

Role of *Manikkadai Nool* in the Diagnosis of *Soodhagavaayu* [PCOS] Patients - A Cross Sectional Study

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ABSTRACT

Introduction: Poly cystic Ovarian Syndrome [PCOS] is a syndrome manifested by Amenorrhoea, Hirsutism and Obesity associated with enlarged Polycystic ovaries. Siddha system implies that diagnosing a disease is essential more than its treatment and prevention. *Manikkadai nool* is one of the unique, non-intervening diagnostic tools in siddha practice which holds 26 output values ranging from 4-11 Finger breadth size [fbs]. The methodology of *Manikkadai nool* is an anthropometry measurement based on the wrist circumference and finger breadth of the individual. The *Manikkadai nool* value for the symptoms of *Soodhagavaayu* patients has been given in Siddha literature is 9 – 9¾ and it was correlated in this study.

Objective: To calibrate the value of *Manikkadai nool* for *Soodhagavaayu* patients.

Methodology: This was a cross sectional study carried out among clinically diagnosed *Soodhagavaayu* (PCOS) patients attended OPD at AAGHIM, Chennai. The sample size was 50 and the sampling selection administrated was purposive sampling.

Result: The study concludes that most of the patients have *Manikkadai nool* value between 9 – 9¾ fbs which has correlation with *Soodhagavaayu* symptoms as per text *Agathiyar Soodamani kayaru soothiram*.

Keywords: *Manikkadai nool*, *Soodhagavaayu* [PCOS], Siddha literature, 9 - 9¾ fbs.

1. INTRODUCTION

Siddha system has a unique diagnostic method to identify disease and their causes. Siddhars have classified diseases based on the derangement of three humours namely Vali, Azhal, Iyam. In Siddha literature, symptoms of *Soodhagavaayu* may be correlated with Poly Cystic Ovarian Syndrome [PCOS]. It was originally described in 1935 by Stein and Leventhal as a syndrome manifested by amenorrhoea, hirsutism and obesity associated with enlarged polycystic ovaries. The clinical features of Pcos having increasing obesity [abdominal] 50%, menstrual abnormalities [70.4%] in the form of Oligomenorrhoea, Amenorrhoea or Dysfunctional uterine bleeding [Dub] and Infertility. Presence of hirsutism and acne are the important features [1]. Prevalence of Pcos in India ranges from 3.7 to 22.5% in 2019 [2]. In Siddha system, diagnosing a disease is essential than its proper treatment. *Manikkadai nool* is one of the unique, non-intervening diagnostic tools in siddha practice which holds 26 output values ranging from 4-11 fbs. Anthropometry is the science dealing with the systematic measurement of human individual, particularly dimensions of body calculations. The measurement concept rooted in its

interaction with several factors like the basic nutrition of the individual, psychological conditions, environmental and seasonal influences and infections [3]. Nowadays many new cases of *Soodhagavaayu* have been reported due to sedentary life style and also recorded in special opd at AAGHIM, Arumbakkam, Chennai. In the study, various wrist circumference was recorded and validated for *Soodhagavaayu*. The aim of the study was to calibrate the value of *Manikkadai nool* for *Soodhagavaayu* patients.

2. MATERIALS AND METHODS

This was a cross sectional study conducted at outpatient department of AAGHIM. In this study 50 female patients of age group between 18 to 40 years were enrolled. The enrolled patients were informed about the study in English and local language whatever necessary. The written consent form was obtained. The inclusion criteria were age group between 18 to 40 years, with clinical symptoms of PCOS, with or without irregular menstrual cycle or absence of

menstrual cycle and patients who were already diagnosed as PCOS with USG findings. The exclusion criteria were the patient having fibroid uterus, adenomyosis and endometriosis. *Manikkadai nool* diagnostic technique was applied for every patient and the data was collected and analysed. The SOP of the tool is the wrist circumference measured in finger units on both hands [right and left]. The thread is placed in dorsal aspect of four finger [from midpoint of index to little finger]. Then the circumference is measured just below four fingers from the wrist of the correspond hand using a cotton thread. Then the Ante brachial circumference of wrist is measured. After that the thread removed from the wrist and measured by placing the thread along the middle of four fingers in dorsal aspect of hand. Each finger contains four units like $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1. The total length of thread is counted in terms of finger units.

3. RESULTS

The attained value was interpreted for diagnosis of disease shown in table 1 and 2

Table 1: Value of *Manikkadai Nool* on right hand

S.No	<i>Manikkadai Nool</i> Value	No.Of Cases
1	8	1
2	8 $\frac{1}{4}$	2
3	8 $\frac{1}{2}$	4
4	8 $\frac{3}{4}$	2
5	9	16
6	9 $\frac{1}{4}$	7
7	9 $\frac{1}{2}$	8
8	9 $\frac{3}{4}$	5
9	10 $\frac{1}{2}$	4
10	13	1

Table 2: Value of *Manikkadai nool* on left hand

S.NO.	MANIKKADAI NOOL VALUE	NO. OF CASES
1	8 $\frac{1}{2}$	4
2	8 $\frac{3}{4}$	3
3	9	13
4	9 $\frac{1}{4}$	5
5	9 $\frac{1}{2}$	10
6	9 $\frac{3}{4}$	5
7	10	3
8	10 $\frac{1}{4}$	2
9	10 $\frac{1}{2}$	3
10	10 $\frac{3}{4}$	2

4. DISCUSSION

Manikkadai nool [Wrist circumference] is one of the tools used in Siddha practice. As per Siddha text the symptoms of the disease are calculated by the number of finger breadth size in decreasing order from [10 – 4 fbs]. An unimproved prognosis denotes decreased value of fbs. In the present study 72% of the samples of *Soodhagavaayu* patients *Manikkadai nool* value [fbs] ranges from 9 – 9 ¾ on their Right hand and 66% of the samples of *Soodhagavaayu* patients value [fbs] ranges from 9 – 9 ¾ on their Left hand. In our text, *Manikkadai nool* value [fbs] of 9 indicates pain present in around waist and both thigh region with tiredness that has a correlation with symptoms of PCOS. Multiple studies have used the SF – 36 questionnaires to evaluate women with PCOS and identified the involvement of pain perception in PCOS symptoms. Their result revealed that pain with PCOS has a decreased [Health Related Quality of Life] HRQoL and that body pain was a major domain [4].

A study on physiological effect of iron status on patients with Polycystic ovary syndrome in Basrah city in 2023 has shown a clear imbalance in the regulations of iron levels in PCOS patients [5]. Similarly, the present study showed the *Manikkadai nool* value 9 ½ fbs that indicates Anemia. This shows that the present study has a correlation with the above study.

A study done by Linda kunjanpaa et al on June 2022 resulted that PCOS was also associated with auto immune disease and recurrent upper Respiratory tract infection and symptoms [6]. The present study also indicates cough as a symptom as per *Manikkadai nool* of 9 ¾ fbs mentioned in Siddha text. Thus, the above symptoms Anemia, cough has correlation with *Soodhagavaayu* disease which was reported in previous studies.

A study by G.Ramanan at 2023 on Role of *Manikkadai nool* in the diagnosis of *Madhumegam* [Diabetes mellitus] – A classical Siddha approach [7] concludes that 70% of the sample has *Manikkadai nool*

value ranging from 9 ¾ - 9 ¼ fbs. In another study done on 2024, among *Brahmiyam noi* [leucorrhoea] patients revealed 68% had a value of 8 ¼ which is mentioned in Siddha text. Similarly in the present study 72% of *Soodhagavaayu* patient's symptoms has correlation with the fbs value as per Siddha literature which implicates the significance of *Manikkadai nool*.

5. CONCLUSION

The study concludes that the *Manikkadai nool* value for *Soodhagavaayu* patients has correlation with their symptoms as per siddha text *Agathiyar Soodamani Kayaru Soothiram* for diagnosing purpose. This tool was a cost effective, supportive parameter for early diagnosis of *Soodhagavaayu* condition. This technique alone cannot be used for confirming the diagnosis. It would be useful for predicting the disease earlier.

Declaration by Authors

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6. REFERENCE

1. Text book of gynaecology – D C. Dutta [pg, no -459]
2. Ganie MA, Vasudevan V, Wani IA, Baba MS, Arif T, Rashid A. Epidemiology, Pathogenesis, genetics and management of polycystic ovary syndrome in India. Indian J Med Res.2019 oct; 150(4):333-344. Doi: 10.4103/ijmr.IJMR_1937_17. PMID: 31823915; PMCID: PMC6902362.
3. <http://dx.doi.org/10.22192/ijcrms.2024.10.0.6.001>. A Cross sectional study on Siddha diagnostic tool, *Manikkadai nool*, Among *Brahmiyam noi* (Leucorrhoea) patients.
4. Lu KT, Ho YC, Chang CL, Lan KC, Wu CC, Su YT. Evaluation of bodily pain associated with Polycystic Ovary Syndrome; A Review of Health – Related Quality of Life and Potential Risk Factors. Biomedicine [Internet]. 2022 dec 9;10(12): available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9776021/>.
5. Dalal Al- Akabi, Hanadi Hafth. Physiological effect of iron status on patients

- with polycystic ovary syndrome in Basrah city. Journal of Medicinal Biochemistry [Internet]. 2023 jan 1; 42(3) :530-5.
6. Kujanpaa L, Arffman RK, Pesonen P, Korhonen E, Karjula S, Jarvelin M, et al. Women with polycystic ovary syndrome are burdened with multimorbidity and medication use independent of body mass index at late fertile age : A population – based cohort study. Acta obstetrician et Gynecologica Scandinavica. 2022 Jun 8; 101(7): 728-36.
 7. Ramanan G, Abinashmanimaran L, Thiyagasundaram T, Muthukumar S. Role Of *Manikkadai nool* In The Diagnosis Of *Mathumegam* (Diabetes Mellitus) – A Classical Siddha Approach. Int J Trans Res Ind Med [Internet]. [cited 2024 Aug 10]; 2023(1): 14-8. Available from: <http://ijtrim.com/wp-content/uploads/2023/04/IJTRIM-VOL-5-ISSUE-1-2023-PAPER-4.pdf>
 8. Dr. M. Shanmugavelu H.B.I.M, *Noi Naadal noi Mudhal Nadal Thirattu* – Part 1 page no: 345,347.
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