

# Efficacy of Siddha Varmam and Ottradam Treatment in Periarthritis - A Case Report

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DOI: <https://doi.org/10.52403/ijhsr.20250414>

## ABSTRACT

Periarthritis of the shoulder joint is a painful and disabling condition characterized by pain and progressive limitation of some movements of the shoulder joint. It is also known as adhesive capsulitis or frozen shoulder. It is a common musculoskeletal condition. There are two types: primary idiopathic and secondary. The latter occurs in patients with diabetes, tuberculosis, cardiac ischemia and hemiplegia. A 61-year-old female with known history of undergoing allopathy treatment for Diabetes mellitus for the past 15 years presented with complaints of right shoulder pain and restricted movements for 2 months. Patient had difficulty in abduction and external rotation of shoulder. She was diagnosed to be affected by periarthritis [Kumbavatham]. She was treated with *varmam* therapy and *ottradam* with leaves of *Vitex negundo*. This combination therapy was effective in reduction of pain and restricted movements. Prognosis was measured using visual analogue scale, subjective parameters and objective parameters assessment.

**Keywords:** Siddha, Periarthritis, kumbavatham, *varmam*, *ottradam*, *Vitex negundo*.

## 1.INTRODUCTION

Periarthritis of the shoulder joint is a painful and disabling condition characterized by pain and progressive limitation of some movements of the joint. There are two types: primary idiopathic and secondary. The latter occurs in patients with diabetes, tuberculosis, cardiac ischemia and hemiplegia. It is also known as adhesive capsulitis or frozen shoulder. It is an inflammatory condition that causes fibrosis of the joint capsule followed by gradual progressive stiffness and restriction in range of motion.<sup>[1]</sup> The peak age of onset is

between 54-59 years in both genders. In 75% of patients only one of the shoulders is affected.<sup>[2]</sup> Development of symptoms is sudden and patients have slow recovery phase.<sup>[3]</sup> According to a cross-sectional study, prevalence of diabetes is found to be 36% in the periarthritic patients.<sup>[4]</sup> A retrospective study has revealed that patients having poorly controlled blood sugar levels for a long time have increased chances of developing periarthritis.<sup>[5]</sup> The conventional treatment of use are NSAID, intra articular steroids, physiotherapy, acupressure and yoga.<sup>[6]</sup>

According to Siddha system of medicine, there are 108 sites [varma points] in the human body where pranic energy resides. Varma therapy is the proper stimulation of these sites [7] that can be applied in treating orthopaedic conditions such as osteoarthritis, periarthritis, cervical spondylosis, lumbar spondylosis, rheumatoid arthritis etc.[8] It is a cost effective procedure that significantly reduces pain, debility, stiffness and improves the range of motion. It improves the quality of life in patients suffering from chronic pain and limited range of motion [ROM]. Varma therapy is an effective treatment modality in orthopaedic conditions. Fomentation [Ottradam] is one of the 32 external therapies in Siddha system of medicine. It is the application of hot or cold packs. For reducing pain and inflammation, it is considered as one of the effective methods. Ottradam creates balance among the three humors by detoxification process.[9] Various parts of plants such as leaf, root, bark, tubers and other substances like sand and brick powder are used in the process of fomentation.[10] Commonly used medicinal plants for fomentation include *Calotropis gigantea*, *Azadirachta indica*, *Vitex negundo*, *Ricinus communis* etc. Leaves of *Vitex negundo* was used in this case. It is a large shrub or a small slender tree belonging to the family Lamiaceae and has several pharmacological activities like anti-inflammatory, anti-arthritis, hepatoprotective, immunostimulant, antioxidant, anticonvulsant etc. [11] Due to its potent anti-inflammatory activity, it is used in treating inflammatory and arthritic disorders.[12] The efficacy of Varmam and Ottradam treatment in periarthritis is documented through this single case report.

## 2. CLINICAL ASSESSMENT

### 2.1 General Information:

Age: 61-years

Gender: Female

Height: 5'3"

Weight: 62kg

Occupation: Home maker

### 2.2 History of Present Illness:

A 61-year-old married female from Chennai presented to the OPD of the Department of Varmam puramaruthuvam sirappu maruthuvam, Sri Sairam Siddha Hospital with complaints of pain in the right shoulder followed by stiffness and restriction in active and passive movements for 2 months. On examination restricted abduction, adduction and external rotation of right shoulder was observed. She was a vegetarian. Bladder and bowel habits normal. BMI normal.

Severity of pain resulted in difficulty in performing daily activities such as cooking, lifting vessels and wearing clothes. Patient initially went for Physiotherapy treatment for 7 days. As she had no improvement, she decided to undergo Siddha treatment and visited our hospital.

### 2.3 History of Past Illness:

Known history of Diabetes mellitus for the past 15 years.

No known history of Trauma or Hypertension or other systemic diseases.

### 2.4 Other medications:

At the time of first visit, the fasting and post prandial blood sugar level was normal with 5. HbA1c value was 5. She was under allopathy treatment: Metformin 500 mg bd – 1 tab, t. Glipizide 5 mg: 1 bf [morning].

### 2.5 Investigation:

History revealed pain in right shoulder with restricted abduction and external rotation for two months. The x-ray of right shoulder taken at the first month revealed no fracture or rotator cuff tear. The joint space in right shoulder was reduced.

## 3. THERAPEUTIC INTERVENTION

### 3.1 Varmam therapy

Varma therapy was administered twice a day initially for 7 days and once a day for next 7 days and later once in 2 weeks for a month. Duration of therapy was about 15 minutes. According to the procedure

mentioned in text following *varmam* points were stimulated [13,14]:

- Mozhipiralkai varmam
- Dhatchinai Kaalam
- Ullangai vellai varmam
- Manibandha Varmam
- Soododhari varmam
- Theedha varmam
- Kaal Mootu varmam
- Savuu varmam
- Kavuli Kaalam.

### 3.2 Ottradam therapy

- Fresh leaves of Notchi-*Vitex negundo* is wrapped in *khada* cloth and tied into a little cloth bundle known as *kizhi*. The bundle is then immersed in hot gingelly

oil and gently applied to the affected portion.

### 4. FOLLOW UP AND OUTCOME

- There was no recurrence in the six months follow-up period.
- Patient adhered to the complete treatment regimen and no adverse events were observed.
- The outcomes were recorded during the course of treatment using assessment of subjective parameters, objective parameters and visual analogue scale as seen in Table 1.1, Table 1.2 and Fig 1.1. Prognosis is depicted in timeline as seen in Fig 1.2.

### 4.1 Subjective Parameters Assessment

PARAMETERS	FINDINGS	GRADING	Day 1	Day 15	Day 30
Pain	No pain	0	3	2	0-1
	Mild – pain particularly on moving the shoulder, able to continue routine work with difficulty	1			
	Moderate - pain on movement, at rest, interfering with routine work	2			
	Severe - Pain on movement and also at rest, disturbing sleep unable to carry out most of the routine work	3			
Stiffness	No stiffness	0	2	1	0
	Mild – particularly on moving the shoulder, able to continue routine work with difficulty	1			
	Moderate – on movement, at rest, interfering with routine work	2			
	Severe – on movement and also at rest, disturbing sleep unable to carry out most of the routine work	3			

Table 1.1: Subjective Parameters Assessment

### 4.2 Objective Parameters Assessment

Criteria	Day 1	Day 15	Day 30
Abduction [0-170°]	50°	90°	160°
Adduction in extension [0-50°]	20°	30°	45°
Forward flexion [0-165°]	100°	120°	155°
Backward extension [0-60°]	No backward extension	30°	50°
External rotation in extension [0-70°]	No external rotation	45°	65°
Internal rotation in extension	Minimal internal rotation	60°	Able to get the left hand behind the back

Table 1.2: Objective Parameters Assessment

### 4.3 Visual Analogue Scale

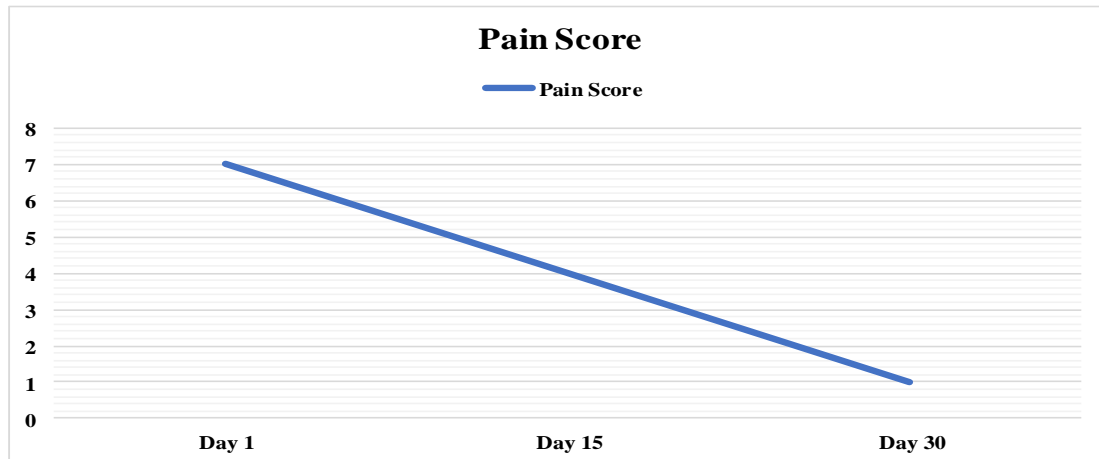


Fig 1.1: Pain Score documentation during course of treatment

### 4.4 Timeline

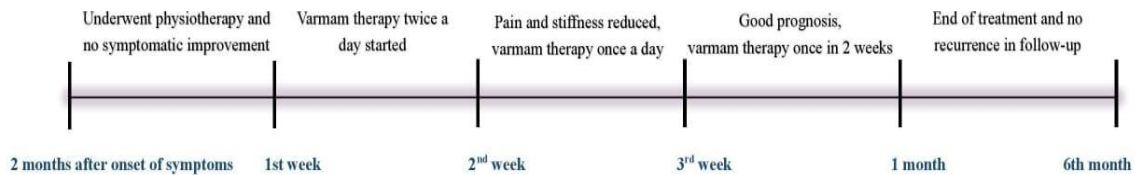


Fig 1.2: Chronological depiction of history, siddha treatment and follow-up.

## 5. DISCUSSION

Based on the results it is evident that *Varmam* and *Ottradam* therapy has been very effective in the treatment of Peri-arthritis. From the timeline of the case, it is clear that patient had good prognosis. The initial 1 week of treatment reduced pain and stiffness to some extent so the number of therapy to be administered was rescheduled. After the second week of

treatment significant changes was observed in the all parameters. Following good prognosis, therapy was scheduled for once in 2 weeks and patient responded well to this regimen. Significant improvement before and after treatment as shown in Fig 2.1. Prognosis was remarkable and there was no recurrence in the follow-up period of six months.



Fig 2.1: Before and After Treatment



Fig 2.2: Kizhi Ottradam using *Vitex negundo* leaves

Peri-arthritis is a self-limiting condition. However, the clinical features of this condition severely affect an individual's ability to carry out everyday activities without difficulty and pain. Thus, intervention is needed to provide pain relief and quality life. Vatha diseases have been classified into 80 types. *Kumbavatham* comes under *vatha* disease and the symptoms of this type mentioned in literature is analogous to the that of peri-arthritis. *Varma* therapy regulates and organizes "Vaasi" and thus maintains the equilibrium of the three humors.<sup>[15]</sup> A Study revealed that varma therapy has significantly reduced physiological variables such as systolic and diastolic blood pressure, heart rate indicating that it plays important role in altering the physiological mechanisms of the human body.<sup>[16]</sup> In Autism Spectrum Disorder, Varma therapy has been very effective in promoting cognitive and physical functions suggesting that it acts at brain.<sup>[17]</sup> A clinical study has revealed that Varma therapy is effective in the management of Osteoarthritis and Rheumatoid arthritis.<sup>[18,19]</sup> Thus, varma therapy is highly effective in treatment of musculoskeletal and neurological conditions as it mediates its action through physiological pathways and neural network.

*Ottradam* transmits heat throughout the affected region. Heat results in the stimulation of vasoactive substances promoting blood flow in the affected region. Heat has analgesic action and promotes the circulation of leucocytes to the affected area.<sup>[20]</sup> Studies have revealed that the leaves of *Notchi-Vitex negundo* possess anti-inflammatory and analgesic activity. The pain suppressing mechanism is possibly mediated through the inhibition of Prostaglandin synthesis.<sup>[21]</sup> These leaves were used in the treatment regimen of this case [as seen in Fig 2.2] and provided good results. The varma points stimulated in this case are usually administered in practice for upper limb conditions. This set of varma points can be specifically categorized for

peri-arthritis by documentations. Categorization of external therapies in the treatment of several diseases contributes to the standardization of the treatment protocol. This single case report is an initiation to this process. Hence it is clear that *Varma* and *ottradam* treatment is of immense significance in treating musculoskeletal conditions like peri-arthritis.

## 6.CONCLUSION

From this single case report it can be concluded that *varmam* and *ottradam therapy* is effective in the treatment of Peri-arthritis. For patients with comorbid conditions who might be under heavy medications, this Siddha therapeutic intervention is of immense significance in treating musculoskeletal conditions without subjecting them to internal medications. Thus, *varmam* and *ottradam* can be used to treat musculoskeletal conditions successfully.

### Declaration by Authors

**Informed Consent:** Written consent from the patient was taken to publish the report.

**Patient Perspective:** The patient did not experience improvement with modern medicine and decided to take Siddha treatment. The patient was very satisfied with her recovery and felt grateful to Siddha system.

**Acknowledgement:** We would like to express our gratitude to our college Principal and Management for their continuous guidance and support.

**Source of Funding:** None

**Conflict of Interest:** The authors declare no conflict of interest.

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How to cite this article: H. Subhashree, S. Kanimozhi, D. Amirtharaj. Efficacy of *Siddha Varmam* and *Ottradam* treatment in peri-arthritis - a case report. *Int J Health Sci Res.* 2025; 15(4):96-101. DOI: [10.52403/ijhsr.20250414](https://doi.org/10.52403/ijhsr.20250414)

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