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Research Article

ASSESSMENT OF PROGNOSTIC ASPECTS OF KAMALA BY TAILA BINDU PARIKSHA

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ABSTRACT
Examination plays an important role in the diagnosis of a disease. In ancient times the method of examination was by the usage of trividha pariksha, dasha vidha pariksha and ashta sthana pariksha. *Ashta sthana pariksha* represents the clinical assessment as well as the laboratory investigations of that period. Among the ashta sthana pariksha, mutra pariksha is one which proves to be an important aid in diagnosis as well as assessing the prognosis of a disease. The *taila bindu pariksha* which is a part of *the mutra pariksha* helps in assessing the prognosis of a disease. Kamala is a clinical condition characterised by peeta mutrata. Hence the study was under taken on a single group of 30 patients of kamala to evaluate the prognosis by Taila bindu pariksha. The urine samples collected from the patients were subjected for tailabindu pariksha. The relation of peetamutrata and peetanetrata with the nature of spread, direction of spread and shapes formed by the oil drop was assessed for determining the prognosis of the disease. Peeta netrata in relation with nature of spread, direction of spread and shape of spread was significant with P value of 0.038, 0.001 and 0.001 respectively. 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.
Keywords: Taila Bindu Pariksha, Kamala, Prognosis.

INTRODUCTION

Taila Bindu Pariksha is an ancient diagnostic method developed by medieval Ayurveda scholars. It provides information regarding diagnosis as well as prognosis of diseases. Present research work was done in patients of Kamala (Jaundice) so as to assess the aspects of Taila bindu pariksha of Mutra. Urine is the end product of metabolism by billions of human cells. Analysis of the urine is important in detecting diseases of the urogenital organs, as well as disorders of other body systems.[1]

The characteristic features of urine are key elements in establishing the state of health. Kamala (Jaundice) is a disorder characterized by yellowish pigmentation of the skin. In Hepatic Jaundice and Post hepatic Jaundice, the colour of the urine is altered. 30 cases of Kamala were selected for the study to assess the prognosis of the disease.

Review of Literature

The description of *Taila bindu pariksha* can be found in the medieval classics of Ayurveda like Yogaratnakara[2], Basavarajeeyam[3], Vangasena Samhita[4], Yoga Tarangini etc. The midstream of the first voided urine in the early morning should be collected in a vessel before sunrise. Taila bindu *pariksha* is to be carried out after sunrise, the drop of tilataila is dropped at the centre and its spread in different direction over urine along with different shapes formed should be examined.[5] All Ayurvedic classics mention similar method of Taila bindu *pariksha*, using glass vessel as the material of patra except Vangasena, who has advocated use of either glass or bronze vessel.[6]

1. **Diagnosis of diseases by examination of urine**
   By the appearance of urine
   Diagnosis of the involved Dosha

- In Vataprakopa, urine of the patient appears as Panduvarna (whitish) or slightly 'Nilam' (Bluish).
- In Kapha prakopa, urine appears Phenayukta (frothy) or Snigdha (cloudy).
- In Pitta prakopa, urine appears yellowish or Raktavarna (reddish).
- In case of *rakta prakopa*, urine becomes *Snigdha*, Ushna (hot) and resembles blood.
- In Dwandaja, i.e., a state of aggravation of two doshas, mixed colours are seen in the appearance of the urine as per the Dosha involved in the causation of the disease.
- In Sannipata state, urine becomes Krishna varna (blackish).

Diagnosis of disease

- In case of diseases caused by 'Ajirna' (indigestion), urine appears like Tandulodaka (rice water).
- In Nava Jwara (acute fever), urine appears Dhumra Varna (Smoky) and the affected person passes more urine (Bahu Mutrata)
- In Vata-Pitta jwara - urine is smoky, watery and hot.
- In Vata Shlesma jwara - urine is whitish with air bubbles.
- In Shlesma-Pitta jwara - urine is polluted and is mixed with blood.
- In Jirna jwara (chronic fever) - urine becomes yellowish and red.
- In Sannipata jwara - urine appears in mixed shades depending on the Dosha involvement.

By the shape of the oil drop
Diagnosis of the involved Dosha

- If the tailabindu takes Sarpakara (shape of a snake) in the urine, it is Vataroga.
- If the tailabindu takes Chatrakara (shape of an Umbrella), it is Pittajaroga.
- If the tailabindu takes Muktakara (shape of pearl), it is Kaphaja roga.

It is said that if Vata is predominant, then the Tailabindu attains Mandala (circular) shape; in Pitta diseases it attains Budbuda (bubbles) shape; in Kapha diseases it becomes

Bindu (globule or droplet) and in Sannipata diseases, the taila bindu sinks in urine..

Diagnosis of disease

- If the Taila bindu takes the shape of Chalini (sieve) in the urine sample and then spreads, it is a definite indication of Kula dosha (genetic disorder) or Preta dosha.
- If the Taila bindu takes narakaram (the shape of human being) or shape of two Mastaka (Head), it indicates 'Bhutadosha' and should be treated with Bhutavidya.

2. Prognosis of diseases by examination of urine

By the nature of spread of the oil drop

- If the taila bindu spreads quickly over the surface of urine, then the disease is considered as *Sadhya* (curable or manageable).
- If the taila bindu does not spread, then the disease is considered as *Kashtasadhya* or difficult to treat.
- If the taila bindu sinks and touches the bottom of the vessel, then the disease is considered as *Asadhya* or incurable. In Basavarajeeyam it is mentioned that if the taila bindu does not spread and remains as such in the middle of the urine, then the disease is to be considered as incurable.

By the direction of spread of the oil drop

- If the taila bindu spreads in the direction of *Purva* (east), the patient gets relief.
- If the taila bindu spreads in the southern direction, the individual will suffer from *jwara* (fever) and recover gradually.
- If the taila bindu spreads in the northern direction, the patient will definitely be cured and become healthy.
- If the taila bindu spreads towards the west, he will attain *Sukha* and *Arogya* i.e. happy and healthy.
- If the taila bindu spreads in the direction of *Ishanya* (Northeast), the patient is bound to die in a month's time; similarly, if the taila bindu spreads in the *Agneya* (Southeast) or *Nairutya* (Southwest) directions, or when the instilled taila bindu splits, the patient is bound to die.
- If the taila bindu spreads towards *Vayavya* (Northwest) direction, the patient will die definitely.

By the shape of the oil drop

- It is a good prognosis if the taila bindu creates the images of *Hamsa* (swan), lotus, *Chamara* (chowri composed of the tail of Yak), *Torana* (arch), *Parvata* (mountain) elephant, camel, tree, umbrella or house.
- If the taila bindu attains the shape of a fish, then the patient is free of *dosha* and the disease can be treated easily.
- If the taila bindu attains the shapes of *Valli* (creeper), *Mrdanga* (a kind of drum), *Manushya* (human being), *Bhanda* (pot), *Chakra* (wheel) or *Mriga* (deer), then the disease is considered as *Kashtasadhya* (difficult to cure).
- If the spreading taila bindu attains the shapes of tortoise, buffalo, honey-bee, bird, headless human body, *astra* (instrument used in surgery, like knife etc) or *Khanda* (piece of body material), then the physician should not treat the patient as that disease is incurable.
- If the *taila* bindu is seen as four-legged, three-legged or two-legged in shape, the patient will die soon.
- If the *taila* bindu attains 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), then it is to be understood that the patient will die soon.

MATERIALS AND METHODS

Selection of patients

Patients were selected from the IPD of Government Ayurveda Medical College and Hospital, Mysore, India for the study. 30 patients suffering from *Kamala* were registered with respect to age, irrespective of sex, caste and religion.

Whether Ethical clearance has been obtained?

Ethical Clearance Number: SRP-2(a)(EC)/GAMC 2012-2013

Method of study

Literary study: for the review of present study the literary information were gathered from the Ayurvedic classical text books like Yogaratnakara, Basavarajeeyam, Vangasena Samhita.

Clinical study: By purposive sampling method, patients were assigned to a single group consisting of 30 patients.

Materials

- Bottle with lid to collect urine
- Round large mouthed glass tumbler.
- Dropper
- Urine of the patient
- Tilataila (Sesame oil)

To maintain uniformity, every patient was advised to sleep early (before 9 PM) with usual intake (2 to 3 glasses) of water during the dinner. Before sunrise, around 5 AM, patients were asked to collect the mid-stream urine of the first urination of the day in a clean and neat bottle. Urine thus collected was poured into a round wide mouthed glass bowl (4-5 inches in diameter and 1.5 inch depth), kept on a flat surface and was allowed to settle. After ascertaining that the urine was stable and devoid of wave or ripples or other influence of the wind, the urine was examined in day light at 6.30 AM.

Tila taila was then taken in a dropper and one drop of the taila (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 disturbing/touching the surface. It was then left for a few minutes, and the oil drop pattern in the urine was observed. The inferences were then recorded .

Precautions

- Mid-stream of the day's first urine should be considered for the test.
- Tumbler in which the urine is collected should be kept on a flat surface and must be devoid of external influences like wind.
- Oil must be dropped only when the urine becomes stable without any movement.
- Oil drop must be dropped from a very low height (1 mm height from the lower end point of the oil drop) without

touching the urine with the dropper, because this can disturb the urine and give false results.

Statistical Analysis

Statistical analyses were performed by applying Descriptive statistics, Chi-square test using SPSS for windows software (version 16.0). P values ≤ 0.01.

Observations

Demographic data and clinical data were made on 30 patients who completed the trial, and similarly the results were analyzed and are presented in Tables. It was observed that the incidence of Kamala was higher i.e. 33.3 % in the age group of 31-40 years and 83.3 % in Hindus. 96.7 % of patients were on mixed diet. It was also observed that maximum chronicity was ≥ 2 weeks (43.3%). Peeta netrata and Peeta mutrata was found in all the 30 patients.

RESULTS

Peeta netrata in relation with nature of spread, direction of spread and shape of spread was significant with P value of 0.038, 0.001 and 0.001 respectively.

DISCUSSION

Mutra is an excretory waste and in the basic definition of health given by Sushrutha Samhita the normalcy of urine is an indicator of good health and any abnormality in urine suggests 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 the study. Moreover derangement in the urine is a cardinal feature of the disease kamala, hence the taila bindu pariksha was planned in the patients of kamala. In the present study among 30 patients, urine sample of 4 patients showed no spreading and in 7 urine samples slow spreading of taila drop was observed which indicates the poor prognosis or kashta sadhyata of the disease. In rest of the patients it was moderate, fast and very fast spreading in nature pointing towards good prognosis which coincides with the clinical findings wherein the peeta mutrata was not statistically significant but peeta netrata was found to be statistically significant with p value 0.038. In none of the patients the oil drop sank in urine (Table 2).

Classical literature of Ayurveda advocates that if the oil drop is spreading towards north west, north east, south east and south west it is considered as Asadhya and death is said to be certain. In the present study oil drop was spreading in the above said directions in 8 samples, but no fatalities were reported during the period of the study. In 6 samples the oil drop was spreading toward west and in 2 samples it was spreading towards east; in both these conditions the prognosis is said to be good. In 9 urine samples, the oil drop was spreading in no specific direction as such on and in 1 sample it was spreading in all the directions. In these patients the oil drop was spreading either fast or very fast, which are pointers of good prognosis (Table 3).

Peeta mutrata in relation with direction of spread was found to be statistically insignificant but *peetanetrata* in relation with direction of spread was found to be statistically significant with p value 0.001. The oil drop attained the chamara shape in 6 samples, parvata shape in 1 sample which is an indicative of good prognosis. Chakra shape and *bhanda* shape were observed in 11 and 4 samples respectively which indicate a poor prognosis. In 8 samples the oil drop was not having any proper shape which can be considered as an indicator of good prognosis based on the nature and direction of spread (Table 4).

Peetamutrata in relation with shape of spread was found to be statistically insignificant but *peetanetrata* in relation with shape of spread was found to be statistically significant with p value 0.001.

Table 1: Showing the prognostic aspects of Tailabindu Pariksha

	Sukha sadhya	Kashta sadhya	Asadhya
Nature of spread	19	11	-
Direction of spread	18	4	8
Shape of spread	15	15	-

Table 2: Nature of spread of taila bindu

Nature of spread of taila bindu	Frequency	Percent
Not Spreading	4	13.3
Slow Spreading	7	23.3
Moderate Spreading	6	20.0
Fast Spreading	6	20.0
Very Fast Spreading	7	23.3
Total	30	100.0

Table 3: Direction of spread of taila bindu

Direction of spread of taila bindu	Frequency	Percent
Not applicable	4	13.3
all directions	1	3.3
no specific direction	9	30.0
West	6	20.0
East	2	6.7
north west	3	10.0
north east	3	10.0
south east	1	3.3
south west	1	3.3
Total	30	100.0

Table 4: Shape of taila bindu

Shape of taila bindu	Frequency	Percent
Chamara	6	20.0
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 taila bindu 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 diseases, taila bindu pariksha which is a very simple and cost effective technique can assume prominent status for the same.

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