

**Conclusion:** The study results indicate the features of BMD in individuals who have crossed a 90-y boundary. In the studied group of patients, a positive correlation was found between the level of uric acid and the BMD, especially in the lumbar spine. Significant relationships between the BMD on the one hand and the functional abilities of patients on the other were revealed. It is advisable to further study the bone condition in long-livers with the participation of a large sample of patients.

#### P1299

### COMPARISON OF THE EFFICACY AND SAFETY OF TWO HYALURONIC ACIDS IN THE TREATMENT OF KNEE OSTEOARTHRITIS

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**Objective:** Several viscosupplement treatments are available to patients suffering from osteoarthritis (OA) but few comparative clinical trials have been conducted. The primary objective of the study was to demonstrate at 24 weeks the non-inferiority of on hyaluronic acid over a second one in terms of efficacy (pain relief) in knee OA patients (Kellgren-Lawrence radiologic stage II or III) with whom oral treatment had failed.

**Methods:** This was a prospective, multicenter, comparative, randomized, double-blinded study (one independent physician evaluator—one physician injector), comparing two viscosupplements: one containing a solution of hyaluronic acid (SYNOLIS VA<sup>®</sup> 80 mg hyaluronic acid and 160 mg sorbitol – Group HA1) and the other containing one of Hylan (SYNVISCO ONE<sup>®</sup> 48 mg Hylan GF-20 – Group HA2) over a period of 24 weeks. At inclusion, the average VAS Pain (1-100) was 62.5. The patients were randomized in 2 parallel groups at D0 and followed until D168. They received an injection of either HA1 or HA2. Efficacy was primarily assessed using the WOMAC Pain index (daily assessed by the patient during seven days following the injection, and then at D14). During the follow-up visits (D28-D84-D168) WOMAC pain, stiffness and function scores were assessed as secondary objectives. At D168, efficacy and satisfaction were also evaluated by the evaluator and by the patient using Likert scale (7 points). Moreover, the number of responders strict each group was evaluated according to the OMERACT-OARSI criteria. According to methodology guidelines, the per protocol (PP) population has been used as primary analysis. The PP population included all patients from the intention to treat (ITT) population who completed the study without any major protocol violation.

**Results:** 202 patients were randomized (ITT population, 96 in the HA1 group and 106 in the HA2 group). Baseline demographic data for the PP population at the time of randomization by treatment group. Patients were predominantly female (66%). The median age of the whole population was 65 years and the median BMI of 27.4 kg/m<sup>2</sup>. No statistically significant differences between the two treatment groups were observed for any demographic criteria. At D168, 197 presented no protocol violations (94 in the HA1 group and 103 in the HA2 group). This population had a decrease on the overall score of the WOMAC Pain at  $-29.2 \pm 24.1$  (SD) in the HA1 group and  $-31.6 \pm 25.5$  (SD) in the HA2 group confirming the non-inferiority ( $P=0.57$  for the difference between groups). Regarding the secondary endpoints, no significant difference has been observed at D14, D28, D84, D168, in the PP population for all the outcome except stiffness at D28. There was also no difference between the responders rate in two groups (79% for HA1 and 77% for HA2). In terms of safety, both

products were well tolerated. No case of allergy or infection in the course of the injection was reported. Serious adverse events have been reported by 4 patients in HA1 group and 3 in HA2 group.

**Conclusion:** We confirmed the noninferiority of HA1 compared with HA2 in terms of both efficacy and safety.

#### P1300

### COFFEE CONSUMPTION, BONE MINERAL DENSITY AND FRACTURE RISK IN ICELANDIC OLD ADULTS

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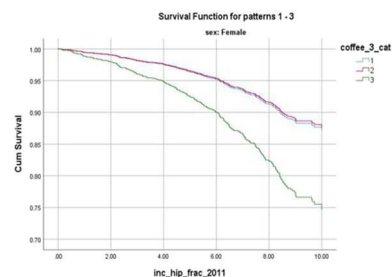
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**Objective:** High consumption of coffee has been suggested to reduce the risk of some late-onset diseases and death but also to contribute to the development of osteoporotic fractures. Results of previous studies have been inconsistent. The aim of this study was to investigate associations between coffee consumption and BMD and hip fracture incidence.

**Methods:** A prospective study of 4831 Icelandic older adults from the AGES-Reykjavik study was conducted. Participants underwent a detailed clinical examination including BMD measurement at baseline (2002-2006). Hip-fracture cases were then identified through hospital records over a mean follow-up of 7.4 y.

**Results:** Mean age of the participants at baseline was 76.3 y. Frequent coffee consumption (>6 cups/d) was related to significantly lower BMD at baseline both in men ( $-13.2 \pm 5.4$  mg/cm<sup>3</sup>) and in women ( $-32.2 \pm 5.6$  mg/cm<sup>3</sup>) in an age corrected analysis when compared to  $\leq 1$  cup/d. Of male participants 5.7% and of female participants 11.6% suffered from hip fracture during the follow-up period. Coffee consumption was not related to fracture risk in men, but in women, high consumption (>6 cups/d) predicted increased hip fracture risk (HR=2.1; 95%CI=1.2-4.0;  $P=0.016$ ) when compared to  $\leq 1$  cup/d. Statistical correction for medication, socio-economics, nutrition and physical activity did not change the results.

**Conclusion:** Our study indicates that excessive coffee consumption is associated with poorer BMD in both sexes and predicts incidence hip fracture risk in woman.



**Figure.** Hip fracture free survival in old female adults categorized by coffee consumption.

#### P1301

### MANAGEMENT OF THE USE OF HERBAL PRODUCTS IN OSTEOPOROSIS

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**Objective:** Osteoporosis is a metabolic bone disorder which causes bone loss over time and increases the risk of fracture. The disease is often silent