

Evaluation of MHB3TM among Patients with Chronic Joint Symptoms

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Background: One quarter of the American adult population report chronic joint symptoms (CJS). Over 50% of those reporting CJS have symptoms with multiple joints. Among those reporting CJS the joints most effected where the knee (58%), the shoulder (30%), the fingers/thumb (27%), the hip (24%), and the ankle (22%). For this evaluation CJS is defined as joint pain, aching and stiffness during the past 30 days with symptoms onset of over 3 months. Treatment of CJS is usually limited to short-term symptom control with palliative over-the-counter and prescription drugs. Hyaluronan, ubiquitous in body, has multiple complementary mechanisms of action. Hyaluronan directly affects the composition of synovial fluid and provides the backbone for cartilage matrix. Apart from its structural role, hyaluronan influences cell proliferation, differentiation, and migration; angiogenesis, as well as inflammation and immune cell function. Hyaluronan provides a surface to which activated lymphocytes attach attenuating inflammatory response and interrupts chronic substance-P-mediated pain signaling. We assessed the systemic therapeutic effects of a modified oral hyaluronan biopolymer (MHB3 Cogent Solutions Group, LLC).

Methods: An evaluation of fifty adult subjects (avg. 59 yrs.) with CJS was conducted to identify the effects of daily oral supplementation with MHB3. Subjects self-administered ½ -1 teaspoon of the viscous syrup twice daily for 30 consecutive days. Direct-feedback surveys were completed by participants daily helping facilitate compliance. Subjects identified the affected joints, their pain levels and daily activity levels.

Results: Forty two subjects (84%) reported good to excellent results in relief of pain and stiffness. To be included in the Good to Excellent group the subject had to report a noticeable improvement in joint symptoms with continued relief once the effect was noticed. Four subjects (8%) noticed only minimal benefit during the trial but within 4-5 days of trial termination reported an increase in pain and stiffness, concluding that improvements were gradual and unremarkable during the trial. This group is not included with the positive results reported above.

Four subjects (8%) reported no benefits during the trial. Time to improvement ranged from 5 to 30 days with an average of 21 days. There were no reports of side effects or drug interactions, and no one discontinued the trial. Several subjects voluntarily reduced their Non-Steroidal Anti-Inflammatory Drug (NSAID) use based on improvements during the trial.

Conclusions: The daily supplementation of hyaluronan with MHB3 relieves joint pain and inflammation contributing to an improved range of motion and an increase in daily activity among the majority of subjects with Chronic Joint Symptoms.

Disclosure: Author has nothing to disclose.