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Siddha Medicine in Tamil Nadu

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English abstract

The author presents a detailed insight into the principles and practices of the Tamil medical tradition of *Siddha*. *Siddha*'s history along with its principles of diagnosis and treatment is compared to that of north India's Ayurvedic medical tradition. In this way, both traditions of Indian medicine are understood in relationship to one another.

Tradition attributes a divine origin to *Siddha* medicine. Both the universe and the human body derive from the same five basic elements: wind, space/ether, fire, water, and earth. They combine to provide each individual with his or her unique configuration of the three basic humours or *doshas* in human beings: wind, bile, and phlegm, called the person's basic nature. A skilled physician uses various methods, including the examination of the patient's pulse and urine, to diagnose an imbalance in the patient's basic nature. Treatment, aimed at the restoration of the imbalance, involves the use of plant-based and especially metal- and mineral-based medicines, which are said to be imbued with an esoteric substance called *muppu*.

The article concludes with a discussion of *Siddha* medicine's uncertain origins and its place in the contemporary world of medicine.



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Dansk resumé

Siddha lægevidenskaben i Tamil Nadu.

I artiklen 'Siddha Medicine in Tamil Nadu' giver forfatteren et detaljeret indblik i principperne bag den traditionelle tamilske lægevidenskab *Siddha*. Gennem en sammenligning med den oldindiske lægevidenskab *Ayurveda*, præsenteres *Siddha* medicinens historie samt principperne bag diagnosticering og behandling. Desuden sættes opskrifter på medicin i relation til det verdensbillede, inden for hvilken medicinen forstås.

Siddha medicinens udøvere tilskriver den en guddommelig oprindelse. Både universet og menneskekroppen stammer fra de samme elementer: vind, ild, æter, jord og vand, og de forskellige elementer tilskrives underinddeling efter underinddeling, indtil en kompleks lægevidenskabelig kosmologi tegner sig og danner grundlaget for behandling.

Diagnosticeringen foregår ved en vurdering af patientens unikke sammensætning af vind, galde og flegma, som på tamilsk er kombinationer af jord, vand, ild, vind og æter. For at finde frem til en prognose og diagnose benytter *Siddha* læger blandt andet puls- og urinundersøgelser. Behandlingen tager udgangspunkt i alkyemi, plantemedicin, og et magisk sammensat stof, som på tamilsk kaldes *muppu*. Tilsammen bruges dette både til at helbrede, og især til at forebygge sygdomme.

Artiklen afsluttes med en diskussion af *Siddha* lægevidenskabens usikre oprindelse og dens rolle og udbredelse i verden i dag.

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Siddha Medicine in Tamil Nadu

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Introduction

Three traditional medicinal systems predominate in modern India: Ayurveda, Siddha, and Unani. Ayurveda is found mostly in northern India and in Kerala in the south, Siddha medicine occurs in Tamil Nadu and parts of Kerala, and Unani, which derives from Arabic medicine, is found throughout India, mainly in the urban areas. This essay focuses on Siddha medicine (Tamil: *Citta Vaittiyam*) and its history and practice in South India, with an eye towards the similarities and differences between Siddha medicine and Ayurveda.

Research into Siddha medicine in Tamil Nadu has revealed certain difficulties which must be overcome in order to understand properly this medical system and its history. The central problem lies with the reliability of the secondary sources, which are written primarily by Tamil Siddha doctors. Very little scholarship on the subject has been carried out by western students and scholars of India and Indian medicine.

Due to the increased awareness of Tamil's Dravidian linguistic roots over the past decades, a strong nationalist movement has grown up in Tamil Nadu. Tamilians consider their cultural and linguistic heritage to be older and more important than that of the Indo-Aryans of northern India; some even claim their ancestors were the first civilised humans on the planet. The fire of this controversy has recently been kindled by a debate centring on the still-to-be-deciphered script of the so-called Indus Valley Civilisation. This ancient urban culture, which extended along the Indus River and its tributaries in what is now Pakistan, resembled the great civilisations of ancient Egypt and Mesopotamia in size, development and age. One side of the debate maintains that the script represents a language probably of Dravidian origin, while the other side claims that it does not represent a language at all. Tamilians, whose language is Dravidian, are anxiously following the debate, for if the former side prevails, it would confirm their antiquity on the Indian subcontinent. The lens through which Tamilians look at their own history will always distort the image in favour of Tamil superiority and antiquity.

History

References to Ayurveda occur early in Tamil literature. Already in the mid-fifth century C.E. text, *Cilappatikara*, there is reference to Ayurveda (Tamil: *āyulvetar*). Mention of the three humours (Tamil: *tiritocam*, Sanskrit. *tridosha*) occurs in the *Tirukural*, a collection of poems that dates from around 450-550 C.E.

The first Tamil Siddha text is the *Tirumandiram* written by Tirumular and

dated probably to around the 6th or 7th century C.E. In it there is mention of alchemy used to transform iron into gold; but no specific references to Tamil medicinal doctrines are found. The major sources of Siddha medicine belong to religious groups who call themselves Kayasiddhas. They emphasised the “perfection of the body” by means of yoga, alchemy, medicine, and certain types of Tantric religious rituals. Their works date from about the 13th to the 14th century C.E., and are attributed to numerous authors including Akattiyar (Sanskrit: Agastya), the traditional founder of Siddha medicine and Teraiyar (c. late 17th century), who is said to have written twelve works on medicine, and whose famous disciple Iramatevar travelled to Mecca in the late 17th or early 18th century where he studied, converted to Islam, and took on the name Yakkopu (i.e., Jacob). Most critical scholars of Siddha agree that on the basis of their language, the numerous texts on Siddha medicine, which present it as a system of healing, cannot be older than the 16th century. We must, therefore, acknowledge that Tamil Siddha medicine, as it is now exists in both theory and practice, began in Tamil Nadu around the 16th century, but elements of healing practices which became part of Siddha medicine, including those they hold in common with Ayurveda, came from an earlier period.

Tamil folklore surrounding healing shares a common origin with Buddhism from northern India. In order to trace the origin of the name Teraiyar, legend says that the Akattiyar performed a trephination on a sage in order to remove a toad (*terai*) from inside his skull. However, it was Akattiyar’s disciple who, with an instrument, made the frog jump into a bowl of water. Because of his skill in removing the toad, Akattiyar gave the disciple the name Teraiyar who is, however, a different person from the late 17th century medical author of the same name.

This is a particularly interesting legend because there is a similar account in Buddhist literature. In its earliest version found in the Pali texts of the Buddhist Canon, a skilled physician, Jivaka Komarabhacca, opened up the skull of a merchant from Rajagriha and removed two centipedes by touching them with a hot poker. The merchant made a full recovery. Versions of this folk story occur in the Sanskrit literature of later Mahayana Buddhism and were translated into Tibetan and Chinese. The uniqueness of the story as a remarkable medical accomplishment and its spread throughout Buddhist Asia testifies to the influence of Buddhism in the dissemination of medical knowledge in pre-modern India.

Like all systems of Hindu knowledge, Siddha medicine attributes its origin



Siddha medical manuscripts in Tamil.



(Photos: Christian Sébastia)

Siddhar: Agattiyar (Agastya).

to a divine source; hence its knowledge is sacred and eternal, passed down to humans for the benefit of all humanity. According to Hindu tradition, the god Shiva transmitted the knowledge of medicine to his wife Parvati, who in turn passed it on to Nandi, from whom it was given to the first practitioners of Siddha medicine, the Siddhars. Tradition lists a total number of eighteen Siddhars, beginning with Nandi and the semi-legendary Agattiyar through to the final Siddhar, Kudhambai.¹ They are the acknowledged transmitters of Siddha medical doctrines and practices. By attributing a divine or extra-human origin to its medicine, the Tamil Siddhars have assured Siddha medicine a legitimate place in the corpus of Hindu knowledge. Although the transmission begins with Nandi, who in the form of a bull is Shiva's mode of transportation, tradition attributes the origin of medicine as well as of the Tamil language to Agattiyar.

The principles of Siddha medicine

According to Siddha cosmology, all matter is composed of two primal forces of matter (*shiva*) and energy (*shakti*). These two principles of existence operate in humans as well as nature, and connect the microcosm with the macrocosm. This is expressed by the association between the human body and the signs of the zodiac in Indian astrology. The formulation of the sequence of body parts is interesting because it follows a Babylonian and Greco-Roman system of head-to-toe rather than an Indian one, which begins at the toes and ends at the

¹ According to one tradition, the Siddhars are Nandi, Agasthiyar, Tirumular, Punnakkeesar, Pulasthiyar, Poonaikannar, Idaikkadar, Bogar, Pulikaisar, Karuvurar, Konkanavar, Kalangi, Sattainathar, Azhuganni, Agappai, Pumbatti, Theraiyar and Kudhambai. Other traditions give a slightly different sequence of enumeration.

head. This is illustrated in the following list, using Latin-based zodiac names.

1. ♈ Áries (0°)= the neck
2. ♉ Taurus (30°)= the shoulders
3. ♊ Gémini (60°)= the arms and hands
4. ♋ Cancer (90°)= the chest
5. ♌ Leo (120°)= the heart and the stomach
6. ♍ Virgo (150°)= the intestines
7. ♎ Libra (180°)= the kidneys
8. ♏ Scórpíio (210°)= the genitals
9. ♐ Sagittáarius (240°)= the hips
10. ♑ Capricornus (270°)= the knees
11. ♒ Aquáarius (300°)= the legs
12. ♓ Pisces (330°)= the feet

In addition to this cosmic connection which occurred in all traditions of Indian astrology, Siddha medicine relied entirely on Ayurveda for the medical doctrines that bridge the natural world and the human body. In modern day Siddha practice, evidence of the following epistemology is not always noticed.

First, there are the five gross elements (*pañcamahabbutam*), which make up the entire natural world: solid/earth, fluid/water, radiance/fire, gas/wind, and ether/space. These combine in certain ways to give the three bodily humours, called *muppini* in modern Tamil. They are said to be in the proportion of 1 wind to ½ bile to ¼ phlegm, which is opposite to that found in Ayurveda:

1. **Wind** (Tamil: *vatham*, Sanskrit: *vata*) is a combination of space and wind, and is responsible for nervous actions, movement, activity, sensations, etc. It is found in the form of the five bodily winds.
2. **Bile** (Tamil: *pittam*, Sanskrit: *pitta*) is made up of fire alone and takes care of metabolism, digestion, assimilation, warmth, etc. Its principal seat is in the alimentary canal from the cardiac region to small intestines. Some Ayurvedic formulations state that bile is a combination of the elements fire and water.
3. **Phlegm** (Tamil: *siletuman*, Sanskrit: *shleshman*, *kapha*) is a combination of earth and water and is responsible for stability in the body. Its principal seats are in the chest, throat, head, and joints.

Next, there is the shared doctrine of the seven tissues (Tamil: *dhātu*) of the body: lymph/chyle, blood, muscle, fat, bone, marrow, and sperm and ovum. Finally, there are the five winds (Tamil: *vātham*, Sanskrit: *prāna*) which circulate in the body and initiate and carry out bodily functions: *prānam* is the inhaled breath and brings about swallowing; *āpanam* is the exhaled breath and is responsible for expulsion, ejection and excretion; *samanam* helps digestion; *vyānam* aids circulation of blood and nutrients; and *udanam* functions in the upper respiratory passages. There are also five secondary winds: *nāgam*, the air of higher intellectual functions; *kurmam*, the air of yawning; *kirukaram*, the air of salivation; *devadhattham*, the air of laziness; and *ghananjayam*, the air that acts on death.

Like Ayurveda, Siddha medicine maintains that the three humours predominate in humans in accordance with their nature and stage of life, and that they vary with the seasons. Every individual is born with a unique configuration of the three humours, which is called the individual's basic nature (Sanskrit: *prakṛiti*). It is fixed at birth and forms the basis of his or her normal, healthy state. However, during the three different stages of life and during the different seasons, one humour usually predominates, which is normal, but such a domination of a humour must be understood in relation to the person's fundamental nature in order to maintain the balance that is the individual's basic state. The classification of the humours according to stages of life and seasons in Siddha differs from that found in Ayurveda. In the case of the seasons, the variation is attributed simply to the different climatic conditions that occur in the different parts of the year in the northern inland areas and the southern, Tamil coastal and inland environments.

According to Siddha, wind predominates in the first third of life, bile in the second third, and phlegm in the last third of life, while in Ayurveda phlegm dominates the first third and wind the last third of life. In terms of climate the north is colder in the winter (Dec.-Jan.) than is the south and the west coast has rain in June and July, when the east coast is extremely hot. A dry, cold climate is rare in the south, but it is precisely that climate which increases wind. Bile and phlegm, on the other hand, are increased when it is hot and wet.

Diagnosis in Siddha medicine

The diagnosis of disease in Siddha medicine relies on the examination of eight anatomical features (*envagi thaervu*), which are evaluated in terms of the three humours:

1. the tongue: black indicates wind, yellow or red bile, and white phlegm; an ulcerated tongue points to anaemia;
2. the complexion: dark indicates wind, yellow or red bile, and pale phlegm;
3. the voice: normal indicates wind, high pitched bile, and low pitched phlegm;
4. the eyes: muddy coloured indicates wind, yellowish or red bile, and pale phlegm;
5. the touch: dryness indicates wind, warmth bile, and cold, clammy phlegm;
6. the stool: black indicates wind, yellow bile, and pale phlegm;
7. the pulse (see below); and
8. the urine (see below).

Most modern Siddha doctors place the greatest emphasis on the examination of the pulse, whereby both diagnosis and prognosis can be obtained through one process. These methods of diagnosis also occur in Ayurveda, but only after the 14th century. Prior to this time and in the Ayurvedic classical literature, diagnosis of disease was determined by a vitiation of one or more of the humours based on observation, touch and interrogation.

Siddha pulse diagnosis (Tamil: *nadiparitchai*, Sanskrit: *nadipariksha*), like that found in Ayurveda, in all probability owes its origins to Unani medicine. Moreover, it requires a highly developed sense of touch and a refined subjective awareness. According to Siddha, the following four conditions must not be present in the patient when doing a reading of the pulse:

1. oily hands,
2. a full stomach or hunger,
3. physical exhaustion, and
4. emotional distress.

Moreover, if a reading cannot be taken on the hand, other arterial points may be used, such as the ankle, neck, or ear lobes. It is also advisable to read the pulse at different times of the day and during different seasons of the year, since the body and the mind change during the course of the day and climatic conditions affect the person's psychological and physiological states.

The pulse is felt on the female's left and male's right hand by the doctor's

(Photos: Christian Sébastia)



Pulse diagnosis: Male.



Pulse diagnosis: Placement of fingers.

opposite hand, a couple of centimetres below the wrist joint using the index, middle, and ring fingers of the hand. Pressure should be applied by one finger after the other beginning with the index finger. Each finger detects a particular humour which in normal conditions has a movement representative of certain animals. The index finger feels the windy humour, which should have the movement of a swan, a cock, or a peacock; the middle finger feels the bilious humour, which should have the movement of a tortoise or a leach; and ring finger feels the phlegmatic humour, which should have the movement of a frog or a snake. Any deviation from these normal movements indicates which humour or humours are disturbed. If all humours are affected the pulse is usually rapid with a good deal more volume than normal. After long periods of practice under the guidance of a skilled teacher, a student can begin to detect subtle differences in the flow, volume, and speed of the pulse at the point of each of the three fingers. These changes correspond to abnormalities in particular parts of the body, which the skilled Siddha doctor can pin-point and for which the appropriate cure can be prescribed.

The examination of the urine (*muthira paritchai*) is another form of diagnosis in which Siddha medicine has demonstrated particular expertise. Not an original part of Ayurveda, urine examination probably derived from Unani medicine, where this form of diagnosis can be noticed in early Arabic and Persian medical literature. In addition to examining the urine for its colour, smell, and texture, Siddha medicine has developed a technique for determining the vitiated humour by reading the distribution of a drop of gingili (sesame) oil added to the urine. The meaning of the drop's configuration is as follows: longitudinal dispersal indicates windy humour; dispersal in a ring, bilious humour; and lack of dispersal points to phlegmatic humour. Moreover, a combination of two

types of dispersal means that two humours are involved; the slow dispersal in a circular form and a drop that forms the shape of an umbrella, a wheel, or a jasmine or lotus blossom indicates a favourable prognosis. If, however, the drop sinks, spreads rapidly with froth, splits into smaller drops and spreads rapidly, mixes with the urine, or spreads so that its pattern is that of an arrow, a sword, a spear, a pestle, a bull, or an elephant, the prognosis is unfavourable.

Finally, as in Ayurveda and Unani, the conditions of the eyes show which of the humours is vitiated as well as the patient's mental and emotional state: shifty, dry eyes point to wind; yellow eyes with photophobia indicates bile; watery, oily, eyes devoid of brightness reveals that phlegm is effected; and red, inflamed eyes show that all three humours are vitiated.

The principles of treatment in Siddha medicine

According to traditional Siddha thinking, a physician must be knowledgeable in alchemy, astrology, and philosophy; he must be able to apply intuition and imagination; he must not seek fame or fortune from healing; he must not treat a patient before a proper diagnosis has been reached; and he must use only medicines that he has prepared himself.

Treatment and pharmaceuticals are the two areas where Siddha differs considerably from Ayurveda. Like Siddha Yoga, the principle aim of Siddha medicine is to make the body perfect and not vulnerable to decay, so that the maximum term of life can be achieved. Like Ayurveda, Siddha places emphasis on positive health, so that the object of the medicine is disease-prevention. Beyond this fundamental agreement between the two systems, Siddha differs considerably from Ayurveda.

Siddha has developed expertise in five particular branches of medicine: general medicine, paediatrics, toxicology, ophthalmology, and rejuvenation, while traditional Ayurveda lists the following eight branches of medicine: general medicine, paediatrics, surgery, treatment of ailments above the neck, toxicology, treatment of mental disorders due to seizure by evil spirits, rejuvenation-therapy, and potency-therapy. Whereas Ayurveda prescribes a therapeutic regimen involving the "five purifying actions:" emetics, purgative, enemas, blood-letting and errhines, Siddha employs only purgation.

Siddha medicine has excelled in ophthalmology. It has two separate treatises devoted to the treatment of ninety-six different eye-diseases. Toxicology has formed a separate part of Siddha medicine and seems to be closely linked to indigenous systems of treating snake bites and other forms of poisoning. It

may have some affinity to the Visha Vaidya (poison-doctor) tradition practised by certain Nambudiri Brahmins of Kerala. Similar to this Keralan toxicological tradition, Siddha has adopted the Ayurvedic system of the three humours in order to explain the different effects of poison; but it remains fundamentally an indigenous and local toxicological tradition. It classifies the severity and cure by means of the number of tooth or fang marks left in the victim. Four, being the most severe, is incurable; and one, being the least severe, is cured by cold water baths and fomentation on the site of the bite.

Unlike Ayurveda, in which it forms a separate school of medicine, surgery *per se* is not a significant part of Siddha medicine. Medicated oils and pastes are applied to treat wounds and ulcers, but the use of a knife is hardly found in Siddha medicine.

Closely connected with the tradition of the martial arts in South India there developed a type of acupressure treatment based on the vital points in the human body, known as *varmam* (Sanskrit: *marman*). There are 108 points mentioned in the Ayurvedic classics, which identify them and explain that if they are injured, death can ensue. In Siddha medicine the number of important *varmam* points is also 108 (some say 107) out of a total of 400. Siddha doctors developed techniques of applying pressure to special points, called *Varmakkalai*, to remove certain ailments and of massaging the points to cure diseases. They also specialised in bone-setting and often practised an Indian form of the martial arts, called *cilampam* or *silambattam*, which involved a kind of duelling with staffs.

According to Dr. Brigitte Sébastia of the French Institute in Pondicherry, the art of *varmam* is particularly wide spread among the hereditary Siddha practitioners belonging to the Natar caste in the district of Kanyakumari in Tamil Nadu. The development of this special form of healing appears to have evolved naturally from the fact that the men of this caste, while carrying out their task of climbing coconut and borassus trees to collect the fruits and sap for toddy, occasionally fell from great heights. In order to repair the injury or save the life of a fall-victim, skills of bone-setting and reviving an unconscious patient by massage developed among certain families within the caste, who have passed down their secret art from generation to generation by word of mouth. In the past, rulers employed members of this caste to cure injuries incurred in battle and to overpower their enemies by their knowledge of the Indian martial arts.

Closely connected with Siddha Yoga, the Siddha system of rejuvenation-therapy, known as *Kayakalpa* (from Sanskrit, meaning “making the body com-

petent for long life”), marks the most distinctive feature of Siddha medicine. It involves a five step process for rejuvenating the body and prolonging life.

1. Preservation of vital energy via breath-control (Tamil: *vasiyogam* or Sanskrit. *pranayama*) and Yoga.
2. Conservation of male semen and female secretions.
3. Use of *muppu*.
4. Use of calcinated powders (Tamil: *chunnam*, Sanskrit: *bhasma*) prepared from metals and minerals, and
5. Use of drugs prepared from plants special to each Siddha doctor.

The esoteric substance called *muppu* is particular to Siddha medicine and may be considered as Siddha’s equivalent of the “philosopher’s stone.” Its



Varman point: Head.



Varman point: Chest.



Varman point: Foot.



Varman massage: Head.

(Photos: Christian Sébastia)

preparation is hidden in secrecy, known only by the guru and taught only when the student is deemed qualified to accept it. It is generally thought to consist of three salts (*mu-uppu*) called *puniru*, *kallupu*, and *vediyuppu*, which correspond respectively to the sun, moon, and fire. *Puniru* is said to be a certain kind of limestone composed of globules that are found underneath a type of clay called Fuller's Earth. It is collected only on the full-moon night in April, when it is said to bubble out from the limestone, and is then purified with the use of a special herb. *Kallupu* is hard salt or stone salt, i.e., rock salt, which is dug up from mines under the earth; or is obtained from saline deposits under the sea, or it can be gathered from the froth of sea water, which carries the undersea saline. It is considered to be useful in the consolidation of mercury and other metals. Finally, *vediyuppu* is potassium nitrate, which is cleaned seven times and

(Photos: Christian Sébastia)



Bonesetting fractured arms.

purified with alum.²

This religio-medical form of therapy is the cornerstone of the Siddha medical practice and provides the basis for the rich variety of alchemical preparations that make up the pharmacopoeia of Siddha medicine.

Alchemy and Siddha pharmacopoeia

The precise origin of the system of Siddha pharmacology is not known, but it seems to have been closely linked to the Tantric religious movement, which can be traced back to the 6th century C.E. in North India and influenced both Buddhism and Hinduism. It was strongly anti-Brahminical and stressed ascetic practices and religious rituals that involved “forbidden” foods and sexual practices and often included the use of alchemical preparations.

The alchemical part of Siddha is present from at least the time of Tirumular’s *Tirumandiram* (6th or 7th cent. C.E.), in which various alchemical preparations are mentioned. Alchemy is also found in Sanskrit texts from North India, but only from about 6th – 7th cent. C.E., and later became the integral part of Ayurvedic medicine called *Rasashastra*, “traditional knowledge about mercury.” In the classical treatises of Ayurveda, however, mention of alchemy is wanting and only certain metals and minerals are mentioned in late classical texts from the 7th century C.E. by the author Vagbhata. Since alchemy had reached a far greater level of development in Siddha medicine than in Ayurveda, it is believed that medical alchemy may well have begun in South India among the Siddha yogins and ascetics and was later assimilated into Ayurveda.

There are three groups of drugs in Siddha medicine: plant products (*mulaavargam*), inorganic substances (*thatuvargam*), and animal products (*jivavargam*), which are characterised by means of taste (*rasa*), quality (*guna*), potency (*virya*), post-digestive taste (*vipaka*), and specific action (*prabhava*), of which Ayurveda recognises all by quality (*guna*) as the principal characteristics of a drug. Siddha has further classified the inorganic substances into six types:

1. *muppu*: twenty-five or thirty-one varieties of salts and alkalis, which are water soluble and give out vapour when heated;

²The definition of *muppu* varies considerably. Some claim that it is prepared by a special process, involving the mixture of carbonates, rock-salt, calcium carbonate. Another claims that its preparation involves the salt known as *puniru*, which is a melted salt prepared from fuller’s earth and then converted into calcinated powder for use; another involves the addition of salts like *guru parpam* (oxide form quintessence), *guru tamiram* (copper quintessence), and *thurisu guru* (copper sulphate); while others make use of the salts of fuller’s earth (*puniru*) after removing its oiliness.

2. *pashanam*: sixty-four varieties (thirty-two natural, thirty-two artificial) of non-water soluble substances that emit vapour when heated;
3. *uparasam*: seven types of non-water soluble substances that emit vapour when heated. They include mica, magnetic iron, antimony, zinc sulphate, iron pyrites, ferrous sulphate and asafoetida (*bingu*); (Sanskrit and Tamil: *sahasravedi*);
4. *lobam*: six varieties of metals and metallic alloys that are insoluble, but melt when heated and solidify when cooled. They include gold, silver, copper, iron, tin, and lead;
5. *rasam*: drugs that are soft and sublime when heated, transforming into small crystals or amorphous powders such as mercury, amalgams and compounds of mercury, and arsenic;
6. *gandhakam*: sulphur which is insoluble in water and burns off when heated. *Rasam* and *gandhakam* combine to make *kattu*, which is a “bound” substance, i.e. a substance whose ingredients are united by a process of heating.

In addition there are thirteen varieties of gems and minerals, sixteen varieties of mud and siliceous earth, thirty-five varieties of animals, and twenty-four varieties of rocks.

Mercury and sulphur, combined to make mercuric sulphide, are the cornerstones of Siddha pharmacology and have been equated to the deity Shiva and his consort Parvati. The crucial ingredient in almost every Siddha alchemical preparation is mercury or quicksilver, which is used in five forms (*panchasthuta*): pure mercury (*rasa*), red sulphide of mercury (*lingam*), mercuric perchloride (*viram*), mercurous chloride (*puram*), and red oxide of mercury (*rasacheduram*). Although mercury plays a key role in both the Ayurvedic and Siddha forms of medical alchemy, mercury in its pure form is not found in India and, therefore, must be imported, often from Italy. If mercury never existed in its pure form in India, from where did alchemy come and how did it develop in India?

When combining drugs, Siddha has considered substances that form a natural affinity to each other, such as borax and ammonia sulphate, to be greater than the sum of its individual parts, and called it *nadabindu*, where *nada* is acidic and *bindu* is alkaline, or in the Siddha cosmology female Shakti mated with male Shiva. The most important mixture of this kind is alkaline mercury and acidic sulphur. Similarly, it has devised a classification of drugs as friends and foes. The former increases the curative effect, while the latter reduces it.

(Photos: Christian Sébastia)



Siddha medical herbal shop.

Siddha medical herb: *Datura*.

Grinding of medical herbs.



Decoction of medical herbs.

Six pharmaceutical preparations are common to both Siddha and Ayurveda. They can be administered internally or on the skin and include: calcinated metals and minerals (*chunnam*), powders (*churanam*), decoctions (*kudinir*), pastes (*karkam*), medicated clarified butter (*nei*), and medicated oils (*ennai*). Particular to Siddha medicine, however, are three special formulations: *chunnam*, metallic preparations that become alkaline, yielding calcium hydroxide, which must always be taken with another more palatable substance (*anupana*, “after drink”); *mezhu*, waxy preparations that combine both metals and minerals; and *kattu*, inextricably bound preparations, which are impervious to water and flame. Sulphur and mercury or mercuric salts are combined to make them resistant to heat. While on the fire, certain juices are added by drops to empower the substance. The drug can be kept for long periods and given in small doses once a day. It should not, however, be completely turned into a powder, but should be rubbed on a Sandal stone so as to yield only a few grains of the powerful substance.

Both Ayurveda's Rasashastra and Siddha's alchemy have devised slightly different methods for purifying or detoxifying metals and minerals, called *suddhi murai* in Tamil and *shodhana* in Sanskrit, before they are reduced to ash (Tamil: *chunnam*, Sanskrit: *bhasman*). Purification is done by one of two methods. One involves the repeated heating of sheets of metal and plunging them into various vegetable juices and decoctions.³ The other method, called "killing" (*marana*), entails the destroying of the metal or mineral by the use of power herbs, so that it loses its identity and becomes converted into fine powders, having the nature of oxides or sulphides, which can be processed by the intestinal juices. After this purification procedure, the metal or mineral is combined with its appropriate acid or alkaline and is prepared for its final transformation into an ash or "bhasman" by incineration in special furnaces made of cow-dung cakes, which are often replaced by electric ovens in more modern establishments.

After the purification of the metals and minerals, they are then turned into ash or calcinated powders and are ready to be used as medicines. There are nine principles that must be followed in the calcination of metals and minerals:

There is no alchemical process without mercury.

There is no fixation without alkali.

There is no colouring without sulphur.

There is no quintessence without copper sulphate.

There is no animation without conflagration.

There is no calcination without corrosive lime.

There is no compound without correct blowing.

There is no fusion without suitable flux.

There is no strong fluid without salammoniac.

The traditional incineration process may vary slightly among the different Siddha doctors, but all procedures require repeated heating in a fire fuelled by dung cakes. The number of burnings can reach 100 for certain preparations. In traditional Ayurveda, the duration and intensity of the heat is regulated by the size of the pile of dung cakes called a *puta* in Sanskrit. Siddha medicine has devised a method with a special substance made of inorganic salts, in Tamil called *jayani*, which reduces the number of burnings to only three or four. In order to increase the potency of the ash (*chunnam*), Siddha practitioners add the esoteric substance *muppu*, which seems to vary in composition from one Siddha

³ For instance *Jatropha curcus* purifies iron; *Oxalis corniculata*, corrosive sublimate; *Palmyra toddy*, white arsenic; and *Bassia longifolia* oil, zinc.

Siddha alchemy:



Arseniate salt.



Copper sulphide.

(Photos: Christian Sébastia)



Calcination.



Heating with dung cakes.



Removing burned mineral.



Purification of mercury 1.



Purification of mercury 2.



Purification of mercury 3.

doctor to the other. Other ingredients added to increase a *chunnam*'s potency are healthy human urine (*amuri*) or urine salts (*amuriuppu*) obtained from the evaporation of large quantities of urine. Neither of these additives is found in Ayurveda's Rasashastra.

According to modern Siddha medicine different metals have different healing effects. Mercury is antibacterial and antisyphilitic; sulphur is used against scabies and skin diseases, rheumatoid arthritis, spasmodic asthma, jaundice, blood poisoning, and internally as a stool softener; gold is effective against rheumatoid arthritis, and as a nervine tonic, an antidote, and a sexual stimulant; arsenic cures all fevers, asthma, and anaemia; copper is used to treat leprosy, skin diseases, and to improve the blood; and iron is effective against anaemia, jaundice, and as a general tonic for toning the body.

In terms of herbal drugs, the Siddha practitioners have a materia medica of at least 108 plants and plant products, some of which are imported from as far as the Himalayas. These vegetal drugs are used in three ways in Siddha medicine. As mentioned earlier, certain drugs purify the minerals and metals before they are transformed into ash. Many plant and plant substances are used to eliminate waste products from the body through a process of body purgation involving purgation of the nose and throat, enemas, and laxatives, and the removal of toxins from the skin by the application of medicated pastes. This procedure resembles the process of the five methods of purification (Sanskrit: *pañcakarman*) in Ayurveda.⁴ Finally, plants are employed in specific ailments and in the general toning of the body. Siddha doctors also used animal products, such as human and canine skulls in the preparation of a special "ash" or *chunnam* (Tamil: *peranda chunnam*), which is said to be effective against mental disorders.

Despite the irrefutable scientific evidence that shows most of these minerals and metals to be toxic to the human body, both Ayurvedic and Siddha practitioners continue to use them in their every day treatment of patients. They claim that their respective traditions have provided special techniques to detoxify the metals and minerals and to render them safe and extremely potent.

In order to make their products more accessible to a western clientele, Ayurvedic pharmaceutical manufactures in India have begun to adopt the western system of "the good manufacturing policy" and resort to Ayurveda's rich

⁴ This process entails pre-purgation, purgation, and post-purgation. There are five methods of purgation: head purgation with herbal decoctions inserted in the nasal passages, the use of herbal laxatives, the use of herbal enemas, vomiting, and bloodletting, mostly, with leeches.

pharmacopoeia of plant-based medicines. Such is not the case with Siddha medicine, which has yet to experience the financial rewards that come from serving a western clientele.

Conclusion

Unlike Ayurveda, which has a long and detailed textual tradition in Sanskrit from around the beginning of the Common Era, Siddha medicine's textual history in Tamil is vague and uncertain until about the 13th century C.E., when there is evidence of medical treatises. Most of the knowledge about Siddha medicine comes from modern-day practitioners, who often maintain a historically unverified development of their own tradition and who because of the upsurge of Tamil pride tend to make fantastic claims about the age and importance of Siddha medicine vis-à-vis its closest rival in India, Ayurveda.

Based on the evidence thus far marshalled by means of written secondary sources and the reports of fieldworkers in Siddha medicine and informed by my own observations, it would appear that Siddha and Ayurveda share a common theoretic foundation, but differ most strikingly in their respective forms of therapeutics. This would tend to suggest that the original form of Siddha medicine consisted principally in a series of treatments for specific ailments. To these therapeutic measures was added a theoretical component based among others on Ayurveda and perhaps also Unani in the form of diagnosis by means of pulse and urine, which could well have been Ayurveda's source for the same means of diagnosis. The same pattern of medical development, which involves practice followed by theory, may also apply to other forms of Indian medicine, beginning with Ayurveda itself and including the more recent Visha Vaidya tradition of Kerala. The core of Siddha medicine is its alchemy, whose fundamental principles conform to the alchemical traditions of ancient Greece and China, and of Arabic alchemy. It would, therefore, seem possible that both Siddha and Ayurvedic alchemy might well have derived from one or a combination of these older traditions. Further investigation into each system in relationship to Indian alchemy could reveal important connections between Indian and other systems of alchemy and medicine.

Ayurveda has left the soil of India and has found fertile ground in the West, where alternative and complementary forms of healing have become popular in recent decades. There are clear signs on the horizon that Siddha medicine is likely to follow the same course. These Indian systems of medicine must undergo changes and adaptations to be accommodated in a foreign environment.

Some of these modifications have found and will continue to find their way back to India, where they become integrated into the indigenous system. Such has been the pattern of medicine in most parts of the world, so that the final chapter on a particular medical history can never be written. In fact, an understanding of Siddha's medical history can only be seen in light of its change and adaptation over time.

Bibliography

- Hausman, Gary J. Siddhars (1996): "Alchemy and the Abyss of Tradition: 'Traditional' Tamil Medical Knowledge in *Modern' Practice*. Ph.D. dissertation, Ann Arbor, University of Michigan.
- Narayanaswami, V. (1975): *Introduction to the Siddha system of medicine*. Pandit S.S. Anandam Research Institute of Siddha Medicine, Madras.
- Natarajan, Kanchana (2004): "'Divine Semen' and the Alchemical Conversion of Iramatevar." *The Medieval History Journal*, 7.2, pp. 255-78.
- Niranjana Devi (2006): *Medicine in South India*, Esvar Press, Chennai.
- Scharfe, Hartmut (1999): "The doctrine of the three humours in traditional Indian medicine and the alleged antiquity of Tamil Siddha medicine." *Journal of the American Oriental Society*, 119.4, pp. 609-636.
- Shanmugavelan, A. & A. Sundararajan (ed.) (1992): *Siddhar's Source of Longevity and Kalpa Medicine in India*. Directorate of Indian Medicine and Homoeopathy, Madras.
- Subramania, S.V & V.R. Madhavan (1984): *Heritage of the Tamils. Siddha Medicine*. International Institute of Tamil Studies, Madras.
- Uthamaroyan, C.S., Anaivaari R Anandan (eds.) (2005): *A compendium of Siddha medicine*. Department of Indian Medicine & Homoeopathy, Government of Tamilnadu, Chennai.
- Venkatraman, R. (1990): *A history of the Tamil Siddha Cult*. N.S. Ennes Publications, Mandurai.
- Zvelebil, Kamil V. (2003): *The Siddha quest for immortality*. Mandrake of Oxford, Oxford.
- Zysk, Kenneth G. (2000): *Asceticism and healing in ancient India*. 1991; rpt. Motilal Banarsidass, Delhi.