

## S228 Osteoarthritis and Cartilage Vol. 16 Supplement 4

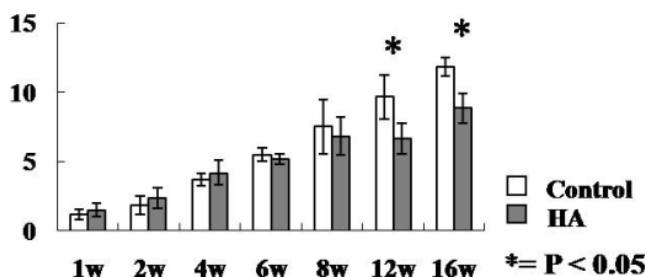


Figure 2. Modified Mankin's Score.

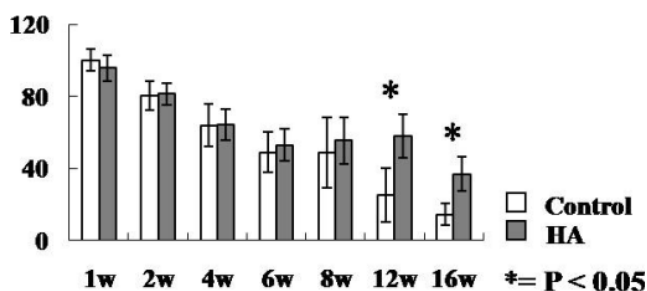


Figure 3. Number of chondrocytes.

**Results:** Degeneration of the articular cartilage was observed in the three areas in both groups, but the change in each area was different. Histological grading scores in the hyaluronan group were smaller at 12 and 16 weeks compared with that in the saline group (Figure 1, 2). The thickness of the articular cartilage in the non-contact and contact areas was unchanged, but it was increased in the transitional area in both groups. The number of chondrocytes in the contact and transitional areas was decreased in both groups, but the number in the hyaluronan group was greater at 12 and 16 weeks compared with that in the saline group (Figure 3).

**Conclusions:** HA has chondroprotective effects on the articular cartilage in a rat immobilized knee model, especially for the number of chondrocytes. This result may be due to anti-apoptotic effects of HA on the articular cartilage.

### 537 INFLIXIMAB (IFX) MIGHT BE PROTECTIVE AGAINST PROGRESSIVE RADIOGRAPHIC INTERPHALANGEAL OSTEOARTHRITIS (OA)

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**Purpose:** To investigate the association between inflammation and the incidence and progression of interphalangeal OA and the effect of IFX on interphalangeal OA.

**Methods:** Data from patients from the BeSt study with X-rays available were utilized. In the BeSt study 508 recent-onset rheumatoid arthritis (RA) patients were randomized into 4 treatment strategies: 1. sequential monotherapy, 2. step-up combination therapy, 3. combination therapy with prednisone and 4. IFX and methotrexate (MTX). In groups 1-3, patients proceeded to treatment with IFX and MTX after failing on at least 3 previous DMARDs. The IFX dose varied between 3 and 10 mg/kg/8 weeks. X-rays of the hands were scored random in time for osteophytes (grade 0-3 for each joint) using the Osteoarthritis Research Society International atlas in 10 DIP joints (DIPJs) and 8 PIP joints (PIPs) at baseline and after 3 years. The incidence and progression of OA was defined as a change from baseline in the osteophyte score greater than SDC (1.7 units) in patients without and with one or more osteophytes at baseline. Erosions were measured according to the Sharp-van der Heijde score. In multivariate analyses, adjusted for age, gender, postmenopausal status and BMI, associations between the components of the DAS and erosion scores and the incidence and progression of interphalangeal OA was determined.

**Results:** 416 patients (67% women, mean age 54 years) were included. At baseline, osteophytes were present in 37% of the patients in one or more DIPJs and in 13% of the patients in one or more PIPJs. After 3 years, 6 and 4% of the patients had incident OA in the DIPJs and PIPJs. Radiographic progression was present in 18 and 15% of the patients in

the DIPJs and PIPJs. Number of swollen joints at baseline, erosion score at baseline, change in erosion score after 3 years and postmenopausal status were associated with incidence of interphalangeal OA. Change in erosion scores after 3 years was associated with progression of interphalangeal OA.

178 (43%) patients were treated with IFX during some period of the study and these patients had less incident OA (4% in patients who received IFX versus 7% in patients who did not receive IFX,  $p=0.211$ ) and less progressive OA (10 versus 38%,  $p=0.020$ ) in the PIPJs. Combination therapy with IFX did not affect the incidence of OA (7 versus 7%,  $p=0.974$ ), nor the progression (29 versus 24%,  $p=0.516$ ) in the DIPJs.

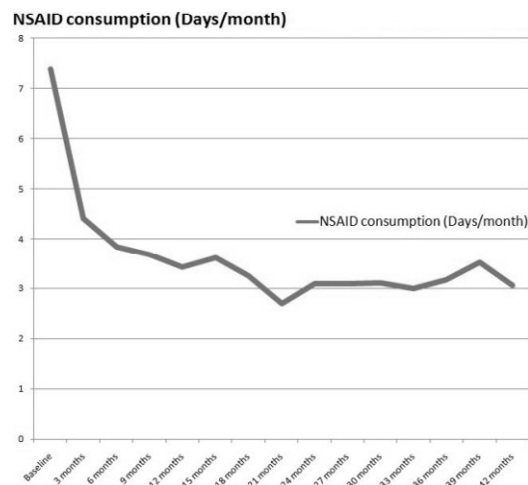
**Conclusions:** The incidence and progression of interphalangeal OA was associated with more inflammatory activity in RA patients, suggesting that inflammation might play a role in the pathogenesis of interphalangeal OA. Combination therapy with infliximab reduced the progression of OA in the PIPJs in the period of three years after baseline, suggesting that anti-TNF might be an effective treatment against hand OA.

### 538 REPORT FROM ITALIAN NATIONAL REGISTER: REDUCTION IN NSAIDS CONSUMPTION AFTER INTRA-ARTICULAR INJECTIONS OF HYALURONIC PRODUCTS IN PATIENTS WITH SYMPTOMATIC HIP OSTEOARTHRITIS

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**Purpose:** Clinical reports showed that intra-articular treatment with Hyaluronic products is safe and effective for treatment of Knee osteoarthritis (OA). Similar results appeared in some reports about treatment of hip OA, but data are scarce due to the difficulties associated with the injection technique which requires use of X-ray or ultrasound (US) guidance. We report from the Italian national database of ANTIAGE (National Association for Ultrasound Guided Intra-articular Treatment of Hip) about reduction of NSAID intake after intra-articular injection with hyaluronic products in patient with hip OA.

**Methods:** 1887 adults, ambulatory patients with hip OA, selected from February 2004 to April 2008, underwent to intrarticular injections, performed with US guidance, according to Migliore-Tormenta technique. Every six months patients were injected with several products, Low and High MW, like Hylan GF-20 (2 ml), Hyalgan (4 ml), Hyalubrix, (4 ml) and Jointex (4 ml). Monthly NSAID intake, by measuring the number of days the patient had used NSAID during the previous month, was evaluated at baseline and every three months. Follow-up period was of 42 months. A multivariate analysis with Wilcoxon test was performed.

Figure 1. NSAID consumption.  $p < 0.001$  for every value obtained at follow-up when compared with baseline value.

**Results:** 1887 patients were injected. We found a statistical reduction of NSAID already after the first injection ( $p < 0.001$ ), decreasing from 7.37 days per patient at baseline to 3.84 after 6 months from the first injection (Fig. 1). The reduction in NSAID consumption obtained was