

**TAIL BINDU MUTRA PARIKSHA – AN IMPORTANT PROGNOSTIC TOOL****Neha Tiwari<sup>1</sup>, Akhilesh Shrivastva<sup>2</sup>, Rajesh Manglesh<sup>3</sup>, Dalip Sharma<sup>4</sup>**<sup>1</sup>PG scholar of Rog Nidan, <sup>2</sup>Sr. lecturer, <sup>3</sup>Reader, <sup>4</sup>Reader and HOD,  
R.G.G.P.G. Ayurvedic College, Paprola, Himachal Pradesh, India**ABSTRACT**

*Astavidha rogi pariksha* is one of the main diagnostic tools described in *Ayurveda*. *Tail bindu pariksha* described in it is not only diagnostic but also prognostic in nature. It was very popular in medieval period but became obsolete with time. It is very simple and cost-effective. In it, urine sample is collected in a glass vessel and a drop of *til taila* is dropped over it. Shape and direction of *tail bindu* is observed. The direction of *tail bindu* is indicative of prognosis while the shape of drop is indicative of *dosha*/disease.

**Key words:** *Tail Bindu Pariksha*, shape, size, prognosis

**INTRODUCTION**

Prognosis is an important aspect of diagnosis and treatment. From ancient time predicting prognosis of a disease has always been a big challenge to the medical profession. Patients want to have access to accurate prognostic information<sup>1,2</sup> Knowing prognosis plays an important role in end-of-life decisions and it helps to determine whether to take certain treatment or not. If we look into *Ayurvedic* texts then we will find that art of prognosis was well developed in ancient times.

Few prognostic parameters are presently used for assessing the disease outcome but most of them are costly and not widely available and even the best prognostic models perform imperfectly. *Acharya Yogratnakar* has described *Astavidha Rogi Pariksha* in his classic.<sup>3</sup> It includes examination of *nadi* (pulse), *mutra* (urine), *mala* (bowel), *jiwha* (tongue), *shabd* (speech), *sparsh* (temp/touch), *drik* (eyes), and *aakriti* (built). Examination of these parameters enables to have a fine assessment of patient's condition and help in diagnosis. *Tail bindu mutra pariksha* de-

scribed in it is not only diagnostic but also prognostic in nature. *Tail Bindu Mutra Pariksha* is described in number of *Ayurvedic* texts like *Vangasen Samhita*, *Vasavrajyam*, *Yogtarangini* and *Yogratnakar*. *Tail bindu mutra pariksha* can be used as a tool for assessing the prognosis and severity of diseases to plan the treatment. This simple technique may also be helpful in diagnosis of diseases as well as assessing the healthy condition.

**Material and Methods**

Different *Ayurvedic* classical books, research papers and journals were referred to fulfill this part. It comprises subsections dealing with the method of collecting urine and the variables of *Tail Bindu Pariksha*.

**Time of Urine Collection:** All texts have stated that the urine collection should be done in the morning while *Yogaratnakara* and *Vangasena* have specified that the time should be when 4 *ghatikas* are left in the last *yama*.<sup>4</sup> This period, on calculation comes to be about 1 hour 36 minute before sunrise.

**Patra for urine collection:** Almost all *Ayur-*

vedic texts have instructed to use glass container for *Tail Bindu Pariksha* except *Vangasena* who has stated that either glass or bronze vessel to be taken.<sup>5</sup>

**Collection of mid-stream urine:** Mid-stream urine has to be collected for examination discarding the first and last part.<sup>6</sup>

**The oil:** *Vasavarajiyam* had mentioned the use of *til taila* for *Taila Bindu Pariksha*<sup>7</sup> while other authors had just mentioned the word 'tail'.

According to *Acharya Sharnghar*, if name of particular oil is not mentioned, then *til tail* should be taken<sup>8</sup>

**Time of conducting *Taila bindu pariksha*:** The various texts as *Yogaratanakara*, *Vangasena samhita*, and *Vasavarajiyam* etc. have described the early morning time for the *Taila bindu pariksha* describing it by various names as – *Suryodaye*, *Prabhate*, *Suryatape*, *Bhaskaro udaye bela* etc.

As *Acharya* has advised to collect the urine when there are 4 *ghatikas* are left in the last *yama* of the night. *Yama* is a period equivalent to 8th part of a day i.e. 3 hrs. So, last *yama* of night refers to last 3 hours before sunrise. According to *Ayurvedic Pharmacopoeia of India*, *ghatika* is equivalent to 24 minutes as described in *Monier William's Dictionary* and thus 4 *ghatikas* on calculation comes around 1 hour 36 minutes.

From the calculation, it is clear that time of collection should be 1 hour 36 min before sunrise<sup>9</sup>. *Tail bindu pariksha* should be done within one and half hour.

An attempt has been made by *Dr. Reetu Sharma et al, 2009 BHU, Varansi* to standardize the variables of *Taila Bindu Pariksha*. According to that study, a gap of 2 hours should be kept as the standard between collection and performance of test as rate of spread of drop was neither fast nor slow when performed within 2 hours of collection.<sup>10</sup>

**Size of drop:** In Ayurvedic classics, *Trina* was used to drop the oil drop over the surface of urine.<sup>11</sup>

According to the study conducted by *Dr. Reetu Sharma et al, 2009 BHU*, the average volume of one drop comes to be around 12 $\mu$ l.

Average weight of one oil drop and density of oil was used to calculate the volume of one oil drop.

### Observation and Results

*Acharya Yogratnakar* has described various parameters regarding prognosis and diagnosis by examining urine and behaviour of oil drop on urine surface.

### Prognosis of disease by the examination of oil drop on the urine surface

#### By spreading nature of the oil

If oil spreads quickly over the surface of urine, the disease is *Sadhya* (curable or manageable).

1. If the oil does not spread it is considered as *Kashta sadhya* or difficult to treat.
2. If the dropped oil sinks to bottom of the vessel, then it is regarded as *Asadhya* or incurable.

In another text it is mentioned that if the oil does not spread and remains as a droplet in the middle of the urine the disease is considered incurable.

#### By direction of the oil drop<sup>12</sup>

- a. If the oil spreads in the direction of east, the patient gets relief.
- b. If the oil spreads in the direction of south, the individual will suffer from *jwara* (fever) and gradually recovers.
- c. If the oil spreads in the direction of northern, the patient will definitely be cured and will become healthy.
- d. If the oil spreads towards the direction of west, he will attain *Sukha* and *Arogya* i.e. happy and healthy.
- e. If the oil spreads towards the *Ishanya* (Northeast), the patient is expected to die

in a month's time.

- f. If the oil spreads into *Agneya* (Southeast) or *Nairutya* (Southwest) directions, or when the instilled oil drop splits, the patient is bound to die.
- g. If the oil spreads to *Vayavya* (Northwest) direction, he is going to die anyway.

#### By shape of the oil drop<sup>12</sup>

- a. Prognosis is good if the oil creates the images of *Hamsa* (swan), lotus, *Chamara* (*chowri* composed of the tail of Yak), *Torana* (arch), *Parvata* (mountain) elephant, camel, tree, umbrella and house.
- b. If the drop of *taila* attains the shape of a fish, then the patient is free of dosha and the disease can be treated easily.
- c. If the drop of the *taila* attains the shape of *Valli* (creeper), *Mrdanga* (a kind of drum), *Manushya* (human being), *Bhanda* (pot), *Chakra* (wheel) or *Mriga* (deer) then the disease is considered as the *Kashta-sadhya* (difficultly curable).
- d. If the spreading oil creates the shapes of tortoise, buffalo, honey-bee, bird, headless human body, *astra* (instrument used in surgery, like knife etc.), *Khanda* (piece of body material) physician should not treat that patient as disease will be incurable.
- e. If the shape of the drop of *taila* is seen as four-legged, three-legged, two-legged, it means that patient will die soon.
- f. If the shape of the drop of *taila* is seen in the shape of *Shastra* (sharp instruments), *Khadga* (sword), *Dhanus* (bow), *Trishulam* (type of weapon with three sharp edges) *Musalayudham* (pestle), *Shrugala* (jackal), *Sarpa* (snake), *Vrishchika* (scorpion), *Mushika* (rat), *Marjara* (cat), arrow, *Vyaghra* (tiger), *Markata* (monkey) or *Simha* (lion), the patient will die soon.

#### Diagnosis of the disease by the examination of urine and oil drop on the urine surface

#### By appearance of urine

##### 1. Diagnosis of *Dosha* involved

- a. In “*Vata*” aggravated diseases, urine of the patient appears as *Pandu varna* (whitish) or slightly ‘*Nilam*’ (Bluish).
- b. In “*Kapha*” dominated conditions urine becomes “*Phenayukta*”, i.e., frothy or *Snigdha* (cloudy).
- c. In “*Pitta*” aggravation urine appears yellowish or *Rakta varna* (reddish).
- d. In case of *rakta*-aggravation urine become *Snigdha*, *Ushna* (hot) and resembles blood.
- e. In *Dwandaja*, i.e., a state of combined *Dosha* aggravation, mixed colours are seen in the appearance of the urine as per the *Dosha* involved in the causation of diseases.
- f. In *Sannipata* state, urine becomes *Krishna Varna* (blackish).

##### 2. Diagnosis of disease involvement

- a. In the case of diseases related to ‘*Ajirna*’ (indigestion), urine appears like *Tandulodaka* (rice water).
- b. In *Navina Jwara* (acute fever) urine appears ‘Smoky’ and the affected person passes more urine (*Bahu Mutrata*).
- c. In *Vata-Pitta jwara* - urine is smoky, watery and hot.
- d. In *Vata- Shlesma jwara* - urine is whitish with air bubbles.
- e. In *Shlesma-Pitta jwara* - urine is polluted and is mixed with blood.
- f. In *Jirna* (Chronic) *jwara* - urine becomes yellowish and red.
- g. In *Sannipata jwara* - urine appears in mixed shades depending on the *Dosha* involvement.

#### By shape of the oil drop on urine surface

##### Diagnosis of *Dosha* involvement<sup>13</sup>

- a. If *Taila bindu* takes a snake like image in the urine, it is *Vata roga*.
- b. If urine takes an “Umbrella” shape it is

*Pittaja roga.*

- c. If urine spreads like Pearl (*Mukta*) it is *Kaphaja roga*

Also, it is said that if the *Vata* is predominant, then the *Taila* attains *Mandala* (circular shape); in *Pitta* diseases it attains *Budbuda* (bubbles) shape; in *Kapha* diseases it becomes *Bindu* (globule or droplet) and in the *Sannipata* the *Taila* sinks in the urine.

## DISCUSSION

A proper diagnosis forms the basis for proper treatment whereas ignorance of disease or improper diagnosis leads to haphazard or insufficient treatment. So diagnosis of disease is first and foremost. Prognosis is also an important aspect of disease with diagnosis. Prognosis helps the physicians to modify the treatment according to the status of disease. Predicting prognosis is still a big challenge to medical science.

Improved prognostic aids may facilitate better patient care, giving patients the ability to make better informed choices about treatment. On the other hand, it may help patients to make better use of the time remaining to them and may give them the opportunity to make appropriate decisions/choices for their own impending death.

If we look into *Ayurvedic* texts then we will find that art of prognosis was well developed in ancient times. In 16th century *Taila Bindu Pariksha*, a urine test for knowing prognosis was popular. It is described in number of classic text like *Vangasena samhita*, *Vasavrajyam*, *Yogratnakar* etc. it was very popular in medieval period but became obsolete with the passage of time.

The examination of urine has always been essential for the diagnosis of disease from medieval time to this modern era of biotechnical development. But modern laboratory procedures are money and time consuming and some of them are invasive and painful. So

work should be done to develop such techniques which are simple and cost effective also. As the examination of urine and oil drop spread over the urine surface gives information about the disease and its prognosis. Its efficacy and accuracy can be increased by using modern technology. Scientific validation of *Tail Bindu Mutra Pariksha* in the light of modern science will be a landmark in the field of prognosis of the diseases.

## CONCLUSION

In precise word, *Tail Bindu Mutra Pariksha* can be used as tool for prognosis of disease. Prognostic assessment based on *Ayurvedic* principals related to *Tail Bindu Mutra pariksha* will help in providing better medical care to the patients as treatment needs to modify with the status of disease. Since no laboratory test is available to instantly assess or forecast the prognosis of the diseases, this method which is very cost effective may be proved to be useful technique in this field.

So research work is to establish results of *Tail Bindu Mutra pariksha*. Interpretation of the available literature related to diseases in light of scientific knowledge, which can pave the way for the assessment of prognosis of diseases in future.

## REFERENCES

1. Blanchard, CG, Labrecque, MS, Ruckdeschel, JC, Blanchard, EB Information and decision-making preferences of hospitalized adult cancer patients. *Soc Sci Med*, 1988; 27:1139-1145
2. Denger, LF, Kristjanson, LJ, Bowman, D, Sloan, JA, Carriere, KC, O'Neil, J, et al. Information needs and decisional preferences in women with breast cancer. *JAMA*, 1997; 277: 1485-1492.
3. Vaidya Lakshmi pati Sastri, S. *Yogaratnakar*, Varanasi: Choukhamba Praka-

- shan; 2013, p5.
4. Vaidya Lakshmipati Sastri, S. Yogaratnakar, Varanasi: Choukhamba Prakashan; 2013, p10
  5. Vangasen, Vangasena Samhita, Edited by Nirmal, Choukhamba Sanskrit Samsthana, Varansi, 2004.
  6. Vaidya Lakshmipati Sastri, S. Yogaratnakar, Varanasi: Choukhamba Prakashan; 2013, p10
  7. Vasavraja virachita Vasavrajyam, edited by Shri Goverdhana Sharma, Ist edition, 1930, Gorakshana Yantralaya Mudritava Parikshana.
  8. Dr. Shailza Shrivastva, Sharangadhara Samhita, Varanasi, Choukhamba Orientalia; Edition, 2005, Prathama Kahnda, p205.
  9. Kar Anukul C., kachare kalpana B., Importan aspect of Ayurvedic Taila Bindu Priksha to access disease prognosis, WJPR journal 2015
  10. Kar Anukul C., Sharma Reetu, Panda Bimal K, singh Virendra P. A study on Taila Bindu Pareeksha (oil drop test), Ayu journal 2009.
  11. Vaidya Lakshmipati Sastri, S. Yogaratnakar, Varanasi: Choukhamba Prakashan; 2013, p10
  12. Vaidya Lakshmipati Sastri, S. Yogaratnakar, Varanasi: Choukhamba Prakashan; 2013, p11
  13. Vaidya Lakshmipati Sastri, S. Yogaratnakar, Varanasi: Choukhamba Prakashan; 2013, p12

#### CORRESPONDING AUTHOR

**Dr. Neha Tiwari**

PG scholar of Rog Nidan R.G.G.P.G.

Ayurvedic College, Paprola

Himachal Pradesh, India

**Email:** drnehatiwari1991@gmail.com

**Source of Support:** Nil

**Conflict of Interest:** None Declared