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Cetylated fatty acids improve knee function in patients with osteoarthritis.

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Source : Hesslink Ventures, San Diego, California, USA.

Abstract

OBJECTIVE:

To determine the benefit of cetylated fatty acids (CFA) on knee range of motion and function in patients with osteoarthritis (OA).

METHODS:

Sixty-four patients with chronic knee OA were evaluated at baseline and at 30 and 68 days after consuming either placebo (vegetable oil; n = 31) or CFA (Celadrin; n = 33). Evaluations included physician assessment, knee range of motion with goniometry, and the Lequesne Algofunctional Index (LAI).

RESULTS:

After 68 days, patients treated with CFA exhibited significant ($p < 0.001$) increase in knee flexion (10.1 degrees) compared to patients given placebo (1.1 degrees). Neither group reported improvement in knee extension. Patient responses to the LAI indicated a significant ($p < 0.001$) shift towards functional improvement for the CFA group (-5.4 points) after 68 days compared to a modest improvement in the placebo group (-2.1 points).

CONCLUSION:

Compared to placebo, CFA provides an improvement in knee range of motion and overall function in patients with OA of the knee. CFA may be an alternative to the use of nonsteroidal antiinflammatory drugs for the treatment of OA.

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A cetylated fatty acid topical cream with menthol reduces pain and improves functional performance in individuals with arthritis.

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Abstract

This investigation was an extension of a previous study conducted in our laboratory in which we showed that 1 month of treatment with a topical cream (Celadrin) consisting of cetylated fatty acids was effective for reducing pain and improving functional performance in individuals with osteoarthritis (OA) of the knee (Kraemer et al., Journal of Rheumatology, 2004). We wanted to verify that the addition of menthol to the compound would produce a similar percentage of improvement in therapeutic effects. We used a single treatment group with a pre-post experimental design to examine % treatment changes. Individuals diagnosed with OA of the knee (N = 10; age, 66.4 +/- 11.5 years) and severe pain (e.g., OA, rheumatoid arthritis) of the elbow (N = 8; age, 59.1 +/- 18.2 years) and wrist (N = 10; age, 60.3 +/- 16.8 years) were tested for pain and functional performance before and after 1 week of treatment with a topical cream consisting of cetylated fatty acids and menthol applied twice per day. In individuals with knee OA, significant improvements in stair-climbing ability (about 12%), "up-and-go" performance (about 12%), balance and strength (about 16.5%), and range of motion (about 3.5%) were observed, as were reductions in pain. In individuals with severe pain of the elbow and wrist, significant improvements in dynamic (about 22 and 24.5%, respectively) and isometric (about 33 and 42%, respectively) local muscular endurance were observed, as was a reduction in pain. Neither group demonstrated significant changes in maximal grip strength or maximal force production. One week of treatment with a topical cream consisting of cetylated fatty acids and menthol was similarly effective for reducing pain and improving functional performance in individuals with arthritis of the knee, elbow, and wrist. The % changes were consistent with our prior work on the compound without menthol. Further work is needed to determine the impact of menthol in such a cream. Nevertheless, our data support the use of a topical cream consisting of cetylated fatty acids (with or without menthol) for enhancing the potential for exercise training in this population.