



Siddha Varmam Therapy in the Management of Anterior Cruciate Ligament Tear Grade II - A Case Report

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Abstract

Anterior cruciate ligament rupture is one of the most common musculo-skeletal injuries in active individuals, especially athletes. Varmam treatment, as part of the Siddha, primarily treats traumatic injuries. A 25-year-old female patient came to *Varma Maruthuvam* OPD, National Institute of Siddha, Chennai, with complaints of severe right knee joint pain, swelling, walking difficulty, instability while walking, and difficulty in flexion and extension of the right knee joint for 10 days. Initially, she consulted an allopathic hospital, and after her MRI was done, she was diagnosed with an anterior cruciate ligament tear grade II and advised for surgery. The patient refused to go for surgery and came to our OPD for further management. She was treated with Siddha *Varmam* therapy and external medicine, *murivu ennai*, for 50 days and followed up for four months. The ligament tear healed without any surgical treatment, and the patient returned to her regular work, which was assessed by a visual analogue scale. This case report summarizes the conservative management of an anterior cruciate ligament tear grade II by Siddha *Varmam* therapy.

Keywords: Anterior Cruciate Ligament Tear, *Murivu ennai*, Siddha, *Varmam* Therapy

1. Introduction

Ligament injuries in the knee region are common and potentially serious. Injury to the Anterior Cruciate Ligament (ACL) in the knee is more frequent than injuries to other ligaments, particularly in young athletes. The ACL stabilizes the knee joint by joining the femur to the tibia. It gives the knee rotational stability. 70% of ACL injuries are not caused by direct impact¹. ACL rupture occurs as a result of twisting force on a semi-flexed knee, and it is often associated with the tear of the lateral or medial collateral ligaments. The incidence of ligament damage is 95% in all knee injuries. Anterior cruciate ligament injuries account for between 25% and 50% of ligamentous knee injuries². In the modern system of medicine, reconstruction surgery is the most common procedure for an ACL

tear. The patient seeks a traditional approach out of fear of surgery.

The Siddha system has good ailments to treat ligament injuries, especially through *Varmam* therapy with external formulations. According to *Varma maruthuvam*, *Mootu kayangal* is classified into three types; one such type is *Muzhangal mootu savvu kayangal*, which is mentioned in *Varma odivu murivu maruthuvam*³ literature. It has symptoms of pain and swelling in joints and difficulty in flexion and extension. *Muzhangal mootu savvu kayangal* may be correlated to ligament injury in the knee joint. Siddha *varmam* therapy specifies the therapeutic manipulation of certain points at which life energy is found to be concentrated. Handling these points and fetching relief to the affected individual by regulating the flow of life energy that is blocked due to an attack on particular *varmam* points or due to another cause⁴. Stimulation of

varmam points with proper methodology helps to treat disease by balancing the three humors and it is found to be effective in neurological and musculoskeletal disorders. In accordance with the aforementioned facts, this study aimed to evaluate the therapeutic efficacy of *varmam* therapy in the management of ACL tear.

2. Case Presentation

A 25-year-old female patient reported to the *Varma Maruthuvam* Outpatient Department of APH-NIS Chennai with the chief complaints of right knee joint pain, swelling, walking difficulty, and instability. The history of her present illness revealed that 10 days before, she slipped and fell to the ground while an athlete practiced. She felt pain over her right knee joint and was unable to walk, and swelling also developed within one hour. Then she consulted an orthopedician, and after a clinical examination, she was advised to take an MRI of the right knee joint, and afterward, she was advised to undergo surgery. To avoid surgical management, she came to our hospital. The patient had been working as a police constable, and she belongs to the low socio-economic category.

3. Clinical Findings

3.1 General Examination

The general condition of the patient was stable. She had no other associated systemic illnesses. Weight: 61kg; height: 163 cm; body built: normal. Vitals were within the normal limit. BP: -125/80 mm Hg; HR: 84/min; PR: 82/min; RR: 19/min. Based on *Siddha* principles, her body constitution was *pitham*, and the *naadi* was found to be *pitha vatham*.

3.2 Physical Examination

On localized examination, swelling was observed on the right knee. There was no abrasion or bruise. On palpation, a mildly increased temperature around the knee and medial aspect tenderness were present. Movements are restricted up to 40 degrees in flexion and 20 degrees in extension. The anterior drawer test and the Lachmann test were found positive. The posterior drawer test, valgus, and varus tests were

negative. No associated neurological deficits were seen.

4. Diagnostic Assessment

The patient had a clear history of trauma to the right knee joint. Physical examination revealed swelling, and movement restriction, along with positive Lachman and anterior drawer tests. An MRI of the right knee joint also showed anterior cruciate ligament rupture Grade II, and a medial collateral ligament strain, moderate knee joint effusion with thickened periarticular soft tissue swelling. Based on the factors listed, the case was confirmed as an ACL rupture and distinguished from other knee joint ligament tears, patellar dislocation, and fractures.

5. Therapeutic Intervention

Siddha *Varmam* therapy was given as follows:

5.1 Pre-treatment Procedure

Information was given about the *Varmam* therapy, then the patient was asked to satisfy her natural urges; vital signs were recorded, and then the patient was allowed to lie in a supine lying position.

5.2 Treatment Procedure

The *Varmam* application (Table 1) was done in supine lying posture, according to the condition and convenience of the patient, then medicated oil *murivu ennai* was applied over the knee joint *varma thadaval* (varma massage) given from the knee to the foot for 20 minutes. Finally, the affected knee was stabilised by bandaging with cotton and gauze, and oil was poured over it.

5.3 Post-treatment Procedure

The condition of the patient was observed 30 minutes after the procedure, and then vital signs were checked. The patient was advised to apply *murivu ennai* over the bandaged knee joint daily.

6. Follow-up and Outcomes

The patient was advised to follow up therapy once in every seven days at every OPD visit for 50 days. Externally,

Table 1. Siddha *Varmam* therapy^{4,5}

S. No.	Name of the Varmam points	Anatomical location	Procedure	Duration (seconds)	Pressure given
1	<i>Muttu chirattai varmam</i>	Upper and lower end of patella	Pressing the <i>varmam</i> point with thumb finger and give rotation 3 times.	30 sec	1/4 <i>maathirai</i>
2	<i>Muttu pathaippu varmam</i>	Dimple on either side of centre of the popliteal fossa	Pressing the <i>varmam</i> point with both middle fingers and moving upwards repeat the same thrice.	30 sec	1/4 <i>maathirai</i>
3	<i>Muzhankal mozhi poruthu varmam</i>	Mid of the popliteal fossa	Upward pressure with both middle fingers to connect with <i>pathaippu varmam</i> .	30 sec	1/2 <i>maathirai</i>
4	<i>Karandai kannu varmam</i>	Anterior part of the ankle on either side	Press and release with thumb finger.	30 sec	1/2 <i>maathirai</i>
5	<i>Muttu kannu varmam</i>	Beneath the patella bone in pits on either side.	Pressing the <i>varmam</i> points with thumb and give 3-time rotation.	30 sec	1/4 <i>maathirai</i>
6	<i>Kuthikaal varmam</i>	Over the Achilles tendon, just above the calcaneum.	By using thumb and index finger pressure and release 3 times.	30 sec	1/2 <i>maathirai</i>
7	<i>Kaal nerukku varmam</i>	Web space between 1 st , 2 nd , 3 rd and 4 th metatarsal bone.	Press and release three times with the pulp of the 2 nd , 3 rd and 4 th finger.	30 sec	1/2 <i>maathirai</i>
8	<i>Kaal kavuli varmam</i>	First metatarsal space close to metatarsophalangeal joint.	Press and release with the thumb finger repeat the same 3 times.	30 sec	1/2 <i>maathirai</i>
9	<i>Ulankaal vellai varmam</i>	Below the base of the distal phalangeal bone of the great toe in the plantar aspect.	Inward pressure for 3 times with the thumb finger over the <i>varmam</i> and other fingers placed over the ventral aspect of the foot.	30 sec	1/4 <i>maathirai</i>

murivu ennai was poured over the bandage every day. Each week, a new bandage is applied after the *varmam* therapy. The pain reduction was assessed based on the Visual Analogue Scale⁶ (VAS) score. Initially, the score was 8/10, then it reduced to 2/10 over the following sittings of *varmam* therapy. There was a significant reduction in pain, swelling, and restrictions on movement. She got good relief from all the symptoms, and no pain was noticed during her day-to-day activities. She was followed up for 4 months, and the period was uneventful.

7. Discussion

One of the most severe and common injuries to the knee joint is an ACL tear⁷. The current standard of treatment is surgical reconstruction; however, there are many different reconstruction techniques available and no established gold standard⁸. The time of the reconstruction is also crucial; if surgery is performed

within 4 weeks after the injury, problems may arise. At the time of ACL reconstruction, chondral injuries of higher grades and numbers were more common in patients who were older and had ACL tears that had been present for more than 8 weeks. Osteoarthritis was still evident 14 years after ACL reconstruction⁹. Nowadays, patients are aware of the need to switch to traditional medicine because of the prolonged plaster cast immobilization, the side effects of medicines, their fear of surgery, and the high expense. The decision about whether the rupture should be managed conservatively or surgically depends a lot on the following factors: age, degree of instability, associated abnormalities, occupation, social factors such as cost of treatment and time, and willingness to undergo rehabilitation.

Varmam therapy is a cost-effective and non-invasive procedure. Therapeutic *varmams* include *Varmathadaval* (*varma massage*) and *Varma odivu murivu parikaram* (orthopedic procedure).

Varmathadaval – is a type of massage technique that involves manipulating the *varmam* points, which regulate the *saram*, and retrieving the affected *saram* in our body. In this study, *varmam* treatment has been given to restore the strangulated life energy due to trauma. The *Varma thadaval* procedure has been done to fix the ruptured fragments in position and is facilitated by *murivu ennai*. *Murivu ennai* is a medicated oil formulation popularly used in the treatment of *varma kaayangal* (traumatic injuries) indicated for fracture and dislocation, which is mentioned in the text *Varma Marunthugal Seimuraigal*¹⁰. The ingredients of the *murivennai* include *asuvam* (*Withania somnifera*), *nallennai* (*Sesamum indicum*), *amanakku ennai* (*Ricinus communis*), *kombarakku* (*Caterialacca*), and *elavanam* (sodium chloride), which significantly possess anti-inflammatory, analgesic, and antinociceptive activities¹¹⁻¹³. After *varmam* therapy, *murivu ennai* was applied, and *varmathadaval* was given from knee to foot, which increased the absorption of the drugs. At last, the knee was stabilized by a cotton bandage, and oil was poured over it. Bandaging is also helpful in reducing inflammation and assisting proper healing. Ligaments are structures with very little vascularity, so increasing the vascularity in the area is very important in promoting the healing of ligaments. Local application of oil at the desired site increases the concentration of the drug reaching the particular site. The management of an ACL (Grade II) tear with the said intervention has received great encouragement from this study and the modalities adopted in the case may be applied to a similar case too. The fact that an MRI of the affected knee joint could not be accomplished is the constraint of this study.

8. Conclusion

Siddha *varmam* therapy, along with the external medicine *murivu ennai*, has a significant role in the management of ACL ligament injury, which was achieved by good knee function after the treatment. It indicates a good outcome from conservative management. These findings support a step towards validating Siddha *varmam* therapy as a treatment option for grade II ACL tears. Moreover, future clinical trials with large sample sizes must be investigated to generate evidence.

9. References

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