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)VIAL FLUID GLYCOSAMINOGLYCAN AND NDROITIN SULFATE EPITOPES 3B3 AND 7D4 IN HUMAN E OSTEOARTHRITIS AFTER EXERCISE

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of the study: Walking exercise alleviates some symptoms, such as in patients with mild to moderate knee osteoarthritis (OA). ver, a major concern is that weight-bearing exercise on osteoarthritic may exacerbate articular cartilage degradation. Loading of glycan depleted articular cartilage *in vitro* increased expression of ondroitin sulfate epitope 3B3, suggesting that loading may influence olism of osteoarthritic cartilage. The purpose of our study was to te effects of walking exercise on articular cartilage metabolism in ts with knee OA, as reflected by changes in concentrations of al fluid markers.

ds: Thirty elderly patients with knee OA (Kellgren-Lawrence II to IV) were randomized into control (n = 15) and twelve-week se groups (n = 15). Synovial fluid obtained at time zero and after weeks was analyzed for the chondroitin sulfate epitopes 3B3, 7D4 r total glycosaminoglycan (GAG) concentrations. The 3B3/GAG)4/GAG ratios were calculated.

s: There were no significant changes in concentrations of 3B3, GAG, 3B3/GAG or 7D4/GAG between time zero and twelve weeks er group. However, at twelve weeks, GAG concentration in the e group (32.84 ± 4.9 ug/ml) was significantly less than in the group (48.97 ± 7.5 ug/ml) (P = 0.009). Also found was a cant decline in 3B3 (P = 0.0027) and 3B3/GAG (P = 0.0077) with aging, that was unrelated to treatment, radiographic grade, sex or lass index.

sion: Twelve weeks of walking exercise had no demonstrable effects on articular cartilage metabolism, as reflected by the trations of synovial fluid GAG or chondroitin sulfate epitope s.

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A META-ANALYSIS OF CHONDROITINSULF TREATMENT OF OSTEOARTHRITIS

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Objective: To examine the efficacy of chondroiti treatment of osteoarthritis (OA) on the basis of a published controlled clinical trials.
Methods: After personal and Medline searches, analysis of the available publications was perfor types of joint involvement studied, study designs enrolled and variables analyzed. The Lequesne on VAS of pain were considered the main variab of 16 publications found, seven trials including 3 could be enrolled into the meta-analysis. Althou claimed to be of randomized, double blind desig should be noted, that CS was given along with a thus yielding required dosage of co-medication a
Results: CS was shown to be significantly superi respect to the Lequesne index and the VAS of p confirmed these results and showed at least 50 study variables in the CS group compared to pla CS treated patients co-medication with NSAIDs a be significantly reduced in comparison to placeb was well tolerated, interestingly the frequencies consistently higher in the placebo groups compa patients.
Conclusions: The results of this meta-analysis s useful in OA, but further investigations in larger c longer time periods are needed to prove the usef chondroitinsulfate as a symptom modifying drug i

MATRIX METALLOPROTEINASE 3 CONCENTRATIONS YNOVIAL LAVAGE AND SERUM FROM PATIENTS R KNEE INJURY

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ve: To investigate the concentrations of pro-matrix proteinase 3 (pro-MMP 3) in knee synovial lavage and serum in s with injury to the anterior cruciate ligament and/or meniscus.
ls: Synovial lavage and serum samples were collected from 256 s with trauma and tear of the cruciate ligament, alone or in ation with meniscus tear. Diagnosis was confirmed by arthroscopy cases and cartilage damage was assessed according to an thritis (OA) Score: Scoring was from 0 to 4 based on the findings oscopy, as follows: 0 = normal cartilage, 1 = chondromalcia, 2 = ial fibrillation, 3 = deep cartilage clefts, 4 = bony erosions. trations of pro-MMP 3 were determined by sandwich assay, using polyclonal antibodies.
The median concentrations of pro-MMP 3 in synovial lavage was g/ml (range 0.6 to 42273.0). Concentrations of pro-MMP 3 in the

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PULSED SIGNAL THERAPY FOR THE TREATM DOUBLE BLIND AND PROSPECTIVE STUDY RE 35,000 PATIENTS

Richard Markoll
Bio-Magnetic Therapy Systems, Florida, USA and

Double-blind clinical trials and other open label pros been conducted over a ten year period in the USA, Germany, to determine the effectiveness of the pro magnetic field treatment termed Pulsed Signal Ther treatment of osteoarthritis of the knee, hip, lower ba

Controlled double-blind and prospective open label by Dr. David H. Trock and Alfred J. Bollet at Danbur (Teaching Affiliate of Yale University School of Med University of Vancover, Canada; Prof. Menkes, Coc Prof. Radaelli, Ospedale Niguarda - Ca Granda, Mi von Gumppenberg, TU University School of Medicin Over 35,000 patients have been studied to date.

Initially, 18 half-hour treatments and later 9 one-hou placebo in the double-blind and active in the prospe were conducted in thirty-five thousand patients over USA, Canada and Europe. Pain was evaluated usin OMERACT III validated instruments of outcome mea measured using WOMAC and modified Ritchie scale evaluations of improvement by the patient and exam

Matched pair tests and other statistical analysis indi