

# Traditional Poison-healing System in Kerala: An Overview<sup>1</sup>

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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.<sup>2</sup> Some kinds of poisonous creatures including highly venomous snakes, spiders and scorpions as well as poisonous plants are also found.

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<sup>2</sup>The Kerala State Council for Science, Technology and Environment, *State of Environment Report (2005) for Kerala*: <[http://www.kerenvis.nic.in/files/pubs/SOE\\_05/contents.htm](http://www.kerenvis.nic.in/files/pubs/SOE_05/contents.htm)> and *State of Environment Report (2007) for Kerala*: <[http://www.kerenvis.nic.in/files/pubs/soe\\_2007/contents.htm](http://www.kerenvis.nic.in/files/pubs/soe_2007/contents.htm)> (30 December 2009).

As for venomous snakes in Kerala, broadly speaking, four species are mainly observed in land territory according to modern biology,<sup>3</sup> namely, (1) the Indian cobra or the spectacled cobra: *Naja naja* (Linnaeus, 1758); (2) the Russell's viper: *Daboia russellii* (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.<sup>4</sup> 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 (*Viṣavaidyā*) 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 PADAM (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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<sup>3</sup>Cf. Sharma 2002: 61-65, 71-82; U.S. Department of the Navy (Bureau of Medicine and Surgery) 1991: 115-130.

<sup>4</sup>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 (*Viṣavaidyā*) in Kerala

Traditional medical system of India or *Āyurveda* has eight clinical branches (*aṣṭāṅga*).<sup>5</sup> Therapeutics of poisonings (*viṣacikitsā*) or toxicology (*agadatantra*) is one of the eight clinical branches.<sup>6</sup> 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*.<sup>7</sup> 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, *Viṣavaidyā* and *Viṣavidyā*.<sup>8</sup> The former, *Viṣavaidyā* 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 *Viṣavaidyā* (medical treatment for poisoning) and *Viṣavidyā* (medical treatment associated with *mantra* for poisoning) in olden days,<sup>9</sup> but gradually the distinction seems to have become more prominent. Then the

<sup>5</sup> See, for example, CS Sū 30.28; SS Sū 1.7; AHS Sū 1.1.5.

<sup>6</sup> Cf. Unnikrishnan 2002.

<sup>7</sup> Menon 1992.

<sup>8</sup> Varier 2005: 317 (Malayalam ed.: 495-496). *Vaidya* means a learned person especially medical specialist or physician, sometimes it denotes medicine itself. *Viṣavaidyā* 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.

<sup>9</sup> 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 *Kāśyapasaṃhitā*. 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,<sup>10</sup> 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.<sup>11</sup>

*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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<sup>10</sup>PADAM interviews with Vaḷḷūr Śaṅkaran Nampūtiri (video record: PADAM VT, G003 and G004 on 26th August 2001) and with Aṇappampū Śaṅkaran Mahēśvaran Nampūtirippāṭṭi (video record: PADAM VT G019 on 7th September 2002). See Yamashita and Manohar 2007-2008.

<sup>11</sup>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 *Viṣavaidyā*

#### 3-1. Sanskrit and Prākṛit Texts

In Kerala, the seven literary works in Sanskrit or Prākṛit 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) *Uddīśa*, (4) *Utpala*, (5) *Mekhala*, (6) *Kālavañcana* and (7) *Lakṣaṇāmṛta*.<sup>12</sup> Among these works, (3) *Uddīśa*, (4) *Utpala* and (6) *Kālavañcana* are known only by name and the details of them are unknown today.

(1) *Aṣṭāṅgahṛdaya* is formally the *Aṣṭāṅgahṛdayasaṃhitā* (AHS) by Vāgbhaṭa.<sup>13</sup>

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 Utt<sup>14</sup> the 35th-38th chapters are devoted to āyurvedic toxicology. The 35th chapter contains the general theory of poison and its treatment (*viṣapraṭiṣedha*); the 36th chapter: the treatment of poisonous snakebites (*sarpaviṣapraṭiṣedha*); the 37th chapter: the treatment of poisonous insects, spiders, scorpions and so forth (*kīṭa-lūtādiviṣapraṭiṣedha*); the 38th chapter : the treatment of poisonous bites of mice and dogs (*mūṣikālarkaviṣapraṭiṣedha*).

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

(3) *Uddīśa*<sup>15</sup> 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 Prākṛit work, the *Haramekhalā* of around the 10th century C.E.<sup>16</sup>

(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 (*Viṣavaidyā*).

<sup>12</sup>Varier 1985: 57; Varier 2005: 317-318 (Malayalam ed.: 495-496).

<sup>13</sup>Vāgbhaṭa is popularly known as 'Vāhaṭa' in Kerala.

<sup>14</sup>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 *Suśrutasaṃhitā*, but, as its title indicates, it forms an integral part of the treatise." in Meulenbeld 1999-2002, IA: 653.

<sup>15</sup>There is a tantric text called *Uddīśatantra*, but this text seems to have little relation to the poison-healing system in Kerala. Cf. Meulenbeld 1999-2002, IIA: 538-539.

<sup>16</sup>Cf. Meulenbeld 1999-2002, IIA: 130-135.

(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.<sup>17</sup>

In addition to the above mentioned seven works, the *Carakasamhitā* (CS), the *Suśrutasamhitā* (SS) and other classical works of *Āyurveda*, especially the chapters of āyurvedic toxicology<sup>18</sup> have been referred to by the native practitioners in Kerala. These Sanskrit and Prākṛit 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, *Puḷḷayārpaṭaḷam*<sup>19</sup> 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) *Prayogasamuccaya* 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*<sup>20</sup> 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 *Prayogasamuccaya* is written by Koccuṇṇi Tampurān (1870-1937) in Malayalam. This text is relatively new, but the author says that some old

<sup>17</sup> According to Meulenbeld 1999-2002, IIA:143, 457-458; IIB: 470, the *Lakṣaṇāmṛta* of Sundara Bhaṭṭācārya has been edited with a Sanskrit commentary called *Marmapṛakāśikā* and a Malayalam translation, by E.P.Subrahmaṇya 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.

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

<sup>19</sup> MSS No.583 in Manuscript Library of the Government Sanskrit College, Tripunithura.

<sup>20</sup> Cf. Meulenbeld 1999-2002, IIA: 456, IIB: 468.

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 Mēnōn) (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 *Viṣamocaṇa*, the *Viṣavaidyasāra*, the *Viṣavaidyasārasaṅgraha*, the *Viṣavaidyasārasamuccaya*,<sup>21</sup> the *Viṣavaidyapāṭṭi*, the *Sāradarpaṇa* and so forth.<sup>22</sup>

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. *Kārāṭṭu 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*

<sup>21</sup> The *Viṣavaidyasārasamuchaya* is exceptionally written in Sanskrit.

<sup>22</sup> For the manuscripts of the *Viṣacandrikā*, see Sastry 2002: 185, No.2828; the *Viṣacikitsā*, see Sastry 2002: 185, No.2829; 192: Sup. 27; the *Viṣamocaṇa*, see Sastry 2002: 185, No.2837; the *Viṣavaidyasāra* by Kottayam 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.<sup>23</sup> Kārāṭṭu Nampūtiri’s tradition has been the main stream of *Viśavaidya* practices in Kerala and the residence of Kārāṭṭu Nampūtiri’s family still exists in Kurumbranād near Kozhikode (Calicut).<sup>24</sup> 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 *Brāhmins*, 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 Cerukūlappurattū Kṛṣṇan Nampūtiri (1879 - 1966) and so forth. Vallūr Śaṅkaran Nampūtiri (1917- ), a famous living practitioner of *Viśavaidya* in Kerala is one of the disciples of Cerukūlappurattū Kṛṣṇan Nampūtiri.<sup>25</sup>

#### 4-2. Kōkkara Nampūtiri

Among those *Viśavaidya* 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 *Viśavaidya* practitioners in Kerala,<sup>26</sup> we often heard the name of Kōkkara Nampūtiri as an innovator of *Viśavaidya* 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.<sup>27</sup>

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.

<sup>23</sup> Jyotosnikā, *Pāraṃparyādhikāra* 11 (Ernakulam, 2nd ed., 1124 (A.D. 1948): 91).

<sup>24</sup> Cf. Namboodiri and Nambudiripad 2001.

<sup>25</sup> Cf. Shankar 2004: 144-147.

<sup>26</sup> See Footnote 10 of this paper.

<sup>27</sup> Cf. Unithiri 2004: 200; Namboodiri and Nambudiripad 2001.

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. Avaṇapparaṁpū Śaṅkaran Mahēśvaran Nampūtirippāṭṭu (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.<sup>28</sup> Among them, Rama Varma Kunjukkidaṁ (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 Kōkkara Nampūtiri, and probably he (Midukkan Tampurān) learnt toxicology also from his elder brother, Rama Varma Kunjukkidaṁ (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.<sup>29</sup>

Koccuṇṇi 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. Mūssatṭu of the same period as Koccuṇṇi Tampurān wrote as follows:

<sup>28</sup>Cf. Thampurān (n.d.): 12.

<sup>29</sup>Mooss 1937: 123-124, “His Highness Kerala Varma”.

*Viṣavaidyān* (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.<sup>30</sup>

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-*Āyurvedic* movement of Kerala in this period.

### 5. *Viṣavaidyā* and the Theory of *Āyurveda*

The native poison-healing system or *Viṣavaidyā* 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 (*Viṣavaidyā*) 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

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<sup>30</sup>From the autobiography of K.V. Müssatū translated by Ananda E. Wood, Wood 1985: 88-89.

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*.<sup>31</sup> 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.<sup>32</sup>

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 (*saṃsarga*) 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 *Viṣavaidya* 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 *kaṭu* (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

<sup>31</sup> *Prayogasamuccaya* 1998 ed.: 112-113, 1999 ed.: 133; *Kriyākaumudī* 292-293; *Viṣavaidyasārasamuccaya* 1961 ed.: 75-76, 2006 ed.: 132-133. Cf. Nambootirippad 2002: 328; Vēṭṭattū 2004: 61-63.

<sup>32</sup> The fifth chapter of the *Prayogasamuccaya* in which the *Viṣaharilehya* is explained seems to be based on an old Sanskrit text called *Kālavañcana*, 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 it. Sweet, sour and saline *rasas* aggravate *kapha* while pungent, bitter and astringent pacify it (Translated by P.V. Sharma).<sup>33</sup>

The original taste of the *Viṣaharilehya* is highly bitter (*tikta*), mainly because it contains the seeds of a medicinal plant called *attañña* in Malayalam, *koṣātakī* in Sanskrit<sup>34</sup> or *Luffa acutangula* (L.) Roxb. var. *amara* (Roxb.) C.B. Clarke.<sup>35</sup> 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 *mūrkhana* 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 *aṇali* 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, *śaṅkhuvarayan* or *veḷḷikkeṭṭan* in Malay-

<sup>33</sup> CS Vi 1.6: *tatra doṣaṃ ekaikaṃ trayastrayo rasā janayanti, trayastrayaścopaśamayanti. tadyathā, kaṭutiktakaṣāyā vātaṃ janayanti, madhurāmlalavaṇās tv enaṃ śamayanti; kaṭv-amlalavaṇāḥ pittaṃ janayanti, madhuratiktakaṣāyās tv enaṃ śamayanti; madhurāmlalavaṇāḥ śleṣmāṇaṃ janayanti, kaṭutiktakaṣāyās tv enaṃ śamayanti.* And also see BhS Vi 1.5cd-13ab; CS Sū 1.66; SS Sū 21.19, 21, 23; AHS Sū 10; AHS Ni 1.14-18, 3.1-12; AS Sū 18, 20.17-18, AS Ni 1.13-15. Cf. Meulenbeld 1987.

<sup>34</sup> *Koṣātakī*, *kṛtavedhana*, *kṣveḍa* and *mṛdaṅgaphala* are described as synonyms in CS Ka 6.3.

<sup>35</sup> Cf. Chopra 1956: 157.

alam, or presumably krait, because in AHS U 36.2cd-3ab, *rājimañta*'s poison is described as sweet, cold; and it aggravates *kapha*.<sup>36</sup> 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 (*Viṣavaidyā*), it is not unnatural to presume the existence of such kind of snakes through their deductive approach based on the *tridoṣa* theory.<sup>37</sup> Similarly, many kinds of poisonous snakes classified in the āyurvedic texts<sup>38</sup> 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 (*Viṣavaidyā*) 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.

## 6. Concluding Remarks

There is room for further investigation on the traditional poison-healing system (*Viṣavaidyā*) 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.

### 6-1. Cross-cultural and Cross-sectional Relationships

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

<sup>36</sup> AHS Utt 36.2ab-3cd: *viśeṣād rūkṣakaṭukam amloṣṇaṃ svāduśīṭalam. viṣaṃ darvīkarā-dīnāṃ kramād vātādikopanam.*

<sup>37</sup> Cf. Menon 1992: 23-24.

<sup>38</sup> For example, in SS Ka 4.9cd-13ab, snakes are classified into 80 types, namely, *darvīkara* 26 types, *maṇḍalin* 22 types, *rājimat* 10 types, *nirviṣa* (non-poisonous) 12 types, *vaikarañja* or *vyantara* (hybrid) 3 types and *vaikarañjobhava 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:	<i>Aṣṭāṅgahṛdayasaṃhitā</i>
AS:	<i>Aṣṭāṅgasaṅgraha</i>
BhS:	<i>Bhelasamhitā</i>
Ci:	<i>Cikitsāsthāna</i>
CS:	<i>Carakasaṃhitā</i>
Ka:	<i>Kalpasthāna</i>
Ni:	<i>Nidānasthāna</i>
SS:	<i>Suśrutasamhitā</i>
Sū:	<i>Sūtrasthāna</i>
Utt:	<i>Uttarasthāna</i>
Vi:	<i>Vimānasthāna</i>

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- AS: Vṛddhavāgbhaṭa, *Aṣṭāṅgasanigrahaḥ Induvyākhyāsahitaḥ*. Ananta Dāmodara Āṭhavalē ed. Puṇe, 1980.
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