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## Published paper's title: Role Of Oil Application In Osteoarthritis

**Author:** Dr Anjana, Department.of Kaya Chikitsa , AUAMC &ACN Hospital, Aligarh



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### Research Paper

### Role Of Oil Application In Osteoarthritis

### Dr Anjana

#### Declaration

The Declaration of the author for publication of Research Paper in Asian Journal of Modern and Ayurvedic Medical Science (ISSN 2279-0772) I Dr Anjana the author of the research paper entitled Role Of Oil Application In Osteoarthritis declare that , I take the responsibility of the content and material of my paper as I myself have written it and also have read the manuscript of my paper carefully. Also, I hereby give my consent to publish our paper in ajmams , This research paper is my original work and no part of it or it's similar version is published or has been sent for publication anywhere else.I authorise the Editorial Board of the Journal to modify and edit the manuscript. I also give my consent to the publisher of ajmams to own the copyright of my research paper.

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Osteoarthritis is a degenerative disease which mainly affects the weight bearing joint i.e. knee ,hip and spine. It also affects the interphalangeal joints of hand .Osteoarthritis is most common joint disorder in elderly . Among the elderly knee osteoarthritis is the leading cause of chronic disability in developed as well as developing countries. It is the major reason of inactivity or limited activity in elderly.

The joint distribution of osteoarthritis in men & women is similar in age <55 years. In older individuals, hip osteoarthritis is more common in men while osteoarthritis of interphalangeal joints and thumb base is more common in women. Similarley radiographic evidence of knee osteoarthritis , and especially symptomatic knee osteoarthritis, is more common in women than in men.

Pain, swelling and stiffness in the joint are chief features of osteoarthritis. The main symptom is pain, causing loss of ability and often stiffness. The pain aggravated by joint use and relieved by rest but as the disease progress, it may become persistent. Nocturnal pain is seen in advanced osteoarthritis, interfering with sleep. Stiffness of the involved joint after a period of inactivity (e.g. a night's sleep or automobile ride) may be predominant but usually lasts for <20 minutes.

Physical examination of osteoarthritis of joint may localized tenderness, bony or tissue swelling and bony credits. In the advanced stage of osteoarthritis there may be grossdeformity, bony hypertrophy, subluxation and marked loss of joint motion.

In Modern Medicine NSAIDS, Selective COX2-inhibitors, Opiods and intraarticular injection of hyaluron are frequently used



in relieving pain in osteoarthritis but their drawback are that they have many side effects e.g.nausea, constipation, mouth ulcers, GIT bleeding, haemorrhage, urinary retention, mental confusion and CNS deppresion. So many physician hesitate to prescribes these drugs for longer duration.

In Ayurveda osteoarthritis has been classified under vata vyadhi as Sandhigata vata. It is due to vata dosha and it features are vatpurnadritisparsha (on palpation it feels like air fiiled bags) ,sotha sandhigate (swelling or inflammation of joint) and aakunchan prsaran apravritti (difficult or restrict joint movement).

Because of Sandhigata vata is pure vatik disorder and vata dosha performs the action of perception of all sensations i.e. touch, pain and other sensations. Through Sparshendriya all sensation are perceived which are situated in the skin. And according to Ayurveda vata dosha is responsible for wear & tear process in joints . And for alleviation of vata dosha, Snehan is best therapy .

Snehana is the process of oleation of the body by using sneha dravyas externally and their consumption as well as. Snehan is of two types i.e .Bahya snehan (external application of sneha dravyas) and Abhyanter snehan (internal use of sneha dravyas).

Bahya snehan play a major role in osteoarthritis. Bahya snehan is done by sneha dravyas, in which oil is commonly used and described the best among all sneha dravyas. In osteoarthritis, Oil alone or oil processed with herbal drugs has been used. The chief source of oil are plants i.e. vegetable oils are used commonly. Vegetable oils obtain from plantse.g.Til,Priyal,Sarsap,Abahya,Erand, Vibhitaki,Madhuk,Kusumbha, Abhisuk,Bilva,Mulak, Karanj,Shegru.

In all oils, sesame oil is predominantly used. Transdermal absorption depends

upon the lipid solubility of the drugs and hence oil acts as means to carry the potency of the drugs(oil) to penetrate the epidermis. Oil nourishes the joint, helps in preventing the rate of degeneration, lubricates the joint, allievates the pain, swelling and stiffness and restoring the joint mobility. It also give strength to the joint.

### TIL TAIL(SESAME OIL)

**Properties** Rasa- Madhur

Guna-

Tikshna, Sukshma

Veerya- Ushna

Vipak- Madhur

Prabhav-

Vatashamak, Tvchya, Soolaghna, Sharir mardavker, Mansabalya

**Dosage** for external use as quantity sufficient.

**Composition** Sesame oil is polyunsaturated (PUFA) semidrying oil.

It is composed of fatty acids i.e. Palmitic acid, Palmitoleic acid, Stearic acid, Linoleic acid, Linolenic acid, Eicosenoic acid.

It contains vitaminE , vitamine K and vitamin B6.

It contains Magnisium, Cupper, Calcium, Zinc and Iron .

It also contains lignans sesamin and seamolin .

### CHIEF DRUGS PROCESSED WITH SESAME OIL FOR OSTEOARTHRITIS

Aswgandha, Bilva, Gokshur, Shalparni, Prisnaparni, Kantakari, Vrihati, Agnimantha, Patla, Shyonag, Gambhari, Prasarni, Erand, Bala, Nirgundi, Mulak, Rasna, Chitrak, Vidarikand, Punarnava, Kutha, Mulethi, Mash, Deodaru, Haridra,



Daruharidra, Nimba, Karnja, Amalaki, Haritaki, Vibhitaki, Sunthi, Puskermoola.

### MODE OF ACTION OF SESAME OIL IN OSTEOARTHRITIS

Sesame oil is a best source of vitamin E, which is an antioxidant.

It contain Cuper which provides relief from pain and inflammation.

It contain magnesium which supports vascularity.

It contain calcium which helps osteoporosis.

It contain zinc which promotes bone health.

It mitigate the effect of bone disorder.

It also relieve lethargy, fatigue, promoting strength and vital enhancing via increased blood circulation to the area of arthritis, thus bringing oxygen to help healing.

It has some relaxing properties which relieves pain and muscle spasm.

Pain is relieved as the muscle surrounding the joint relax, releasing the stiffness and allowing the better range of motio and mobility.

It causes flushing out of toxins and inflammatory substances that add to pain and swelling.

It provides lubrication to the joints.

It increases relaxation and decreases stress, thus causea a sense of well being.

### SIDE EFFECTS ON APPLICATION

On external application, Sesame oil is not associated with significant side effects. In rare cases, sesame oil is believed to trigger off allergic reactions in some persons. In all such cases, it is best to discontinue the use of the sesame oil and consult a medical practitioner.

#### **PRECAUTIONS**

It must be used under medical supervision.

To avoid allergic reactions first use the oil in a small area of skin and for shorter duration.

Any history of allergy to sesame must be taken.

Washing of hands after application of oil.

Always apply lukewarm oil.

Oil must be applied in a closed space.

After oil application direct and excessive wind exposure (e. g. Siling fan, cooler, ac or other) must be avoided.

After oil application slight movement of joint should be perform.

Immediate bath after oil application mut be avoided.

### **METHOD OF APPLCATION**

Sit in a room comfortably, make sure that wind is not directly coming in the room.

Take some amount of oil in a bowl and kept this bowl in a large bowl containing hot water, so that oil remain lukewarm during the application.

It should be applied in the whole leg of the affected joint.

In whole leg oil is applied from sole to hip pointing towards heart.

It should be apply as round or circular movement at the joint.

In the starting it is applied for short duration and gradually day by day its duration is increased.

During the application of oil movement of joint should be done.



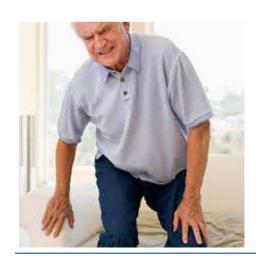
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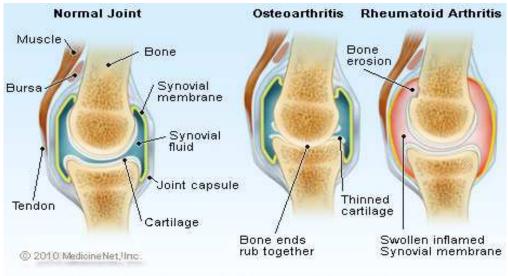
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### Normal and Arthritic Joints



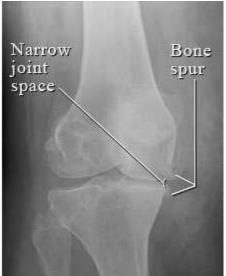


Figure 1 Figure 2

X -ray of the osteoarthritis of the knee joint



