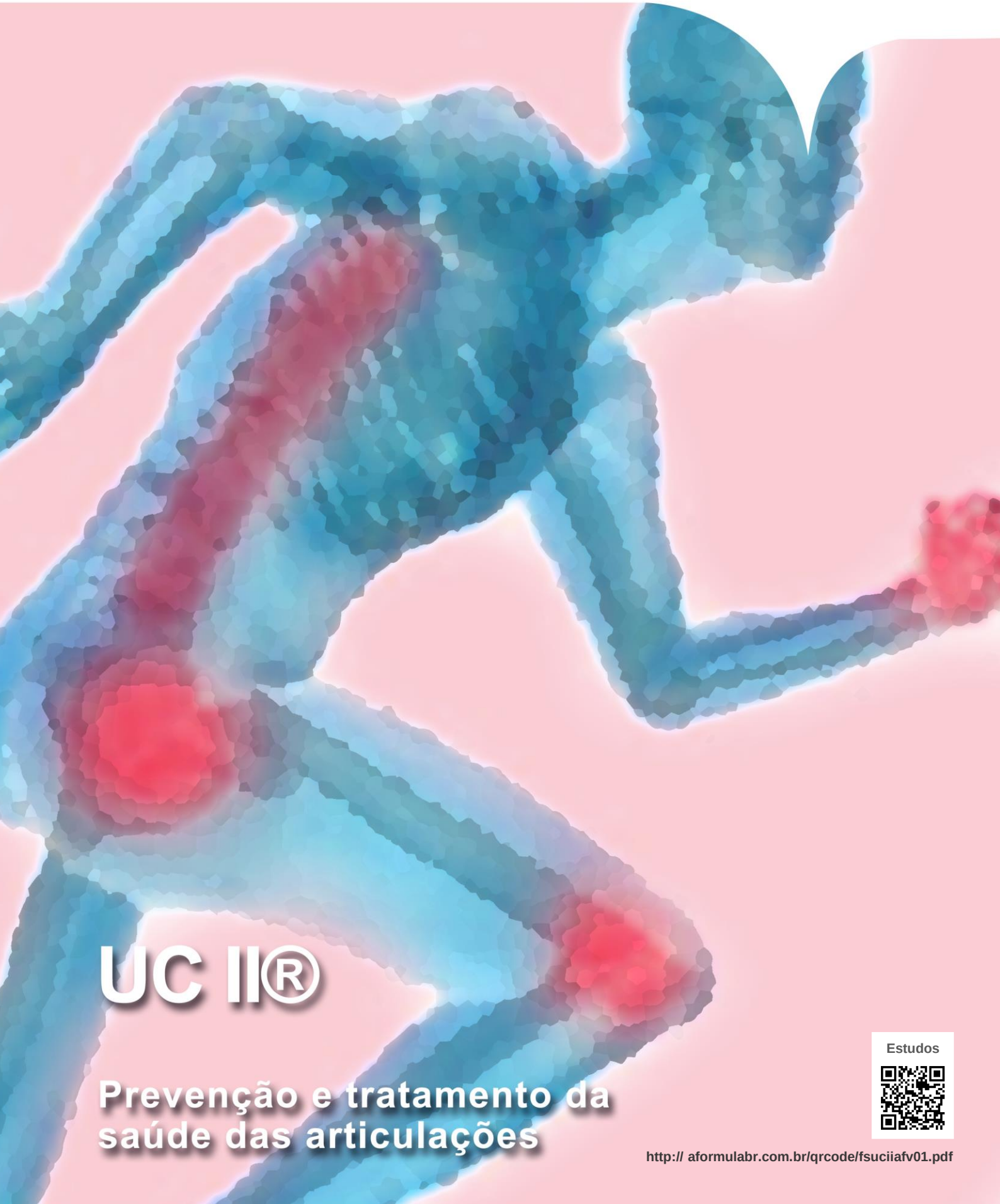
a fórmula



UC II®

Prevenção e tratamento da saúde das articulações

Estudos

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a fórmula

UC II®

Prevenção e tratamento da saúde das articulações

DESCRIÇÃO

Colágeno não desnaturado tipo II derivado da cartilagem de frango, aprovado pelo FDA, produzido por processo patenteado não enzimático, em baixas temperaturas, garantindo a integridade da proteína.

MECANISMO DE AÇÃO

UC II® realiza a reposição do colágeno do tipo II, prevenindo o processo inflamatório das articulações e a dessensibilização imunológica evitando um ataque autoimune (impede a secreção de enzimas do tipo colagenases). **UC II®** bloqueia a quebra do colágeno endógeno diminuindo o ciclo destrutivo das cartilagens, consequentemente interferindo no processo inflamatório e da dor, além de ser considerado um nutracêutico que passa de forma íntegra pelo trato gástrico sem registro de interação medicamentosa ou alimentar.

INDICAÇÕES

- ✓ Artrose; Osteoartrose; Artrite; Osteoartrite;
- ✓ Artrite reumatoide; Poliartrite reumatoide juvenil;
- ✓ Lesão articular e da cartilagem.

DOSE USUAL

Recomendação oral de 40 mg ao dia de **UC II®** podendo ser dividida em duas tomadas.

SUGESTÕES DE FÓRMULAS

UC II®.....40mg
Vitamina K2(MK7)..... 45mcg
Vitamina D3..... 8.000UI
Magnésio quelato..... 200mg
L-Optizinc®..... 75mg

Modo de uso: 2 doses ao dia.
Indicação: prevenção e tratamento das articulações.

UC-II®.....40mg
Move® (*Boswellia serrata*-20% AKBA)..... 100mg
Osteosil®..... 50mg
Vitamina D..... 1.000UI

Modo de uso: 1 dose ao dia.
Indicação: artropatias.

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a fórmula

UC II®

ESTUDOS CLÍNICOS

Undenatured type II collagen (UC-II®) for joint support: a randomized, double-blind, placebo-controlled study in healthy volunteers

BACKGROUND: UC-II contains a patented form of undenatured type II collagen derived from chicken sternum. Previous preclinical and clinical studies support the safety and efficacy of UC-II in modulating joint discomfort in osteoarthritis and rheumatoid arthritis. The purpose of this study was to assess the efficacy and tolerability of UC-II in moderating joint function and joint pain due to strenuous exercise in healthy subjects.METHODS: This randomized, double-blind, placebo-controlled study was conducted in healthy subjects who had no prior history of arthritic disease or joint pain at rest but experienced joint discomfort with physical activity. RESULTS: After 120 days of supplementation, subjects in the UC-II group exhibited a statistically significant improvement in average knee extension compared to placebo (81.0 ± 1.3º vs 74.0 ± 2.2º; p = 0.011) and to baseline (81.0 ± 1.3º vs 73.2 ± 1.9º; p = 0.002). The UC-II cohort also demonstrated a statistically significant change in average knee extension at day 90 (78.8 ± 1.9º vs 73.2 ± 1.9º; p = 0.045) versus baseline. No significant change in knee extension was observed in the placebo group at any time. It was also noted that the UC-II group exercised longer before experiencing any initial joint discomfort at day 120 (2.8 ± 0.5 min, p = 0.019), compared to baseline (1.4 ± 0.2 min). By contrast, no significant changes were seen in the placebo group. No product related adverse events were observed during the study. At study conclusion, five individuals in the UC-II cohort reported no pain during or after the stepmill protocol (p = 0.031, within visit) as compared to one subject in the placebo group. CONCLUSIONS: Daily supplementation with 40 mg of UC-II was well tolerated and led to improved knee joint extension in healthy subjects. UC-II also demonstrated the potential to lengthen the period of pain free strenuous exertion and alleviate the joint pain that occasionally arises from such activities.

Comparative therapeutic efficacy and safety of type-II collagen (UC-II), glucosamine and chondroitin in arthritic dogs: pain evaluation by ground force plate

Abstract: The investigation was conducted on client-owned moderately arthritic dogs with two objectives: (i) to evaluate therapeutic efficacy of type-II collagen (UC-II) alone or in combination with glucosamine hydrochloride (GLU) and chondroitin sulphate (CHO), and (ii) to determine their tolerability and safety. Dogs in four groups (n = 7-10), were treated daily for a period of 150 days with placebo (Group-I), 10 mg active UC-II (Group-II), 2000 mg GLU + 1600 mg CHO (Group-III), and UC-II + GLU + CHO (Group-IV). On a monthly basis, dogs were evaluated for observational pain (overall pain, pain upon limb manipulation, and pain after physical exertion) using different numeric scales. Pain level was also measured objectively using piezoelectric sensor-based GFP for peak vertical force and impulse area. Dogs were also examined every month for physical, hepatic (ALP, ALT and bilirubin) and renal (BUN and creatinine) functions. Based on observations, significant ($p < 0.05$) reduction in pain was noted in Group-II, III, and IV dogs. Using GFP, significant increases in peak vertical force (N/kg body wt) and impulse area (N s/kg body wt), indicative of a decrease in arthritis associated pain, were observed in Group-II dogs only. None of the dogs in any group showed changes in physical, hepatic or renal functions. In conclusion, based on GFP data, moderately arthritic dogs treated with UC-II (10 mg) showed a marked reduction in arthritic pain with maximum improvement by day 150. UC-II, GLU and CHO operate through different mechanisms of action, and were well tolerated over a period of 150 days.

Chicken type II collagen induced immune tolerance of mesenteric lymph node lymphocytes by enhancing beta2-adrenergic receptor desensitization in rats with collagen-induced arthritis

Abstract: Chicken type II collagen (CCII) is a protein extracted from the cartilage of chicken breast and exhibits intriguing possibilities for the treatment of autoimmune diseases by inducing oral tolerance. In this study, we investigated the effects of CCII on inflammatory and immune responses to the mesenteric lymph node lymphocytes (MLNLs) and the mechanisms by which CCII regulates beta2-adrenergic receptor (beta2-AR) signal transduction in collagen-induced arthritis (CIA) rats. The onset of secondary arthritis in rats appeared around day 14 after injection of CCII emulsion. Meanwhile, CCII increased total protein expressions of beta2-AR, GRK2 and decreased that of beta-arrestin1, 2 of MLNLs in CIA rats but had an slight effect on GRK3. CCII further increased plasmatic protein expressions of GRK2, G(α)s and decreased that of beta-arrestin1, 2, beta2-AR, and increased membrane protein expressions of beta2-AR, GRK2, G(α)s and decreased that of beta-arrestin1, 2 of MLNLs in CIA rats. These results demonstrate that the mechanisms of CCII on beta2-AR desensitization and beta2-AR-AC-cAMP transmembrane signal transduction of MLNLs play crucial roles in pathogenesis of this disease.

Therapeutic efficacy of undenatured type-II collagen (UC-II) in comparison to glucosamine and chondroitin in arthritic horses

The present investigation evaluated arthritic pain in horses receiving daily placebo, undenatured type II collagen (UC-II) at 320, 480, or 640 mg (providing 80, 120, and 160 mg active UC-II, respectively), and glucosamine and chondroitin (5.4 and 1.8 g, respectively, bid for the first month, and thereafter once daily) for 150 days. Horses were evaluated for overall pain, pain upon limb manipulation, physical examination, and liver and kidney functions. Evaluation of overall pain was based upon a consistent observation of all subjects during a walk and a trot in the same pattern on the same surface. Pain upon limb manipulation was conducted after the walk and trot. It consisted of placing the affected joint in severe flexion for a period of 60 sec. The limb was then placed to the ground and the animal trotted off. The response to the flexion test was then noted with the first couple of strides the animal took. Flexion test was consistent with determining clinically the degree of osteoarthritis in a joint. Horses receiving placebo showed no change in arthritic condition, while those receiving 320 or 480 or 640 mg UC-II exhibited significant reduction in arthritic pain ($P < 0.05$). UC-II at 480 or 640 mg dose provided equal effects, and therefore, 480 mg dose was considered optimal. With this dose, reduction in overall pain was from 5.7 ± 0.42 (100%) to 0.7 ± 0.42 (12%); and in pain upon limb manipulation from 2.35 ± 0.37 (100%) to 0.52 ± 0.18 (22%). Although glucosamine and chondroitin treated group showed significant ($P < 0.05$) reduction in pain compared with pretreated values, the efficacy was less compared with that observed with UC-II. In fact, UC-II at 480 or 640 mg dose was found to be more effective than glucosamine and chondroitin in arthritic horses. Clinical condition (body weight, body temperature, respiration rate, and pulse rate), and liver (bilirubin, GGT, and ALP) and kidney (BUN and creatinine) functions remained unchanged, suggesting that these supplements were well tolerated.

Effects of orally administered undenatured type II collagen against arthritic inflammatory diseases: a mechanistic exploration

Arthritis afflicts approximately 43 million Americans or approximately 16.6% of the US population. The two most common and best known types of arthritis are osteoarthritis (OA) and rheumatoid arthritis (RA). Oral administration of autoantigens has been shown to suppress a variety of experimentally induced autoimmune pathologies, including antigen-induced RA. The interaction between gut-associated lymphoid tissue in the duodenum and epitopes of orally administered undenatured type II collagen facilitates oral tolerance to the antigen and stems systemic T-cell attack on joint cartilage. Previous studies have shown that small doses of orally administered undenatured type II chicken collagen effectively deactivate killer T-cell attack. A novel glycosylated undenatured type II collagen material (UC-II) was developed to preserve biological activity. The presence of active epitopes in the UC-II collagen is confirmed by an enzyme-linked immunosorbent assay test and distinguishes this form from hydrolyzed or denatured collagen. Oral intake of small amounts of glycosylated UC-II presents active epitopes, with the correct three-dimensional structures, to Peyer's patches, which influences the signaling required for the development of immune tolerance. UC-II has demonstrated the ability to induce tolerance, effectively reducing joint pain and swelling in RA subjects. A pilot study was conducted for 42 days to evaluate the efficacy of UC-II (10 mg/day) in five female subjects (58-78 years) suffering from significant joint pain. Significant pain reduction including morning stiffness, stiffness following periods of rest, pain that worsens with use of the affected joint and loss of joint range of motion and function was observed. Thus, UC-II may serve as a novel therapeutic tool in joint inflammatory conditions and symptoms of OA and RA.

Safety and efficacy of undenatured type II collagen in the treatment of osteoarthritis of the knee: a clinical trial

Abstract: Previous studies have shown that undenatured type II collagen (UC-II) is effective in the treatment of rheumatoid arthritis, and preliminary human and animal trials have shown it to be effective in treating osteoarthritis (OA). The present clinical trial evaluated the safety and efficacy of UC-II as compared to a combination of glucosamine and chondroitin (G+C) in the treatment of OA of the knee. The results indicate that UC-II treatment was more efficacious resulting in a significant reduction in all assessments from the baseline at 90 days; whereas, this effect was not observed in G+C treatment group. Specifically, although both treatments reduced the Western Ontario McMaster Osteoarthritis Index (WOMAC) score, treatment with UC-II reduced the WOMAC score by 33% as compared to 14% in G+C treated group after 90 days. Similar results were obtained for visual analog scale (VAS) scores. Although both the treatments reduced the VAS score, UC-II treatment decreased VAS score by 40% after 90 days as compared to 15.4% in G+C treated group. The Lequesne's functional index was used to determine the effect

of different treatments on pain during daily activities. Treatment with UC-II reduced Lequesne's functional index score by 20% as compared to 6% in G+C treated group at the end of 90-day treatment. Thus, UC-II treated subjects showed significant enhancement in daily activities suggesting an improvement in their quality of life.

Efficacy and tolerability of an undenatured type II collagen supplement in modulating knee osteoarthritis symptoms: a multicenter randomized, double-blind, placebo-controlled study.

BACKGROUND: Undenatured type II collagen (UC-II) is a nutritional supplement derived from chicken sternum cartilage. The purpose of this study was to evaluate the efficacy and tolerability of UC-II for knee osteoarthritis (OA) pain and associated symptoms compared to placebo and to glucosamine hydrochloride plus chondroitin sulfate (GC). METHODS: One hundred ninety one volunteers were randomized into three groups receiving a daily dose of UC-II (40 mg), GC (1500 mg G & 1200 mg C), or placebo for a 180-day period. The primary endpoint was the change in total Western Ontario McMaster Universities Osteoarthritis Index (WOMAC) from baseline through day 180 for the UC-II group versus placebo and GC. Secondary endpoints included the Lequesne Functional Index (LFI), the Visual Analog Scale (VAS) for pain and the WOMAC subscales. Modified intent-to-treat analysis were performed for all endpoints using analysis of covariance and mixed model repeated measures, while incremental area under the curve was calculated by the intent-to-treat method. RESULTS: At day 180, the UC-II group demonstrated a significant reduction in overall WOMAC score compared to placebo ($p = 0.002$) and GC ($p = 0.04$). Supplementation with UC-II also resulted in significant changes for all three WOMAC subscales: pain ($p = 0.0003$ vs. placebo; $p = 0.016$ vs. GC); stiffness ($p = 0.004$ vs. placebo; $p = 0.044$ vs. GC); physical function ($p = 0.007$ vs. placebo). Safety outcomes did not differ among the groups. CONCLUSION: UC-II improved knee joint symptoms in knee OA subjects and was well-tolerated. Additional studies that elucidate the mechanism for this supplement's actions are warranted.

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