



The Management of Kai Puja Poruthu Varmam (Varmam Injury of Shoulder Joint) in Siddha System of Medicine – A Case Series

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ABSTRACT:

Introduction: Siddha medicine has a huge repository of Materia medica, diagnostic tools, internal medicine and external therapeutic methods. Among external therapeutic methods, Varmam therapy is non-invasive and effective in treating many diseases especially pain management in Musculo-skeletal and neurological diseases. Kai Puja Poruthu Varmam is a clinical condition with pain and restriction of movement in the shoulder joint. The clinical features may be correlated with Shoulder Impingement syndrome characterised by pain in the shoulder and the upper arm during the mid-range movement of gleno-humeral abduction from 60°-120°. It may be acute or gradual onset depending upon the cause. **Objective:** To evaluate the effectiveness of Varmam therapy in the management of Acute and Chronic shoulder impingement syndrome (Varmam injury of shoulder joint). **Methods:** A clinical study was conducted on 5 subjects who visited Varma maruthuvam OPD in Ayothidoss Pandithar hospital, National Institute of Siddha with the clinical features of Kai Puja Poruthu Varmam (Shoulder Impingement syndrome). The Shoulder Impingement syndrome was diagnosed in these patients with the positive findings of Neer's impingement test, Hawkin's test and Jobe's test. These subjects were treated with the specific Varmam protocol along with the OPD medicines. The Varmam protocol was given for 5 consecutive days. **Result:** There is a significant reduction in the pain, disability and improvement in the range of movement by specific Varmam protocol. **Conclusion:** Varmam therapy showed effective and promising improvement in the management of acute Kai Puja Poruthu Varmam.

1. INTRODUCTION:

Siddha medicine is one of the traditional system of medicine of India with a wide repository of Materia medica, diagnostic methods, internal medicines and external therapies. The special pride of the system is the 96 principles that form the basis for the diagnostic and treatment of the diseases. These 96 principles are interconnected and functions through the channel of energy called "Vaasi". This Vaasi circulated through the body through Saram. If an injury or damage occurs in this Vaasi circulation, it denotes Varmam. There are 108 Varmam points in our body and any injury or damage to

each Varmam point shows specific symptoms. These symptoms will be relieved and normal function of the body is maintained by specific retrieval techniques in the respective Varmam points or Adangal points, Varmam based internal medication, specific external therapies and definite Varma dietary regimen. One such injury is Kai Puja Poruthu Varmam [SAE1.12] ^[1]. This Varmam point is located 3-finger breadth postero-lateral to the acromion process in the inferior aspect. The ill effects are produced when this Varmam point is affected by a hit from 16 finger breadth. The clinical effects are pain in the shoulder region, adduction of the upper limb, restriction of shoulder movements, fever, giddiness. The



upper limb will be inflamed and severe pain will be felt [2]. This *Varmam* is classified under *Saathiya Varmam* (Curable *Varmam* type) and can be managed by proper retrieving technique and Siddha medication.

In modern medicine, this may be clinically correlated with Shoulder impingement syndrome. **Shoulder impingement syndrome [M75.4]**^[3] is a syndrome involving the inflammation of the tendons of rotator cuff muscles as they pass through the subacromial space. This syndrome is also known as Subacromial impingement syndrome, Painful arc syndrome, Supraspinatus syndrome, Swimmer's syndrome and Thrower's syndrome. This clinically presents with the acute pain in the shoulder and inability to abduct the shoulder between 60°-120°. Movement below 60° and above 120° is painless. The tender spot is just below the acromion laterally and anteriorly above the greater tuberosity [4]. Pain in the shoulder is worsened by shoulder overhead movements and aggravated in the night time especially when lying on the affected shoulder^[5]. The pain may be acute if it is caused by an injury and the pain is insidious if it is caused by gradual onset such as osteoarthritic spur or with underlying co-morbid. The patient describes the pain as dull ache rather than sharp and lingers for long periods of time and makes patient hard to fall asleep^[6]. The other symptoms include grind or popping sensation during the movement of shoulder. Usually, it has a prolonged course of treatment. The conventional treatment available are use of NSAID, intraarticular steroids, physiotherapy, acupressure and yoga [7]. The individual *Varma* point damage is retrieved by specific *Varmam* protocol in a short period of time.

2. OBJECTIVE:

To evaluate the effectiveness of *Varmam* therapy in the management of Acute and Chronic shoulder impingement syndrome (*Varmam* injury of shoulder joint).

3. STUDY TYPE & INTERVENTION:

A retrospective case series design was adopted. Five patients who visited *Varma maruthuvam* OPD in Ayothidoss Pandithar hospital, National Institute of Siddha with the clinical features of *Kai Puja Poruthu Varmam* (Shoulder Impingement syndrome) in between the month of November 2021 and January 2022 were

treated with *Varmam* therapy along with the OPD medicines. These patients belong to either sex between 41 – 62 years. The Shoulder Impingement syndrome was diagnosed in these patients with the positive findings of Neer's impingement test [8], Hawkin's test [9] and Jobe's test [10]. Complete history taking and clinical examination revealed that among the 5 patients, 3 patients had acute and remaining 2 patients had chronicity of Shoulder Impingement syndrome. The 2 patients who had chronic Shoulder Impingement syndrome has history of Diabetes mellites. The above subjects were treated with the specific *Varmam* protocol along with the OPD medicines. The *Varmam* protocol was given for 5 consecutive days.

4. CLINICAL FINDINGS :

The patients had pain in the shoulder region and the patients had painful abduction of upper limb between 60°-120°. On examination, the patients had tenderness in the acromion process and greater tuberosity. The pain aggravated on overhead movements and in night time while lying down on the affected side. The patients had positive findings of Neer's impingement test [8], Hawkin's test [9] and Jobe's test [10].

5. DIAGNOSTIC ASSESSMENTS :

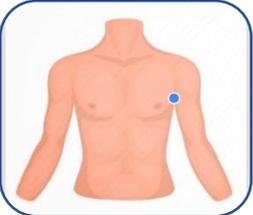
The pain and shoulder movements were assessed by SPADI Score [11]. The SPADI Score was used to record the pain and disability of the shoulder joint. The SPADI score before and after the treatment was recorded in the Table 2. Clinical examinations revealed the positive Neer's impingement test, Hawkin's test and Jobe's test and no weakness of the muscles around the shoulder joint. With the above findings it was diagnosed as *Kai puja poruthu Varma* (Shoulder impingement syndrome).

6. THERAPEUTIC INTERVENTION:

6.1. VARMAM THERAPY:

The *Varmam* therapy was given regularly for 5 consecutive days. The details of the *Varmam* points were mentioned in the Table 1. The patient was in the sitting position. Pressure was given with the fingers of the physician with the specified unit pressure in the specific *Varmam* points. The duration of one *Varmam* treatment session was 10 minutes.

TABLE 1: *Varmam* points, their anatomical location and manipulation procedure:

S.No	Name of the <i>Varmam</i> point	Anatomical location	Unit of Pressure (<i>Maathirai</i>)	Procedure
1	<i>Sara Mudichi</i> ^[12] 	At the junction of C7 & T1	$\frac{1}{2}$ <i>maathirai</i>	Place the middle three fingers over the cervical prominence. Give pressure in clockwise rotation for three times. Then stretch the fingers and manipulate up to the right shoulder. Follow the same technique in the opposite side. Manipulate in a clockwise and anticlockwise rotation 3 times each.
2	<i>Kaakkattai Kaalam</i> ^[13] 	Midway between the neck and head of arms, four fingers above from midline of the clavicle	$\frac{1}{4}$ <i>maathirai</i>	place the pulp of middle 3 fingers over the <i>varmam</i> on either side with thumb on the back side. Apply inward pressure and release for 3 times.
3	<i>Enthi Kaalam</i> ^[14] 	One finger breadth anterior to midpoint of the axilla	$\frac{1}{4}$ <i>maathirai</i>	Place the tip of the middle three fingers in anterior axillary fold; Press and release
4	<i>Piratharai Kaalam</i> ^[14] 	Near to armpit in posterior side	$\frac{1}{4}$ <i>maathirai</i>	Hold the <i>varmam</i> by placing pulp of middle three fingers inside and thumb outside of the posterior axillary fold. Apply inward pressure and release for 3 times.
5	<i>Kaikootu Varmam</i> ^[12] 	In the center of axilla	$\frac{1}{4}$ <i>maathirai</i>	Place the tip of the middle three fingers in the centre of the axilla; Press and release



6	<i>Manibandha Varmam</i> ^[14] 	Middle of wrist in the flexor aspect of the forearm	$\frac{1}{4}$ <i>maathirai</i>	Place the middle of the thumb (palmar aspect) and give moderate pressure 3 times.
7	<i>Manjadi Varmam</i> ^[15] 	Near the junction of the index finger and thumb; along the upper part (base) of index finger	$\frac{1}{4}$ <i>maathirai</i>	Place the central portion (pulp) of the thumb over the point; Press and release
8	<i>Kavuli Kaalam</i> ^[14] 	It is located in the web space between thumb and index finger (dorsal aspect).	$\frac{1}{4}$ <i>maathirai</i>	Encircle the patient's thumb with the physician's hand and place the tip of middle 3 fingers over the <i>varmam</i> . Apply inward pressure and release for 3 times.
9	<i>Savuu Varmam</i> ^[12] 	It is located 4 fb below the shoulder joint on the medial side of the arm	$\frac{1}{2}$ <i>maathirai</i>	Place the middle of three fingers on the <i>Varmam</i> point; move the fingers up and down while giving pressure
10	<i>Vilangu Varmam</i> ^[14] 	It is located at the infraclavicular fossa	$\frac{1}{4}$ <i>maathirai</i>	Place the mid part of middle 3 fingers vertically over the <i>varmam</i> on either side. Apply circulatory pressure externally for 3 times.

6.2. CONCOMITANT MEDICATION:

The patients were treated with OPD medications along with Varmam therapy. The OPD medicines given for the patients were Amukkara chooranam Tablet (500 mg)– 2 tds with milk, Sangu parpam Tablet (100 mg) – 2 bd with milk, Rasagandhi mezhugu Capsule (100 mg) – 2 bd with Palm jaggery and Kunthiriga thylam in the treatment period of 5 days along with *Varmam* therapy. The Madhumeaga chooranam Capsules (500 mg) – 2 tds with

warm water was given for diabetic patients along with the above medications.

6.3. PATHIYAM (DIET) :

The Anti-Vatha diet was instructed for the patients during the trail. The anti- Vatha diet includes restriction of tuber, vegetables like Calabash (Surai), Pumpkin (Poosani), Snake gourd (Pudalai), Ribbed gourd (Peerku), Legumes, Horse gram, Urid dhal, Com,



Tamarind and spicy foods. The patients advised to avoid Tobacco chewing and Alcohol.

6.4. OUTCOME MEASURE:

The SPADI score was used to evaluate the pain and range of movements of each participants and their response to *Varmam* therapy. The SPADI score is a self-report questionnaire consist of questions to assess the pain of the disease and to measure the severity of restriction of movement in shoulder pathology. Each question is rated on a scale from 0 to 10 with a total score ranging from 0 to 100. The highest score denotes the severity of the pain and movement restriction in the shoulder impingement syndrome. The SPADI score has been showed to be valid and reliable in the previous study^[16]. Data were collected in the baseline and 5th day of the treatment. The overall impression of the treatment was also asked from each patient.

7. DATA ANALYSIS:

Descriptive statistics was used to describe the demographic data of all participants. The difference in

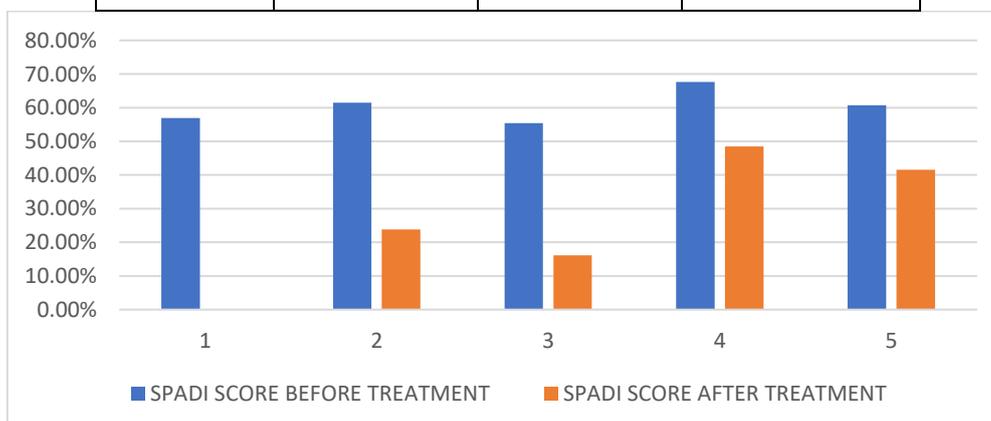
the outcome was reported by total mean scores and percentage of improvement before and after the study. Paired *t* test was used to compare the results before and after the treatment.

8. RESULT:

The subjects included 2 male and 3 female with the mean age of 50 years (range 41 y- 62 y;). The individual case data were collected and examined. The coding of the SPADI score is such that highest value indicates the high severity and lowest value indicates the lower severity. For the acute shoulder impingement syndrome, the percentage of improvement range from 20% to 100%. For other two chronic patients with Diabetes mellitus, there was a slight improvement with the 20% as mentioned in the Table 2. No patient condition was worsened after the *Varmam* therapy. The calculated *t* value (4.8) is higher than the tabulated 0.01 value with the 4 degrees of freedom, namely 4.604, indicating that the *Varmam* treatment had a significant benefit in reducing the pain and restriction of movement in shoulder joint.

TABLE 2: Measurement of Shoulder movements with SPADI Score before and after treatment:

SUBJECT	SPADI SCORE BEFORE TREATMENT	SPADI SCORE AFTER TREATMENT	PERCENTAGE OF IMPROVEMENT
1	56.92%	0%	100%
2	61.53%	23.84%	50%
3	55.38%	16.15%	80%
4	67.69%	48.46%	20%
5	60.76%	41.53%	20%





9. FOLLOW-UP AND OUTCOMES :

The patient was followed up for a period of 6 months. Among the 5 patients, only one patient with Diabetes mellitus had pain and restriction of movements in the shoulder for a longer period. The remaining patients had better prognosis.

10. DISCUSSION:

Varmam therapy is a non-invasive and cost-effective treatment method used in the management of many ailments mainly Musculo-skeletal and neurological disorders. The obstruction in the *Vaasi* pathway in the specific point is denoted as *Varmam*. This *Varmam* damage can be corrected by proper retrieval techniques and medicines. One of such *Varmam* damage is *Kai Puja Poruthu Varmam*. *Kai Puja Poruthu Varmam* shows clinical symptoms as pain in the shoulder region, adduction of the upper limb in the affected side, fever, giddiness. Among these pain in the shoulder and adduction of the upper limb can be correlated with the Shoulder impingement syndrome. The shoulder impingement syndrome can be clinically diagnosed by pain in the shoulder region and inability of glenohumeral abduction between 60°-120°. This condition will present with the positive findings of Neer's impingement test, Hawkin's test and Jobe's test. The pain and the disability of the shoulder joint is assessed by the SPADI score. The therapeutic approach aimed at reducing the pain and improving the range of movements.

The study is conducted in the retrospective way with 5 patients as sample size. The prognosis in these patients is assessed by the self-reportive questionnaire before and after the treatment. The data collected are tabulated and statistically made by paired *t* test method. The statistical reports showed a better improvement in the *Kai Puja Poruthu Varmam* (Shoulder impingement syndrome). The acute cases showed a good prognosis than chronic patients. Only 5 days treatment is enough for the acute patients to recover. In the other hand, the chronic patients felt an improvement in the pain reduction and movement restriction. These patients are followed up weekly once and given *Varmam* therapy along with the OPD medicines. The statement from all the 5 patients revealed that they found a better improvement after giving *Varmam* therapy.

11. CONCLUSION:

Varmam therapy will be beneficial for the improvement in the clinical signs of acute *Kai Puja Poruthu Varmam* (Shoulder impingement syndrome). The statistical results and the interpretation of the patients stated that there is a good prognosis in the acute *Kai Puja Poruthu Varmam*. Further studies may be carried out in future with large sample size with control group to explore the effectiveness of *Varmam* therapy globally.

PATIENT PERSPECTIVES:

The patients self-reported that they were satisfied with the treatment as they experienced reduction in pain and movement restriction. Their quality of life was improved. The patients don't have recurrence of pain.

INFORMED CONSENT:

The patients were well informed about the *Varmam* therapy and consent was obtained from the patient before starting the *Varmam* therapy. The patients given consent for images and other clinical information to be reported in the journal. The patients assured that their name and personal information will not be published and efforts will be made to conceal their identity.

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None

CONFLICT OF INTEREST:

None

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