



## Review Article

### A STUDY ON NEIKURI (OIL DROP TEST IN URINE) IN VATHA SOOLAI

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**KEYWORDS:** Diagnostic Tool, *Neikuri*, Oil Drop Test, Urine Examination, *Vatha Soolai*.

#### ABSTRACT

The methodology of diagnosis in Siddha system is based on eight fold examinations of pulse, tactile perception, tongue, color and complexion, speech, eyes, stools and urine. Of all these parameters, Urine examination has gained paramount importance next to pulse examination. *Neikuri* is a diagnostic tool of urine examination using Sesame oil developed by Siddhars and also throws a light on prognosis of disease condition. This is an attempt to understand the Siddha system of diagnosing pathological conditions which are a non-invasive, highly cost effective procedure which can be used for both diagnostic and prognostic purposes. This study aims to validate the *Neikuri* image on the patients diagnosed as *Vatha Soolai*. For the purpose of the study, thirteen urine samples of *Vatha Soolai* patients were collected and the oil drop test was conducted using the guidelines mentioned in the Siddha Literature. Majority of samples showed a small circular shape like Pearl under *Kapha* humor. This study can be used as referenced diagnostic criteria for *Vatha Soolai*.

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#### INTRODUCTION

Siddha system has a unique diagnostic method to identify the diseases and their causes. For the diagnosis of diseases, the primary importance is given for physical examination of five sense organs of the patient viz., Nose, Tongue, Eyes, Ear and Skin to reveal the five senses such as Smell, Taste, Vision, Sound and Touch respectively. Like general examination in modern system, in Siddha system eight tools of diagnosis are followed as narrated by the Sage *Theraiyar*. The eight diagnostics tools are the examination of 1. *Naa* (Tongue) includes taste sensation and Saliva, 2. *Niram* (Complexion of body), 3. *Mozhi* (Vocal sounds), 4. *Vizhi* (Eyes), 5. *Malam* (Stool), 6. *Moothiram* (Urine), 7. *Naadi* (Pulse), 8. *Sparisam* (Temperature and texture). The examination of the stools and urine has a great significance in diagnosis<sup>[1]</sup>. The urine examinations classified into *Neerkuri* and *Neikuri*<sup>[1]</sup>. *Neerkuri* follows the general observation includes *Niram* (Colour), *Nirai* (Density), *Naatram* (Odour), *Nurai* (Froth) and *Enjal* (Volume decrease - outflow of urine)<sup>[2]</sup>. *Neikuri* denotes the urine examination by dropping the oil on urine and observe the pattern of oil spread. Sage *Theraiyar* who lived 350 years ago has worked out a detailed procedure of urine examination, which includes study of its color, smell, density, quantity and oil drop spreading pattern<sup>[3]</sup>. *Neikuri* should be used to diagnosis and ascertain the good and bad prognosis of various diseases. To validate the *Neikuri*, this study has been carried out on the patients manifested with inflammatory type of polyarthritis (Rheumatism) - *Vatha Soolai*.

#### MATERIALS AND METHODS

##### *Neikuri*

Sterile plastic urine container for urine collection, Round large mouthed glass bowl (Diameter - 5 inches, Depth - 1.5 inches), Dropper, Urine of patients and *Nallennai* (Sesame seeds oil).

##### Selection of Patients

A total number of thirteen diagnosed patients of polyarthritis were randomly selected for this study with the help of inclusive and exclusive criteria. For this study, 50 patients were screened from the inpatient of Regional Institute for Siddha, Puducherry.

##### Criteria for Inclusion

Age between 20 years to 60 years having pain and swelling involved in more than two major joints and any minor joints with anyone of the laboratory findings such as Positive Rheumatoid factor and C Reactive Protein, and raised Erythrocyte Sedimentation Rate were considered for selection.

##### Collection of urine sample

The methodology for the collection of urine sample from the patients mentioned in the literature was strictly followed<sup>[4]</sup>. On the day before, all the twenty patients were advised to eat well and to sleep before 9 PM. After a sound overnight sleep on the next day early morning before sunrise around 5 AM, they were asked to collect the single time mid stream urine sample of at least 100 ml in Urine container.

**Urine examination with Oil drop**

A 50 ml of collected urine from each patient was transferred into a glass bowl and kept on a flat surface without disturbing for one hour in order to settle down. After one hour, a drop of Sesame oil was dropped at the center over the surface of urine in the glass bowl using dropper at the distance of 1 mm height from the urine surface without disturbing the surface<sup>[5]</sup>. The pattern of oil spread was keenly observed under sunlight at 0, 30 and 60 min after oil drop over the surface of urine. The observations were recorded diagrammatically and inferences were noted.

**RESULTS AND DISCUSSION**

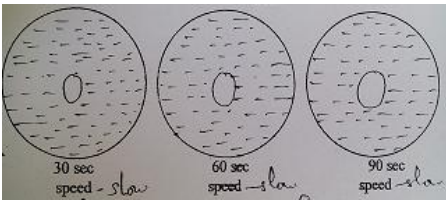
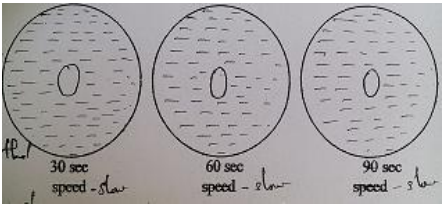
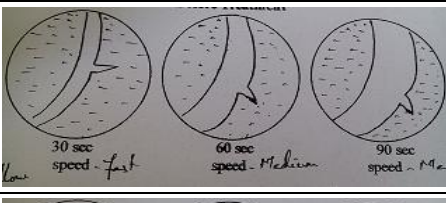
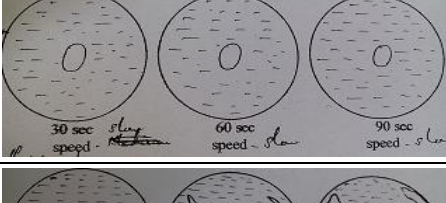
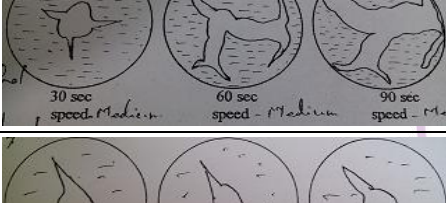
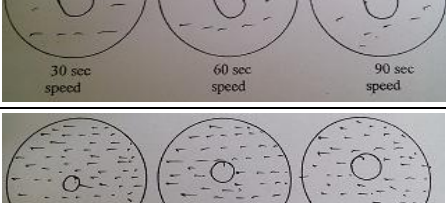
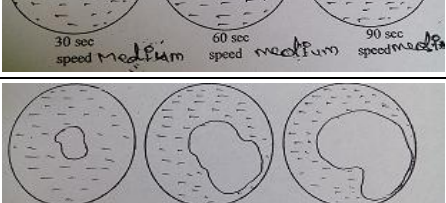
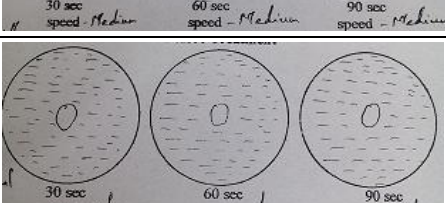
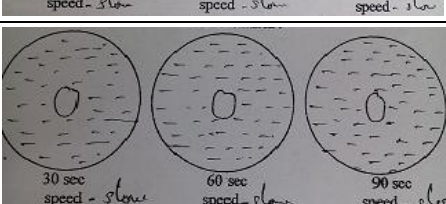
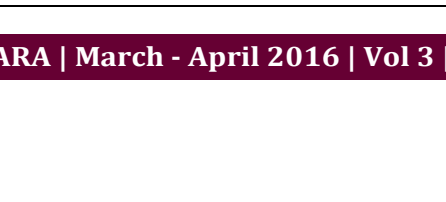
The complete clinical examination of the patients and laboratory investigations provides an accurate diagnosis of a disease. In traditional system of medicine, the excretory and secretory products of the body involved in the diagnosis and considered as a diagnostic tools. Among that, Neikuri an oil drop test in urine is a cost effective diagnostic procedure carried out to rule out the diseased condition. By the mode of spread of oil in the urine, diagnoses are made. Neikuri is based on the consistency, thickness, density of urine<sup>[6]</sup>, and the interfacial tension and viscous forces play a major role<sup>[7]</sup>.

The procedure of spreading pattern of oil on urine and the interpretation of the outcomes are clearly mentioned by Agathiyar and Theraiyar in the literature of Siddha<sup>[8]</sup> and it is discussed below. If the oil drop takes the shape of a snake, it indicates the body is *Vatha* humor. If it spreads like a ring it indicates *Pitha* and if it stands like a pearl it indicates *Kapha* humor. These spread patterns indicates normal physiological state. If there is a combined shape like a ring in a snake or snake in the ring, snake and a pearl or a pearl in the ring, it indicates combined derangement of humors. If the oil drop sinks in the urine and if all features of the three humors are seen together in the urine, it suggests

derangement of all three humors. 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 any one of the following such as Conch, Throne, Umbrella, *Yazh* (A string instrument), Lotus flower, Jasmine bud, Earth, *Veena*, Square shaped house, Leaf of Bitter gourd, Bee, Throne and Ritual fire, Fish, Temple, Temple Corridors, Shape of hill, Tree, Tusk, Cap and Mirror, it suggests good 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 any one of the following such as Sword, Arrow, Iron pestle, three headed Spear, Sickle, Pot and Betel leaf and creeper, it also indicates bad prognosis. Also if the oil drop takes the shape of Lion, Elephant, Tiger, Ram, Pig, Obese man, Man with one, three or four legs, Tortoise, Bird, Fox, Monkey, Ass, Cat, Mouse, Crab, Hen, Horse, Bull and Scorpion, it indicates bad prognosis. If the oil drop takes the shape of a Drum, Flag, Pot, Pig, Jungle beast and Potter’s wheel, the cure is slow and with some difficulty. If the oil drop takes the shape of a sieve, it suggests *Kapha* diseases and requires immediate treatment. If the oil drop spreads like the tip of a grass, it indicates derangement of *Vatha* associated with *Pitha*, if it spreads like wood, it suggests *Kapha* derangement associated with *Vatha*. If the oil drop in the urine is found one half on the surface of urine and the other half sinking in it, it indicates the derangement of *Pitham* and *Kapham*. If the oil drop sinks in red coloured urine, it indicates the state of delirium (*Sannivatham*) and suggests terminal illness. Fast spreading of an oil drop on the surface of the urine collected early in the morning after sound overnight sleep suggests very good prognosis and if it spread slowly, it indicates slow prognosis and if it standstill, it indicates bad prognosis.

**Table 1: Neikuri of patients diagnosed as Vatha Soolai**

Sub code	Image of Oil spread over the surface of urine	Pattern of Oil spread	Inferences in related with <i>Thodam</i> (Humour)
120		<i>Pitha vatham</i>	On the surface of urine, oil drop spreads quickly, elongated as narrow streak as branched stem with thorn
121		<i>Pitha vatham</i>	On the surface of urine, oil drop spreads quickly, elongated as narrow streak as branched stem with thorn
112		<i>Kapha pitham</i>	On the surface of urine, oil drop stays as pearl then spreads like amoeba or demon shape

125		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape
119		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape
117		<i>Pitha vatham</i>	On the surface of urine, oil drop spreads quickly, elongated as narrow streak as stem with thorn
110		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape
122		<i>Vatham</i>	On the surface of urine, oil drop spreads quickly, elongated like branched stem
12		<i>Kapha Vatham</i>	On the surface of urine, oil drop stays as pearl shape with beak appearance
141		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape
115		<i>Vatha Pitham</i>	On the surface of urine, oil drop spreads with irregular margin
124		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape
127		<i>Kapham</i>	On the surface of urine, oil drop stays as pearl shape

The results of table 1 show that among thirteen patients diagnosed as *Vatha Soolai*, majority of *Neikuri* 54% interpreted the image of pearl. The pearl shaped pattern of the oil drop indicates the patients were predominantly under *Kapham* humor. Among those images, the oil drop spread in both slow and medium. This signs indicates that the patients were not in normal physiological state.

### CONCLUSION

From the above results, it is concluded that the oil drop spread in slow and medium fashion and produce the image of pearl shape might be one of the diagnostic feature of the *Vatha Soolai* disease. The present study was a preliminary to ascertain the mode of oil spread in urine of *Vatha Soolai* patients. In future, large number of samples will be studied to standardize this oil drop test in various diseased patients.

### REFERENCES

1. C.S.Uthamarayan. A Compendium of Siddha Doctrine [English Translation of Siddha Maruthuvanga Churukkam]. Chennai; Department of Indian Medicine and Homoeopathy; p. 301-335.
2. L. Janani, S. Anusha, S. Elansekaran, M. Ramamurthy, V. Srinivasan, G. J. Christian. Neerkuri by Sage Theraiyar - A Review on Siddha Way of Urine Examination in the Light of Contemporary Clinical Methods. International Journal of Ayurveda and Pharma Research. 2016; 4(4): 80-82.
3. R. Shanmugavelan. Theran Aruliseitha Siru Neerkuri Sodhanai. 3rd Edition. Thanjavur; Saraswathi Mahal Library; 2005.
4. R. Susila, R. Arunadevi, G.J. Christian, S. Elansekaran, M. Ramamurthy, M. Logamaniyan. Validation of Siddha Diagnostic Procedures for Madhu Piramiam with the Aid of Conventional Diagnostic Procedures. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy. 2014; 3(1): 197-208.
5. Pavan Kumar Sangu, Vanitha Murali Kumar, Meera Shiv Shekhar, Murali Krishna Chagam, Penchala Prasad Goli, Prasanna Kumar Tirupati. A study on Tailabindu pariksha - An ancient Ayurvedic method of urine examination as a diagnostic and prognostic tool. AYU. 2011; 32(1): 76-81.
6. Kar A, Sharma R, Panda B, Singh VP. A study on the method of Taila Bindu Pariksha (oil drop test). AYU. 2012; 33(3): 396-401.
7. Basha AA, Samuel PJ, Mathangi DC, Shyamala R, Shankar RS. Towards Standardization-A New Protocol for Oil drop test (Neikuri) in Healthy Subjects. Int J Pharmacol and Clin Sci. 2015; 4(4): 83-89.
8. M. Shanmugavelu. Noinaadal noi mudhal naadal Thiratu. Part I. Chennai; Department of Indian Medicine and Homoeopathy; 2003. p. 282.

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