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Validation of Siddha Diagnostic Procedures for Madhu Piramiam with the Aid of Conventional Diagnostic Procedures

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Abstract The treatment of traditional system will be more valid if the disease is diagnosed by its own perspective. So the study was aimed to determine the sensitivity and specificity of the Siddha diagnostic methodology for madhu piramium (a condition of chronic glycosuria in diabetes mellitus with urogenital infection). Clinical study was conducted on persons having the disease madhu piramium by applying Siddha system of diagnosis by fixing inclusion and exclusion criteria. The following procedures namely *Wrist circummetric sign, shape of oil drop on urine* and *eight fold examination* namely Pulse, Tongue, Complexion, Voice, Eye, Body examination, Stool and Urine were used for the study. Odds ratio with 95% confidence interval (CI) was used for statistical analysis. Most of the patients had the wrist circumference of 9 ½ Finger units. Significant number of patient`s urine, the drop of oil took the form of sieve. Eight fold examinations revealed significant number of patients had hard pulse appraisal and pulse play was of *pitha vatham* than healthy volunteers. Tongue examination revealed tastelessness and decreased salivation. Increase in body temperature and pain on palpation were observed in significant number of patients. Patient`s urine samples were cloudy foul smelling, frothy, higher in density, polyuria and with deposits. So it can be concluded that the following Siddha procedures in combination namely *Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations* differentiates the patients of madhu piramium from the healthy volunteers.

Keywords *Siddha System; Wrist Circummetric Sign; Shape of Oil Drop on Urine; Eight Fold Examination; Diagnosis*

1. Introduction

Siddha system is an ancient medical practice at par with the Ayurvedic system and mainly practiced in south India [1]. Siddha diagnosis is based on patient examination for signs and symptoms and its correlation with environment and chronology. This system states that the Human body is made up of

Vatham, Pitham and Kapham. These three are part of the environment and formed by the combination of the five basic elements. Vatham is formed by combination of air and space, possessing their characters. Pitham is formed by Fire. This is the Force of Preservation. Kapham is formed by Earth and Water. This is the Destructive Force. In healthy state, these three humors are in the ratio of 1(one): ½(half): ¼(quarter) in equilibrium. They are called the life forces or humours and are explained in pathinen siddhar naadi sasthiram [2]. Indian system of medicine and conventional western medicine are based on different sets of logical axioms. It is difficult to identify precise correspondences between related disease entities within two systems of disease classification. Siddha diagnosis is unique in individualization with respect to locate the vitiation of three humours of an individual`s constitution and not generalized [3, 4, 5, 6]. Sage Yugi classified diseases mainly based on signs and symptoms and three humours. This system of diagnosis tells about the prognosis of the condition too. In the Classical Siddha scripts different diagnostic procedures and symptoms of the various diseases are mentioned. The method of measuring Wrist circummetric sign and the interpretation of different measurements are clearly mentioned in the text of Padhinen Siddhar Naadi Nool [7]. The procedure of spreading pattern of oil on urine and the interpretation of the outcomes are clearly mentioned by Agathiyar and Theraiyar [8]. Eight fold examinations, a kind of systemic examination [9], includes examining the pulsation, tongue, complexion, Voice, eye, examination of body for temperature and locating pain, stool and Urine. The present study was planned to validate the diagnostic procedures of Siddha system to diagnose madhu piramium with the aid of conventional clinical diagnostic procedures. Madhu Piramiam (a condition of chronic glycosuria induced urogenital exudation) a disease of male with known diagnosis and prognosis was selected for the study. Madhu piramiam is a type of Piramiam, which usually presents with symptoms of dysuria, urogenital discharge, ulceration in urogenital tract, bad odour, emaciation of the body, tastelessness, dryness of tongue and drowsiness [10]. It can be correlated with disease having the symptom of urogenital discharge of male patients with glycosuria in diabetes mellitus. In the scripts of Siddha the disease is the result of increased Vaadha pitham. The following procedures, taken for the study namely *Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations* were considered for this study. The treatment in traditional system will be more valid if the disease is diagnosed by its own perspective. So the present study was carried out to validate the Siddha diagnostic procedure for madhu piramiam.

2. Materials and Methods

2.1. Selection of Patients

A total number of 30 diagnosed patients of clinical glycosuria with urogenital discharge were randomly selected for this study with the help of inclusive and exclusive criteria. 30 healthy volunteers were also selected for comparison. For this purpose, 100 patients were screened from the outpatient of Noi Naadal Department of Ayothidoss Pandithar hospital of National Institute of Siddha, Thambram Sanatorium, Chennai-47.

2.2. Criteria for Inclusion

Age between 20 years to 60 years, having blood sugar range of more than 150 mg% (fasting) and more than 200 mg% (post prandial), Dysuria, Urogenital (penile) discharge, Laboratory findings of glycosuria and history of glycosuria in the last one month. Among these criteria at least three out of five were considered for selection.

2.3. Criteria for Exclusion

Age below 20 years and above 60 years, serious complications associated with any other systemic diseases.

2.4. Study Enrollment

Patients were informed about the study and a written consent was obtained for this study. Complete clinical history, complaints, duration and examination findings were recorded in a prescribed format in history and clinical assessment forms separately.

2.5. Clinical Parameters

Conventional diagnostic parameters used for screening the patients were complete haemogram, blood sugar (Fasting and Post Prandial), urea, creatinine, SGOT, SGPT, serum protein (albumin and globulin), lipid profile (to know the involvement of other system for exclusion) and urine culture.

2.6. Wrist Circummetric Sign

To measure the wrist circumference in finger units, the patient was asked to keep his left hand`s four fingers just below the right thumb, then the doctor measured the circumference of the right wrist just below four fingers of the left hand of the patient using a twine, then the twine was removed from the wrist and placed on a plain surface and the measurement of the twine was taken by the patient's fingers (Figure 1 and 2). Total length of thread was counted in terms of finger units.

Figure 1: *Location of Measuring Wrist Circumference*

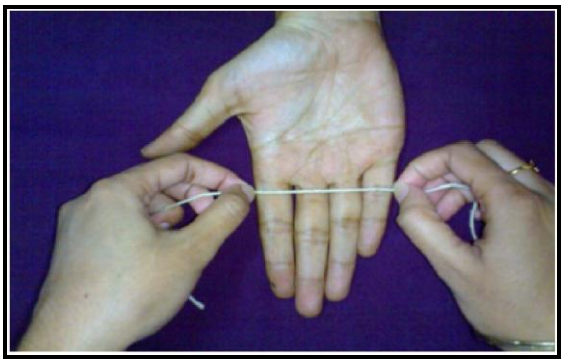

Figure 2: *Measurement of Length of the Twine with Finger Units*

2.7. Shape of Oil Drop on Urine

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 in a round wide mouthed glass bowl (4-5 inches in diameter and 1.5 inch depth), kept on a flat surface and is allowed to settle. After ascertaining that the urine is stable and devoid of wave or ripples or other influence of the wind, the urine was examined in day light at 6.30 AM. *Sesame oil* was then taken in a dropper and one drop of the oil 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 spreading pattern on the urine was observed. The inferences were then recorded.

2.8. Eight Fold Examinations

Pulse was examined on right wrist of male and felt for the strength of Vatham, Pitham and Kapham. The overall qualities of pulse like pulse appraisal, pulse character and pulse play were assessed. Vatham is felt in the first finger, Pitham in the middle finger and Kapham under the ring finger. Pulse was characterized for its pulse appraisal, pulse character and pulse play (based on the type of movement like snake etc. pulse play is characterized) such as Pitha vaadham, Vaadha pitham and kabha pitham. Tongue was examined for appearance, color, taste and salivary secretion. Patient`s complexion and voice were examined. Eyes were examined for color, secretions and congestion. Body examination was done to know the warmth of the body, sweating and presence of pain. Stool was examined for its consistency. Urine was examined for colour, odour, frothiness, density, quantity and deposits.

2.9. Ethical Issues

This study was approved by institutional ethical committee. F. No.NIS/6-20/Res/IEC/10-11 dated 29/11/2010.

2.10. Statistical Analysis

Results of the clinical parameters were expressed as mean ± SD. Data obtained from Siddha system of diagnosis for patients and healthy volunteers was analyzed using Chi-Square statistics followed by Fisher`s exact test for p value calculation. Odds ratio and 95% confidence interval (CI) were used to distinguish the patient from healthy individuals [11]. Data was computed for statistical analysis using the Graph pad prism software. Difference between the data was considered significant at $p < 0.05$.

3. Results

The clinical parameters used for screening the Madhu piramiam are given in Table 1, where healthy volunteers were taken for comparison. Total count, Lymphocytes, erythrocyte sedimentation ratio, fasting and post prandial blood glucose, VLDL and triglyceride were higher than the normal healthy volunteers.

Table 1: *Clinical Picture of Madhu Piramiam Patients and Healthy Volunteers*

Category	Laboratory Investigations		Patients	Healthy Individuals
Clinical laboratory parameters	Total count Cells/ Cu. Mm		7703.66±1830.1	6400±1445.3
	DC in %	P	58.36±10.02	54.93±8.99
		L	35.9±8.01	41.16±8.44
		E	4.03±5.38	3.73±2.11
	ES	½ h	12.33±12.36	2.96±2.38
		1h	18.8±17.67	5.93±4.77
	Hb g%		12.16±1.47	12.37±1.06
	Blood glucose mg/dl	F	174.3±52.25	75.53±6.93
		PP	288.16±73.35	98.2±14.82
	SGPT		27.43±7.45	26.43±5.50
	SGOT		26.96±11.57	23.26±6.78
	Urea		26.03±10.01	23.75±4.45
	Creatinine		0.72±0.22	0.66±0.07
	Lipid profile	Total cholesterol	189.6±41.82	179.2±41.13
		HDL	46.9±17.67	39.2±4.77
		LDL	105.93±37.47	121.93±36.78
		VLDL	39.93±27.74	20.53±9.64
		Triglyceride	153±79.04	100.6±48.50

Note: N =30, Values are in mean ±SD.

Out of 30 cases, 76.67% of the cases had urine culture test positive, 20% of the cases had urine culture test negative, 3.33% of the cases have not given the sample. In healthy volunteers, 100% of the subjects had urine culture test negative. 20% of urine culture negative patients were under antibiotic treatment. Statistical analysis of urine culture revealed that significant number of patients urine were positive for bacterial load (odds ratio 191, 95% CI, 10-352, p<0.0001).

Table 2 shows the results of *wrist circummetric sign* examination. In this study most of the patients were having the wrist circumference of 9 ½ finger units. Odds ratio for the patients having the wrist circumference of 9 ½ finger unit is 6 (95% CI, 1.89-19.05, p<0.01), whereas significant number of healthy volunteers were having the wrist circumference of 9 ¾ finger units (p<0.05, Odds ratio 0.09, 95% CI, 0.01-0.81) and 10 ¼ finger units (p<0.01, odds ratio 0.10, 95% CI, 0.02-0.53).

Table 2: *Outcome of the Manikadai Nool Examination of Madhu Piramiam Patients and Healthy Volunteers*

S. No.	Wrist Circumference	Patient (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1	8 ½	1	1	1 (0.059-16.78)
2	9	6	1	7.25 (0.81-64.49)
3	9 ¼	2	2	1 (0.13-7.60)
4	9 ½	18	6	6 (1.89-19.05)**
5	9 ¾	1	8	0.09 (0.01-0.81)*
6	10 ¼	2	12	0.10 (0.02-0.53)**

Note: * indicates p<0.05, ** indicates p<0.01 when compared to healthy volunteers. CI, confidence Interval

Table 3 shows the results of *shape of oil drop on urine* examination. Significant number (p<0.05) of patient`s urine, the drop of oil took the form of sieve (Figure 3) (odds ratio 12.43, 95% CI, 1.46-105.8). Most of the healthy people`s urine, the oil drop took the form of slow dispersion (Figure 4) (odds ratio 0.02, 95% CI, 0.056-0.721, p<0.05).

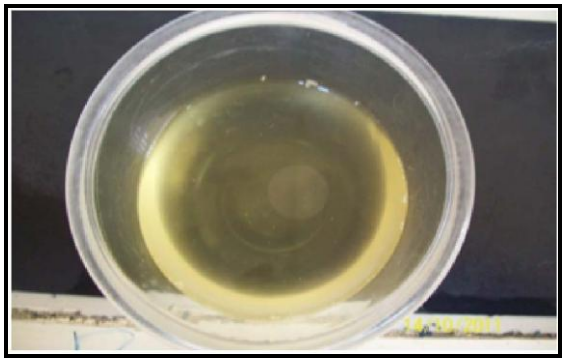

Figure 3: *Shape of Oil Drop on Urine in the form of Slow Dispersion*

Figure 4: *Shape of Oil Drop on Urine in the form of Sieve*

Table 3: *Outcome of Shape of Oil Drop on Urine Examination of Madhu Piramiam Patients and Healthy Volunteers*

S. No.	Shape of Oil on Urine	Patient (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1	Pearl	4	3	1.4 (0.28-6.8)
2	Slow dispersion	17	26	0.20 (0.056-0.72)*
3	Sieve	9	1	12 (1.5-106)*

Note: * indicates p<0.05 when compared to healthy volunteers. CI, confidence Interval

Table 4 shows the observations of eight fold examination.

Table 4: *Outcome of Eight Fold Examination of Madhu Piramiam Patients and Healthy Volunteers*

Variables			Patients (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1. Naadi (Pulse)	Naadi nithanam (Pulse appraisal)	Vanmai (Hard)	23	10	6.6 (2.1-20)**
		Menmai (Soft)	7	20	0.15 (0.049-0.47) **
	Naadi Panbu (Pulse character)	Kathithal (normal rhythm)	3	12	0.17 (0.041-0.68)*
		Illaithal (Waning)	22	13	3.6 (1.2-11)*
		Kuthithal (Jumping)	3	0	7.8 (0.38-157)
		Thullal (Hopping)	2	5	0.36 (0.064-2)
	Naadi nadai (Pulse play)	Pitha Vatham	16	5	5.7 (1.7-19)**
		Vatha pitham	13	24	0.19 (0.061-0.60)**
		Kaba pitham	1	1	1 (0.06-17)

2. Naa (Tongue)	Thanmai (Appearance)	Maapadithal (deposits)	3	2	1.6 (0.24-10)
		Veddippu (Fissured)	2	2	1 (0.13-7.6)
		Maapadithal & vedippu	2	1	2.1 (0.18-24)
		Normal	23	25	0.66 (0.18-2.4)
		Manjal (Yellow)	2	0	5.4 (0.25-116)
		Velluppu (Pale)	5	7	0.66 (0.18-2.4)
	Suvai (Taste)	Pulippu (Sour)	3	1	3.2 (0.32-33)
		Kaippu (Bitter)	7	2	4.3 (0.81-23)
		Inippu (Sweet)	0	0	1 (0.019-52)
		Normal	10	27	0.056 (0.014-0.23)****
		Tastelessness	10	0	31 (1.7-564)***
	Vainer ooral (salivation)	Normal	9	20	0.21 (0.072-0.64)**
		Increased	0	5	0.076 (0.0046-1.4)
		Decreased	21	5	12 (3.4-40)****
3. Niram (complexion)		Karuppu (Dark)	9	10	0.86 (0.29-2.5)
		Manjal (Yellow)	1	0	3.1 (0.12-79)
		Velluppu (Pale)	2	2	1 (0.13-7.6)
		Wheatish	18	18	1 (0.36-2.8)
4. Mozhi (voice)		Thanindhaoli (Low Pitch)	6	5	1.3 (0.34-4.6)
		Urathaoli (High Pitch)	6	7	0.82 (0.24-2.8)
		Samaoli(Normal pitch)	18	18	1 (0.36-2.8)
5. Meikuri (Palpation)	Veppam (Warmth)	Mitha veppam (Warm)	21	22	0.85 (0.28-2.6)
		Migu veppam (Feverish)	9	2	6 (1.2-31)*
		Thatpam (Normal temperature)	0	6	0.062 (0.0033-1.2)*
	Viyarvai (Sweating)	Normal	25	24	1.3 (0.34-4.6)
		Increased	5	6	0.80 (0.22-3.0)
	Thodu vali (Tenderness)	Absent	10	30	0.0084 (0.00047-0.15)****
		Present	20	0	119 (6.6 -2148)****
6. Vizhi (eye)	Niram (Colour)	Karuppu (Muddy)	0	0	1 (0.019-52)
		Manjal (Yellow)	1	2	0.48 (0.041-5.6)
		Sivappu (Red)	4	3	1.4 (0.28-6.8)
		Vellupu (pallor)	2	2	1 (0.13-7.6)
		No discolouration	23	23	1 (0.30-3.3)
	Thanmai (appearance)	Peelai serthal only	4	5	0.77 (0.18-3.2)
		Increased kanner only	0	2	0.19 (0.0086-4.1)
		Erichal only	0	1	0.32 (0.013-8.2)
		Peelai serthal& kaneer	0	0	1 (0.019-52)
		Peelai serthal & Erichal	0	0	1 (0.019-52)
		Erichal & kaneer	1	3	0.31 (0.03-3.2)
		All three	0	0	1 (0.019-52)
		Normal	25	19	2.9 (0.86-9.7)
7. Malam (stool)	Thanmai (appearance)	Sikkal only	3	2	1.6 (0.24-10)
		Siruthal only	3	2	1.6 (0.24-10)
		Seetham	1	1	1 (0.06-17)
		kalichal	1	0	3.1 (0.12-79)
		Vemmai only	2	0	5.4 (0.25-116)
		Siruthal,sikkal,vemmai	1	0	3.1 (0.12-79)
		Normal	19	25	0.35 (0.10-1.2)
	Niram (Colour)	Karuppu (Dark)	0	0	1 (0.019-52)
		Manjal (normal)	28	30	0.19(0.0086-4.1)
		Vellupu (Pallor)	2	0	5.4 (0.25-116)

8. Moothiram (Urine)	Niram (Colour)	Paleyellow (ilamanjalniram)	18	30	0.024 (0.0014-0.43)***
		Cloudy urine	12	0	41 (2.3-739)***
	Manam (Smell)	Mild aromatic	6	15	0.25 (0.079-0.79)*
		Bad odour	20	0	61 (3.3-1115)****
		Ammoniacal	4	15	0.15 (0.043-0.55)**
	Nurai (Frothy)	Absent	15	28	0.071(0.014-0.36)***
		Present	15	2	14 (2.8-70)***
	Edai (Density)	Normal	18	30	0.024 (0.0014-0.43)***
		Increased	12	0	41 (2.3-739)***
	Alavu (amount and frequency)	Normal	8	30	0.0062(0.00034-0.11)****
		Polyuria	20	0	61 (3.3-1115)****
		Oliguria	2	0	5.4 (0.25-116)
	Enjal (Deposit)	Present	12	0	41 (2.3-739)***
		Absent	18	30	0.024 (0.0014-0.43)***

Note: *p-value <0.05, **p-value <0.01, ***p-value <0.001, ****p-value <0.0001, CI, confidence Interval

This examination revealed the significant number of patients ware having hard pulse appraisal (odds ratio 6.5, 95% CI, 2.108-20.48, p<0.01). In case of pulse character most of the patients were having waning pulsation (odds ratio 3.6, 95% CI, 1.2-11, p<0.05). Whereas significant number of healthy volunteers were having normal rhythm (odds ratio 0.16, 95% CI, 0.041-0.675, p<0.05) compared to patients. Majority of the patient`s pulse play was of pitha vaadham than healthy volunteers (odds ratio 5.71, 95% CI, 1.72-18.95, p<0.01). However in healthy volunteers, most of the persons were having vaadha Pitham (odds ratio 0.19, 95% CI, 0.06-0.60, p<0.01). Examination of tongue revealed tastelessness (odds ratio 31.24, 95% CI, 1.73-563.6, p<0.001) and decreased salivation (odds ratio 11.67, 95% CI, 3.38-40.23, p<0.0001). Complexion and voice were of no diagnostic significance. In case of body examination, increase in body temperature (odds ratio 6, 95% CI, 1.17-30.74, p<0.05) and pain on palpation (odds ratio 119.1, 95% CI, 6.60-2148, p<0.05) were observed in significant number of patients than healthy volunteers. Stool examination was not of diagnostic significance. Urine examination revealed patient`s urine samples were having cloudy (odds ratio 41.22, 95% CI, 2.30-738.5, p<0.001), foul smelling (odds ratio, 119.1, 95% CI, 6.603-2148, p<0.0001), frothy (odds ratio, 14, 95% CI, 2.817-69.59, p<0.001), higher in density (odds ratio, 41.22, 95% CI, 2.30-738.5, p<0.0001), polyuria (odds ratio, 119.1, 95% CI, 6.603-2148, p<0.0001) and with deposits (odds ratio,41.22, 95% CI, 2.30 -738.5, p<0.0001).

4. Discussion

There are many studies available for comprehensive effectiveness of traditional medicine with conventional treatment for specific disease entities [12]. This study is new in its way to validate traditional diagnostic procedures for specific disease entity where the knowledge and skills are more valued than equipments and reagents. *Wrist circummetric sign* is one of the many tools used in Siddha practice. The progress of the disease is calculated by the number of fingers in decreasing order. Lower the value poorer the prognosis. Usually, the length of the twine starts with four fingers and ends with 11 fingers. In this study we observed significant number of patient`s wrist circumference of 9 ½ finger units. Siddha literatures state that 9 ½ finger unit is the sign of emaciation, one of the symptoms of Madhu Piramiam. Several literatures state the importance of wrist circumference with respect to the endocrine system and disease conditions. A study states that hyper insulinemia is associated with increased bone mass [13, 14]. Recent studies from independent laboratories show that the insulin regulatory system mediates communication between metabolic control and bone remodeling [15, 16]. The circumference of the wrist could be a good parameter to analyze bone metabolism in relation to hyper insulinemia because the IGF-1 (Insulin like growth factor-1) levels are major determinant of bone geometry as demonstrated by their direct relationship

with cross sectional area of bone. Recent literatures describe the wrist circummetric sign is an easy-to-detect bone anthropometric marker. Historically this has been included in the calculation of frame size, which is a parameter in evaluating the free fat mass to correct mis-classification introduced by the use of body mass index [17, 18]. Contrary to the body mass index, this wrist circummetric sign compares the two parts of the body (wrist and finger size), which are not influenced by variations of body fat, indicating the disease status attracts future research in this area. Possible explanations other than calcification status namely, hydration status, swollen fingers and emaciation are considered. In case of *shape of oil drop on urine*, similar diagnostic procedures are avaliable in Ayurvedic system too namely thaila bindhu pariksha. Though *shape of oil drop on urine* seems to be a crude procedure, it is time tested and has been in practice for more than 2000 years. There are studies stating the importance of shape, spreading nature and direction of spreading of oil drop on urine and its diagnostic significance [19]. Several researches hypothesis that the spreading pattern of oil is mainly influenced by the surface active molecules and other metabolites present in the urine which are normally not recordable and they determine the spreading pattern of oil. The interfacial tension between the surface active molecules and the oil may provide possibilities of different shapes, speed and extent of spread [20]. A study states that the cyclical variation of surface tension of urine recorded in female corresponds closely to the menstrual cycle. These findings support that the difference in hormone levels have an impact on the surface tension of the urine [21]. Another study stating that the shape of the oil drop is affected in conditions of increased levels of FBS, PPBS, blood urea, urine specific gravity, albuminuria, glycosuria, DM neuropathy and DM retinopathy [22]. Nowadays specific diseases or group of diseases taking common patho-physiological outcome are identified by specific markers present in the biological fluids which may decide the outcome of the shape and direction of the oil drop, attracts further research in this direction. As per the Siddha concept, the spreading nature of a single drop of oil on the surface of the urine indicates the imbalance of specific humour and prognosis of the disease. In this study, the spreading pattern of oil on urine was in the form of sieve. Sieve pattern of spreading, according to the scripts indicates the incurable nature of the disease [8]. Another study states that the sieve pattern of spreading indicates the disease of genetic origin [19]. Eight fold examinations consist of examining eight areas of body and bodily functions, all of which reveal the places of balance and imbalance. Pitham is primarily responsible for initiating the disease process of Madhu Piramiam. In this study, significant numbers of patients were having hard waning pulsation and the pulse play of pitha Vatham. The pulse examination of healthy volunteers revealed to be in physiological state with respect to body nature, sex and age. Oral examination of the patients revealed tastelessness and decreased salivation. As per literature, dry tongue is a sign of vaadha humour derangement. Bodily examination revealed that the affected area was hot to touch and painful on palpation. Affected person`s urine was cloudy, foul smelling, higher in density, polyuria and with deposits. Theraiyar, one of the renowned authors of Siddha medicine described urine examination and stages of health. He had explained about the colour and consistency of the urine in vitiated humor and disease. He also emphasized the spreading nature of single drop of oil on urine [8]. In contrast to the conventional techniques, mean value based medical strategies are avoided in the constitution based traditional approach. Pathogenic disharmonies are classified in terms of dynamic traditional principles which cannot be directly equated with modern entities. Further more healthy states and disease are seen as a continuum in traditional Indian system. Diagnosis is believed to be the definition of snapshot with in a constant flow of physiological and pathophysiological factors [23]. Our traditional system of medicine was persistently criticized for its ambiguity. This perception unfortunately has led the world to be deprived of many plausible advantages of traditional health care supportive to a total quality life [24, 25, 26, 27]. The primary understanding of traditional knowledge followed by a search in to scientific linkage will be more appropriate for complementary medicine [28]. So this system of diagnosis identifies the location of vitiation of humours and giving the ways for their correction.

5. Conclusion

It can be concluded that the Siddha diagnostic procedures (*Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations)* differentiates the patients of madhu piramium from the healthy volunteers. These cost effective tools not only help in diagnosis but also indicates the prognosis of the disease and for reassuring the patient to be informed about the nature of disease. There exists general criteria that diagnosis be made using conventional methods and the traditional system of medicine is approached only for the treatment. Diagnosis in traditional system will prove to be a cost effective, in-hand method for common people. If studies like this help in validating the diagnosis in traditional systems and the ambiguity arising due to any differences can be minimized.

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