



Case Study

A RAY OF HOPE THROUGH AYURVEDIC MANAGEMENT IN OSTEOARTHRITIS: A CASE STUDY

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ABSTRACT

Osteoarthritis (OA) is degenerative condition, increasing due to today's life style and age related changes. It mostly affects woman. A 70 years female patient, housewife by occupation, known case of osteoarthritis since 30 years was admitted in IPD of Panchkarma department with following presenting complaints: continuous pain in both knee joints and pain in lower back and hands. On the basis of strong similarity between etiological factor, symptoms, and *Doshika* involvement in the etiopathology and complication, OA can be correlated with *Sandhigata Vata*. There is need to search a safe, effective and less-expensive treatment that can alter the course of the disease. In this condition, Ayurveda is a ray of hope to stop disease progression. Considering these points in mind, *Sarvang Abhyang* with *Narayan Tail*, *Swedana*, *Matra vasti* with *Panchguna Tail* was administered in patient for 10 days. After this, *Sarvang Patra Pottali Swedana* was given for 7 days along with oral medication like *Tryodashang Gugglu* 2 tablets thrice a day, *Tablet Neo* 2 tablets twice in day after meal. Activities which were hampered due to symptoms and after 45 days of treatment, patient can perform daily tasks easily with mild pain in some joints and complete relief in others. Ayurvedic management provides better result within limited time periods with least oral medications.

KEYWORDS: Ayurveda, Osteoarthritis, *Abhyang*, *Matra vasti*, *Patra Pottali Swedana*.

INTRODUCTION

Osteoarthritis (OA) is the second most common rheumatologic problem and it is the most frequent joint disease with a prevalence of 22% to 39% in India. OA of the knee is a major cause of mobility impairment, particularly among females. OA was estimated to be the 10th leading cause of nonfatal burden.^[1] A major limitation in the management of patients with OA is the lack of any therapy that can slow the progression of the disease.^[2] Non-pharmacologic approaches such as exercise and weight loss can improve symptoms but to date have not been found to impact disease progression. The lack of any intervention that targets the disease process has resulted in a substantial increase in joint replacement surgery.

Acharya Charaka has described it as '*Sandhigata Anila*' in *Vatavyadhi*. He defined it as a disease, with the symptoms of swelling (*Shotha*), which is palpable as air filled bag (*Vata purna driti sparsha*) and pain on flexion and extension of the joints (*Akunchana prasarane Vedana*).^[3] *Acharya Sushruta* described pain (*Shula*), swelling (*Shotha*) and diminution of the movements at the joints involved (*Hanti sandhigatah*) as symptoms of *Sandhigatavata*. Symptoms of *Sandhigatavata* are *Vatapurnadrutishopha*, and *Akunchana prasarana janya Vedana* described by *Acharya Vagbhata*. On

the basis of strong similarity between etiological factor, symptoms and *Doshika* involvement in the etiopathology and complication, OA can be correlated with *Sandhigata Vata*.

There is need to search a safe, effective and less-expensive treatment that can alter the course of the disease. That type of treatment will have a major impact on both quality of life and future health-care expenditures. Therefore, for finding solution to the current burden of treatment of OA and considering its association with lifestyle related factors, it was essential to undertake such a study on the treatment modalities of knee OA.

MATERIAL AND METHODS

A 70 years female patient, housewife by occupation, known case of osteoarthritis since 30 years was admitted in IPD of Panchkarma department, in April 2015 with following presenting complaints: continuous pain in both knee joints and pain in lower back and hands.

History of present illness

Patient was asymptomatic 30 yrs back, than he developed progressive pain in both knee joints. With increase in time, conditions become worst hampering the daily routine activities. She took allopathic treatment for this, but got mild relief till

medicines were taken. Patient has history of antihypertensive treatment since last 4 years. Patient was reluctant to treatment so she came here for further treatment.

Clinical Examination

Dashvidha Pariksha: Prakriti: Pitta-vataj, Vikriti: Vata-paittika, Sara: Asthisar, Samhana: Avara, Vyayam Shakti: Avara, Vaya: vridha, Jarana Shakti, Ahara Shakti, Satva, Satyama, Bala: Madhyam.

Astavidha Pariksha: Nadi: Vata-paittika, Jihva: Malavritta, Mala: Amayukta, Mutra: Pitmutrata, Sabda, Drika, Akriti: Samanya.

Samprapti Vighatana: Dosh: Vata-pittaja, Dushya: Rakta, Mamsa, Srotas: Raktavaha, Mamsavaha, Asthivaha, Majja, Adhithana: Sandhi, Twak, Mansa, Kandra, Sira, Snayu, Agni: Vishamagni.

General Physical Examination: B.P.=130/80mmHg, P/R = 76/min, Pallor -ve Icterus -ve, Cyanosis-ve, Clubbing -ve, Oedema ++ve, CVS: Normal, Respiratory system: Normal.

CNS: Higher function normal.

Reflexes: Upper limb-Normal, Knee Jerk- diminished, plantar response – Flexor,

Muscular Atrophy – present, involuntary movement – absent

Hamstring power (R)- 4/5, (L) – 4/5

Quadriceps power (R)- 4/5, (L) – 4/5

Treatment Schedule: Details are described. (Table 1,2) with before and after treatment.

Assessment criteria: To assess the effect of the therapy, subjective criteria taken, activities hampered was adopted to assess the effectiveness of treatment.

Treatment given

Tryodashang gugglu 2 tablets twice a day after meal with lukewarm water.

Tablet neo – 2 tablets twice a day after meal.

Sarvang abhayang swedana with *Narayan Tail* for 15 days was given.

Matra basti with *Panchguna Tail* for 10 days.

After completion of these therapies, *Sarvang Patra Pottali Swedana* was administered for 7 days.

RESULT

Before treatment	After treatment
Pain in hip region on walking after 20 min	90% relieved (Continuous walk for long)
Disturbed sleep due to backache Prevent complete flexion	Mild pain (don't disturb sleep) Pain with/without winching of face
Knee joint pain during	Relived pain during

walking and sitting Winching of face on touch Palpable crepitus	sitting No tenderness
Pain and stiffness in Phalanges of both hands, shoulder (which increase on cold exposure such as cold water) Severe stiffness more than 15 min Sever pain doing the dough.	Mild stiffness Mild pain during activities
Bowel: Incomplete evacuation	Clear, Regular

No adverse reaction of any procedure or oral medicaments was found during treatment.

After this therapy, *Patra Pottali Swedana* for 15 days was administered. Medications during follow up are as follows:

Rasa Sindoor- 125mg, *Sudha Kuppilu*- 100mg, *Kapha Ketu Rasa*-250mg, *Godanti Bhasma*-250mg In Combination thrice a day with Milk.

Brahmi Swarasa- 20ml Twice a Day.

Pratimarsha Nasya with *Shadbindu Tail* for 7 days.

Follow up after 30 days was done of patient to check symptoms. There was no relapse of symptoms.

DISCUSSION

OA is a multifactorial condition and the pathway to OA from one particular risk factor, such as joint injury, is likely quite different from that of a different risk factor, such as obesity. This suggests that interventions will need to target a specific OA phenotype rather than the current approach of treating all OA patients in a similar manner. Current patient is case of OA that is related to aging changes occurring within the joints but likely systemically as well. Because aging may contribute to the development of OA no matter the inciting cause, there has been a growing interest in determining the basic mechanisms by which aging and OA are related to target the aging aspects of the condition. The destruction and loss of the articular cartilage in OA is driven by an imbalance in the production and activity of pro-inflammatory and catabolic mediators, including a host of cytokines and chemokines, relative to the activity of anabolic factors, including the growth factors insulin-like growth factor 1 (IGF-1) and osteogenic protein 1 (OP-1), also known as bone morphogenetic protein -7 (15). The imbalance in catabolic and anabolic signaling results in overproduction of matrix degrading enzymes including the matrix metalloproteinases (MMPs) and aggrecanases. It is an incurable, but manageable

disease, which is why the repetitive use of manual therapies is needed for a long time.^[2]

Taila used in *Abhyanga* (massage) by its *Tikshna*, *Suksma* properties penetrate the cartilage and by its *Snigdha* (unctuous), *Guru* (heavy) qualities provides glue which binds the cartilage cells and stops its damage. This action of *Taila* is considered as “*Sandhaniya*”. Secondly, *Snigdha* (unctuous), *Guru* (heavy), and *Mridu* (soft) properties, are opposite to the properties of *Vata*. *Abhyanga* reduces the provoked *Vata*, which is responsible for the decay in the *Dhatus* and for manifestation of features. *Abhyanga* increase the strength of muscles by directly working on them and. *Abhyanga* is done over *Tvacha* (skin) and *Snayu* (ligaments) and also it involves *Raktavahini* blood vessels) which are the root of *Mamsavaha Srotas*. So here, direct benefit is achieved at *Mamsavaha Srotas*. *Abhyanga* nourishes deeper *Dhatus* also. Here, one thing we can said that *Abhyanga* makes the muscles strong and thus the stability of joint achieved.

According to modern studies, massage stimulates blood circulation and assists the lymphatic system, improving the elimination of waste throughout the body. Absorption through the skin can be enhanced by suspending the drug in an oily vehicle and rubbing it on the skin. Thus, the medicaments used as massage are absorbed through the skin.^[4] Studies have revealed the fact that lipid medium is highly suitable for penetration of the drug molecule through stratum corneum.^[5] On this basis, it can be assumed that the oil used in *Abhayang* serves as a lipoidal medium for penetration of the drug molecules of *Vatahar drugs* and exerts an immediate anti-inflammatory and analgesic effect.

Sandhichestakar (improvises the movements of joints), *Srotoshuddhikar* (clears up the micro channels), *Agnideepaka*, *Kaphavatanirodhan* (antagonist of *Kapha*) properties of *Swedana* (fomentation) is mentioned by *Acharyas* It decreases *Sthambha* (stiffness). *Svedana* is specially indicated in symptoms like *Sankocha* (contraction or flexion), *Ayama* (extension), *Shula* (pain), *Stambha* (stiffness), *Gaurava* (heaviness), and *Supti* (numbness).^[6] Heat administration by *Swedana* may produce hypno analgesic effect by diverted stimuli.

The *Matra vasti* is promotive of strength without any restriction of following regimen of diet, causes easy elimination of *Mala* and *Mutra*. It performs the function of *Brimhana* and cures *Vatavyadhi*.^[7] *Acharya Charaka* mentioned *Vasti* as the best treatment for *Vata*. *Vasti* drug first reaches to the *Pakvashaya* (large intestine)- the chief site of *Vatadosha*. Thus, by its action on the chief site, *Vasti* gets control on *Vata* all over the body.

Pakvashaya is the site of *Purishadharakala*. Commentator *Dalhana* has said *Purishadhara* and *Asthidhara kala* are one and same. *Vasti* drugs directly acts on *Purishadharakala* so we can take its direct action on *Asthidharakala* also. *Sushruta* has mentioned 6th *Vasti* nourishes *Mamsa Dhatu*, 7th *Vasti* nourishes *Meda Dhatu*, 8th *Vasti* nourishes *Asthi Dhatu* and 9th *Vasti* nourishes *Majja Dhatu*.^[8] Thus, through *Vasti*, we achieve *Vata Dosha Shamana* and *Snehana* of *Asthi Dhatu*. So we achieve the *Shamana* of *Sandhigatavata* by breaking the *Samprapti*. According to modern medical science, as per *Vasti/Enema* concerned, in transrectal route, the rectum has a rich blood and lymph supply and drug can cross the rectal mucosa like other lipid membrane. Thus by entering in general circulation, *Vasti* drugs acts on whole the body. *Vasti* may act through the nervous system or through the enteric receptors. It may increase the secretion of local enzyme or neurotransmitters. *Vasti* influences the normal bacterial flora, thus it increases the endogenous synthesis of vitamin B₁₂, vitamin K etc.^[9]

Narayana Taila

Taila (sesame oil) itself is a potent *Vata*-alleviating substance. Its *Vatashamaka* action is enhanced when it is processed with *Vatashamaka* drugs like *Patala* (*Stereospermum suaveolens* DC.), *Ashvagandha* (*Withania somnifera* Dunal.), *Agni-mantha* (*Clerodendrum phlomidis* Linn. f.), *Atibala* (*Sida cordifolia* Linn.), and the like, in preparing *Narayana Taila*. *Narayana Taila* can be administered through any route in *Vata Roga*. In current study, it is used for *Abhyanga* and *Matrabasti*.^[10]

Tryodashang Guggulu is indicated where there is vitiation of *Vata* in *Snayu*, *Majja*, *Sandhi* and *Asthi* in *Vata vyadhi rogadohikar* of *Bhaisajya Ratnavali*. A study presented at a recent meeting of the American College of Rheumatology, has shown that herbal Ayurvedic therapy consists of *Guggulu*, which is as effective in treating knee osteoarthritis as a commonly prescribed medication (Celebrex) and Glucosamine, and with fewer side effects. In addition, the *Guggulu* has been shown to be a potent inhibitor of the enzyme, Nuclear Factor Kappa-light-chain-enhancer of activated B cells (NFkB), which regulates the body's inflammatory response. There are several studies that show decreased inflammation and joint swelling after administration of the extracts of *Guggulu* resin.^[11]

CONCLUSION

It can be concluded from the present case study that Ayurveda treatment provided marked relief in *Sandhigatavata* (osteoarthritis) with special importance given to manual therapies within a limited period of time with least medicines. This

shows the stable efficacy of the treatment as there was no reoccurrence after 45 days of outdoor treatment. *Sandhigatavata* is *Yapya* (manageable with recurrent use of the therapy) in nature, so recurrent therapy is needed on regular bases. Ayurvedic medications are safe and effective in the management of *Sandhigatavata*.

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