

EFFECT OF WAX THERAPY IN THE PAIN MANAGEMENT OF JANU SANDHIGATAVATA W.S.R OSTEOARTHRITIS OF KNEE JOINT - A CASE STUDY

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ABSTRACT

Mobility is the basic need of human life. Osteoarthritis (OA) is one of the most common degenerative joint disease presenting with the symptoms like pain, swelling, restricted movement and stiffness of the joint. According to WHO, Osteoarthritis is an important cause of disability and the second most common musculoskeletal problem in the world population (30%) Wax therapy or Paraffin wax bath is one of the thermal modalities of physiotherapy. Paraffin wax is the liquid paraffin used for therapeutic purposes. Here moist heat is applied to the hands or feet to ease the pain and stiffness of arthritis. A 49yrs old lady diagnosed with OA was registered to SJGAMC Koppal and was advised for Wax therapy for 7 days. This case report showed significant relief in the subjective and objective parameters like joint pain, swelling, range of motion and walking time.

KEYWORDS: Wax therapy, *Janu Sandhigata vata*, Osteoarthritis

INTRODUCTION

After 40s every human experience some kind of degenerative disease in their life. *Sandhigata vata* is one among them. *Sandhigata vata* is not a life-threatening disease but it hampers the day-to-day activity of a person.

Sandhigata vata is one among the *Vata Nanatmaja Vyadhis*. When aggravated *vayu* get *sthana samshraya* is *sandhi pradasha*, it is known as *Sandhigata vata*. Almost all the *Acharyas* have described about *Sandhigata vata* but detailed description is not available in any texts. But now a days it's a prime cause of disability. By the age of 40 years

about 90% of the people show radiographic evidence of Osteoarthritis which may or may not cause symptoms.¹ In present era, the changed life style and diet increases the prevalence of *Sandhigata vata* which is 5.8% in rural India, in cities even more.² Osteoarthritis affects almost all the joints but the incidence of knee OA is more as it bears the whole-body weight.

Wax therapy is a thermal modality of Physical therapy, which comes under the rehabilitation programme. The principle behind the wax bath is that it works on "Latent heat". Wax therapy helps in relieving pain, stiffness and muscle spasm in arthritis.³

As *Janusandhigata vata* is a degenerative joint disease, it cannot be cured completely. But the chief complaint that disables the person i.e. Pain can be managed. And the management of pain is considered as the treatment for OA. Wax therapy which is the local application of heated and melted wax, can be a good treatment option for Pain management.

CASE

A 49 years old female patient with chief complaints of pain and restricted movement of both the knee joints since 6 months, visited to the OPD of SJG Ayurvedic Medical College, Koppal vide registration no. 72118 dated on 19/04/2018. Pain aggravated during walking and climbing steps, but get relieved on rest.

Patient is working as a hostel warden. She has to roam around the hostel and climb stair case throughout the day. Which led to severe pain and difficulty in walking? For this reason, she consulted to a local physician and was under analgesic and anti-inflammatory drugs.

On examination both the knees were symmetrical with no deformities. Left knee joint examination showed- mild tenderness, palpable crepitation on movement of the joint, mild rise in local temperature with no discoloration of skin and moderate restriction (prasarana akunchanyorvedana) with range of movement 90-degree flexion. Right knee joint- palpable crepitation(atopa) mild rise in local temperature, moderate restriction with flexion 100 degree. The patient had typical antalgic gait and the walking time 26secs to cover 21meters distance. After clinical examination and

assessment patient was advised for Wax Therapy.

TREATMENT

For the present case, the following material required:

- Paraffin Wax Bath
- Paraffin Wax, 3-inch Painting Brush, Coconut oil, Cotton cloth, Thread

Method of preparation of drug and its application procedure:

Patients made to sit or lie down in the bed according to their comfort. The knee to be treated with wax were exposed and inspected for cuts, rashes or infection and then cleaned properly. First coconut was applied over the affected knee. Then melted Paraffin Wax of tolerable temperature was applied with a brush. After making 10-12 layers, it was wrapped with a cotton cloth in a proper way and tied with thread. And the patient was advised to stay calm for 20mins. After 20mins bandage was removed and collected in the Paraffin Wax Bath for further use. The treated part was cleaned with a cotton piece. The patients were advised to avoid *Vata prakopakara Ahara Vihara like laghu, sheeta, ruksha bhojana, ratri jagarana, atapa sevana, sheetavayu sevana, ati vyayama and vyavaya etc.*

Therapy schedule:

Wax therapy for 20mins⁵ daily for 7 days and Follow up 14 days (with placebo drug)

Assessment parameters:

- *Sandhi shoola*
- *Sandhi shotha*
- Range of movement
- Walking time

RESULT

Sl.No.	Assesment parameters	BT		AT		FU	
		Lt	Rt	Lt	Rt	Lt	Rt
1	Sandhi shula	3	2	1	1	1	0
2	Sandhi shotha	0	0	0	0	0	0
3	Range of movement	2	2	1	0	1	0
4	Walking time	2	2	0	0	0	0

BT; before treatment, AT; after treatment, FU; follow up

DISCUSSION

As *Sandhigata vata* is a *vata nanatmaja vyadhi* and in old age *vata* is the predominant *dosha*, *Sandhigata vata* is more frequent in old age. But prior to that also *Ruksha*, *Sita*, *Katu ahara ati sevana* and *ati vyayama*, *ati chinta*, *aghata*, *vegavarodha* aggravates the *vata dosha*. When this aggravated *vata dosha* get sthana *samshraya* in the *sandhi pradasha* causes *Sandhigata vata*. Aggravated *ruksha*, *sita*, *laghu guna* of *vata* leads to *dhatu kshaya* in *Sandhi pradasha* (joint degeneration). 20% of chronic pain worldwide is related to Osteoarthritis with an increasing epidemiology related to age and obesity. According to current journals there is no known perfect treatment for Osteoarthritis and treatment of pain represents a major part of Osteoarthritis management. Most pharmacological approaches for pain are considered ineffective and not very safe.⁴

Probable mode of action: Wax therapy increases local temperature of the treated site/ higher tissue temperature, by that extensibility of collagen tissues increases. Local muscle relaxation occurs and vasodilatation takes place. By that waste

metabolites are excreted and tissues get oxygen and nutrition. As a result, there will be decrease in joint stiffness, reduction in pain, relieve in muscle spasm and reduction in inflammation and oedema.⁵

In the present study, the patient was a hostel warden; she has to walk around the hostel, climb stairs this led to aggravation of *vata dosha* and early degeneration. Initially patient had severe pain with palpable crepitation, restricted movement and difficulty in walking. These symptoms were relieved significantly after the treatment. After 15 days of follow up symptoms like difficulty in walking and restriction in right knee joint was completely cured.

Wheat flour capsules were used as placebo, to see the long lasting effect of wax therapy and keep the patients in touch till the completion of follow-up period.

CONCLUSION

Sandhigata vata / Osteoarthritis is a degenerative disease, the pathology behind cannot be reversed. So, the line of treatment should aim towards relieving the symptoms and giving an ambulatory life. The chief complaint in OA is Pain, so treatment for pain relief is the prime necessity. Wax therapy used here is a thermal modality. Low specific heat of paraffin wax allows for application at a higher temperature than water without the risk of burn. It Increases blood circulation and effect the sensory ending of the treated area and helps in reducing pain and spasm. This case study concluded that Wax Therapy is very effective in the pain management of *Janu Sandhigata vata* and it is a good treatment option for non-curable diseases like OA.

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