



ASSESSMENT OF EFFECTIVENESS OF PERUNGAYA CHOORANAM IN TREATING SOOTHAGA SOOLAI (DUE TO ENDOMETRIOSIS) AMONG PATIENTS ATTENDING OPD, GOVERNMENT SIDDHA MEDICAL COLLEGE AND HOSPITAL, PALAYAMKOTTAI - A CASE SERIES

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ABSTRACT

Siddha medicine, a traditional Indian system of medicine, stands as a testament to the ancient wisdom of the Tamil civilization. Endometriosis is a chronic disease associated with severe, life-impacting pain during periods and related gynaecological disorders. The focus of this study is to evaluate the therapeutic value of Siddha Medicine *Perungaya Chooranam* in alleviating *Soothaga Soolai* (due to endometriosis). **Method:** a descriptive case series was carried out at the Government Siddha Medical College & Hospital in Palayamkottai involving 20 Female patients (Mean age 31.4 ± 5.2 years) reported having *Soothaga Soolai* (due to endometriosis). Participants were prescribed with *Perungaya Chooranam* (1000mg, twice a day) for 90 days orally. Clinical symptoms such as dysmenorrhoea, chronic pelvic pain, dyspareunia, dyschezia and other systemic symptoms were evaluated before and after treatment. **Results:** Substantial improvements were observed following treatments with 75% of patients observing an overall decrease in pain severity from stage III to I, with an improvement seen in gastrointestinal and hormonal symptoms alongside pain reduction. The statistical analysis demonstrated noteworthy reductions in the majority of complaints ($p < 0.05$). **Conclusion:** This case series illustrates that *Perungaya Chooranam* delivers a significant reduction in pain and associated symptoms was observed, with 75% of patients reporting improvement from Stage III to Stage I in pain severity. The outcomes offer a call to further investigations into Siddha medicines role in contemporary therapeutic practices for managing gynaecological conditions.

KEYWORDS: Perungaya Chooranam, Soothaga Soolai, Vaatham, Vayu, Endometriosis.

1. INTRODUCTION

The term “endometriosis” comes from the Greek “endo” meaning within, “metra” uterus, and “osis” disease, it remains a vague concept, with pelvic pain being the most common clinical symptom.^[1] Endometriosis is a benign condition in which endo-metrial glands and stroma are present outside the uterine cavity and walls. It is an oestrogen dependent disease. Endometriosis is important

in gynecology because of its frequency, distressing symptomatology, association with infertility, and potential for invasion of adjacent organ system, such as the gastrointestinal or urinary tracts.^[2] This condition affects 5–10% of women of reproductive age worldwide and constitutes the most common cause of pelvic pain in women.^[3,4] It is a syndrome with complex etiology involving hormonal, neurological, and immunological

factors.^[5,6] It is estimated that endometriosis affects ~10% of women of reproductive age, which infers to ~ 247 million girls and women globally and ~ 42 million girls and women in India.^[7] According to Siddha Literature symptoms of *Soothaga Soolai* can be correlated with symptoms of endometriosis, which is also known as *Soothaga vayu* or *Soosiga vayu*. Among the three humours that is essential for maintenance of life in accordance with Siddha system, this gynaecological related disorder i.e, *Soolai* is due to dearrangement of *Vaatham* humour. As per Siddhar Theraiyar's *Noigalukkana mutharkaranam* (etiology of diseases), *Vaatham* stating "...நெடுவாதச் சார்வதுமன்றிச் சூலை வராது...". Food and lifestyle practices that aggravate *Vaatham* – such as irregular eating habits, intake of dry or cold foods, excessive fasting, and stress — lead to an imbalance in the humoral system (*Uyir Thathukkal*). This vitiation of *Vaatham* disrupts the

natural flow of energy and menstrual regulation, subsequently affecting *Pitham* and *Kabam*, and is considered a fundamental cause in the pathogenesis of structural gynecological disorders such as endometriosis, according to Siddha medicine principles.^[8] This case series aims to determine the assessment of effectiveness of *Perungaya Chooranam* in treating *Soothaga Soolai* (due to endometriosis) among patients attending OPD, Government Siddha Medical College & Hospital, Palayamkottai.





PERUNGAYA CHOORANAM

- **Author:** C. Kannusamy Pillai
- **Book Reference:** Chikitcha Rathna Deepam (Part-II)
- **Year of Publication:** 2007
- **Published by:** B.Rathina Nayagar & Sons
- **Page no:** 161

2. MATERIALS AND METHODS

Table 2.1.

<i>Perungayam (Ferula asafoetida)</i> 	<i>Sukku (Zingiber officinale)</i> 
<i>Vasambu (Acorus calamus)</i> 	<i>Milagu (Piper nigrum)</i> 
<i>Kadukkai (Terminalia chebula)</i> 	<i>Thippili (Piper longum)</i> 
<i>Kattu seeragam (Vernonia anthelmintica)</i> 	<i>Evacharam (Potassium carbonate)</i> 
<i>Mathalam vidhai (Punica granatum)</i> 	<i>Sarajjaaram (Sodium Bicarbonate)</i> 
<i>Seeragam (Cuminum cyminum)</i> 	<i>Sainthalavanam (Rock Salt- Sodium Chloride Impura)</i> 
<i>Thaniya- kothumalli (Coriandrum sativu)</i> 	<i>Kariyuppu (Sodium Chloride)</i> 
<i>Vattathiruppi (Cissampelos pareira)</i> 	<i>Savarachalavanam (Alkaline-Earth Salt)</i> 
<i>Thamarai kizhangu (Nelumbo nucifera)</i>	<i>Omam (Carum copticum or)</i>

	<i>Trachyspermum ammi</i> 
<i>Kichili kizhangu (Kaempferia galanga)</i> 	<i>Sevviyam (Piper nigrum-Black pepper root)</i> 

All the ingredients will be taken in equal quantity (1/2 Palam).

Standard Operative Procedures

1. All the ingredients will be dried.
2. All the ingredients will be powdered as Chooranam formulation as per the text & as per the PLIM guidelines

for Chooranam /Curna.

3. Then the chooranam will be stored in air tight container.

Table 2.2: Detailed description of *Perungaya chooranam* as per the Siddha literature and detailed study.

Drug Profile	
Medicine Name	<i>Perungaya Chooranam</i>
Adjuvant	Hot water
Dose	<i>Thirikadi Piramanam</i> (800mg-1000mg)
Indication	<i>Soothaga Soolai, Yoni Soolai</i> and also it relieves the problems caused by the obstruction of <i>Abana vayu (Malasalakattu)</i>
Time	Twice a day (After Food)
Shelf Life	2 Years (As per Section 161B(8) The Drugs and Cosmetics Rules, 1945)
Course	24 Days
Study Design	
Study Type	Descriptive Study
Study Design	Case Series
Study Place	Government Siddha Medical College and Hospital, Palayamkottai, Tirunelveli-02
Study Period	90 Days
Sample Size	20 Female Patients

METHODOLOGY

Case series was carried out in GSMC, Palayamkottai, after approval from IEC (GSMC-XV- IEC Br II/03/15.04.2025). The patients who were enrolled were informed about the terms and objectives of the study in the regional language and informed consent was obtained

from them. This clinical study was registered in CTRI (CTRI/2025/07/069915). Criteria for inclusion were depicted in the below given table 4. Clinical symptoms were analysed by comparing the clinical assessment data obtained at two points of time (before and after intervention).

Table 2.3: Criteria for inclusion, exclusion and withdrawal in the case series.

Inclusion Criteria	Exclusion criteria	Withdrawal criteria
Age limit: 18 – 50 years. Patients with symptoms of Dysmenorrhea, Dyschezia, Dyspareunia, Chronic Pelvic Pain, Abnormal/ Irregular Uterine Bleeding, Menorrhagia, Flank Pain, Dysuria, Nausea, Fatigue	Pregnancy & lactating women, History or suspicion of hormone dependent tumor, bilateral salpingo-oophorectomy	Intolerance to the drug and development of any serious adverse reactions during the trial period, Patient turned unwilling to continue in the course of clinical trial, Increase in severity of symptom.

Method of Approach

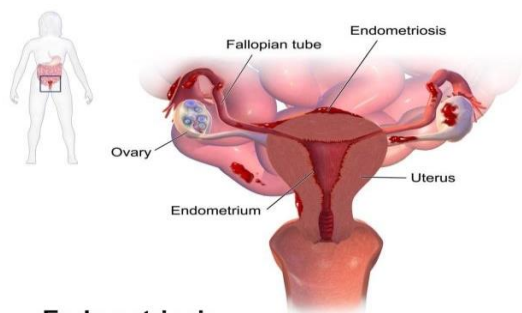
Assessment Tools

- **Pain:** Visual Analog Scale (VAS: 0–10)
- **Symptoms:** Structured symptom checklist (Dysmenorrhea, Pelvic Pain, Bloating, Fatigue)
- **USG Findings:** Collected from diagnostic reports

American Society for Reproductive Medicine. The ASRM Endometriosis Classification 2021 criteria was used in this clinical study. Staging was done in accordance with lesion, location, adhesion (Stage I – Stage IV), Pain Score (As per Visual Analog Scale), Huskisson EC. Measurement of pain. Lancet. 1974.

2. ENDOMETRIOSIS

Clinical Assessment



Endometriosis

Fig 3.1.

Endometriosis is a benign condition in which endometrial glands and stroma are present outside the uterine cavity and walls. It is an oestrogen dependent disease. The characteristic triad of symptoms associated with endometriosis is dysmenorrhea, dyspareunia, dyschezia. It is a syndrome with complex etiology involving hormonal, neurological, and immunological factors.

PATHOGENESIS OF ENDOMETRIOSIS

Endometriosis develops through retrograde menstruation and survival of endometrial cells in the peritoneal cavity. Immune dysfunction, hormonal imbalance, inflammation, angiogenesis.

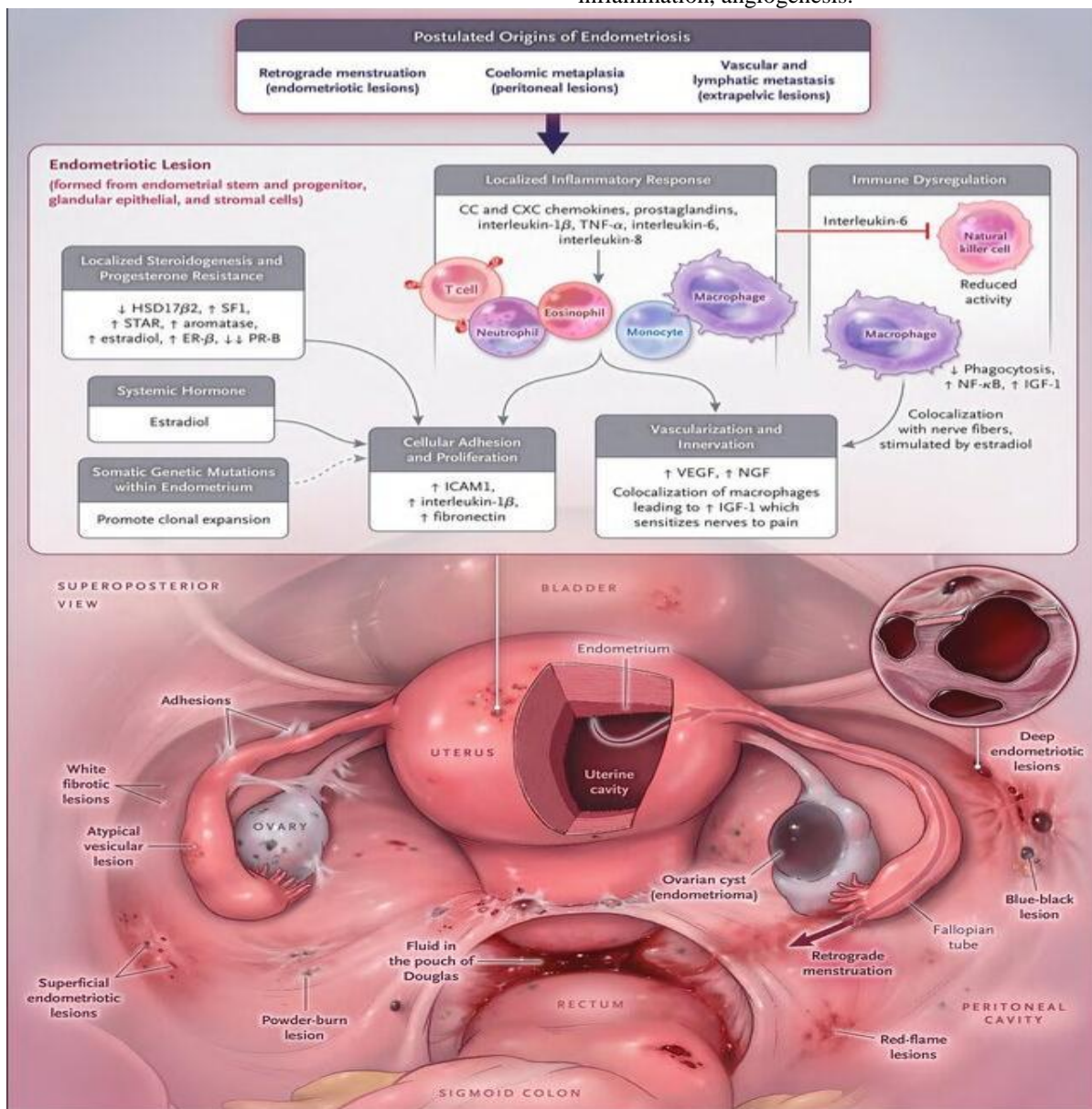


Fig 3.2.

and genetic/epigenetic susceptibility contribute to ectopic implantation and lesion growth, leading to chronic pelvic pain, adhesions, and infertility. Endometriosis

pathogenesis suggests that the disease's etiology is complicated and multifaceted, involving genetic, hormonal, immunological, and environmental factors.

Stages of Endometriosis

Table 3.1.

Stage	Description
I	Isolated implants characterize this minimal disease. There is no adhesions present.
II	The peritoneum and ovaries are covered in superficial implants, which are a mild form of the disease. There were no significant adhesions seen.
III	Multiple implants, both superficial and highly intrusive, make up the modern disease. Adhesions on the ovaries and fallopian tubes are possible.
IV	Severe sickness is defined by several deep and superficial implants, massive ovarian endometriomas, and other symptoms. Typically, dense adhesions are present.

4. LITERATURE REVIEW

4.1. SIDDHA ASPECT

ACCORDING TO “ATHMARATCHAMIRTHAM ENNUM VAITHIYA SARA SANGRAHAM”

Synonyms: Soothaga Vayu, Soosiga vayu

Premonitory Symptoms (Early Warning Signs)

Severe dysmenorrhea – Pain begins before the onset of menstruation and continues even after menstruation ends.

Lower back and pelvic pain – Pain in the pelvic region and lower back, which may persist even during non-menstrual periods.

Dyspareunia – Severe pain during or after sexual intercourse.

Painful urination or defecation – Especially pronounced during menstrual days.

Menstrual irregularities – Heavy bleeding, irregular cycles, prolonged bleeding, and intermenstrual spotting.

Gastrointestinal symptoms during menses – Abdominal bloating, constipation, or diarrhea.

Persistent fatigue – Tiredness that continues even after adequate rest.

Psychological symptoms – Mental fatigue, anxiety, and irritability.

Classical Description of Soodhaga Vaayu / Soosika Vaayu (Siddha Perspective)

According to Siddha literature.

During the menstrual period (Soodhagam), derangement of Vaayu (Vatham) along with disturbance of Agni (digestive/metabolic fire) leads to obstruction of menstrual flow.

The uterus (karukuzhi) becomes affected, and vitiated blood accumulates at the lower abdominal region.

This results in lower abdominal pain, retained or obstructed menstruation, headache, abdominal distension, and generalized body heaviness.

Proper administration of appropriate medicines helps relieve the obstruction and associated symptoms.

குதகவாயு சூசிகவாயு குணம் விருத்தம்

கேளுமே குதகத்தி லக்கினி வாய்வு
கெடுத்துவிடு மாதவிடாய் கட்டிப்போகும்
ஆளுமே கருக்குழியுந் தூந்துதேகம்
அப்பனே யுதிரமது அடிமூலத்தில்
நீளுமே குதகத்தில் வாய்வுதோன்றி
நேரான அடிவயிறு வலிப்புக்காணும்
பாளுமே தலைவலிக்கும் வயிறுளைக்கும்
பக்குவமாய் மருந்துண்ணத் தீருந்தானே.

குதகத்தில் வாய்வும் அக்கினியுஞ் சேர்ந்து மாதவிடாய் கட்டிக் கருக்குழி தூர்ந்து தேகத்தில் உதிரநீரும் அடிமூலத்தில் வாய்வுஞ் சேர்ந்து குதகவாயு தோன்றிச் குதகமாகும்போது அடிவயிறு வலிக்கும்; குதகந் தங்கிக் காணும்; தலை வலிக்கும்; வயிறும் உடலும் பெருத்திருக்கும்.

5. RESULTS

5.1. DEMOGRAPHIC DATA

DISTRIBUTION OF CASES BY AGE

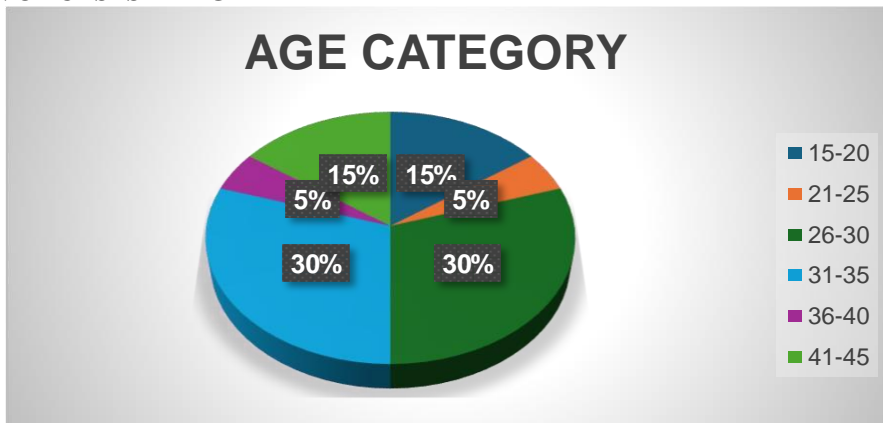


FIG. 5.1.1: Age Distribution of Patients with Endometriosis.

DISTRIBUTION OF CASES BY DIETARY HABIT



Fig. 5.1.2: Diet habit of study participants.

DISTRIBUTION OF CASES BY NAADI

Table 5.1: Naadi distribution of participants.

S.NO	NAADI	FREQUENCY	PERCENTAGE
1	VATHAPITHAM	8	40%
2	VATHAKABAM	2	10%
3	PITHAVATHAM	6	30%
4	KABHAVATHAM	4	20%

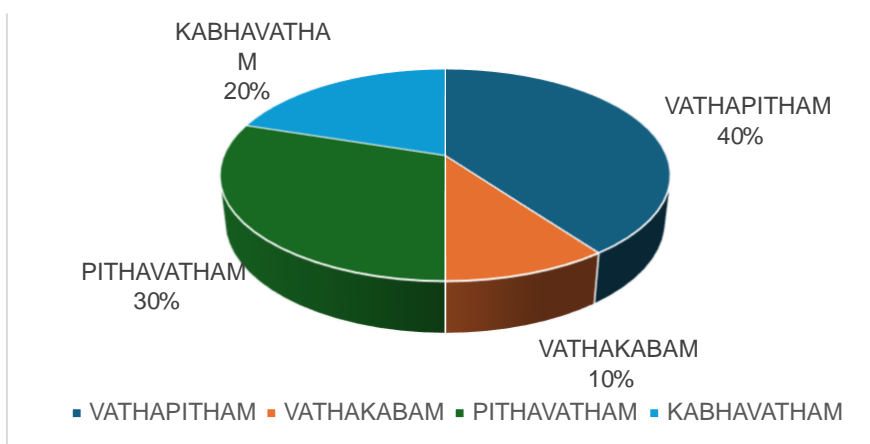


Fig.5.1.3: Nadi distribution of participants.

DISTRIBUTION OF CASES BY CLINICAL SYMPTOMS

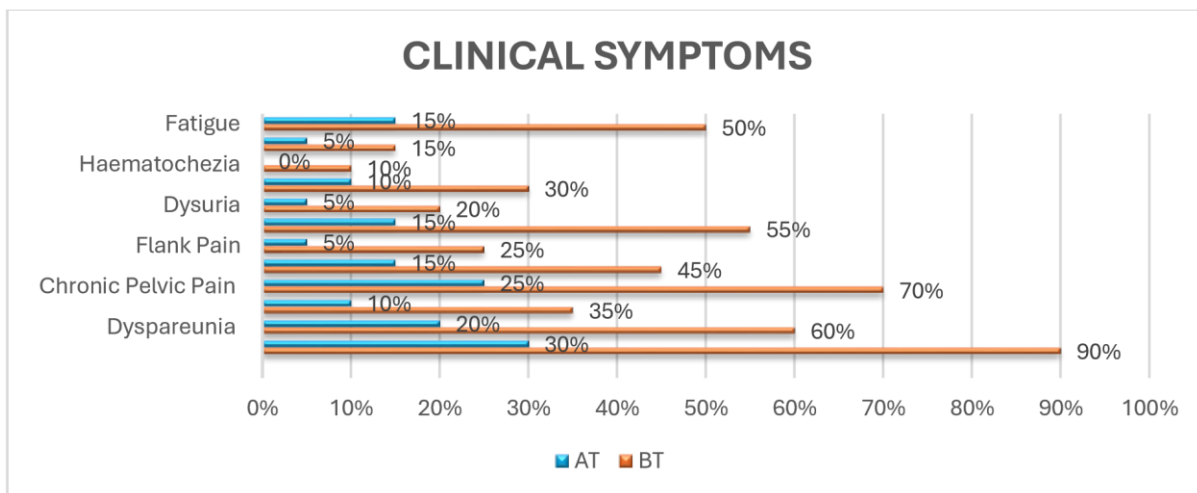


Fig. 5.1.4. Clinical Symptoms of Soothaga Soolai (due to endometriosis).

DISTRIBUTION OF CASES BASED ON IMAGING STUDIES

Table 5.2: Imaging studies of patient's based on USG/MRI.

S.NO	STAGES OF ENDOMETRIOSIS	NO. OF CASES		PERCENTAGE	
		Before Treatment	After Treatment	Before Treatment	After Treatment
1.	Stage I (Minimal)	1	5	5%	25%
2.	Stage II (Mild)	9	8	45%	40%
3.	Stage III (Moderate)	5	4	25%	20%
4.	Stage IV (Severe)	5	3	25%	15%

6. STATISTICAL ANALYSIS

MEAN AND STANDARD DEVIATION OF CLINICAL SYMPTOMS (BEFORE AND AFTER TREATMENT)

Table 6.1.

S. NO	CLINICAL SYMPTOMS	MEAN	
		BT	AT
1.	Dysmenorrhea	18 ± 1.34	6 ± 2.05
2.	Dyspareunia	12 ± 2.9	4 ± 1.79
3.	Dyschezia	7 ± 2.13	2 ± 1.34
4.	Chronic Pelvic Pain	14 ± 2.05	5 ± 1.94
5.	Menorrhagia	9 ± 2.22	3 ± 1.60
6.	Flank Pain	5 ± 1.54	1 ± 0.69
7.	Back Pain	11 ± 2.22	3 ± 1.60
8.	Dysuria	4 ± 1.38	1 ± 0.69
9.	Nausea	6 ± 1.90	2 ± 1.34
10.	Haematochezia	2 ± 0.97	0 ± 0.00
11.	Premenstrual dysphoric disorder	3 ± 1.16	1 ± 0.69
12.	Fatigue	10 ± 2.24	3 ± 1.60

MEAN AND STANDARD DEVIATION OF STAGES OF ENDOMETRIOSIS (BEFORE AND AFTER TREATMENT)

Table 6.2.

STAGES OF ENDOMETRIOSIS	MEAN ± SD
BT	2.70 ± 0.90
AT	2.25 ± 0.99

PAIRED TEST T VALUE HYPOTHESIS

Table 6.3: Statistical analysis of Clinical Symptoms.

VARIABLE 1	VARIABLE 2	t value	2tailed value	p	SIGNIFICANCE
Dysmenorrhea BT	Dysmenorrhea AT	6.230	0.0001		HS
Dyspareunia BT	Dyspareunia AT	5.412	0.0001		HS
Dyschezia BT	Dyschezia AT	3.987	0.0012		HS
Chronic Pelvic Pain BT	Chronic Pelvic Pain AT	5.835	0.0001		HS
Menorrhagia BT	Menorrhagia AT	4.765	0.0005		HS
Flank Pain BT	Flank Pain AT	3.250	0.0041		SIGNIFICANT
Back Pain BT	Back Pain AT	5.150	0.0002		HS
Dysuria BT	Dysuria AT	2.987	0.0075		SIGNIFICANT
Nausea BT	Nausea AT	3.417	0.0035		SIGNIFICANT
Haematochezia BT	Haematochezia AT	2.100	0.0480		HS
Premenstrual Dysphoric Disorder BT	Premenstrual Dysphoric Disorder AT	2.500	0.0210		HS
Fatigue BT	Fatigue AT	4.890	0.0003		HS

PAIRED SAMPLE STATISTICS (LABORATORY ASSESSMENT BEFORE AND AFTER TREATMENT)

Table 6.4. Statistical analysis of Laboratory investigation.

Parameter	t value	2 taile p value	SIGNIFICANCE
Haemoglobin(g/dL)	5.21	<0.001	HS
RBC ($\times 10^6/\mu\text{L}$)	4.12	<0.001	HS
WBC ($\times 10^3/\mu\text{L}$)	1.05	0.30	INSIGNIFICANT
ESR (mm/hr)	6.45	<0.001	HS
THYROID T3	1.84	0.08	INSIGNIFICANT
T4	0.89	0.38	INSIGNIFICANT
TSH	0.38	0.32	INSIGNIFICANT
SERUM MARKER - CA 125	0.32	<0.001	HS

PAIRED SAMPLE STATISTICS (Stages of endometriosis before and after treatment)

Table 6.5: Statistical analysis of Stages of endometriosis.

VARIABLE 1	VARIABLE 2	t value	2 tailed p value	SIGNIFICANCE
Stages of endometriosis BT	Stages of endometriosis AT	2.68	0.015	SIGNIFICANT

7. DISCUSSION

In this study, 20 cases of *Soothaga Soolai* (due to endometriosis) were recruited, with an age range of 16 to 42 years and a mean age of 29.75. *Perungaya Chooranam* was administered orally with hot water as an adjuvant, in a dosage of 800–1000 mg twice daily, over a period of 24 days. The study population comprised women of reproductive age, with predominant Naadi types being *Vaathapitham* (40%) and *Pithavatham* (30%). After the intervention with *Perungaya Chooranam*, there was significant improvement in overall symptom severity as measured by the Visual Analog Scale (VAS). Dysmenorrhea reduced from 90% to 30%, dyspareunia from 60% to 20%, chronic pelvic pain from 70% to 25%, and menorrhagia from 45% to 15%. Fatigue, dyschezia, and back pain also showed notable reduction. Overall, 30% of patients became symptom-free, while 40% had only mild residual symptoms. Laboratory findings revealed meaningful improvements: mean hemoglobin increased from 10.8 g/dL to 12.4 g/dL, ESR decreased from 32 to 22 mm/hr, and serum marker CA-125 levels dropped from 62 U/mL to 34 U/mL, indicating reduced disease activity. Thyroid profile remained stable, confirming drug safety. Imaging

studies showed regression of disease stage, with Stage IV cases reducing from 25% to 15%, and Stage I cases increasing from 5% to 25%. This shift does not indicate new onset of Stage I disease but rather reflects regression of severity, where several patients previously in Stage II–IV improved and were reclassified as Stage I on follow-up imaging. Thus, the rise in Stage I cases highlights the potential of *Perungaya Chooranam* not only for symptom relief but also for disease stage modification. Statistical analysis with paired t-test confirmed highly significant differences ($p < 0.001$) in both symptoms and biomarkers. *Perungayam* (*Ferula asafoetida*): *Suvai* – *Kaarppu* (pungent), *Kaippu* (bitter). It balances *Vaatha* and *Kabha*, acts as an antispasmodic, carminative, anti-inflammatory, antioxidant & oestrogen-modulating activities, thereby reducing dysmenorrhea, pelvic pain and abdominal distension. The combined pharmacological actions of its ingredients—antispasmodic, anti-inflammatory, analgesic, antioxidant, and immunomodulatory—likely contribute to its therapeutic efficacy. This case series demonstrates that *Perungaya Chooranam* can serve as a safe and effective management option for *Soothaga Soolai* (due to endometriosis), producing significant improvements in

clinical symptoms, blood parameters, and imaging findings. However, larger randomized controlled trials are required to validate these results and establish long-term efficacy.

8. LIMITATION

Since this is a case series with a minimum of 20 samples, generalizing the results of this study is not possible. Although it is evident from the case series that our trial drug can potentially be used against *Soothaga Soolai* (due to endometriosis), the clinical efficacy among different populations and age groups still needs to be evaluated. This preliminary data can serve as a baseline and can be scaled up by performing a randomized double-blind controlled trial with a larger sample size.

9. CONCLUSION

This study was conducted in the Outpatient Department (OPD) of Government Siddha Medical College & Hospital in Palayamkottai. A total of 20 cases diagnosed with *Soothaga Soolai* (due to endometriosis) were selected for this case series. Following a 24 days clinical intervention with the trial drug *Perungaya Chooranam*, significant improvements were observed in major clinical symptoms such as dysmenorrhoea, dyspareunia, chronic pelvic pain, menorrhagia & fatigue, measured by the Visual Analog Scale and laboratory assessment reveals some improvement in blood parameters but thyroid profile remained stable. The combined pharmacological actions of its ingredients—antispasmodic, anti-inflammatory, analgesic, antioxidant, and immunomodulatory—likely contribute to its therapeutic efficacy. No adverse interactions were reported. *Perungaya Chooranam* proved to be both affordable and easy to administer orally. Therefore, it can be concluded that *Perungaya Chooranam* is a safe and effective for managing *Soothaga Soolai* (due to endometriosis).

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