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## Abstract

Siddha medicine is a vast repository of external therapies – administration of drugs through routes other than oral. These procedures are as important as the internal medicines in the management of health and diseases. The thirty two external therapies include ophthalmic drops, nasal drops, ear drops, fumigation, oleation, physical manipulation therapies etc. Thokkanam signifies a set of therapeutic procedures, usually done with hand on the body in nine different ways, with or without the application of medicated oil (thailam). These procedures can either be curative or palliative. The physical therapies of thokkanam, varmam and most other therapies of siddha are regaining popularity and efforts are on to validate and standardize the procedures. The nine types of thokkanam are Thattal (Taping), Irukkal (Tightening), Pidithal (Grasping), Murukkal (Twisting), Kai kattal (Tying), Azhutthal (Pressing), Ezhutthal (Pulling or traction), Mallathuthal (Supination), Asaithal (Shaking). This article helps in giving the types of procedure of thokkanam towards traditional therapies of siddha that have tremendous results in various diseases. External therapies can be done in major measures with locally available resources and therefore is accessible as well as affordable to the entire society.

**Keywords:** Thokkanam, Siddha External Therapy, Marthanam, Physical Manipulation Therapy.

## Introduction

Siddha medicine is a vast repository of external therapies – administration of drugs through routes other than oral. These procedures are as important as the internal medicines in the management of health and diseases. In Several instances, only the procedure without any drug is sufficient and these procedures are already systematized. The thirty two external therapies include ophthalmic drops, nasal drops, ear drops, fumigation, oleation, physical manipulation therapies etc<sup>[1]</sup>. Thokkanam (also known as Marthanam) is a method of manipulation and mobilization used primarily in the treatment of conditions related to changes in the Varma points leading to mechanical – type of problems in joints and muscles<sup>[2]</sup>. Normally, Manipulation is a hands- on procedure used to restore normal movement by loosening joints and stretching tight muscles. In some cases, manipulation will restore normal movement by unlocking a joint or by breaking down adhesions. A popping

sound often occurs when a spinal joint is stretched a little beyond its normal range of motility. Mobilization simply stretches soft tissues by moving joints through a full range of movement. Mobilization can increase the range of motion of the arms, legs and shoulders, but manipulation may be more effective in relieving pain and restoring normal movement in the spinal joints. Thokkanam signifies a set of therapeutic procedures, usually done with hand on the body in nine different ways, with or without the application of medicated oil (thailam). These procedures can either be curative or palliative. The physical therapies of thokkanam, varmam and most other therapies of siddha are regaining popularity and efforts are on to validate and standardize the procedures.

# Types of thokkanam<sup>[3]</sup>

Thattal (Taping)

Irukkal (Tightening)

Pidithal (Grasping)

Murukkal (Twisting)

Kai kattal (Tying)

Azhutthal (Pressing)

Ezhutthal (Pulling or traction)

Mallathuthal (Supination)

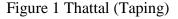
Asaithal (Shaking)

# Thattal (Taping)

Gentle patting can be done with one palm or with one over the other with force commencing only from wrist joint.

According to the pressure applied, thattal is classified into mild, moderate and strong.

Patting can be performed throughout the body for curing vaatham diseases. For general well-being, this can be done once in a month.





Parts used : Fingers

**Durations**: 1 - 5 minutes per cycle

The number of cycles can vary, depending upon the affected area, nature of disease, stamina of the patient

# Area of taping

It can be tapped all over the body.

Pressure can be given by 3 levels. Mandham (mild force), mathimam (moderate force), sandam( severe force)

# **Tapping method:**

Tapping can be done with one finger or with all fingers

# **Types:**

**Tapping** 

Cupping

Hacking

Pummelling

#### **Benefits:**

# Diagnosis of disease:

If the vibration is not felt during percussion from toes to knee, it is peripheral neuropathy.

If the vibration is not felt in upper and lower extremities, it is posterior column disorder.

If the vibration is not felt under a particular segment, it is myelopathy.

## **Indication:**

It is used in sciatica and lumbago

During unconscious state, the thattal technique helps to stimulate sympathetic nervous system and regain consciousness.

## Irukkal (Tightening)

Tightening and releasing of the musculature. Use of medicated oil or clarified butter helps to control the force.

Tightening should be done mildly and carefully over long bones as it may cause fracture.

Applying internal compression vertically on the particular area of muscle with one hand or both hands is called tightening.

While performing tightening as a therapeutic procedure, same amount of pressure should be maintained. Depending on the nature of the area to be pressed, i.e., whether above bony area or in the area in high muscle tension, internal compression or tightening can be performed with superficial or deep pressure using thumb, fingers and elbow





**Duration :** 10 - 20 seconds of internal compression.

Tightening can be done in mandha nilai(mild force) and mathima nilai( moderate force). After tightening at one place with hands, it is made free and kept at another place.

## **Benefits**

Excretes the unwanted metabolites from the muscles.

As the blood flow increases in the muscles, it results in refreshment.

# Pidithal (Grasping)

The fingers and palms are used to grasp the muscles. This is usually done in synchronization with the varmam points. The grasping and lifting are done relatively faster.

Usually grasping of an area is done for 3-4 times. The patient should feel a mild soreness and swelling during this therapy.

The soreness should not become a pain after completion of the procedure. Muscle snapping method is a little more powerful method of this procedure done for biceps and triceps muscles. This is the ideal method for muscular sprains.

Figure 3 – Pidithal (Grasping)



Parts used – Thumb, index finger, middle finger is used altogether to perform holding.

**Duration** -1 -3 minutes (for one time holding)

## Procedure

With three fingers, muscles are lifted from the place where they are

# **Types of grasping**

Izhaikurukku thooral

Tholurutti

Paravai alagal thookuvadu pola

Killai murai

## **Benefits**

Increses blood and lymphatic circulation

Eliminates muscle fatigue

The functions of the skin receptors are normalised.

## Murukkal (Twisting)

This method involves making twisting and /or wringing motions on the skin with fingers or palms. The subcutaneous tissue in the area is allowed to slip while fingers still hold the skin.

The musculature is gripped with both the hands of the therapist and twisting is done in the same direction or opposite direction. Twisting is best avoided in the joints.

The twisting of the spinal vertebrae- face in one direction and leg in the opposite direction helps in low back ache.



Figure 4 – Murukkal (Twisting)

Parts used – fingers, palm, elbow

**Duration** – 30 seconds to 1minute for 20 minutes intermittently

### Procedure

The muscles should be pressed together where they are and thus amount of pressure should be slightly higher during kneading.

# **Types**

Compression and stretching

Squeezing

Palm twisting

Palm twisting on the little fingerside

#### Uses

Increases blood flow to the skin and muscles.

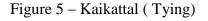
Increases cellular exchange.

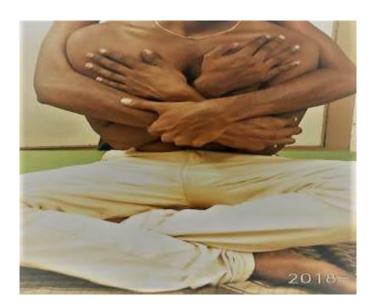
## Kai kattal (Tying)

Kai kattal is a passive manipulation where the patient sits in the same posture, while the therapist resists movements either of the elbow or knee joint or hip joint or the shoulder joint.

The joints are kept in the flexed position and therapist applies resistance to prevent extension of the joint. This is useful in paralysis and patients suffering from spastic conditions.

This can be done in standing, sitting, supine and lateral lying positions but shoulder not be done during walking which may result in fracture of the ribs. This is also called as bend method as it helps a joint with impeded mobility to bend.





# Procedure

Tying is performed passively by the physician by joining the hands of the patient for shaking or pulling upwards.

## **Duration**

The amount of time can be determined by the patients physical conditions.

#### **Benefits**

Cellular respiration can be regularised.

## **Azhutthal (Pressing)**

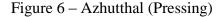
Press method is the form of massage which uses the palm or the fingers to press on a certain part of the body.

The pressure could be given with one palm, both palm or with elbow. The pressure must go from sunlight to heavy and slowly reduced. Press method requires little prolonged time of massage.

The pressure can be varied from being felt superficially or very deep. This method is followed in conditions were a large surface area is in pain like in lumbago or abdominal pain.

Press method is also followed in drowned patient who has swallowed large amount of water and performed in the shoulders and on the back for curing vaatham diseases.

This should be practiced only in the sitting and standing postures of the patient. Pressing should be done with care in the ankles, ribs and head.





#### Parts used

Thumb, index finger, middle finger, palm of hand, elbow, foot

## **Duration**

30 seconds to 1 minute an be done in mandham (mild force), mathimam (moderate force) and sandam (severe force)

## **Benefits**

Relieves muscle and bone pain

The action cycle of the affected area is regulated.

# **Ezhutthal (Pulling or traction)**

The extension method helps a malfunctioning joint to regain normal extension. This is a passive manipulation.

The extent to which the extension is possible should be assessed first before commencement of procedure.

Only a slow, even continuous force should be used to bring the appropriate extension of the joint. Sudden force should never be used.

The proper positioning of both the patient and therapist is a pre- requisite. Most frequently used for extension of shoulder and elbow joint and sometimes the hip joint. Cramps and sprains are also treated by this method.

Figure 7 – Ezhutthal (Pulling)



#### Parts used

Thumb, index finger, middle finger, palm of hand, elbow

## Duration

There is no time limit for pulling at mild force (mandha nilai)

At moderate force (mathima nilai) pulling can be done fr 1 to 5 minutes.

## Procedure

At moderate to little pressure pulling is done on the affected area continuously without taking off the hand.

# **Types**

Straight pulling

Pulling on both sides

Crescent shaped pulling

#### **Benefits**

Eliminates muscle fatigue and tightness

Normalizes blood flow and lymph flow to the muscles.

# **Mallathuthal (Supination)**

With outstretched hands the therapist stands back to back of the patient and uses his physical power to supine the patient. This helps in the management of vertebral joint diseases.

Supinating is to the point of falling with one's back to the ground. Mallathuthal is a word widely used in silambam and malyutham denoting movement from one particular position to another in short reorientation.

Overuse, muscle splinting, adaptive contractions ( over stretching), central muscle fatigue, structural or local injury induced muscle fatigue causes muscle pain.

Painful muscles that are continuous in a channel with a particular innervation does not move. So the muscles next to this channel begin to move for the movements to take place. This causes change in the functional movement pattern. Thus, it helps in reorientation of changes in different functional movement pattern.



Figure 8 – Mallathuthal (Supination)

## **Benefits**

The sensory feedback that goes from the musle through supinating goes properly. Thereby the motor information coming to the muscles are regulated.

## Asaithal (Shaking)

This again is a passive manipulation where in the limbs are shaken. The therapist holds the distal part of the limbs and shakes the limb gently in a wave like pattern.

The patient is made to sit and the therapist does it standing. The range of shaking should be from short to wide. The movements are done three to five times for the lower limb the patient lies on the lateral side and the therapist stands behind his foot, grasps the toes and back of the foot with his hands lifts and shakes.



Figure 9 – Asaithal (Shaking)

Parts used – fingers, palm

**Duration** -5 - 10 minutes

## Procedure

The skin is hold tightly and shake front and back with mild to moderate pressure. Don't slide the fingers during the procedure

# **Types**

Circular method

Linear method

Horizontal method

## **Benefits**

Ligaments, joints, tendons are strengthened during procedure. So, range of motion of joints are increased.

Inflammation is reduced

It gives good therapeutic effect in hemiplegia.

## **Exclusion criteria**

Thokkanam is not advisable in infants, pregnant women, epileptic conditions, unconscious persons<sup>[4]</sup>.

#### **Duration**

The entire treatment is usually given for 30 - 60 minutes

## **Indications**

Postural disturbances, myofascial trigger points, paralysis, body pain, arthritis, disc diseases, calcaneal spur, myopathy, autism.

Insomnia, sprain, bell's palsy, fibromyalgia, chronic pain syndrome, cervical and lumbar spine disorders, reactive trapezitis, periarthritis shoulder.

#### **Precautions**

Procedure done with carefully under these clinical cases<sup>[5]</sup>

Below 18 years

Vitamin D deficiency

Above 60 years

Acute inflammation

Pott's spine (Spinal tuberculosis)

Prolonged steroid administration

Haemophilia

## Conclusion

This article helps in giving the types of procedure of thokkanam towards traditional therapies of siddha that have tremendous results in various diseases. External therapies can be done in major measures with locally available resources and therefore is accessible as well as affordable to the entire society.

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