ABSTRACT

**Background:** Siddha system of medicine is the most primitive medical system. This system has a vast range of external therapies for health management. Most of these therapies aim in maintaining a healthy equilibrium of the vital humors (Vali, Azhal, Iyam). There are 32 types of pura maruthuvam in siddha system. Ottradam is one among them. It is a warm application to a part of the body. Azhal keel vayu is one type of Vatha disease, which is characterized by pain, swelling and restricted movements in the knee joints. The signs and symptoms of osteo arthritis (OA) can be correlated with Azhal keel vayu. **Objective:** The aim of this study to evaluate the effectiveness of ottradam therapy on Azhal keel vayu. **Material and Methods:** 10 patients with symptoms of OA were admitted in In Patient Department RVS Siddha Medical college and Hospital. Notchi leaves (Vitex negundo) was used for ottradam procedure. Ottradam was given in morning, for 7-15 days and the patients were monitored clinically. **Results and Conclusion:** Pain was measured by using Universal Pain Assessment Scale. Pain, Swelling, Restriction of movements in the knee joint got reduced in the patients at the end of the therapy. This study reveals that ottradam therapy is effective in reducing the symptoms of Osteo arthritis.

**KEYWORDS:** Azhal keel vayu, Osteo arthritis, ottradam.
INTRODUCTION
Siddha system of medicine is the most primitive medical system and considered as the mother medicine of ancient Tamils/Dravidians in South India. This system has a vast range of external therapies for health management. Most of these therapies aim in maintaining a healthy equilibrium of the vital humors (Vali, Azhal, Iyam). There are 32 types of external therapies in siddha system. Ottradam is one among them. It is a hot application to a part of the body with or without oil application.

In Siddha system of medicine, the diseases are classified into 4448 types. As per “yugi vaithiya sinthaamani” text the keelvaayu is classified into ten types. Azhal keel vayu is one among them. It is vaatha disease, characterized by pain, swelling, and restriction of movement followed by difficulty in walking.

The signs and symptoms of azhal keel vayu can be correlated to osteoarthritis. Osteoarthritis is among the common musculoskeletal diseases affecting the human beings making it an important cause of disability. It is characterized by focal loss of cartilage with evidence of accompanying periarticular bone response in the form of sub chondral bone sclerosis and attempted new bone formation in the form of bony over growths called osteophytes.

A variety of causes hereditary, developmental, metabolic, and mechanical deficits—may initiate processes leading to loss of cartilage. Symptoms of OA include joint pain, morning stiffness, limited motion, joint inflammation, crepitus from the knee and deformity.

Osteoarthritis (OA) is the fourth leading cause of ‘years lived with disability’ (YLDs), accounting for 3.0% of total global YLDs. The prevalence of OA increases with age and generally affects women more frequently than men. As per WHO estimates, the prevalence of knee OA was 1770 and 2693 per 100 000 men and women in 2000 respectively.

As per siddha text “Therayar tharu “the fomentation which reduces the pain, swelling induced by vaatham. Ottradam is a application of hot backs of cereals husk, pulses, lime brick powder, leaves on or around the affected part. The aim of this study to evaluate the effectiveness of ottradam therapy on Azhal keel vayu.

MODE OF ACTION
Ottradam is normally done with materials heated to appropriate temperature. Due to the fomentation heat is increased and the fat gets mobilized. While throwing out waste as toxins
through the skin it also helps disperse altered doshams, dilating all body channels for the cleansing. Notchi leaves are discutient and their efficacy in dispelling inflammatory swelling of the joints.

**MATERIALS AND METHODS**

Patients with symptoms of OA were admitted in In Patient Department, RVS Siddha Medical college and Hospital for this study. Female patients with age between 30-65 years having symptoms of pain, swelling, restriction of movements and morning stiffness in the knee joints were included. Patients with Rheumatoid arthritis, Septic arthritis, hemorrhage, Malignancy, peripheral vascular disease, any other serious illness were excluded from this study.

**PROCEDURE OF THERAPY**

**NOTCHI ILAI (LEAVES OF Vitex negundo)**

"Naasath tharuvaatha naasip piniyazhalsu
Vasaath hasanavuru vanrodang -kaasamara
Lucchi yadaiyai yurainooyu menpadumo
Notchi yadaiyai nuval." (Pathartha guna vilakkam)

Vaatha kesari thylam- It cures all types of vaatha diseases.

Based on Siddha literature above two has anti vaatha property. so I would like to carryout clinical study. Notchi leaves (Vitex negundo) was used for ottradam procedure. Vaatha kesari thylum applied over the affected part. Notchi leaves was heated with caster oil then made in to pouch and applied to the affected part with tolerable heat. Ottradam was given in morning, for 7 days. The time duration is 20-30 minutes and patients were monitored clinically.

The outcome of the pain was assessed by universal pain scale.

A. 0 : No Pain
B. 1 -3 : Mild pain
C. 4-6 : Moderate pain
D. 7-10: Severe pain

**OBSERVATION AND DISCUSSION**

10 patients were included for this trial. 10 patients were homemakers. More weight bearing and improper positioning of knee also produce the impact. Out of 10 patients 2 patients were
in between 30-40 yrs and 8 patients had attained menopause. This fact clearly shows that Menopause is one of the cause for Osteo Arthritis in Women.

After the treatment, pain, swelling, reduced in the patients which was measured by using Universal Pain Assessment Scale. Restriction of movements in the knee joint also reduced in the patients at the end of the therapy.

**RESULTS**
Good improvement was observed in -7 Patients.
Moderate improvement was observed in-3 Patients.

**CONCLUSION**
The above study reveals that ottradam (Fomentation) is effective in reducing the symptoms of pain, swelling, restriction of movements in Osteo arthritis. No complications developed in patients during the therapy. Pain gets reduced in patients within 7 days of the therapy. It is an effective, safe mode of treatment to reduce the symptoms of Osteo arthritis along with Siddha medicine.

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