattŭ Kṛṣṇan Nampūtiri (1879 - 1966) and so forth. Vaḷḷūr Śaṅkaran Nampūtiri (1917 - ), a famous living practitioner of Viṣavaidya in Kerala is one of the disciples of Cerukuḷappurattŭ Kṛṣṇan Nampūtiri.

4-2. Kōkkara Nampūtiri
Among those Viṣavaidya practitioners belonging to the Kārāṭṭu Nampūtiri’s tradition, the most renowned person is Kōkkara Nampūtiri. He is almost a legendary figure in Kerala today. In our interviews with living Viṣavaidya practitioners in Kerala, we often heard the name of Kōkkara Nampūtiri as an innovator of Viṣavaidya tradition in Kerala. They say that Kōkkara Nampūtiri was a gifted physician and toxicologist and he was an innovator of the treatment techniques and prescribed drugs of the native poison-healing system; and after him the treatment methods for poisonings were significantly improved in Kerala.

Kōkkara Nampūtiri’s knowledge and methods of poison-healing are mainly based on the Kārāṭṭu Nampūtiri’s tradition. In addition to this, it is said that he had studied poison-healing methods and toxicology under the guidance of ascetics (saṃnyāsins) and tribal communities who were living in the uncultivated regions of forest. Kārāṭṭu Nampūtiri’s original residence was in Tripunithura, but he was said to have made trips frequently throughout Kerala for his medical activities. During his trips, he might have collected knowledge regarding toxicology from all over Kerala.

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26 See Footnote 10 of this paper.
Kōkkara Nampūtiri is said to have developed new detoxicants and to have improved the efficiency and diversification of treatments for poisonings. Although Kōkkara Nampūtiri may not have had a child and did not write any specific text of toxicology by himself, he seems to have had many disciples. Through the disciples of Kōkkara Nampūtiri, his knowledge and innovative ideas of treatments for poisonings seem to have been passed down to other native practitioners in Kerala. Taraṇanallūr Nampūtiri was one of his disciples and a famous Viṣavaidya physician. Avaṇappaṟampŭ Śaṅkaran Mahēśvaran Nampūtirippāṭŭ (1930- ) is one of disciples of Taraṇanallūr Nampūtiri and a famous living practitioner of Viṣavaidya and he is also a specialist of Hastyāyurveda or traditional medicine for elephants. It is likely that Kōkkara Nampūtiri lived in the middle of the 19th century, because, as we see later, some members of the Cochin Royal Family who were living in the middle of 19th century were said to be direct disciples of Kōkkara Nampūtiri.

4-3. Cochin Royal family
The former rulers of the Kingdom of Cochin, the Cochin Royal family, played a significant role in the history of traditional poison-healing system in Kerala. Some members of the Cochin Royal family have learned the traditional toxicology and poison-healing system from Kōkkara Nampūtiri himself and his disciples; they treated patients of poisonings at their palace. Among them, Rama Varma Kunjukkidavu (1858-1932), popularly known as ‘the Maharaja who demised in Madras’ was said to be one of Kōkkara Nampūtiri’s direct disciples; Kerala Varma (1863-1943), popularly known as ‘Midukkan Tampurān’ also practised as a doctor of poison-healing before his coronation. His (Midukkan Tampurān’s) teacher in this field was Brahmaśrī Tharuna Nampūtiri, who was one of the direct disciples of Kokkara Nampūtiri, and probably he (Midukkan Tampurān) learnt toxicology also from his elder brother, Rama Varma Kunjukkidavu (Maharaja who demised in Madras). Under the personal supervision of Midukkan Tampurān, the treatment method of traditional poison-healing system and toxicology had been taught for three months every year without fees in Tripunithura where his palace was located.

Koçoṇṇi Tampurān (1870-1937) was the crown prince of Cochin and, as we mentioned before, the author of a Viṣavaidya text in Malayalam, the Prayogasamuccaya and he also practised Viṣavaidya treatments. K.V. Müssatū of the same period as Koçoṇṇi Tampurān wrote as follows:

Visṣavaidyan (literally ‘Poison-doctor’) Koccuṇṇi Tampurān was a great man embodying the radiance of Kshatriya nobility. His lofty head had not once bowed before anybody. It would be difficult to find another Tampurān (nobleman) with such force of command. He did not hesitate to suffer any hardship or spend any quantity of money for treating patients affected by poison. If a poisoned person was brought to him, he could be called upon without regard for the time, even in the middle of the night. He would immediately come outside and arrange to treat the patient. Then, until the patient had returned to health, the patient, and those who accompanied him, could stay in the palace at the Tampuran’s expense and under his care.30

During the 19th century and in the beginning of 20th century, members of the Cochin Royal Family had set up some schools and hospitals of Āyurveda and supported the publication of Āyurvedic works including viṣavaidyas in Malayalam in their territories. On the other hand, they had received westernized educations to a certain degree and seem to have had a tendency to draw a distinction between rational thinking and magical aspects in Āyurveda. One such example is the distinction between medical practice and mantra chanting. In this way, they played an important role in the so-called Neo-Ayurvedic movement of Kerala in this period.

5. Viṣavaidya and the Theory of Āyurveda

The native poison-healing system or Viṣavaidya in Kerala has been developed on the basis of Āyurvedic theory, especially the tridoṣa theory. The native practitioners in Kerala apply the tridoṣa theory to their original method of treatment for poisonings. We would like to introduce here a diagnostic technique of venomous creatures as an example to illustrate their unique method of application of the tridoṣa theory into the clinical branch of poison-healing.

Diagnosis by Viṣaharilehya

When a patient comes or is taken to a practitioner’s dispensary of the native poison-healing system (Viṣavaidya) in Kerala immediately after having been bitten by some creature which is suspected to be a poisonous one, the practitioner, first of all, will give a traditional medicine to the patient. This traditional medicine is

called Viṣaharilehya or “detoxicant linctus”. The Viṣaharilehya itself seems to have some antidotal effect, but this medicine is mainly used for diagnostic purpose. The Viṣaharilehya is described only in several texts of the native poison-healing system in Kerala, namely the Prayogasamuccaya, the Kriyākaumudī and Viṣavaidyasārasamuccaya. On the other hand, the same kind of medicine as the Viṣaharilehya for diagnosis are not found in the major classical Sanskrit texts of Āyurveda. Therefore, we may say that the Viṣaharilehya is one of the original inventions by the native practitioners.32

The Viṣaharilehya is given to the patient mainly to see the state of tridoṣa in the patient’s body, that is to say, this is a test that is used to diagnose which doṣa (vāta, pitta or kapha) is most affected in the patient’s body at that moment. If the creature that bit the patient is a venomous one, its poison will affect the patient’s prakṛti or original state of tridoṣa. Any one, any two (samsarga) or all three (saṃnipāta) doṣas in the patient’s body will be affected depending on the nature of the poison.

The Viṣaharilehya is a viscous and blackish oily paste prepared from medicinal plants with mineral substances. This medicinal paste will be rolled on a betel (Piper betle Linn.) leaf in a small quantity and be given to the patient. The Viṣavaidyā physician will make the patient chew the betel leaf with Viṣaharilehya paste and ask about its taste to the patient. According to the taste reported by the patient, the physician can make a diagnosis: which doṣa is most affected in the patient’s body by the poison. If the taste is reported as katu (pungent), the most affected doṣa is assumed to be vāta. If the taste is amla (sour), that means pitta is most affected. If it is madhura (sweet), kapha is most affected in the patient’s body at the point of time. The diagnostic method using Viṣaharilehya is based on the tridoṣa and rasa (taste) theory of Āyurveda. The relations between the three doṣas and the six rasas are described in some classic Sanskrit texts of Āyurveda. For example, CS Vi 1.6 runs as follows:

Three rasas aggravate one doṣa while the other three pacify it. Such as pungent, bitter and astringent (rasas) aggravate Vāta while sweet, sour and saline pacify it. (Likewise) pungent, sour and saline rasas aggravate

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32 The fifth chapter of the Prayogasamuccaya in which the Viṣaharilehya is explained seems to be based on an old Sanskrit text called Kālavaṅcana, but, as we have noted, this original Sanskrit text itself is not available. Furthermore, it may be necessary to consider the influence of Tamil medicine on the preparation and usage of Viṣaharilehya.
pitta while sweet, bitter and astringent ones pacify kapha while pungent, bitter and astringent pacify it (Translated by P.V. Sharma).33

The original taste of the Viṣaharilehya is highly bitter (tikta), mainly because it contains the seeds of a medicinal plant called attaṅña in Malayalam, kośātakī in Sanskrit34 or Luffa acutangula (L.) Roxb. var. amara (Roxb.) C.B. Clarke.35 The taste of this plant’s seeds is extremely bitter, in fact, amara means “bitter” in Latin. However, the Viṣaharilehya tastes differently to each patient of a poisonous bite. That is to say, each patient perceives a different taste by chewing the same bitter agent depending on the nature and degree of poison which is affecting the patient’s body. If the creature that bit the patient is a non-poisonous one, the patient feels only the original bitter taste of Viṣaharilehya. For skilled physicians, it may be possible to gain additional information in combination with other medical examinations and observations, for example, the degree of poison, the general condition of patient and the species of the poisonous creature and so on, by subtle differences of the taste reported by the patients. The patient will subsequently be treated according to the reported taste and the result of the diagnosis.

When the creature that bit the patient is a poisonous snake, the physician can detect its species by the diagnostic results of Viṣaharilehya. For example, if the taste is reported as kaṭu (pungent) and accordingly vāta is most affected, the result proves that the snake is mūrkhān in Malayalam, darvīkara in Sanskrit or presumably cobra in modern herpetology, because in AHS Utt 36.2ab-3cd, the nature of darvīkara’s poison is described as dry, pungent; and it aggravates vāta. If the taste is amla (sour) and pitta is most affected, the snake that bit the patient is assumed to be anali in Malayalam, maṇḍalin in Sanskrit or the viper, because in AHS Utt 36.2cd-3ab, maṇḍalin’s poison is described as sour, hot; and it aggravates pitta. If it is madhura (sweet) and kapha is most affected, it proves that the snake is rājimaṇṭa in Sanskrit, śankhuvarayan or veḷḷikkeṭṭan in Malay-
alam, or presumably krait, because in AHS U 36.2cd-3ab, rājimañṭa’s poison is described as sweet, cold; and it aggravates kapha.\textsuperscript{36} If the taste is reported as a mixed taste, it means any two (saṃsarga) doṣas or all three (saṃnipāta) doṣas are affected in the patient’s body and the snake is assumed to be a hybrid type (vyantara). On this point, hybridization of snakes or hybrid type of snakes (vyantara) may be strange or impossible for contemporary biological classification. However, for the practitioners of the native poison-healing system (Viṣavaidya), it is not unnatural to presume the existence of such kind of snakes through their deductive approach based on the tridoṣa theory.\textsuperscript{37} Similarly, many kinds of poisonous snakes classified in the āyurvedic texts\textsuperscript{38} can be understood by the same doṣa based theoretical approach.

The important point to note here is that the practitioners of the native poison-healing system (Viṣavaidya) always draw attention to the current condition of tridoṣas in the patient’s body. The biological classification of real snakes or other poisonous creatures is of secondary important for the practitioners, because through the perception of the conditions of tridoṣas in the patient’s body, the native practitioners can recognize deductively the nature of poison which is disturbing the prakṛti of each patient from time to time and they can consequently decide how to recover the disturbances of tridoṣas to the normal condition. Thus, we can see that the practitioners of the native poison-healing system in Kerala have a unique method to apply the tridoṣa theory to their clinical aspects.

\textbf{6. Concluding Remarks}

There is room for further investigation on the traditional poison-healing system (Viṣavaidya) in Kerala especially on its clinical cases of poisonings including the effectiveness and safety. However, as of this moment, we would like to note the following points.

\textbf{6-1. Cross-cultural and Cross-sectional Relationships}

The native poison-healing system in Kerala has the basic principles of Āyurveda.

\textsuperscript{36} AHS Utt 36.2ab-3cd: viśeṣād rūkṣakaṭukam amloṣṇaṃ svāduśītalam. viṣaṃ darvīkarā- dinām kramād vātādi kopanam. viṣaṃ darvīkarā-dinām kramād vātādi kopanam.


\textsuperscript{38} For example, in SS Ka 4.9cd-13ab, snakes are classified into 80 types, namely, darvīkara 26 types, mandalin 22 types, rājimāt 10 types, nirvisa (non-poisonous) 12 types, vaikaraṇja or vyantara (hybrid) 3 types and vaikaraṇjādhava citra (hyper-hybrid) 7 types.
and some elements of traditional Tamil medicine as “great tradition” to organize the native practitioners’ experiences and inventions. In addition to such a cross-cultural relationship, we can see cross-sectional or cross-caste relationships in the native poison-healing system in Kerala. Nampūtiri Brāhmins, Nairs and other tribal communities seem to have contributed to develop the poison-healing system in Kerala. Each social section might have their own toxicological traditions in Kerala and their knowledge and experiences might have been shared with each other to some extent and have been transmitted through their traditional systems of education. This kind of cross-sectional relationships might be unusual in the orthodox Hindu societies. The social particularity of Kerala might be reflected in this process.

6-2. Clinical Aspects and the Tridoṣa Theory
The direct causal agent of disorder in the human body is absolutely clear in the field of the poison-healing system; that is only poison or viṣa. On this point, we can agree with the native practitioners of the traditional poison-healing system. However, the traditional practitioners analyze not the poison itself, but the effect of poison on a body through their observations based on the tridoṣa theory; and they recognize deductively the nature of the poison; and decide how to treat the patient. Such a Viṣavaidya’s approach to poisonings may give us informative case studies toward a better understanding of the tridoṣa theory and lead to theoretical studies of Āyurveda in clinical aspects.

Abbreviations

AHS: Aṣṭāṅgaḥdayasaṃhitā
AS: Aṣṭāṅgasaṅgraha
BhS: Bhelasamhitā
Ci: Cikitsāsthāna
CS: Carakasaṃhitā
Ka: Kalpasthāna
Ni: Nidānasthāna
SS: Suśrutasaṃhitā
Sū: Sūtrasthāna
Utt: Uttarasthāna
Vi: Vimāṇasthāna
Bibliography

Primary Sources


(2) *Śrīrāmavarmmagranthāvali, Jyōtsnikā, Viśavaidyaṃ.* Ernakulam, Second ed. 1124 (A.D. 1948).


Tantrasārasaṅgraha: (1) Tantrasārasaṅgraha (with commentary), A treatise teaching formulas and rites for the attainment of health and happiness and even of super-human power of Narayana (Tantric) of Sivapuram. Edited critically with Introduction in English & Sanskrit by Vaidyaratna Pt.M. Duraiswami Aiyangar. 1992, Delhi.


Viṣavaidyasārasamuccaya: (1) Čeṟukullappurattu Manaykkal Krṣnan Nampūṭiri, Viṣavaidyasārasmuccayam [savyākhyānam]. Tṛśśivapērūr (Thrissur), 1136 (A.D. 1961).


Viṣavaidyasārasaṅgraha: (1) Viṣavaidyam Sārasamgraḥam with Malayalam Commentary by Āttoor Krishna Pisharady. Thrissur, 1105 (A.D. 1929).

(2) Viṣavaidyam Sārasamgraḥam. Tṛśśivapērūr (Thrissur), 1123 (A.D. 1947).


Secondary Sources


Sastry, V. Kutumba Sasrty (General Editor) and K. V. Sarma (compiled and edited) 2002: Science Texts in Sanskrit in the Manuscripts Repositories of Kerala and Tamilnadu. New Delhi.


Shankar, Darshan and P. M. Unnikrishnan 2004: Challenging the Indian Medical Heritage. Delhi, Bangalore, Mumbai, etc.


Thampuran, Rameshan (n. d.): Genealogy of Cochin Royal Family. Tripunithura.


