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Research Article

A PRELIMINARY OBSERVATION STUDY TO EVALUATE SAFETY AND EFFICACY OF BOHECO GLIDE IN OSTEOARTHRITIS

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ABSTRACT

The most prevalent form of arthritis, both in established and emerging nations, is osteoarthritis. A persistent, progressive musculoskeletal disease, it causes stiffness, discomfort, and mobility impairment because of the bones rubbing against one another in the joints. With a frequency of 22% to 39% in India, it is the most prevalent form of joint illness. The two most powerful phyto-cannabinoids found in the *Cannabis sativa* plant are CBD (cannabidiol) and delta-9-tetrahydrocannabinol (THC). *Cannabis sativa* or *Vijaya* has *Shulahara* property as per Ayurveda. *Cannabis sativa*, also known as *Vijaya*, has *Ushna* properties that have the power to reduce *Vata dosha*. *Shleshaka Kapha*, which is found in the articular membrane of joints, is reduced because of excessive *Vata dosha*. Oil has a propensity to make synovial fluid, also known as *Shleshaka kapha*, more abundant in joints. As a result, reducing friction in joints also lessens discomfort and irritation. **Method:** A preliminary survey on 30 patients was conducted and data was collected. **Results:** More than 80% of patients had reduced symptoms of pain and inflammation in joints, post-application twice a day with a lasting effect of more than 3 hours. It helps in replenishing *Shleshaka kapha* present in joints. **Conclusion:** Glide oil was having a better result in patients having moderate to severe pain in joints.

INTRODUCTION

The most prevalent form of arthritis, both in established and emerging nations, is osteoarthritis (OA). [1] It is a persistent, progressive musculoskeletal disease marked by the slow loss of joint cartilage, which causes the bones to rub against one another and cause stiffness, discomfort, and mobility impairment. Knee, hip, wrist, foot, and spinal joints are the most frequently impacted by the condition. Obesity, inactivity, hereditary predisposition, bone density, work injury, trauma, and gender are some of the risk factors for the illness that are both modifiable and non-modifiable. Primary and secondary osteoarthritis can be divided into two categories. Age is a risk factor for primary osteoarthritis, a persistent deteriorating condition.

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With advancing age, the cartilages' water level decreases, making them more vulnerable to wear and tear. While secondary arthritis typically effects the joints later in life due to specific reasons like injuries sustained while performing a work that requires prolonged periods of crouching or squatting, diabetes, and obesity. The aged are mainly affected by osteoarthritis. It is a significant contributor to disability among elderly people globally. Worldwide, osteoarthritis is prevalent in 9.6% of males and 18.0% of women over 60, according to the World Health Organization (WHO). 25% of people with osteoarthritis are unable to carry out their main everyday tasks, and 80% of those with the condition have movement restrictions. With a prevalence of 22% to 39% in India, osteoarthritis is the most prevalent joint condition and the second most common rheumatologic issue. Women are more likely than males to have OA. Approximately 45% of women over 65 years old experience symptoms, and 70% of people over 65 years display radiographic signs of OA.

The frequency of OA is rising as the population ages and associated risk factors like obesity and inactive behaviour are on the rise. The bodily impairment

brought on by pain and the loss of useful ability lowers quality of life and raises the danger of additional morbidity. The focus should be on the prophylactic element of lifestyle measures in the form of a healthy diet and exercise because there are no highly efficient medical treatments accessible. The two most common, pharmacologically active phytocannabinoids discovered in the *Cannabis sativa* plant are cannabidiol (CBD) and delta-9-tetrahydrocannabinol (THC). Although THC's effects on pain are well known, it is also known to have euphoric side effects, which may make it difficult to use in situations where pain is being reduced.[2] The anti-inflammatory, antinociceptive, and antioxidant properties of CBD, in opposition to the psychoactive characteristics of THC, make it an interesting target for the therapy of pain and inflammatory conditions, including the various manifestations of arthritis. [3,4] Cannabinoids may be able to effectively reduce discomfort in synovial joints, according to earlier research.[5] The endocannabinoid system (ECS), which is present in the synovium and can control inflammation and nociception in both human and animal synovial joints, has been specifically shown in fundamental science research to be present.[6,7] An increasing amount of research is starting to suggest that cannabis target the ECS in arthritic joints and may provide relief from inflammatory and arthritic joint illness. The most common medical conditions being treated by CBD consumers are anxiousness, chronic pain, and arthritis, according to recent research.[8] Few studies have explicitly examined rheumatism to ascertain the alleged advantages of CBD use. According to Ayurveda, OA is correlated with *Sandhigata vata*. *Sandhigata vata* signs include *Vatapurna drutisparsha* (crepitus), *Shotha* (swelling), and *Prasannakunchanayo pravruttischa savedana* (painful movements).[9] Joint pain and restricted joint mobility are caused by a rise in the *Ruksha* and *Sheeta* qualities of the *Vata dosha*. *Cannabis sativa*, also known as *Vijaya*, has *Ushna* properties that have the power to reduce *Vata dosha*. *Shleshaka Kapha*, which is found in the articular membrane of joints, is reduced because of excessive *Vata dosha*. Oil has a propensity to make synovial fluid, also known as *Shleshaka kapha*, more abundant in joints. As a result, reducing friction in joints also lessens discomfort and irritation.

MATERIALS AND METHODS

A preliminary survey of 30 patients were conducted and questionnaire was filled by the patient. Data was collected and analysed to obtain result. Composition of Glide oil: 1% Cannabis leaf extract and 99% Cannabis seed oil. Within the 1% Cannabis leaf extract there was an estimated 4-6mg of CBD per ml

S. No.	Ingredients	Quantity
1	Cannabis leaf extract	1%
2	Cannabis seed oil	99%

RESULTS

Out of 30 patients, 20 were male and 10 were female.

Gender	Number of participants
Male	20
Female	10

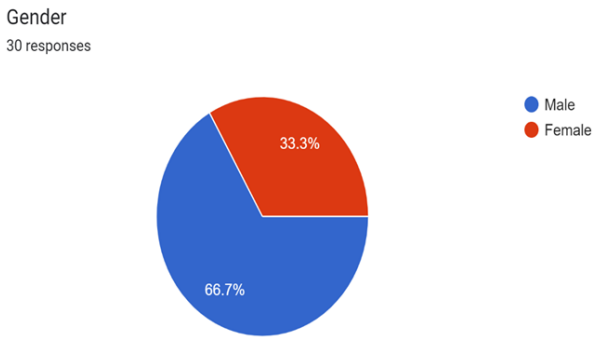

Figure 1: Gender Distribution

The age group most affected was 57 years and the least affected was 23 years.

Age	Number of participants
23-43	8
44-49	9
50-60	13

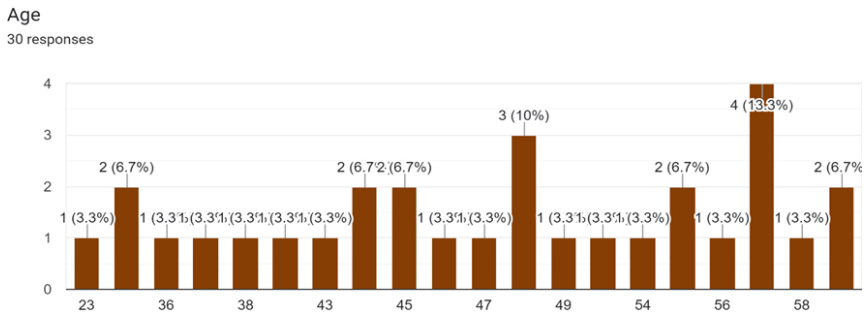

Figure 2: Age Distribution

22 patients have complaints of pain in the knee joint and 13 patients had swelling around the knee joint.

Complaints	Number of participants
Pain in Knee joint	22
Swelling around knee joint	13
Sound from knee joint	10

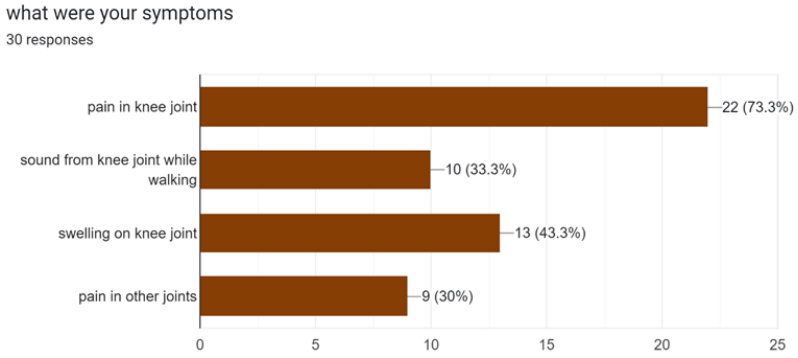

Figure 3: Symptoms pre application

90% of patients have confirmed that there was a reduction in pain post-application of oil.

Reduction in pain	Number of participants
Yes	27
No	3

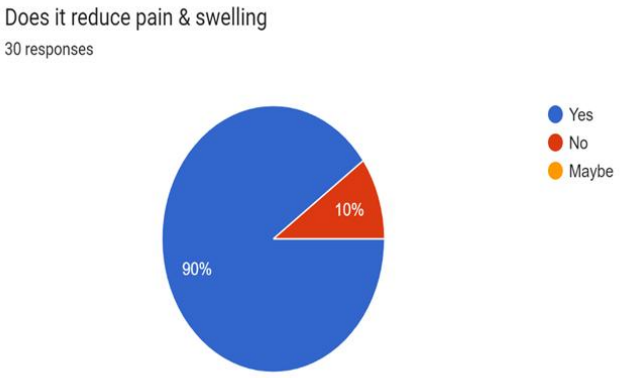

Figure 4: Reduction of pain and swelling

76.6% of patients have agreed that the effect last for more than 2 hours.

Lasting effect	Number of participant
>2 hours	26
<2 hours	4

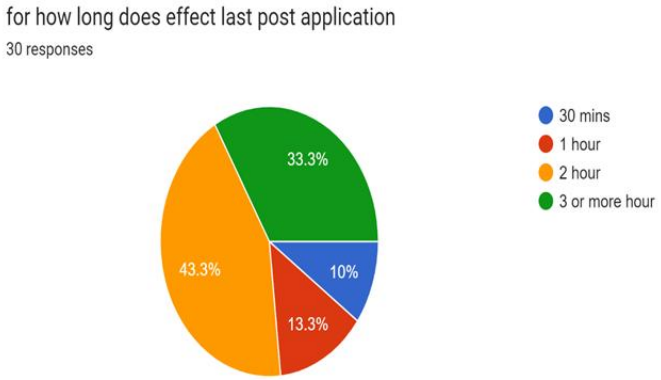

Figure 5: Lasting effect post application

96.7% of patients who were applying the oil were having moderate to severe pain in their joints.

Pain before application	Number of participant
Moderate	20
Severe	9
Very Severe	1

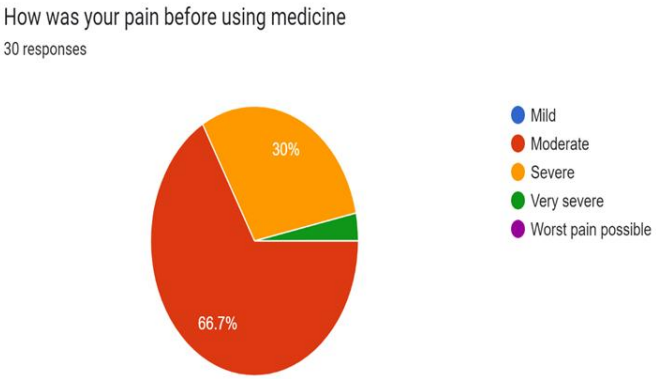

Figure 6: Pain before using medicine

63.3% of patients were applying this oil twice a day.

Frequency of use	Number of participants
Twice a day	20
Once a day	7
Thrice a day	3

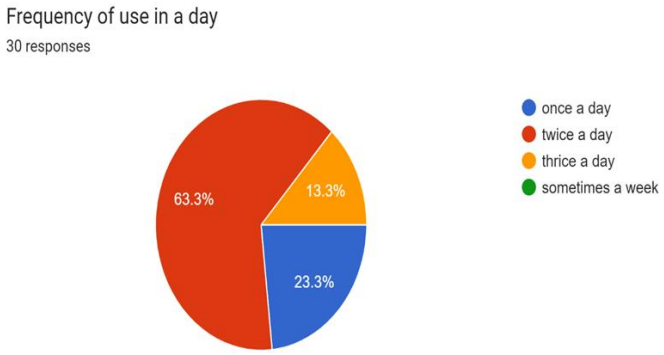

Figure 7: Frequency of use

90% of patients have confirmed that their pain was reduced post-application of oil.

Pain post application	Number of participants
Reduced	27
Same	2
Increased	1

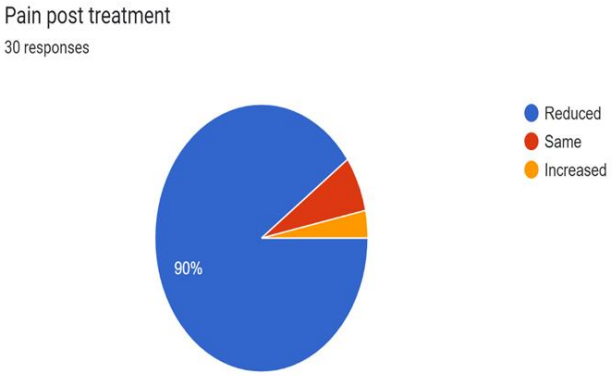

Figure 8: Pain post treatment

93.3% of patients have confirmed that oil was easy to apply on joints.

Easy to apply	Number of participant
Yes	28
No	2

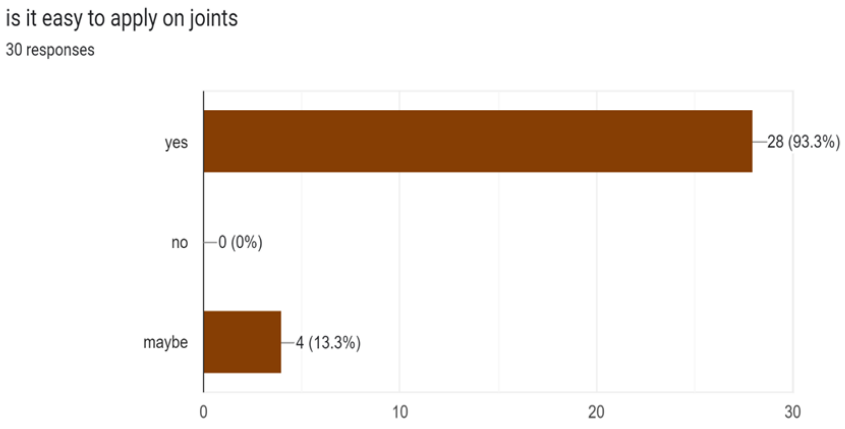

Figure 9: Application on joints

56.7% of patients have complained about smell post application.

Smell post application	Number of participants
Yes	17
No	13

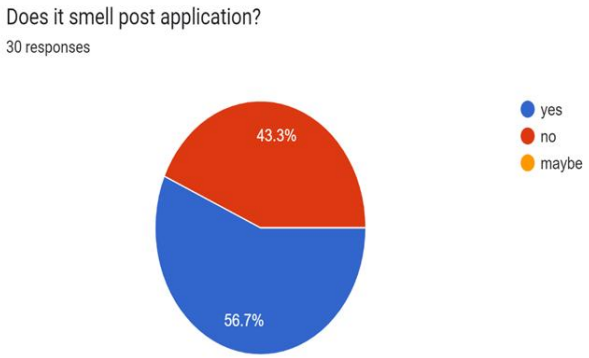

Figure 10: Smell post application

56.7% of patients have said there were no stains on clothes post-application.

Stain post application	Number of participants
Yes	13
No	17

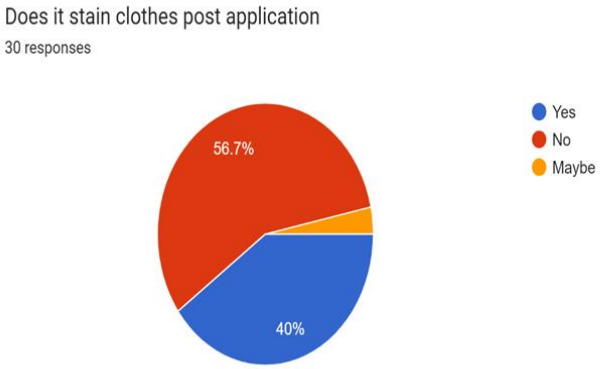

Figure 11: Stain on Clothes

DISCUSSION

More males were using our products as compared to females. Pain was found mostly in age group of 50-60yrs of age. Knee joint pain was the most common type of pain patient was suffering from. Application of oil was easy on joints. No side effects or skin reaction was observed after application of oil. Patients were mainly suffering from moderate to severe pain and had agreed that their pain was reduced post application of oil. The most common frequency of oil application was twice a day with an average lasting effect observed was 2-3 hours. *Vijaya* has *Shulahara* property because of which patient is having pain alleviating results. *Ushna Guna* helps reduces *Vata dosha* and thus reduces pain and inflammation around the joints. *Snigdhata* of oil helps to reduce friction between joints and replenish *Shleshaka kapha* present in joints.

CONCLUSION

Glide oil has a potent effect on pain and inflammation on joints. It should be applied twice a day for better results. It helps in managing symptoms of Arthritis.

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