



REVIEW ON DIAGNOSTIC METHODS IN SIDDHA SYSTEM OF MEDICINE

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ABSTRACT

The Siddha System is said to have emerged in antiquity, from the highly evolved consciousness of the Siddhars. The Diagnostic methodology in Siddha system is unique as it is made purely on the basis of clinical acumen of the physician. The diagnosis is arrived from the examination of sense organs, Interrogation, eight fold examination, wrist circumference sign, astrology & assessment of three derangement humours. Examination of the patients on these principles is the first duty in Siddha as well as Ayurveda Physicians before he applies or employes any therapeutical remedy. When at times there were no technological advancements around as of today, Siddhar's tried to convey the art of diagnosing and the appreciation of prognosis to the contemporary world. This is an attempt to understand a Siddha system of diagnosing pathological conditions which is a non invasive, highly cost effective procedure and it can be used for both diagnostic and prognostic purposes.

KEYWORDS: Diagnostic methods, Naadi, Three humours, Siddha System, Neikkuri, Wrist circummetric sign.

INTRODUCTION

According to Siddha System, human body sustains the state of healthy living via keeping the Three Humors-Vatham, Pitham and Kabam in equilibrium, influenced by dietary habits, daily activities and the environment around. The three humours represent the five basic elements or bhuthas. In case this equilibrium is disturbed, it leads to a condition known as disease. There are several ways of diagnosis through which disease can be known. In the Siddha system, the definite principle adopted in diagnosing the disturbed Humors individually or in combination with one or two of the remaining Humors, is the application of the science of diagnostic methods. In order to ensure the diagnosis of faults of three humors there are also additional tests adopted and they are body as a whole, voice, tongue, eye, external appearance of the patient, etc.,^[4] Diagnosis is made by means of (1) observation – observing smell, taste, features or facial expressions (2) Experiment – examination of sense organs; of urine, faeces and tastes of pulse and heart beat, (3) Questioning the patient on several points as regards duration of the disease, his sufferings and habit in respect of food and drink and the digestion and indigestion, sleep, vitality and strength, the state of mind and mental troubles.^[2] The Siddhars are of opinion that it is only spiritual knowledge endowed with inner vision that will enable a physician to diagnose a disease at sight and suggest forthwith remedies therefore. In order to enable a physician to learn more about the accessory factors or signs of the disease. More elaborate

and expensive laboratory methods of the modern days are not all necessary as they would only tend to leave the physician quite in the dark, whose judging as to the nature of the disease inside the body, which alone is beneficial from a therapeutical point of view, according to Siddha system.

MATERIALS AND METHODS

Diagnostic methods

Examination by the five Sense organs

1. Sevi (Ear) -a structural component of 'Aagayam' bootham
2. Thol (Skin) -a structural component of 'Vaayu' bootham
3. Kann (Eye) -a structural component of 'Thee' bootham
4. Naakku (Tongue) -a structural component of 'Neer' bootham
5. Mookku (Nose) -a structural component of 'Mann' bootham^[1]

Examination by the functions of sense organs

1. Kaetal -Hearing, a functional component of Aagayam bootham
2. Thoduthal -Touch, a functional component of Vaayu bootham
3. Paarthal -Vision, a functional component of Thee bootham
4. Suvaithal -Taste, a functional component of Neer bootham

5. Nugarthal -Smell, a functional component of Mann bootham.^[2]

Interrogation

The physician should interrogate the patient's name, age, occupation, native place, Socio economic status, dietary habits, present complaints, history of present illness, aggravating factors, history of previous illness.^[3]

Eight methods of diagnosis

According to the text Agathiyar Vaithiya Sinthaamani Venba – 4000, the Eight methods of diagnosis Includes Naadi (Pulse) Naa (Tongue), Niram (Color), Mozhi (Voice), Vizhi (Eyes), Malam (Faeces), Neer (Urine) and Sparisam (Touch & palpation).^[3] As per Saint Therayar, the eight methods of diagnosis are Naadi (Pulse) Naa (Tongue), Niram (Color), Mozhi (Voice), Vizhi (Eyes), Malam (Faeces), Neer (Urine) and Sparisam (Touch & palpation).^[4] As per Sage Agathiyar, Naadi (pulse), Malam (stools), Salam (urine), Niram (complexion), Gunam (character), MugaKuri (facies), Thegam (constitution), Vayadhu (age), Elamai are the diagnostic tools. According to literature KannuSaami Paramparai Vaithiyam, Naadi, Naa, Thegam, Thodu unarvu, Niram, Malam, Salam and Vizhi are the diagnostic tools. According to Agathiyar Vaithiya Rathina Surukkam, the diagnostic tools are Naadi (Pulse), Vizhi (Eyes), Kurigunam (Signs), Nalkurippu (Chronology), Maeni (Constitution), Malam (Stools) and Neer (Urine). According to the Paripoorana Naadi, the diagnostic parameters are Mugam (Facies), Pal (Teeth), Vai (Mouth), Naakku (Tongue), Kaayam, Irumalam, Naadi (Pulse). According to Dhanvantri Vaithiyam, the diagnostic parameters are Naadi (Pulse), Mugam (Facies), Malam (Stools), Neer (Urine), Udal (Constitution), Vizhi (Eyes), Naa (Tongue), Pal (Teeth).

The Eight methods of diagnosis is as follows

Examination of Tongue

The tongue is the organ of taste and speech. The physician should observe the size, shape, contour, surface, margins, and color. Different areas of the tongue correspond to different organs of the body. Hence by correlating the location of the blemishes on tongue, the Siddha physician can determine which organs of the body are out of balance. A whitish tongue indicates Kapham imbalance and mucus accumulation. A red or yellow green tongue indicates Pitha imbalance. A Vatham imbalance is manifested by a black to brown coloration on the tongue.^[2]

Examination of Complexion

The color of the skin based on the body temperament of individual. Vatham person's skin balck in color; Pitham person's skin either yellow or red in color; the person with whitish skin belongs to Kapham. The body temperament is predominantly mixed in nature i.e Vathakapham, Pithavatham etc. The color of the skin also varies on mixture of thirithodam.^[3] The color of the skin all over the body, a local region of affection,

conjunctiva, tongue, nail bud and hair shows pathologic condition of the body. Nails are the appendages of skin. The characteristic nail varies based on the prakirithi of individual. If the nails are dry, crooked and rough and break easily, it indicates a predominance of the Vaatham constitution. Soft, pink, tender nails that are easily bent are indication of a Pitham constitution. When the nails are thick, strong, soft and very shiny, then kapham predominates.

Examination of Voice

The normal speech indicates Vaatham, a high pitched voice Pitham and low pitched voice like music Kapham.^[3] The different components of speech should properly be ascertained. Different respiratory sounds, abnormal sounds from the abdomen should also be observed. Slurred speech in alcoholism, inability to speak in paralysis is the symptom of voice disturbance.

Examination of Eyes

The physician should observe the color, character, vision. A muddy conjunctiva indicates Vaatham, Yellowish or red conjunctiva indicates Pitham, Pale color indicates Kapham.^[3] Ability to distinguish color is important and a diminished vision after middle age indicates senility. In vitiated Vali eyes turn black and tears shed. In vitiated Azhal humor, mukkutram and in jaundice yellowish discoloration occurs. In vitiated Iyyam, the eyes turn white. In Vali disease, the tears is darkened, in Azhal disease they are yellow, in Iyya disease they are whitish in colour and in Thontha disease the tears are multi coloured. In Vali disease there will be excessive tears (epiphora). In disturbance of all the three humors, eyes would be inflamed and reddish.

Examination of Stools

The volume, color, smell, froths, heaviness is observed in stools. Black colored constipated stools indicate vaatham, yellowish or reddish with diminished quantity and more heat indicate Pitham and it is whitish in Kapham.^[3]

Examination of Urine

General examination of urine (Neerkuri) includes macroscopic observation of color, odour, froth, density and deposits. Apart from this general examination of urine there is an unique methodology of examination of urine in Siddha system of Medicine that is Neikuri. Neer' refers to Urine 'Kuri' refers to Sign. Theraiyar, one of the renowned authors of Siddha medicine described urine examination and stages of health. He had explained about the colour and consistency of the urine in vitiated humor and disease. He also emphasised the spreading nature of a single drop of oil on the surface of the urine indicating the imbalance of specific dosha and prognosis of disease. Normal urine is straw coloured and odourless. The time of the day and food taken will have an impact on the colour of the urine.^[5]

According to the sage Theraiyar, on the day before the urine examination, it should be ensured that the patient had a balanced diet with all the six tastes in right proportion at the appropriate time based on one's digestive fire. After a sound overnight sleep, a sample of urine should be collected early morning at around 4'0 clock. The collected urine sample should be poured into a crystal bowl and the test (Neerkuri and Neikuri) should be done before 90 minutes from dawn. This rule may be relaxed in disease state.^[5]

Yellowish changes in urine

According to Sage Theraiyar, Straw drenched colored urine indicates indigestion, Citrus medica fruit colored urine indicates good digestion, Reddish yellow tinged, Giant lime colored, flame colored and yellow with saffron colored urine denotes excessive heat.^[3]

Greenish changes in urine

Greenish black colored urine indicates coldness of the body, Sky colored indicates toxic state of the body, Bluish tinge colored urine indicates Vatha disease in children and elderly persons. Dense and blue colored urine suggests derangement of all the three humors. Golden green colored urine indicates extreme derangement of all the three humors.^[3]

Blackish changes in urine

Black colored urine indicates jaundice, Saffron, black and little red colored urine indicates blood disorder. Greenish black colored urine is an indicative of blood impurities. Dark and white colored urine indicates derangement of Vatham and Kapham.^[3]

Odour of urine

Foul odour indicates Ulcers in the urinary tract and bladder, Tamarind odour indicates disorders of the body due to heat. Sweet odour indicates well nourished blood constituent of the body or the disease of the blood. Odour of a dark colored deer indicates Pitham dominance; odour of meat denotes derangement of the physical constituents.^[3]

Specific gravity of urine

Dense less and clear urine is due to Excessive cold and to the melting of Kapham. Very dense urine denotes derangement of all the three humors. This indicates odema.^[3]

Froth in urine

Frothy urine denotes greasiness of the body is melted. Yellow, red or black froth in urine denotes jaundice.^[3]

Neikkuri

The spreading pattern of oil drop is the indicative of Vali, Azhal and Iyyam diseases. e.g Aravu (Snake Pattern of spread) indicates Vali disease. Mothiram (Ring Pattern of spread) indicates Azhal disease. Muthu (Pearl Pattern of spread) indicates Iyya disease. In Neikkuri, the rapid spread of oil drop; Pearl beaded and

Sieve type of spreading pattern indicates incurable state of the disease. If there is a combined shape like a ring in a snake, or snake in the ring, snake and pearl in the ring, it indicates combined derangements of humors.^[5]

Signs of good prognosis

If the oil drop in the urine is round in shape and spreads gradually, it indicates good prognosis. If the oil drop takes the shape of conch, throne, umbrella, String instrument or like that of a lotus flower or jasmine bud it suggests good prognosis. Fast spreading of an oil drop on the surface of urine collected in the early morning after sound overnight sleep, suggests very good prognosis.^[5]

Signs of bad prognosis

If the oil drop spreads fast or becomes small like mustard or gets mixed completely with urine or sinks in urine, it suggests bad prognosis. Further if the oil drop takes the shape of Sword, arrow, iron pestle, three headed spear, sickle, pot or betel leaf suggests bad prognosis. Also, if the oil drop takes the shape of the lion, elephant, tiger, ram, pig, man, tortoise, bird, fox, monkey, cat and scorpion it indicates bad prognosis.^[5]

Features of urinary flow

For Vatha persons the quantum of urine is less and is passed with efforts and sounds. For pitha sounds micturition occurs with a burning sensation and it is hot with greenish red colour. For Kapha person's urine is white and dense. In combined derangement urine has many colors i.e., depending on doshas involved.^[5]

Urine Examination using Breast milk

The breast milk of a mother who has just given birth to a male child is dropped in the urine of the patient for conducting this test. If the urine blends with the milk in toto, it suggests prognosis and non blending suggests bad and poor prognosis.^[5]

Signs of death through Urine examination

If the fat of the swine is applied on the dorsum and plantar of the feet of the patient and the same is collected and served to the dog and if the dog eats and gets digested well, it indicates good prognosis and if the dog vomits, it indicates bad prognosis. If the two drops of blood of the patient go down into the cool water it is a good sign. If it spreads on the cool water, it is a sign of death.^[3]

Examination of Touch

The physician must have ability to identify tactile sensation. Warmth indicates Pitham, chillness indicates kapham and dryness indicates Vaatham. Sweating in the body also helps in diagnosis of the disease. Sweating all over the body indicates Vaatham, in forehead indicates constipation, and in neck indicates dying conditions and in joints indicates mukkutram. Physician palpates or touches various parts of the trunk to diagnose shape and condition of the internal viscera. The prognosis or the

chance of death was also assessed by the appearance of the skin.^[2]

Table 1: Prognosis based on appearance of skin^[2]

Appearance of skin	Death occurs in
Crocodile	65 days
Tortoise's shell	12 days
Tail of fish	45 days
Extreme hot	9 days
Extreme cold	2 days
Like elephant skin	41/2 days
Tree	23 hours
Lotus	12 seconds
Sun	2 months
Moon	3 months
Golden color	5 months
Fire	4 months
Silver	6 months
Black	7 months
Green	8 months
Glittering	Sudden death

Examination of Naadi

The 'Pulse Diagnosis' is a unique method in Siddha Medicine. The pulse should be examined in the Right hand for male and the left hand for female by keeping the ring finger, the middle finger and the index finger over the radial artery after gently scrubbing the area. It is one unit in Vaatham as felt by the ring finger, and a half unit in pitham as felt by the index finger. By keenly

observing the pulsation, the diagnosis of disease as well as its prognosis can be assessed clearly.

Naadi is nothing but the manifestation of the vital energy that sustains the life within our body. Naadi plays an most important role in Envagai thervu and it has been considered as foremost thing in assessing the prognosis and diagnosis of various diseases. Any variation that occurs in the three humors is reflected in the Naadi. These three humors organize, regularize and integrate basic functions of the human body. So, Naadi serves as a good indicator of all ailments. A mukutra nadi, a vaathakapham nadi and kapham nadi indicates bad prognosis. If the pitham is decreased, the prognosis is bad, while an increased Vaatham is easily curable. The pulse is measured in wheat/grain expansile heights. The normal unit of pulse diagnosis is 1 for Vali (Vatham), ½ for Azhal (Pitham) and ¼ for Iyyam (Kapham).^[3]

MANIKADAI NOOL (Wrist circumetric sign)

According to the Pathinen Siddhar Naadinool, Manikadainool is also helpful in diagnosis. This manikkadai nool is a parameter to diagnose the disease by measuring the circumference of the wrist by means of a thread and then dividing the measured circumference with the patient's fingers. By this measurement the disease can be diagnosed. When the Manikkadai nool is 11 fbs, the person will be stout and he will live a healthy life for many years. When the Manikkadai nool measures between 4 to 6, it indicates poor prognosis of disease and the severity of the illness will be high and it leads to death.^[3]

Table 2: Measurements of Mannikkadai Nool (Wrist circumetric sign) and its inference^[3]

MANIKKADAI NOOL MEASUREMENTS (Wrist circumetric sign)	INFERENCE
10 fbs	Pricking pain in chest and limbs, gastritis and ulcer result.
9 ¾ fb	Fissure, dryness and cough will be resulted.
9 ½ fbs	Odema, increased body heat, burning sensation of eye, fever, Mega noi and anorexia.
9 ¼ fbs	Dysuria, insomnia, sinusitis and burning sensation of eye.
9 fbs	pain around waist, thigh pain, unable to walk.
8 ¾ fbs	Increased body heat, skin disease due to toxins, abdominal discomfort, cataract, and sinusitis.
8 ½ fbs	Leucorrhoea, venereal disorder and Infertility will occur.
8 ¼ fbs	Stout and painful body. Headache. Sinusitis and toxins Induced cough.
8 fbs	Abdominal discomfort, gastritis, anorexia and venereal diseases.
7 ¾ fbs	Piles, burning sensation of limbs, headache, and numbness occur. Within 2 years cervical adenitis and epistaxis results.
7 ½ fbs	Osteoporosis, abdominal discomfort, burning sensation of eyes, increased body temperature. Within 6 days all the joint of the limbs presents a swelling.
7 ¼ fbs	Lumbar pain, increased pitha in head, anemia, eye pain, odema and somnolence
7 fbs	Pitham ascends to head, haemetemesis, phlegm, burning sensation of limbs and constipation.
6 ¾ fbs	Eye ache, dizziness, testis disorder. Within 3 years it causes anuria, pain and burning sensation over limbs, facial sweating results.
6 ½ fbs	Thirst, anorexia, increased body heat and vatham results.
6 fbs	Reduced weight, phlegm in chest. It results in death within 20 days.
5 ¾ fbs	Delirium, dizziness, loss of consciousness. It results in death even if the patient takes gruel diet.
5 ½ fbs	Severity of illness is increased. Toxins spread to the head. Tooth darkens. Patient will die in 10

	days.
5 ¼ fbs	Patient seems to be sleepy and death results on the next day.
5 fbs	Pallor and dryness of the body. Kabam engorges the throat and the person will die.
4 ¾ fbs	Dryness of tongue and tremor present. Patient will die in 7 days.
4 ½ fbs	Shrunken eyes, odema will present and death results in 9 days.
4 ¼ fbs	Tremor, weakness of limbs and darkening of face occurs. Finally death results in two days.
4 fbs	Pedal odema will be present. Patient will die in 5 days.

The astrology

Macrocosm and Microcosm

Man is said to be Microcosm and the Universe is Macrocosm; since what exist in the Universe exists in the human body too. Man is being an integral part of universal nature. The forces prevailing in the microcosm (Human body) are analogous with that of the forces prevailing in the macrocosm (Universe). The natural forces acting in and through various organs of the body are intimately related to or similar to or correspond to the forces acting in and through the organisms of the world.

Astral influences

All the influences which are radiated from the sun, planets and that of the stars can act upon the human bodies. Moon exercises a very bad impact on the disease in general especially during the period of new moon. For instance, paralysis, brain affections, dropsy and stimulation of sexual perversions are resulted during the newmoon. Mars causes anemia and lack of nervous vigour. A conjugation of the moon with other planets such as Venus, mars, etc may make its influence still more injurious. The 8th place forms the laghanam which deals about ones age, chronic diseases, death etc. In the organisms of man, these forces may act in an abnormal manner and cause disease. Similarly, in the great organism of the cosmos, they act abnormally likewise and bring about disease on earth and its atmospheric condition like earthquake, storms etc. The Mars invisibly influences human's blood constituents. The Venus instigates intersexual love.

The Impact of the Planets on the Human Organs According to the literature Siddha Maruthuvanga Surukkam

Each of these planets hold jurisdiction over some parts of the body similar to the signs of the Zodiac. The planets exercise special power over some parts of the body resulting in a disease or diseases in accordance with their impacts on the three basic humors in the system.^[1]

Sani (Saturn)

It exhibits supremacy over the bones, tooth, cartilages, ear, spleen, bladder and brain and gives rise to fever, leprosy, paralysis, dropsy, cancer, cough, asthma, deafness of the right ear, hernia etc.^[1]

Guru (Jupiter)

It holds jurisdiction over the blood, liver, pulmonary veins, diaphragm, Muscles of the trunk and sense of touch & smell.^[1]

Sevvaai (Mars)

It has got power over the bile, gall bladder, left ear, pudendum, kidneys, fever, jaundice, convulsions, hemorrhage, carbuncle, erysipelas, ulcer etc.^[1]

Sukkiran (Venus)

It exercises its impact on the blood and semen, throat, breast, abdomen, uterus, genitalia, taste, smell, pleasurable sensation, gonorrhoea, barrenness, Abscesses or even death from sexual passions or from poison.^[1]

Pudhan (Mercury)

It holds jurisdiction over the animal, spirit, also over legs, feet, hands, fingers, tongue, nerves and ligaments and produces fevers mania, phrenitis, epilepsy, convulsion, profuse expectoration or even death by poison, witchcraft and so on.^[1]

Each rashi has influence on the parts of the body which is depicted below

Table 3: Zodiac signs and body parts^[2]

Zodiac sign	Region it presents
Aries	Head
Taurus	Face, neck
Gemini	Arms
Cancer	Chest and heart
Leo	Stomach
Virgo	Hip region
Libra	Groins
Scorpio	Genitalia, Anus
Sagittarius	Thighs
Capricorns	Knees
Aquarius	Shanks
Pisces	Feet

RESULTS

By throwing lights on the validation of Diagnostic methodology in Siddha System of medicine, a physician can arrive at proper treatment procedures by rightly diagnosing the disease. By relating the ancient Siddha literature with today's, there will be both augmentation of the knowledge of diagnosis and its treatment.

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