WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH
www.wjpmr.com

ASSESSMENT OF PROGNOSTIC ASPECT OF KAMALA BY TAIL BINDU PARIKSHANA

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ABSTRACT

Asthavidha Rogi Pariksha is one of the main tools described in Ayurveda. Among the *Asthavidha Rogi Pariksha, Mutra Pariksha* is one of the important aid in which helps diagnosis as well as assessing the prognosis of the disease. *Tailabindu Parikshan* is a part of the *Mutra Pariksha* in diagnostic and prognostic of disease also. *Kamala* is a condition characterized by *Pittamutrata*. The study was undertaken as a single group of 30 patients of *Kamala* to evaluate the prognosis by *Tailabindu Pariksha*. It is very simple and cost effective. In it urine sample is collected in glass vessels and a drop of *Tila Taila* is dropped over it. Shape and direction of a *Tailabindu* is observed. *Pittanetrata* in relation with nature of spread, direction of spread and shape of spread was significant with P value of 0.01, 0.001 and 0.001 respectively. In this assessment majority of patients matched with the description given in the classical literature of Ayurveda.

KEYWORDS: *Kamala, Mutra Pariksha, Taila Bindu.*

INTRODUCTION

Prognosis is an important aspect of diagnosis and treatment. 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. *Tail Bindu parikshana* is an ancient diagnostic method developed in ayurvedic classics. It provides information regarding diagnosis as well as prognosis of diseases. Present research work was done in patients of *Kamala*.

Acharya Yogratnakar has described *Astavidha Rogi Pariksha* in his classic.[1] It includes examination of *nadi* (pulse), *mutra* (urine), *mala* (bowel), *jiwha*(tongue), *shabd* (speech*), sparsh* (temp/touch),*drik* (eyes), and *aakriti* (built).Urine is the end product of metabolism by billions of cells. That's why analysis of the urine is important in detecting disease of the urogenital organs and other systems of body. *Kamala*[2] is a disorder characterized by *pittanetrata. Tail bindu mutra parikshana* is not only diagnostic but also prognostic in nature. *Tailbindu mutra parikshana* is described in number of ayurvedic texts like Yogaratnakar, Vangasen Samhita, Vasavrajiyam and Yogtarangini. *Tailbindu mutra parikshana* 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.

Prognosis of disease by the examination of oil drop on the urine surface
By spreading nature of the oil
1. If oil spreads quickly over the surface of urine, the disease is *Sadhya* (curable or manageable).
2. If the oil does not spread it is considered as *Kashtasadhya* or difficult to treat.
3. 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[3]
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 a 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* 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

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 *Kashtasadhya* (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

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.

MATERIAL AND METHODS

Literary study: 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.*

Clinical study: Patients were selected from Parul Ayurved Hospital, Vadodara for study. 30 patients suffering from *Kamala* were registered with respect to age, irrespective of sex, cast and religion were assigned into a single group.

Materials

a. Bottle with lid to collect urine
b. Round large mouthed glass tumbler
c. Dropper
d. Urine of the patient
e. *Tila taila*(sesame oil).[4]

To maintain uniformity, every patient was advised to sleep early (before 9 PM) with intake of 2-3 glasses of water with dinner. Before sunrise, around 5 AM, patients were asked to collect the mid-stream urine of the first urination in a clean container.[5] Almost all Ayurvedic 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.[6] Urine thus collected was poured into the round wide mouthed glass bowl kept

on a flat surface and was allowed to settle. After ascertaining that the urine was stable and devoid of wave of ripples or other influence of the wind, the urine was examined in a day light at 6.30 AM.

Tila taila as then taken in a dropper and one drop of the tail(approximately 1/20 ml) was dropped over the surface of urine slowly(keeping a distance of 1 mm from the surface of the urine to the lower end of the oil drop) without touching the surface. It was then left for a few minutes, and the oil drop pattern in the urine was observed. The inferences were recorded.

Statistical Analysis
Statistical analyses were performed by applying Descriptive statistics, Chi-square test using SPSS for windows software. P value $<= 0.01$.

OBSERVATIONS

Demographic data and clinical data were made on 30 patients and similarly the results were analyzed and are presented in Tables. It was observed that the incidence of kamala was higher i.e. 40 % in the age group of 31 to 40 years and 83.3% in Hindus. 93.3% of patients were on mixed diet. It was also observed that maximum chronicity was greater and equal to 2 weeks(43.3%). *Pitta netrata* and *Pitta mutrata* was found in all the 30 patients.

RESULTS

Pitta netrata in relation with nature of spread, direction of spread and shape of spread was significant with P value of 0.01, 0.001 and 0.001 respectively.

DISCUSSION

In the basic definition of health given by Shushrut Samhita the normalcy of urine is an indicator of good health and any abnormality in urine suggest derangement in the normal physiology of body. For the present study the disease *Kamala* was chosen as there was a break out of Jaundice during the period of study. Moreover derangement in the urine is a cardinal feature of the disease *Kamala*, hence the *Tailabindu Parikshan* was planned in the patients of *Kamala*. In the present study among 30 patients, urine sample of 3 patients showed no spreading and in 8 urine samples slow spreading of *Taila* drop was observed which indicates the poor prognosis of *Kastha sadhyata* of the disease. In rest of the patients it was moderate, fast and very fast spreading in nature that suggest good prognosis. In none of the patients the *Taila* drop sank in urine(Table 2).

Classical literature of Ayurveda advocates that if the *Taila* drop is spreading towards North West, north east, south east and south west considered as *Asadhya* and death is said to be certain. In the present study *Taila* drop was spreading in the above said directions In 8 samples, but no fatalities were reported during the period of this study. In 7 samples *Taila* drop was spreading towards

west and in 3 samples it was spreading towards east. In both conditions the prognosis is said to be good. In 8 urine samples *Taila* drop was spreading in no specific direction and in 1 sample it was spreading in all directions. In these patients the *Taila* drop was spreading either very fast or fast, which are pointers of good prognosis(Table 3).

Pitta mutrata and *Pitta netrata* in relation with direction of spread were found statistically significant with P value of 0.01 and 0.001 respectively. The *Taila* drop attains the *Chamara* shape in 6 samples, *Pravata* shape in 1 sample which is an indicative of good prognosis. *Chakra* shape and *Ghata* shape were observed in 11 and 4 samples respectively which indicates poor prognosis. In 8 samples *Taila* drop was not having any proper shape which can be consider as an indicator of good prognosis based on the nature and direction of spread(Table 4).

Pitta netrata and *Pitta mutrata* in relation with shape of spread was found to be statistically significant with P value of 0.01 and 0.001 respectively.

Table 1: Showing the prognostic aspects of *Tailabindu Pariksha*.

	Sukha Sadhya	Kashta Sadhya	Asadhya
Nature of spread	20	10	-
Direction of spread	17	5	8
Shape of spread	16	14	-

Table 2: Nature of spread of *Tailabindu*.

Nature of spread of Tailabindu	Frequency	Percent
Not spreading	3	10.00
Slow spreading	8	26.66
Moderate spreading	5	16.66
Fast spreading	7	23.33
Very fast spreading	7	23.33
Total	30	100.00

Table 3: Direction of spread of *Tailabindu*.

Direction of spread of Tailabindu	Frequency	Percent
Not applicable	3	10.00
All directions	1	3.3
No specific direction	8	26.7
West	7	23.3
East	3	10
North west	3	10
North east	3	10
South west	1	3.3
South east	1	3.3
Total	30	100.0

Table 4: Shape of *Tailabindu.*

Shape of Tailabindu	Frequency	Percent
Chamara	6	20
Chakra	11	36.7
Parvata	1	3.3
Ghata	4	13.3
No proper shape	8	26.7
Total	30	100.0

CONCLUSION

The present study was a preliminary effort to assess the utility of *Tailabindu Pariksha* as a prognostic tool in the disease *Kamala.* The findings with respect to the nature of spread, direction of spread and patterns created by the spread of oil drop in majority of the patients matched with the description given in classical literature of Ayurveda. Since the sample size of the present study (n-30) was small, there is a need for further research on a large group of patients to arrive at a more precise conclusion.

Since no laboratory investigation is available to instantly assess or forecast the prognosis of the disease, *tailabindu pariksha* which is a very simple and cost effective technique can assume prominent status for the same.

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