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CASE REPORT

A CASE REPORT ON SANDHIVATA AND ITS MANAGEMENT WITH *AGNIKARMA*

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ABSTRACT

Osteoarthritis is the commonest form of arthritis which occurs when the protective cartilage at the end of the bones wears down or breaks down over time leading to pain, swelling and stiffness. In Ayurveda, *Sandhivata* (osteoarthritis) (AAE-16) is described under *Vata vyadhi* (diseases caused by vata dosha). It is a condition when vitiated *vata* resides in the affected joint causing wear and tear in the joint. Dry property leads to drying up of synovial fluid thus causing pain and stiffness in the involved joint. *Agnikarma* (thermal microcautery) is an ancient Ayurvedic technique for pain management. In this case study, a 65 years old male patient suffering from *Sandhivata* (osteoarthritis) presented with chronic knee joint pain was treated with *Agnikarma* (thermal microcautery) for a period of 4 months. During this period, 8 sittings were given at the interval of 15 days. The patient was followed up at 30 days interval and observed for recurrence for 6 months. *Agnikarma* (thermal microcautery) is found very effective in managing pain and restoring the quality of life of the patient.

Key Words: *Sandhivata,* Osteoarthritis, *Agnikarma, Vatavyadhi.*

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INTRODUCTION:

Now a days, pain management has been a difficult task without painkillers. *Agnikarma* (thermal microcautery) is an ancient Ayurvedic paramedical tool for pain management which was documented in classical texts about 3000 years ago. Among its counterparts (*kshar* (alkali) and *jaloka* (leech)), *Agnikarma* (thermal microcautery) is said to be most efficient. *Agnikarma* (thermal microcautery) is a thermal, minimally invasive parasurgical procedure for pain of different origins. It is simple, safe, cost effective, drugless and daycare procedure.

Osteoarthritis is a condition characterized by the progressive loss of articular cartilage and remodelling of the underlying bones. It is a disease of old age, characterised by growth of osteophytes at the articular ends, which make movements limited and painful. Patients present with pain and stiffness in joints, worsened activity and relieved by rest.

The knee joint is the largest and most complex joint of the body. It is formed by fusion of lateral femorotibial, medial femorotibial and femoropatellar joints. It is a compound synovial joint, incorporating two condylar joints between condyles of femur and tibia and one saddle joint between the femur and the patella. The knee is supported by 11 ligaments. The capsule of knee joint is lined by synovial membrane and has around 13 bursae [1].

Epidemiological studies estimate about 15% of the world population is affected with osteoarthritis. It is the most common cause of activity limitation in working age adults and functional decline among older individuals. In this way, osteoarthritis is also a substantial economic burden in a developing country like India [2]. In this case report, an attempt is being made to treat osteoarthritis with a simpler, efficient and non- invasive procedure which as compared with the surgical procedure can reduce the economical burden on the patient as well.

Pathophysiology

Osteoarthritis has been considered to be a disease of not only articular cartilage but the entire joint**.** Old age, obesity, joint injuries, repeated stress on the joint and certain metabolic diseases cause destruction of articular cartilage by the action of chondrocytes and inflammatory cells. This further leads to exposure of underlying subchondral bone and sclerosis. This in turn leads to reactive remodelling of the underlying bone and formation of osteophytes and bone cysts. As a result of which there is joint space reduction, pain in movement, stiffness and swelling in the joint.

Investigations

Although osteoarthritis is a clinical diagnosis, investigations can be used to exclude other disease conditions. Routine blood tests are

useful to exclude infective causes. X rays are used for confirming the diagnosis and to exclude fractures. The findings include loss of joint space, osteophytes, subchondral cysts and subchondral sclerosis.

Management

It includes conservative management like educating the patient about the importance of exercise, to lose weight, joint support and physiotherapy. In medical management, analgesics and topical NSAIDs are used as the main line of treatment. In cases where oral analgesics don't work, intra articular steroid injection and hyaluronic injections are also used. If conservative and medical interventions fail, then surgical intervention is considered. It includes arthroplasty (joint replacement) and knee osteotomy (for realigning bones) [3].

In *Ayurveda* osteoarthritis can be correlated with *Sandhi gata vata* (osteoarthritis) as described by *Acharya Charaka* as under the chapter of *Vata vyadhi* (diseases caused by vata dosha) Acharya *Charaka* has defined it as a disease with the symptoms of palpable *sotha* (swelling), as an air-filled bag (*vata purna driti sparsha*) and pain on flexion and extension of the joints (*akunchana prasarane vedana*) [4]. *Sandhivata* (osteoarthritis) is not described in 80 types of nanatmaj *vata vyadhi.* However *Sandhivata* (osteoarthritis) is accepted by *Acharya Chakrapani* as *GulphaVata* (arthritis of ankle joint) or *Sandhigata Vata* (osteoarthritis). *Acharya Madhavakara* has mentioned the symptoms *Hanti Sandhigata* (difficulty in movements)*, Sandhishula* (joint pain), and *Sandhishotha* (swelling in joints) [5]. As per Ayurveda, Vata dosha has been considered as a factor causing gradual degeneration of the body parts in advancing age [6]. In this way, the disease *Sandhigatavata* (osteoarthritis) can be defined as a disease of *Sandhi* (joints) with symptoms of *Sandhishula* (joint pain), *Sandhishotha* (swelling in joints), and *Akunchana Prasarana Pravritti Svedana* (pain during flexion and extension of joints) and in the later stage *Hanti Sandhigatah* (difficulty in movements).

MATERIALS AND METHODS:

Case description: A 65 year old male patient was suffering from knee joint pain since one and a half year. The patient took allopathic and physiotherapy treatment from past one year but did not get satisfactory response. So after one year he visited our OPD and presented with bilateral knee joint pain and difficulty in walking. On examination, there was mild swelling over both knees and crepitus was present in right knee joint. The patient had no previous history of hypertension and diabetes melliatus. X-ray of bilateral knee joints (AP/Lateral view) was done and showed the presence of osteophytes and joint space

reduction. Diagnosis was made as *Sandhivata* (osteoarthritis). This case was planned with the aim to evaluate the effect of *Agnikarma* (thermal microcautery). Informed consent was obtained from the patient.

Methodology: The procedure was performed in 3 stages as *purva karma* (preparatory procedure)*, pradhan karma* (main procedure) and *paschata karma* (post therapy dietary regime) as mentioned by *Acharya Sushruta*. Brass *shalaka* (probe made of brass) was used for this purpose. *Bindu* (point) type of *agnikarma* (thermal microcautery) was performed.

Purva karma (preparatory procedure): *Snigdha* and *picchila anna-pana* (oily food items) was given prior to the procedure. The site was washed with *triphala kwath* (decoction of triphala), wiped with a dry swab and covered with a cut sheet. *Shalaka* (probe) was heated up to red hot i.e approx. 5-7 minutes and *Ghritakumari* (aloe Vera*)* pulp already kept ready for dressing.

Pradhana karma (main procedure): In this procedure, supine position was adopted. *Agnikarma* (thermal microcautery) was done with 8 *bindus* (8 points) at maximum tender sites. After *Agnikarma* (thermal microcautery), fresh *Ghritakumari* (aloe Vera) pulp was applied on *Dagdha* (burn) site to relieve burning pain.

Paschat karma (post therapy dietary regime): After wiping *Ghritakumari* (aloe Vera)*,* honey and ghee was applied on the *dagdha* (burn) site. Patient was observed for 30 mins and advised *pathyapathya* (edible and inedible food items) until the healing of *vrana* (wound)*.* Patient was strictly advised not to allow water contact at the site for at least 24 hours.

Figure 1: Agnikarma procedure

Assessment criteria:

The assessment of relief of sign & symptoms was done after completion by following graded parameters. The grades were noted before & after the treatment as depicted in Table 1 to Table 4.

Table 1: Grades of pain

No pain	0
Mild pain (exaggerated by movement and subside by rest)	1
Moderate pain (not relieved by rest but not disturbing sleep or other routine activities)	2
Severe pain (disturbing sleep and other routine activities and relieved by analgesic)	3

Table 2: Grades of tenderness

No tenderness	0
Mild tenderness (patient complains of pain on touch with mild pressure)	1
Moderate tenderness (patient complains of pain and on touching, withdraws knee joint)	2
Severe tenderness (patient does not allow to touch the knee joint)	3

Table 3: Grades of crepitus

No crepitus	0
Grade I (Palpable crepitus through half of the range of motion)	1
Grade II (Palpable crepitus through greater than half of the range of motion)	2
Grade III (Audible crepitus)	3

Table 4: Grades of swelling

Rarely	0
Occasionally	1
Frequently	2
Almost constant	3

OBSERVATION / RESULT

After the end of 15 and 30 days i.e after 1st and 2nd visits, patient got significant relief from pain and tenderness. On follow up visits, i.e 3rd & 4th visit, patient got absolute relief from pain. On the 4th, 5th, 6th, 7th and 8th visits, patient was able to walk properly without stress and also there was significant improvement in

tenderness and intensity of crepitus. No untoward effects were observed during the process. Lesions of *dagdha* (burn) disappeared in 3 to 5 days. The results are depicted in Table 5.

Table 5: Examination results

Examination	Before treatment	After treatment
Pain	3	1
Tenderness	2	0
Crepitus	3	2
Swelling	2	0

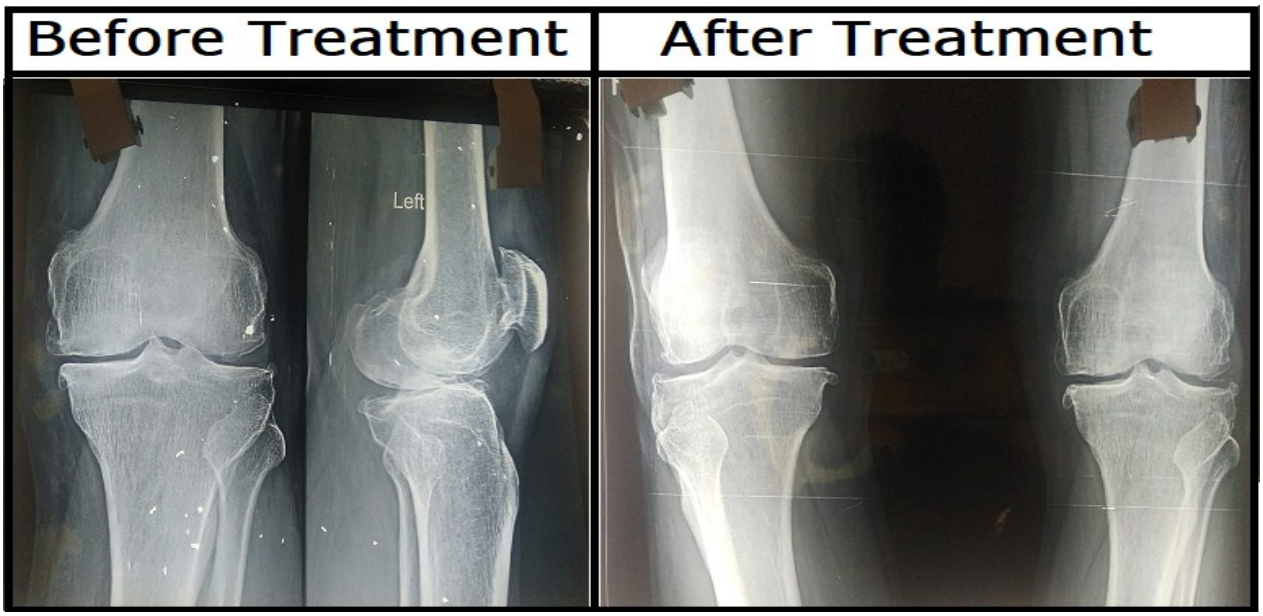

Figure 2: X-Ray of knee joint

DISCUSSION:

The cardinal symptom is pain at knee joint and the basic humor responsible for pain is *vata.* While doing *Agnikarma* (thermal microcautery), *ushna* (hot) property which is exactly opposite to *sheeta guna* (cold property) of *vayu* (humor vata) reduces the joint pain in *Sandhigata vata* (osteoarthritis). *Ushna guna* of *Agni* (hot property of fire) helps to remove the *avarana* (masking) and stabilizes the movement of *vata* (humor vata) which results in relief from *shool*(pain). In *Agnikarma* (thermal microcautery), the temperature at the applied site is increased which increases blood circulation and leads to proper nutrition to the tissues and also removal of *ama* (undigested food material) that was responsible for the generation of pain [7] [8]. It is also found that strong superficial heat is effective in relieving pain due to exudation of fluid, increase in white

blood cells and antibodies and thus improvement in crepitus [9].

CONCLUSION:

Ayurvedic treatment with *agnikarma* (thermal microcautery) is found to be safe, easy to practice, cost effective and quick relief treatment that does not require hospitalization or surgeries. However, large scale clinical studies should be conducted to establish the efficacy of the treatment. We hope this paper can draw attention of the researchers to make *agnikarma* (thermal microcautery) beneficial to humanity as a whole.

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