

STUDY OF TAILA BINDU PARIKSHA AND ITS CLINICAL APPLICATION FOR DIAGNOSIS AND PROGNOSIS OF DISEASE

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Article Received on
03 Jan. 2024,

Revised on 24 Jan. 2024,
Accepted on 14 Feb. 2024

DOI: 10.20959/wjpr20245-31451



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ABSTRACT

In clinical practice diagnosis of disease is a very important aspect. Its importance is underlined by the ancient scholars. In *Ayurvedic* classics there are various method described for the *roga-rogi pariksha* like *Trividha pariksha*, *Dashvidha pariksha* and *Astasthan pariksha* etc. The *Taila Bindu Pariksha* was described for the examination of urine to assess the prognosis as well as to diagnose the disease under *Astasthan Pariksha*. It is a cost-effective and very simple technique. The test is performed with the help of *Tila Taila* and urine of the patient. The first morning sample of urine is taken in a clean round glass container (Petri dish) and a drop of the oil is gently poured over it and characteristics of the oil drop like direction of spread, speed of spread, final shape attained and time of split etc were noted down. The *Taila Bindu Pariksha* was very popular tool to access the prognosis of the diseases in the medieval period but it became absolute with time. Thus, it is need of time to reestablish this age old technique in the benefit of mankind.

KEYWORDS: *Taila bindu pariksha*, *Astasthan pariksha*, Prognosis, urine.

INTRODUCTION

The importance of diagnosis Acharya Charak said that " *Rogamadou parikshetatoanantaramoushadham*".^[1] i.e. diagnoses the disease first and then starts the treatment. In *Ayurveda* various methods of examination are described like *Dwividh Pariksha*, *Trividha Pariksha*, *Astasthan Pariksha*, *Dashvidha Pariksha* etc.

In *Astasthan Pariksha* different vital parts of body and related pathological conditions

of patient are examined. It includes *Nadi Pariksha*, *Mutra Pariksha*, *Mala Pariksha*, *Jivha Pariksha*, *Shabda Pariksha*, *Sparsh Pariksha*, *Drik Pariksha* and *Aakriti Pariksha*. The *Mutra Pariksha* especially the *Taila Bindu Pariksha* is one which proves to be an important tool mainly for deciding the prognosis.^[2,3,4] as well as for diagnosis of diseases. The *Taila Bindu Pariksha* is described in number of *Ayurvedic* texts like *Vangasena Samhita*, *Vasavarajiyam*, *Yogaratanakar* and *Yogatrangini* etc. In this procedure, the urine is taken.^[5] in a clean broad mouth round glass container over which a drop of oil is poured and its character is noted down without causing any disturbances. The different features of oil drop like rate of spread, shapes attained etc are indicative of prognosis of diseases. Hence an attempt is made to understand the significance of *Taila Bindu Pariksha* in the diagnosis and prognosis of disease.

AIMS

To evaluate the importance of *Taila Bindu Pariksha* in diagnosis of disease and deciding the prognosis as well.

OBJECTIVE

To evaluate the prognosis of disease and assessment of *dosha* involved in the disease.

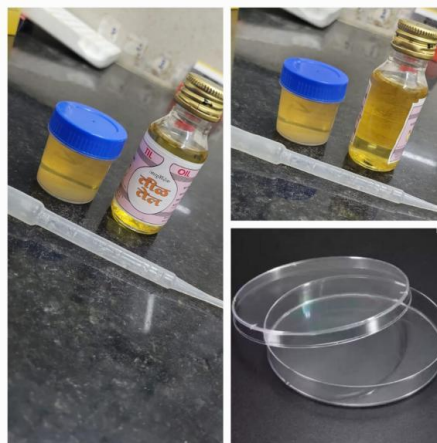
MATERIALS AND METHODS

Literary

The various classical texts of *Ayurveda* as well as the related modern texts along with different published articles, research papers and information available on internet were referred to collect the data to fulfill this paper.

Laboratory

1. Glass vessels with lid to collect urine
2. Round large mouthed glass bowl
3. Dropper
4. Urine of the patient (Sample)
5. Tila tail (sesame oil)



REVIEW OF LITERATURE

1) Mutra

Mutra i.e., urine is formed as *mala* (excretory product) at the time of conversion of *Ahar Rasa* into *Rasa dhatu*, in *pakwashaya* during *sara-kitta vibhajana*.

Normal properties of *Mutra* (urine)

1. *Rasa - Katu* with *lavan anurasa*
2. *Guna - Ushna, Tikshna, Aruksha*

2) *Mutra pariksha* or diagnostic methods for urine

Mutra i.e., urine examination is one of the *Asthavidha pariksha* I.e., eight fold examination stated by *Acharya Yogratnakar*, holding third most position amongst eight.

It describes normal urine in following parameters

1. *Sparsh* (touch sensation) - fresh urine has *ushna*(warm) *Sparsh*
2. *Varna* (appearance) - clear, colourless or *alpa pithabh* (pale yellow)
3. *Gandha* (odour) - natural foul odour - significant in *saam - niraam parikshan*
1. *Pramana* (volume) - 4 *anjali*

Following table shows Urine examination (Modern view)

Physical	Chemical	Microscopy
1.Colour	1.pH	Cells - RBCs, WBC/Pus cells Epithelial cells
2.Appearance	2.Protien	
3.Odour	3.Glucose	
4.Specific gravity	4.Ketones	Casts - Hyaline, Granular, Waxy
	5.Bilirubin	
	6.Blood	Crystals – Normal Abnormal

3) *Taila bindu parikshan*

Time of Urine Collection

About all the texts have stated that the collection of urine should be done in the early morning while *Yogratnakara* and *Vangsen* have clearly specified the ideal time for the collection of the sample i.e. it should be when 4 *ghatikas* are left in the last *yama* of night. *Yama* is a eriod equivalent to 8th part of a day-night i.e. 3 hours before sunrise.^[6] According to Ayurvedic rmacopoeia of India, *ghatika* is equvallent to 24 minutes as described in Monier William's Dictionary and thus the 4 *ghatika* means 1 hour 36 minutes. Hence the time of collection

should be 1 hour 36 minutes before sunrise. There is a rapid fall in the surface tension of urine before the so called static value is attained.^[7]

Patra for the collection of Urine to perform *Taila Bindu Pariksha*

The scholars have instructed various *patra* for collection of urine such as – Glass or Bronze *Supatra* and *Shveta Kachamaye Patra*. *Vangasena* has mentioned that one can use either glass vessel or bronze vessel.^[8]

Collection of urine

First voided midstream morning sample urine has to be collected for the examination.^[9]

Selection of the oil

Tila taila was considered by many *Acharyas* like *Yogaratanakara* and *Vasavarajiyam*.

According to *Acharya Sharngdhar*, if name of particular oil is not mentioned, then *Tila tail* should be taken.^[10] Out of two types of *Tila* i.e. Black and White type, the black variety is more suitable to be used for this procedure.

Time of conducting *Taila Bindu Pariksha*

The standard time interval between the collection and performance of the test i.e. is 2 hours.

Size of oil Drop

In classical description the *Trina* was used as a tool to drop the oil drop over the surface of urine.^[11] However, size of oil drop may vary according to type of *Trina* (as specific *Trina* is not mentioned), a dropper is used for standard size of oil drop.

Procedure of *Taila Bindu Pariksha*

1. Sufficient quantity (approximately 200 ml) of urine is taken in a glass vessel or in a petri dish and place in an area free from any kinds of disturbing factors like breezes and vibrations etc.
2. Then a drop of *taila* (oil) with the help of a grass leaf or dropper is allowed to fall, maximum height of 1 cm from the urine surface.
3. The different parameters like rate of spread, patterns i.e. the shape gained and distribution etc of the oil drop on the surface of the urine sample are observed to determine the prognosis of disease and diagnosis as well.
4. As per the classical description the shape of the oil drop indicates the *dosha* involved while the direction of the spread indicates the prognosis of the disease.^[12]

OBSERVATIONS AND RESULT OF TAILA BINDU PARIKSHA

The nature of the oil drop is carefully observed for its rate of spread and finally attained shapes etc. The following points are noted in table.

Table 1: Taila bindu appearance according to dosha.

Sr.No	Dosha vikara	Taila bindu appearance
1.	Vata	Sarpa(snake)
2.	Pitta	Chhatra(umbrella)
3.	Kapha	Mukta(pearl)

Table 2: Oil spreads in different diseased condition.

Sr.No	Urine	Diseased condition
1.	If dropped oil spread quickly over the surface of urine.	Sadhya (curable)
2.	If dropped oil does not spread	KashthaSadhya (difficult to treat)
3.	If oil drop sinks and touches the bottom of the vessel.	Asadhya (incurable)

Table 3: Oil spread in different direction.

Sr.No	Direction of spread	Prognosis
1.	East (<i>purva</i>)	Easily curable
2.	West (<i>paschima</i>)	Patient will achieve health wealth
3.	North (<i>uttara</i>)	Undoubtly curable
4.	South (<i>dakshina</i>)	If associated with fever it will cure gradually
5.	South-East (<i>agneya</i>)	Spreading with appearance of hole, indicates surety of death
6.	South-West (<i>nairitya</i>)	Spreading with appearance of hole, indicates surety of death
7.	North-West (<i>vayavya</i>)	No chance of servility even if nectar is given
8.	North-East (<i>ishanya</i>)	Death within one month

Table 4: Shape of the oil drop in different diseased condition.

Sr.No	Shape of the oil drop	Diseased condition
1.	Hansa (Swan), Lotus, Chamara (Chowri Composed of the Tail of Yak), Torana(Arch), Parvata (Mountain), Elephant, Camel, Tree, Umbrella And House	Prognosis is good
2.	Fish	Patient is free of dosha and disease can be easily treated [Sadhya (curable)]
3.	Valli (creeper), Mridang (a kind of drum), Manushya (human being), Bhandra (pot), Chakra(wheel) or Mriga (deer)	Kashtha Sadhya (difficult to treat)
4.	Tortoise, buffalo, honey bee, bird, headless human body, astra (instrument for surgery like knife etc.), khanda (Piece of body)	Asadhya (incurable)
5.	Four legged, three legged, two legged	Aristha lakshana (patient will die soon)
6.	Shastra (Sharp instruments), Khadga (sword), dhanush (bow), trisulum, Musalayudhamam	Aristha lakshana (patient will die soon)

	(pestle), Srigal (jackal), <i>sarpa</i> (snake), <i>vrishchika</i> (scorpion), <i>Mushika</i> (rat), <i>Marjara</i> (cat), arrow, <i>vyaghra</i> (tiger), <i>markata</i> (monkey) or <i>simha</i> (lion)	
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Table 5: Urine appearance in various disease.

Sr. No	Disease	Urine appearance
1.	<i>Ajirna</i> (indigestion)	<i>Tandulodaka</i> (rice water)
2.	<i>NavinJwara</i> (Acute fever)	<i>Dhumara Varna</i> (smoky) and <i>Bahu Mutrata</i> (diseased person passes more urine)
3.	<i>JirnaJwara</i> (Chronic fever)	<i>AsrikSadrish</i> (yellowish red)
4.	<i>PuittanilaJwara</i> (<i>Vata-Pita Jwara</i>)	<i>Dhumra, Jalabham Ushana</i> (Smoky, Watery, Hot)
5.	<i>MarutaShlesmani vatasleshmaJwara</i>)	<i>Budbudabham</i> (like air bubbles)
6.	<i>Shleshma Pitta jwara</i>	<i>Kalush</i> (Polluted), <i>Saraktam</i> (mixed with blood)
7.	<i>Sannipata Jwara</i>	<i>Mishra Varna</i> (Mixed color)

DISCUSSION

The proper treatment of disease depends on the accuracy of diagnosis. Prognosis is also an important aspect of disease along with diagnosis. It helps the physicians to modify the treatment according to the status of disease. Predicting prognosis is still a challenging task to the medical science in present era. In the ancient age the scholars have developed the methods to decide the prognosis. Among them the *Taila Bindu Pariksha* which was very popular in the 16th century. It is described in detailed number of *Ayurvedic* classical text like *Vangasena samhita*, *vasavrajyam*, *Yogratnakar* etc. *Taila Bindu Pariksha* is based on the consistency, thickness, density of urine and observations like the shape of spreaded oil on the surface of urine. It can be though that the different clinical conditions or diseases may alter the chemical composition of the urine which can be evident by altered specific gravity, pH level, viscosity, and surface tension of urine.

1. Glomerulonephritis

S.G. is low which suggests *kapha* predominancy. Hence, *Taila Bindu* may show *Muktakar* along with presence of protein in Chemical examination & RBC cast in microscopy.

2. Urinary tract infection

pH is low which suggests *MarutaShlesmani* predominancy. Hence, *Taila bindu* may show air bubble like appearance along with presence of nitrites in chemical examination & pus cell++, Bacteria ++ in microscopy.

3. Benign prostatic hyperplasia

viscosity is high which suggests vata predominancy. Hence, *Taila Bindu* may show Sarpakar like appearance along with presence of protien in Chemical examination & epithelial cells, mucus thread in microscopy.

4. Jaundice

Surface tension of urine is altered due to presence of Bile salts (Hay's test) and pittaj predominance is seen. Hence, *Taila bindu* may show Chatrakar like appearance along with presence of Bilirubin in Chemical examination & RBC cells, Bilirubin in microscopy.

It can be assessed by the microscopic and chemical examination and it correlates the pattern of *Taila Bindu Pariksha*. The patterns and distribution of oil drop on the surface of urine are considered to decide the prognosis of disease and up to some extent helps in diagnosis of diseases. Though being an old method it is a time tested and has its own importance in diagnosis and prognosis of disease. If this method is tested and validated on the modern parameters then it can be a gold standard in future.

CONCLUSION

The *Taila Bindu Pariksha* has a significant role for the assessment of prognosis and diagnosis as well. Prognostic assessment based on *Ayurvedic* principals related to *Tail Bindu Pariksha* will help in providing better medical care to the patients as treatment, needs to modify with the status of disease. This method which is very cost effective may be proved to be useful technique in medical field. 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.

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