

Effectiveness of Mustard Plaster Application Among Women with Knee Osteoarthritis

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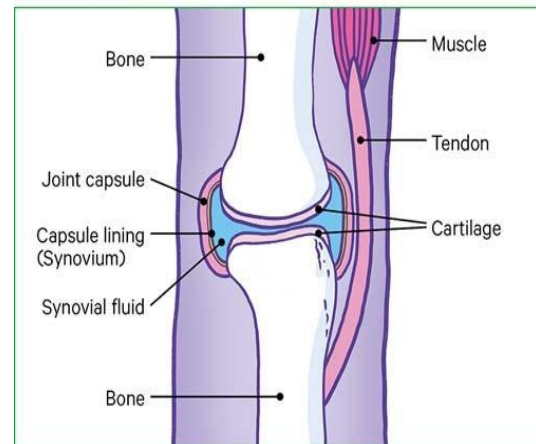
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Abstract- Elderly in humans refers to a multidimensional process of physical, psychological and social changes. Clinical and functional changes caused by Osteoarthritis (OA) can influence the knowledge and physical activities of people with this disease. Osteoarthritis (OA) is the most common age related joint disease affecting more than 80% of people older than the age of 55 and one of the leading causes of elderly women. OA is more common in women than men. Nearly, 45% of women over the age of 60 years have symptoms while 70% of those over 65 years show radiological evidence of OA. WHO (2017) 9.6% of men and 18.0% women aged over 60yrs have symptomatic osteoarthritis. 80% of those with OA have limitations in movement, and 25% cannot perform their major daily activities of life. India May Have 60 Million Osteoarthritis Cases by 2025. In Indian impact, nearly 80% of population shows OA among the patient who claimed for knee pain, out of which approximately 20% reported incapability in daily activities and around 11% need peculiar care. In Tamil Nadu 43.4% (139 in 320) of elderly study population commonly complaint for joint pains and stiffness. Nearly 60% of population with symptomatic of OA. A rural study of Tamil Nadu shows 39% cases of OA, out of which 38% had OA of right knee and 35.5% had OA of left knee. Sexual distribution represents 40.8% prevalence in male and 59.2% in female.

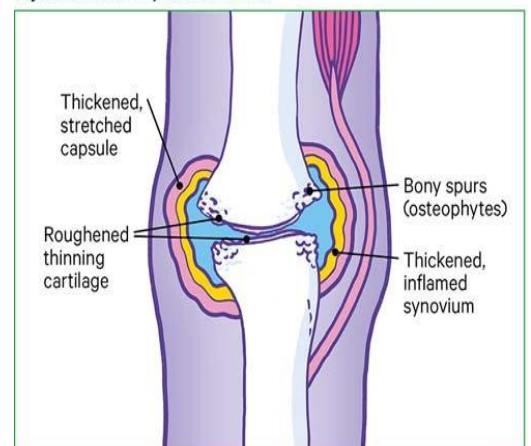
I. INTRODUCTION

Osteoarthritis refers to a clinical syndrome of joint pain accompanied by varying degrees of functional limitation and reduced quality of life. It is the most common form of arthritis, and one of the leading causes of pain and disability worldwide. The most commonly affected peripheral joints are the knees, hips and small hand joints. Although pain, reduced function and effects on a person's ability to carry out their day-to-day activities can be important consequences of osteoarthritis, pain in itself is of course a complex biopsychosocial issue, related in part to person expectations and self-efficacy, and associated with changes in mood, sleep and coping abilities.

A healthy joint



A joint affected by osteoarthritis



The prevalence of OA is increasing due to population ageing and an increase in related factors such as obesity, sedentary life style. The physical disability arising from pain and loss of functional capacity reduces quality of life and increases the risk of further morbidity. As highly effective medicinal management is not available emphasis should be given to preventive aspect of life style measures in the form of healthy diet and exercise.

Causes of knee osteoarthritis of women

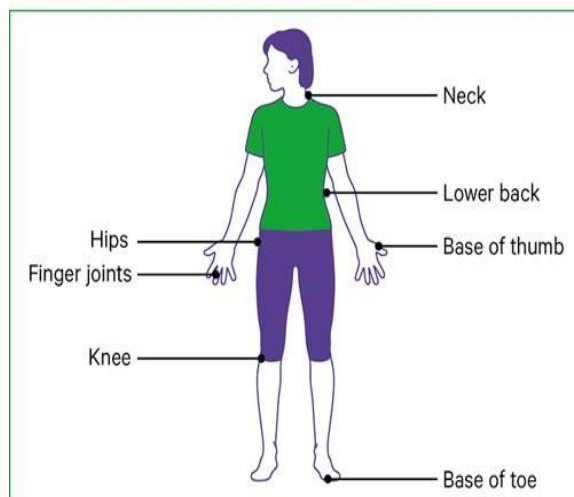
However, several factors increase the risk of developing significant arthritis at an earlier age.

- **Age:** The ability of cartilage to heal decreases as a person gets older.
- **Weight:** Weight increases pressure on all the joints, especially the knees. Every pound of weight you gain adds 3 to 4 pounds of extra weight on your knees.
- **Heredity:** This includes genetic mutations that might make a person more likely to develop osteoarthritis of the knee. It may also be due to inherited abnormalities in the shape of the bones that surround the knee joint.
- **Gender:** Women ages 55 and older are more likely than men to develop osteoarthritis of the knee.
- **Repetitive stress injuries:** Lot of activity that can stress the joint, such as kneeling, squatting, or lifting heavy weights (55 pounds or more), are more likely to develop osteoarthritis of the knee because of the constant pressure on the joint.
- **Athletics:** Athletes involved in soccer, tennis, or long-distance running may be at higher risk for developing osteoarthritis of the knee.
- **Other illnesses:** People with rheumatoid arthritis, the second most common type of arthritis, are also more likely to develop osteoarthritis.

The joints affected by osteoarthritis are,

Any joint can develop osteoarthritis, but symptoms linked to osteoarthritis most often affect the knees, hips, hands, spine and big toes.

The joints most often affected by osteoarthritis



Signs and symptoms:

Osteoarthritis symptoms often develop slowly and worsen over time. Signs and symptoms of osteoarthritis include:

- **Pain** - Affected joints might hurt during or after movement.
- **Stiffness** - Joint stiffness might be most noticeable upon awakening or after being inactive.
- **Tenderness** - Your joint might feel tender when you apply light pressure to or near it.
- **Loss of flexibility** - You might not be able to move your joint through its full range of motion.
- **Grating sensation** - You might feel a grating sensation when you use the joint, and you might hear popping or crackling.
- **Bone spurs** - These extra bits of bone, which feel like hard lumps, can form around the affected joint.
- **Swelling** - This might be caused by soft tissue inflammation around the joint.

Treatment

- Osteoarthritis can't be reversed, but treatments can reduce pain and help you move better.

Medications

- **Acetaminophen:** Acetaminophen (Tylenol, others) has been shown to help some people with osteoarthritis who have mild to moderate pain.
- **Nonsteroidal anti-inflammatory drugs (NSAIDs):** Over-the-counter NSAIDs, such as ibuprofen (Advil, Motrin IB, others) and naproxen sodium (Aleve, others), taken at the recommended doses, typically relieve osteoarthritis pain.
- **Duloxetine (Cymbalta).** Normally used as an antidepressant, this medication is also approved to treat chronic pain, including osteoarthritis pain.

Therapy

- **Physical therapy.** A physical therapist can show exercises to strengthen the muscles around your joint, increase flexibility and reduce pain. Regular gentle exercise such as swimming or walking can be equally effective.
- **Occupational therapy.** An occupational therapist can help to discover ways to do everyday tasks without putting extra stress on already painful joint. A bench in shower could help relieve the pain of standing if person have knee osteoarthritis.

Surgical and other procedures

If conservative treatments don't help, you may want to consider procedures such as:

- **Cortisone injections:** Injections of corticosteroid medications may relieve pain in your joint. During this procedure doctor numbs the area around joint, then places a needle into the space within joint and injects medication. The number of cortisone injections you can receive each year is generally limited to three or four injections, because the medication can worsen joint damage over time.
- **Lubrication injections:** Injections of hyaluronic acid may offer pain relief by providing some cushioning in knee. Hyaluronic acid is similar to a component normally found in your joint fluid.
- **Realigning bones:** If osteoarthritis has damaged one side of knee more than the other, an osteotomy might be helpful. In a knee osteotomy, a surgeon cuts across the bone either above or below the knee, and then removes or adds a wedge of bone. This shifts your body weight away from the worn-out part of your knee.
- **Joint replacement:** In joint replacement surgery (arthroplasty), surgeon removes damaged joint surfaces and replaces them with plastic and metal parts. Surgical risks include infections and blood clots. Artificial joints can wear out or come loose and may need to eventually be replaced.

II. MUSTARD PLASTER APPLICATION

Mustard seeds have been used in traditional folk medicine as a stimulant, diuretic, and purgative and to treat a variety of ailments including peritonitis and neuralgia. Mustards are still used today in mustard plasters to treat rheumatism, arthritis, chest congestion, aching back, and sore muscles.

Purpose:

- To reduce your pain
- It's inexpensive
- It induces a warm sensation
- Increases blood circulation and
- Dries up excessive moisture within the affected area of the body.

Duration:

15- 20 Mts

Steps:

1. Mix 1 tablespoons of mustard powder and 2 tablespoons of flour with warm water stir well and make it into a paste.
2. Prepare two thick cotton towels (cotton cloth) and spread the mixture on it, cover it with another cotton towel.
3. Use a long strip of clean cloth as a dressing to keep the mustard plaster in place.
4. Keep the plaster on knee joint from 15 - 20 minutes.
5. When the plaster dries up after a few hours, you can add a little water into it to keep it moist.

A mustard plaster should not be directly applied to the skin, nor used on broken and sensitive skin.

Side effects:

- Skin blisters and skin damage
- Large amounts by mouth can damage the throat
- Pregnancy and breast-feeding: It's **LIKELY UNSAFE** to use black mustard in medicinal amounts if you are pregnant. Black mustard contains chemicals that might start your menstrual period and cause a miscarriage. It's also best to avoid using black mustard as a medicine if you are breast-feeding.
- Diabetes: Black mustard might lower blood sugar levels when taken as a medicine. If diabetes and take medications to lower your blood sugar, adding black mustard might make your blood sugar drop too low.

III. DISCUSSION

The results revealed that mustard plaster application can be used for the treatment of knee osteoarthritis, During community exposure, the researcher has seen women with knee osteoarthritis diagnosed and hospitalized frequently and found to continuous knee pain, inability to do their daily activities, stiffness due to this they do not have interest in activities. So the researcher wanted to help the women and family by improving the health status of women with knee osteoarthritis. So the researcher intended to do a study on mustard plaster application among women with knee osteoarthritis which is cost effective.

IV. CONCLUSION

This study is on the basis of findings mustard plaster application could be useful, safe and easily available for the elderly to reduce pain. The excavated results supported that

mustard plaster is one of best method to reduce the knee joint pain level among elderly. The mustard plaster application has also shown that reduction of pain improves inability and also cost effective convenient, requires less skills. so this study strongly suggest approaching the community elderly women with acceptable form of innovative home remedy for their complete participation in their health care.

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