



## EFFECT OF SUTTIGAI THERAPY FOR THE MANAGEMENT OF AZHAL KEELVAYU – AN OPEN COMPARATIVE STUDY

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### ABSTRACT

The main objective of the present study is to outweigh the therapeutic efficacy of suttigai therapy for the management of azhal keelvayu (osteoarthritis) by an open comparative clinical study among patients with oil application and patients with suttigai therapy receiving the same internal medicines. An open comparative study was conducted in National Institute of Siddha IPD among 12 patients who had screened positively for Osteoarthritis. The patients were divided into two groups. Group 1 and Group 2 were treated with same internal medicines but different external medications oil application and suttigai therapy, respectively. There was significant reduction in pain and symptoms in patients receiving suttigai therapy as compared to patients receiving oil application. The result of the study was explored by using KOOS score. The beneficial effect of the suttigai therapy was revealed with suitable statistical analysis.

**Key words:** Siddha, Suttigai therapy, Azhal keel vayu, KOOS score

### INTRODUCTION

Siddha system is the ancient dravidian system of medicine presently practiced predominantly in south India which emphasizes remedies for the management of various ailments affecting mankind. Various internal and external therapies mentioned in literature considered as the treasury of siddha system. External therapies includes 32 procedures from simple kattu (bandage) to complex aruvai (surgical procedures) were mentioned in the texts of Theraiyar siddhar<sup>1</sup>. Among them suttigai (Thermal cauterization) is a special type of external medicine, is the application of heat with an object to treat diseases.

There are 5 types of Suttigai:

1. Kaanthi suttigai- Sunbath
2. Kaatru suttigai- Exposure to blowing hot air
3. Mann suttigai- Suttigai with brick or earthen vessel
4. Mara suttigai- Suttigai with plant parts
5. Uloga suttigai- Metal cauterization

Among them mara suttigai is done with rhizome of turmeric plant (manjal kombu) and is indicated to treat the diseases like Sanni, vatha noi Sanni with Lock jawKapha noigal Virana silethum noigal, peenisam, Anda vaayu, Vidhai veekam, Vidhai veekam, muzhangal vatham and kuthikal vatham<sup>3</sup>. Beyond that the literature siddha maruthuvanga surukkam also added a point for mara suttigai that a doctor can use marasuttigai pointed at some other regions according to the disease and patient condition.<sup>2</sup>

Suttigai therapy is one of the extincting agni treatment which is least expensive and simplest way to treat azhal keelvayu. This present clinical study is an attempt to outweigh the beneficial effects of manjal kombu suttigai for osteoarthritis. Osteoarthritis is the most prevalent of chronic degenerative disease, leading to pain and disability. Worldwide prevalence of osteoarthritis is 9.6% in males and 15% in females<sup>3</sup>. People with osteoarthritis is suffer a variety of symptoms, including pain, swelling, restricted movement of the affected joints, psychological distress, social isolation and general

inability to cope. Management of osteoarthritis ideally involves both conventional pain-relieving medication and non-pharmacologic strategies. Osteoarthritis management is conventionally concerned with controlling symptoms of pain and lack of mobility through the use of non-steroidal anti-inflammatory drugs (NSAIDs) and analgesics. These conventional medications are often rejected by people, either because of side effects from long-term use or personal preference. Rheumatologists propose that management ideally combines conventional pain-relieving medication with non-pharmacological strategies, such as changes in diet, exercise and the use of natural therapies. Research shows that people with OA respond positively to heat therapy and relaxation therapy<sup>4</sup>. Osteoarthritis can be correlated to azhal keel vayu. So the authors decided to use manjal kombu suttigai as heat therapy for treating azhal keel vayu.

**Possible Mechanism behind suttigai:** The stimulation of peripheral nerve endings through suttigai causes reflex dilatation of the Arterioles. This Vasodilatation brings an effect of Local anaesthesia. During the process of Suttigai, "Heat shock proteins"(HSP) or Stress proteins called "Chaperones" are produced in the localized area and helps to reduce inflammation, subdues pain and stiffness in the musculature of the region.<sup>5</sup>

## METHODOLOGY

**SOP of application of Suttigai :** The manjal kombu was ignited to red hot and allowed to cool till tolerable heat obtained and then touched on muzhangal poruthu (knee joint) for 2-4 seconds .The procedure repeated for 3 times . After finishing the procedure Kungilia vennai was applied to reduce the burning sensation and for preventing burns.

**Conduct of study:** The design of the study was open comparative study being conducted on 12 patients at IPD of National Institute of Siddha for a period of 15 days duration . Patients already diagnosed with the symptoms of Osteoarthritis age limit of 40-60 years included in this study. The following categories were excluded from the study like Hypertension ,cardiac problems, Diabetes mellitus , tuberculosis,

Bronchial asthma The patients were divided into two groups . Group 1 and Group 2 were treated with same internal medicines but different external medications oil application and suttigai respectively. The internal medicines given were Amukkura choornam tablet ,Vatha rakshasn mathirai, sangu parpam tablet (each 2 twice daily)<sup>6,7</sup>.The result of the study explored by measuring KOOS score (Both before and after treatment ) for a duration of 15 days

## RESULT

Table I describes KOOS score for the patient received suttigai therapy and Table II describes KOOS score for the patient received oil application.

## DISCUSSION

Through Statisticial Analysis It was revealed that there was significant change in koos score in patients taking suttigai therapy than those receiving oil application. By conventional criteria, this difference is considered to be extremely statistically significant. 0.0005.

## CONCLUSION

There was significant reduction in pain and symptoms in patients receiving suttigai therapy as compared to patients receiving oil application. It was also observed that the time duration for the reduction of symptoms in patients of group 1 was less as compared to group 2 .The therapy is found to be cost effective ,safe and efficacious as compared to other external therapies.

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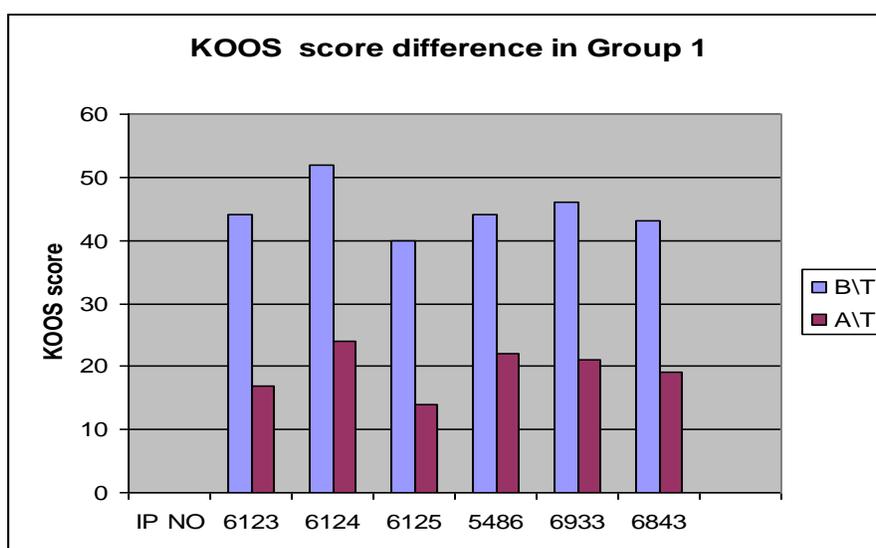
**Table I: KOOS score for the patient received sutigai therapy**

IP NO	KOOS SCORE	Before treatment	After treatment	% reduction
6123	Pain score	27	10	61.36
	Symptom score	17	7	
6124	Pain score	31	13	53.8
	Symptom score	21	11	
6125	Pain score	24	7	71.4
	Symptom score	16	7	
5486	Pain score	24	12	55.5
	Symptom score	20	10	
6933	Pain score	24	11	54.34
	Symptom score	22	10	
6843	Pain score	25	9	53.44
	Symptom score	18	10	

**Table II: KOOS score for the patient received oil application**

IP NO	KOOS SCORE	Before treatment	After treatment	% reduction
6006	Pain score	30	20	30.00
	Symptom score	17	13	
6129	Pain score	32	25	31.37
	Symptom score	19	10	
6139	Pain score	27	15	40.9
	Symptom score	17	11	
6975	Pain score	28	15	44.4
	Symptom score	22	13	
6058	Pain score	23	18	39.3
	Symptom score	15	10	
7088	Pain score	24	15	40.54
	Symptom score	13	7	

Group	Average KOOS score(Before treatment)	Average KOOS score(After treatment)
Group1	22.41	9.75
Group2	22.25	14.33



**Figure 1: KOOS score difference in group 1**

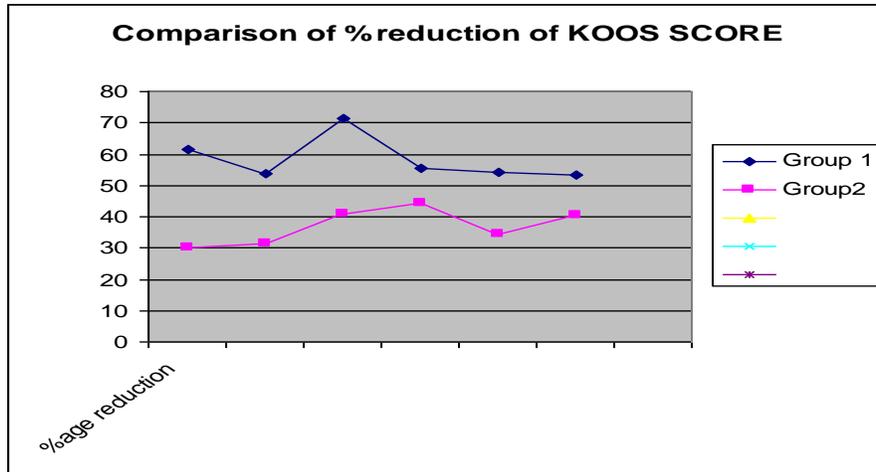


Figure 2: Comparison of % reduction of KOOS Score

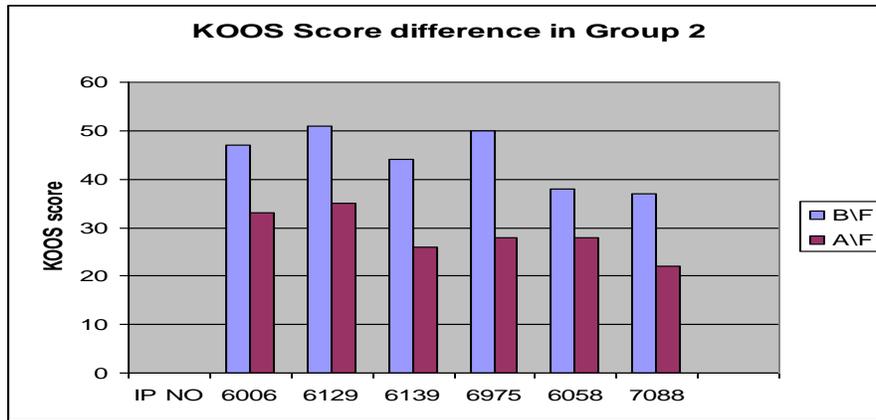


Figure 3: KOOS Score difference in group 2

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