

CONCEPTUAL STUDY & UTILITY OF *TAILA BINDU PARIKSHA*\*<sup>1</sup>Dr. Chitra, <sup>2</sup>Dr. Ruby Rani Agarwal and <sup>3</sup>Dr. Shashikant Tiwari<sup>1</sup>Final Year Pg Scholar, Dept. of Rog Nidan Evam Vikrti Vijiyana, Rishikul Campus Uttarakhand Ayurvedic University, Haridwar.<sup>2</sup>Professor and Head In Rog Nidan Department, Dept. of Rog Nidan Evam Vikrti Vijiyana, Rishikul Campus Uttarakhand Ayurvedic University, Haridwar.<sup>3</sup>Associate Professor in Rog Nidan Department, Dept. of Rog Nidan Evam Vikrti Vijiyana, Rishikul Campus Uttarakhand Ayurvedic University, Haridwar.

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**ABSTRACT**

The *Taila Bindu Pariksha*, an ancient method of *Mutra pariksha*, was very popular in the medieval period. It is a diagnostic tool of urine examination and also helpful in assessing the prognosis of a disease. This study aims at using this ancient wisdom to diagnose the medical conditions and to study about their prognosis. It can be applied to modern medical practice. In this *pariksha*, urine is taken in a glass vessel, over which an oil drop is dropped and the behaviour of oil on the surface of urine is noted down. The urine collection, oil drop instillation, and evaluation were all done according to the guidelines laid down in Ayurvedic practices. *Taila Bindu Pariksha* for urine examination, will not only prove economical but also is a time-tested and scientifically proven method. The technique of this test is very crude and there are chances of variations in the observations and results. Preliminary standardization of this test has been done in Dept. of *Vikriti- vijyan*, IMS, BHU. To standardize the technique, various parameters were selected for doing this test, i.e., shape and size of *Patra* (testing containers), volume of the urine, size of the oil drop, height of the oil drop from the surface of urine, variety of sesame oil, etc., Based on the literature, the parameters were changed one by one and observations were noted down. The whole method was recorded in the form of video clips for proper evaluation.

**KEYWORDS:** *Tail Bindu Pariksha*, *Ayurveda*, Urine, Standardization.**INTRODUCTION**

Ayurvedic texts mentioned that “To diagnose the disease first and then to think over the treatment”

“*Rogamadouparikshetatatoanantaramoushadham*”  
(*Charaka sutrasthana 20/20*)

For the diagnosis of various aspects of disease and diseased persons, several methods have been described in the Ayurvedic texts which are broadly classified into *Roga* and *Rogi-Pariksha*. Such as *Ashtasthana*, *Dashavidha*, *Dvadashavidha Pariksha*. Different pathophysiological conditions of the patients are examined under the broad heading *Ashtavidha pariksha* (8 types of investigations) and *Mutra Pariksha* was the main laboratory investigative tool in the past and it is included under *this Pariksha*, it was very popular in the medieval period, but after 17<sup>th</sup> century AD it became obsolete. Description of *Taila Bindu Pariksha* is also available in many Ayurvedic texts of medieval period like *Vangasen Samhita*, *Vasavrajivam*, *Yogtarangini*, *Yogratnakar* and *Hansaraja Nidana*. *Taila Bindu pariksha*, was developed to diagnose disease

conditions and to find out about their prognosis. For this, the patient's early morning (around 5 o'clock) urine sample is to be collected in a clean glass vessel. This should be maintained in a stable condition and carefully examined during sunrise. For this, one drop of *Tila taila* (sesame oil) is slowly dropped over the surface of urine without causing disturbance under sunlight. The patterns and the distribution of the oil drop upon the urine are then considered to determine the diagnosis and prognostic features of the disease.

Examination of urine with the naked eye is called *Neerkuri* and examination of urine by putting gingali oil (sesame oil) is popularly known as *Neikuri* in the *Siddha* system of Medicine. *Taila Bindu pariksha* is also described in *Siddha* system of medicine, after pulse examination the urine examination should be done. This is specialised technique of urine examination, which can be used for both diagnostic and prognostic purpose i.e. various *dosa* involvement can be known. Based on the reasoning and interpretations given by prof. P.V. Sharma in “*Ayurveda ka Vajjyanika Itihas*”.

*Taila Bindu Pariksha* can be used to assess prognosis in any disease as they are not disease specific. The shapes related to good prognosis as described in various *Ayurvedic* texts are *Hansa, Karanda, Tadaga, Kamala, Gaja, Chamara, Chatra, Torana* etc. and can be broadly classified in to a geometrical-shapes as circular, semi-circular and triangular in nature. They are normally uniform in all directions.

The shapes related to bad prognosis as described in various *Ayurvedic* texts are *Hala, Sairibha, Kurma, Siravihina nara, Gatrakhandana, Shastra, Khadga, Mushala, Pattisha* etc. It can be broadly classified as either irregular linear directing to specific direction or irregular shapes with projections and so multi-directional in nature. Directions related to good prognosis include four basic directions i.e. east, west, north, and south.

*Mutra pariksha* is not described in *Brihatrayi*. Systematically, scattered references are available in relation with *purvarupa, rupa, updrava, arishta laksnas* of different *vyadhies* and in *description* regarding the physiological state of the body.

#### AIMS AND OBJECTIVES

1. To Study and elaborate the *Taila Bindu Pariksha* with an *Ayurvedic* perspectives, explained by *Yogaratanakara*.
2. To evaluate the importance of *Taila bindu pariksha* in diagnosis as well as prognosis of the diseases.

#### MATERIAL AND METHOD

Conceptual and relevant references are taken from *Ayurveda Samhita*. After studying the related concepts, the efforts have been made for a conclusion which based on discussion. Various classical texts of *Ayurveda* and related modern texts along with different research papers, published articles and information available on internet.

#### Method of *Taila Bindu Pariksha*

In this procedure, it was planned to standardize the following variables of *Taila Bindu Pariksha*.

- Method of collection of urine
- The volume of the urine
- Time of collection
- Patra for collection the urine
- Type of *Tila Taila* for test
- Size of the oil drop
- Hight of the oil drop from the surface of the urine
- Time of performance of *Taila Bindu Pariksha*

For standardization, the test should be performed in constant parameters, so it was planned that one parameter will be changed at a time and any difference in the observations will be noted down.

#### Method of collection of urine

The first-morning urine of the patient should be collected for the test or that is the last *Prahar* of the night; The first and the last part of the total urine passed out are

discarded, collection of midstream urine instructed by *Yogaratanakara* and *Vangasen Samhita*. After collecting the urine, sample should be kept covered with a clean cloth till sunrise, and then it is to be examined in the sunlight. Care should be taken against contamination.

#### The volume of urine

The volume of the urine sample was changed each time. The test was performed using 200 ml, whole voided sample, and the amount which covered at least three-fourth of the testing container.

#### Time of collection

*Yogaratanakara* has mentioned that collection should be done when 4 *ghatika* are left in the last *yam* of the night. *Vangasen* has also mentioned the same. Other *Acharyas* have not mentioned any specific time in the morning. *Yam* is a period equivalent to the 8th part of the day i.e. 3 hrs. So, the last *yam* of night refers to the last 3 hrs before sunrise. *Ghatika* is equivalent to 24 minutes as described in Monier William's dictionary and adopted by *Ayurvedic Pharmacopeia Committee*. 4 *ghatikā* on calculation comes around 1 hour 36 minutes. From the calculation, it is clear that the time of collection is 1 hr 36 min before sunrise.

#### The material of *Patra* (testing container)

For the collection of the urine sample, different *Patra* has been described:

Glass (*Kamca*) or Bronze (*Kamsya*) *patra*- *Vangasena Samhita*.

Glass (*Kamca*) *patra* - *Yogaratanakara*.

*Supatra* - *Hansaraja Nidanam*.

*Sveta Kanemaye patra* - *Vasavarajiyam*.

The shape of the *patra* may be square or round.

After collection, it should be properly covered with the help of the cloth.

Almost all *Ayurvedic* texts have instructed to use a glass container for *Taila Bindu Pariksha* except *Vangasena* who has stated that either glass or bronze can be taken. Glass was chosen as standard on the basis that cleaning and availability of glass vessel are easier and glass is cheaper than bronze.

#### Variety of oil

*Yogaratanakara* and *Vasavarajiyam* have mentioned the use of *Tila tail*. Other authors have mentioned the term '*Taila*' only.

#### Size of drop

In *Ayurvedic* literature, *Trina* was used as oil dropping media over the urine surface. The average weight of oil drop was calculated and then the volume of one drop was determined.

#### Size of testing container

Keeping other parameters constant, *Taila Bindu Pariksha* was done by putting the urine sample in one of

the containers having 4inch, 6 inches, and 8inch diameter.

#### Height of the oil drop from the surface of urine

This was done by dropping the oil from the height of 10 cm, 5 cm, or 1 cm from the surface of urine.

#### Time of performance of Taila Bindu Pariksha

The following time has been given by various *Acharyas*: *Suryodaya- Yogaratnakara, Vangasena- Prabhate, Hansaraja Nidanam- Suryatape, Bhasakaro udaye Bela – Vasavarajiyam*. According to *Siddha* literature, even though the early morning is the best time to read *Neerkuri* (urine examination) and *Neikuri (Taila Bindu Pariksha)* but according to the condition of the patient, the test can be performed for diagnosis was done immediately at a time gap of 2 hours. But the observations should be counter checked in the morning urine sample. The first urine sample should be collected in a clear glass bowl and naked eye observation and *Neikuri* readings should be taken.

#### The procedure of Taila Bindu Pariksha

A small quantity of urine is taken in a broad mouthed glass vessel or a Petri dish and kept undisturbed in a place free from the breeze and other kinds of disturbing factors. Then a drop of *Taila* (oil) with the help of a grass leaf is allowed to fall on the surface of the urine. Then following parameters should be noted-

#### Parameter observed during Tail Bindu pariksha

The shape of oil after the spread

Direction of spread

spread time and split time

Area covered by oil drop on the urine surface.

#### Feature of Mutra as per the involvement of following Diagnosis of dosa involvement

According to *Yogratmakar*, in *Vata* aggravated diseases, urine of the patients appears as *Pandu varna* or slightly *Neela varna* (whitish or bluish). When *Pitta* domination conditions urine become *yellowish* and *Raktaj varna*. In *Kapha* aggravation urine appears '*Phenayukta*' (cloudy). In *Dvandaja*, i.e. a state of combined *dosa* aggravation, mixed colours are seen in the appearance of the urine. In *Sannipataj* state, urine become *Krishna varna* (blackish). In case of *Rakta*-aggravation urine become *Snigdha, Ushna. Raktaj varna*.

#### Diagnosis of disease involvement

In case of *Ajirna* or indigestion, appearance of urine like *Tandulodaka* (rice water). In case of Acute fever or *Naveen jwara* the appearance of urine is smoky and *bahu-mutrata* is characteristic features of the patient. Smoky, hot and watery urine present in *Vata-pitta jwara*. In case of *Vata- sleshmaka jwara*, urine become whitish with air bubbles. In *Shlesma-Pitta jwara* - urine is polluted and is mixed with blood. In *Jirna* (Chronic) *jwara* - urine becomes yellowish and red. In *Sannipataj jwara* - urine appears in mixed shades

depending on the *dosa* involvement. *Shukla varna* of *mutra* is mention in *udakmeha, pishtameh* and *kaphaj pandu*. *Krishna varna mutra* founds in *kalameha, kumbh kamla. Haridra varna mutra* is explained in *pittaj mutrakriccha, kamla*, and *pitvarn* of *mutra* founds in *pittaj pandu*. *Neel varna mutra* is a diagnostic feature of the *neelameh*. *Rakta varna* of *mutra* is a feature of *ashmari, mutrasangh* and *rakta meha*. It is said that if urine is placed in a glass jar and appears reddish in the bottom, the patient is suffering from *Atisara* (diarrhoea). If the urine has particles appearing like the droplets of ghee, it indicates *Jalodara* (Ascites). In *Amavata* (Rheumatoid arthritis), urine appears as *Vasa* (fat) or *Takra* (buttermilk). In *Vata jwara*, urine appears reddish or *kumkuma* (saffron) in colour. If urine is like *manjistha* colour, smoky, watery, cool, like the root of *citraka* then it is a physical disease.

#### Diagnosis of disease involvement

##### Shape of oil drop on the surface of urine

If the dropped *Tail bindu* takes a *Chalini* (sieve) shape in the urine sample and then spreads, it is a definite indication of '*Kuladosha*' (genetic disorder).

If the dropped *Tail bindu* takes the image of human being (*narakaram*) or skull it indicates '*Bhutadosha*' and is treated accordingly.

If *Vata* is predominant, then the *Tail* attains *Mandala* (circular shape). In *Pittaj* diseases it attains *Budbuda* (bubbles) shape, in *Kaphaj* diseases it becomes *Bindu* (globule or droplet) and in the *Sannipataj* diseases, *Tail* drop sinks in the urine.

#### Prognosis of the disease on the basis of following criteria

##### By spreading nature of the oil

If inserted oil spreads quickly over the surface of urine, disease is *Sadhya* (curable or manageable). If the oil does not spread it is considered as *Kashtheadhya* or difficult to treat. If the dropped oil directly goes inside and touches the bottom of the vessel or the oil drop does not spread and remains as a droplet in the middle of the urine then it is regarded as *Asadhya* or incurable.

##### By spreading direction of the oil

If the oil spreads in the direction of *Purva* (east)- the patient gets relief.

If the oil spreads in the south direction- the individual will suffer from *jwara* (fever) and gradually recovers.

If the oil spreads in the northern direction- the patient will definitely be cured and become healthy.

If the oil spreads towards the west- the patient will attain *Sukha* and *Arogya* i.e. happy and healthy.

If the oil spreads towards the *Ishanya* angle (Northeast)- the patient is bound to die in a month's time; If the oil spreads into *Agneya* (Southeast) or *Nairutya* (Southwest)

directions, or when the instilled oil drop splits, the patient is bound to die.

If the oil spreads on to *Vayavya* (Northwest) direction- he is going to die anyway.

### By spreading shapes of the oil

It is a good prognosis if the oil creates the images of Hamsa (swan), lotus, Chamara, Torana (arch), Parvata (mountain) elephant, camel, tree, umbrella and house.

If the taila attains the shape of a fish, then the patient is free of dosa and the disease can be treated easily. If the drop of the taila attains the shape of Valli (creeper), Mrdanga (a kind of drum), Manushya (human being), Bhandra (pot), Chakra (wheel) or Mriga (deer) then the disease is considered as the *Kashtasadhya* (difficultly curable).

If the spreading oil creates the shapes of tortoise, buffalo, honey-bee, bird, headless human body, *sastra* (instrument used in surgery) *Khadga* (sword), *Dhanus* (bow), *Trishulam* (type of weapon with three sharp edges) *Khanda* (piece of body material) physician should not treat that patient as that disease is incurable.

If the shape of the drop of taila is seen as four-legged, three-legged, two-legged and Shrugala (jackal), Sarpa (snake), Vrishchika (scorpion), Mushika (rat), Marjara (cat), Vyaghra (tiger), Markata (monkey) or Simha (lion), then it is understood that the patient will die soon.

### Diagnosis of Dosa involvement

In *Vata roga*, *Tailabindu* takes a 'snake' like image in the urine. 'Umbrella' shape it is *Pittaja roga* and in *Kaphaj roga*, urine spreads like Pearl (*Mukta*)

### DISCUSSION

Examination of the excretory and secretory products of the body, has always been important for the diagnosis of the disease from the ancient to the modern times. With the advancement of modern technology, clinical assessment is clouded by the diagnostic tools, become a costly affair for the patients. So, to minimize this affair of the diagnosis, age old practices like '*Tailabindu pariksha*' mentioned in the Ayurvedic classical texts can be employed.

*Tailabindu pariksha* seems to be a crude method, but its own importance in diagnosing the disease and prognosis of the patient's condition. It may be an age-old method; however, it is time-tested and has been proved successful by the generations of Ayurvedic community. This *pariksha* is based on the consistency, thickness, density of urine and by observing the shape of a spread oil drop on the surface of urine. In different disease conditions which can be assessed by the patterns' formed by the oil drop during the *Tailabindu pariksha*, and thereby the diagnosis and prognosis can be assessed. According to *Ayurveda*, due to alteration of the body's normal

physiological functions during diseases and the production of *Vata*, *Pitta* and *Kapha*, the chemical composition of urine also changes which ultimately changes the pattern of *Tailabindu pariksha*. *Dosa*, *dhatu*, *mala* concept is one of the basic fundamental principle of *Ayurveda*. So, any abnormalities in the processes of *Ahara parinama* i.e. digestion, absorption, excretion of food can be diagnosed by the *mutra pariksha*. As per *Ayurveda* perspective diagnosis of disease is depend upon the *Rogi pariksha* and *Rog-pariksha* of a patient. *Ashtasthana pariksha* represents the clinical examinations as well as the laboratory examinations of the *mala* and *mutra pariksha*. In *Samhita kala mutra pariksha* was carried out by *Pratyakshya* and *Anuman pramana*. *Mutra sangrahan* (collection of urine sample) for *mutra pariksha* should be done before *fourth ghatika* in the last *yama* of the *ratri*. *Adyadhara* of *mutra* should be discarded and *madhyadhara* should be collected in *kanch*, *kansya*, *mrutika patra* in a sufficient volume and the *pariksha vidhi* should be carried out after the sunrise in a natural light. First morning urine sample is also preferred by modern clinical pathology as it is good representative of the urinary pathology because there is overnight collection of the urine in the bladder. By examining the first morning sample even minute pathogens can be identified.

### CONCLUSION

'*Taila Bindu pariksha*' is very cost- effective technique, can be applied to assessing the prognosis and the severity of the disease to plan a therapeutic- measures. It is also useful for the assessment of the healthy condition of the individual. It may be concluded that, '*Taila Bindu Pariksha*' can be used as a tool for assessing the diagnosis, prognosis and severity of diseases to plan the treatment. Prognostic assessment based on *Ayurvedic* principles related to '*Taila Bindu pariksha*' will help in providing better medical care to the patients as treatment, needs to modify with the status of disease. Interpretation of the available literature related to disease in light of scientific knowledge, which can pave the way for the assessment of prognosis of disease in future.

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