BACKGROUND

Synovitis (as defined by hypertrophy and effusion) is common in osteoarthritis (OA) and may be important in both pain and structural progression. Hyaluronic acid treatment has been associated with a significant decrease in the incidence of joint swelling, effusion or both.

OBJECTIVE

To obtain preliminary information about the effectiveness of oral administration with a natural extract rich in hyaluronic acid (Hyal-Joint) in patients with moderate to severe osteoarthritis of the knee presenting with persistent knee pain and joint effusion.

MATERIALS & METHODS

Patients

An observational retrospective cohort study involving 70 consecutive outpatients with KOA and synovitis fulfilling ACR criteria who had started the selected treatments at least in the previous 3 months were included in this retrospective study.

Treatments

1. Hyal-Joint (Bioiberica, Palafolls, Spain; HA) 80mg/d (n=35) 2. Paracetamol (PCT) 500mg/d (n=36).

Data were collected after 1, 2 and 3 months follow-up.

Clinical assessments

• The clinical outcome was the course of synovitis in the suprapatellar recess using ultrasonography (US) equipment with a high frequency linear array. The maximal synovial thickness and effusion depth were measured in mm using the longitudinal scale (synovitis was defined as present in measures ≥ 4mm).

• Knee pain according to Huskinsson’s VAS (0-10cm)

RESULTS

Demographics

From the selected 76 patients, 69 (91.4%) were female, had a mean age (SD) of 60.6 (11.68) years and a BMI (SD) of 23.95 (3.5) kg/m².

Clinical and ultrasonographic assessment

At baseline 11.4% of the patients presented Baker’s cyst, 2.9% bursitis and 25.7% meniscal extrusion. The mean synovitis (SD) was 5.7 (1.79) mm and the mean knee pain 5.5 (1.13) mm. Patients in all groups had similar baseline characteristics.

Post-treatment results

Both treatment groups experienced a decrease in synovitis over a 3 month time. However, patients treated with HA reached physiological mean values after the first month of treatment (2.9 +/- 1.22 mm) but not patients in PCT group (5.6 +/- 2.05 mm; P>0.05). At 3 months follow-up differences between groups were more pronounced (0.18 +/- 0.84 mm for HA group compared to 4.2 +/- 2.82 mm for PCT group; P > 0.0001).

At baseline the number of patients with severe synovial effusion (>6mm) was not different between groups (16 vs. 15 for HA and PCT groups respectively). On the HA group no cases of severe synovial effusion were detected from 1 until 3 months follow-up. However on the placebo group a number of severe cases remained at 1 month (14 patients) and 3 months (6 patients) (P<0.001).

Pain reduction was statistically higher in HA vs. PCT group at 1, 2 and 3 months follow-up (P<0.01).

CONCLUSION

Although these preliminary results need to be evaluated in a randomized clinical trial, clearly supports the effectiveness of oral administration with HA on the treatment of synovitis of the knee.