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# OSTEOPOROSIS INTERNATIONAL

with other metabolic bone diseases

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presenting a low muscle strength and a decreased ability to physical performance. However, this difference is no longer significant when the values are corrected for bone mineral density. This reflects a major interaction between bone quantity and quality in elderly subjects. Further prospective researches are needed to explore the relationship between muscle parameters and bone quality to support the hypothesis of common pathways in the concomitant age-related decline in muscle and bone tissues.

#### P267

### COMPARISON OF THREE TREATMENT PROTOCOLS WITH INTRA-ARTICULAR LOW OR INTERMEDIATE MOLECULAR WEIGHT HYALURONIC ACID IN EARLY SYMPTOMATIC KNEE OSTEOARTHRITIS

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**Introduction:** Viscosupplementation with hyaluronic acid (HA) is indicated for non-responders to non-pharmacological therapy, to analgesics or when NSAIDs are contraindicated. The aim of this study is to compare the efficacy, safety and costs of three different HA treatment (Sinovial HighVisc, Sinovial One and Hyalgan).

**Patients and methods:** 90 patients with grade I/II Kellgren-Lawrence knee OA were included in three groups, the first was treated with Hyalgan (weekly for 5 weeks), second with Sinovial HighVisc (weekly for 3 weeks) and the third group with a single injection of Sinovial One.

**Results:** All three treatments were effective with an average reduction of WOMAC score of 18.9 points for Hyalgan, 18.04 points for Sinovial HighVisc and 17.92 points for Sinovial One. The comparison of the three groups did not show any statistical difference in terms of efficacy. NHS and social costs are respectively 419,12 and 853,43 € for Hyalgan, 338,64 and 599,22 € for Sinovial HighVisc, 221,56 and 308,42 € for Sinovial One.

**Conclusion:** All three treatment resulted equally effective with no statistically significant differences thus, the treatment with Sinovial One may be considered clinically effective as other two regimens but with a very efficient cost profile in early symptomatic knee OA.

#### P268

### EFFICACY OF AN ORAL COMBINATION OF COLLAGEN, GLUCOSAMINE AND CURCUMIN FOR EARLY SYMPTOMATIC KNEE OSTEOARTHRITIS

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**Objective:** In the last years, symptomatic slow acting drugs for OA (SYSADOA) have been largely studied and have met considerable interest among clinicians. SYSADOA are used generally as a ground therapy with the main rationale to reduce consumption of nonsteroidal anti-inflammatory drugs (NSAIDs) and thus to limit the related adverse events.

**Materials and methods:** In this study, we have evaluated the short-term effect on an oral combination of collagen, glucosamine and curcumin on early symptomatic knee osteoarthritis. 40 patients were treated for 1 month and could assume analgesics or NSAIDs if necessary.

**Results:** At 2 months, the mean reduction of the WOMAC score was 36% ( $p < 0.001$ ) and the mean reduction of the WOMAC pains score was 40% ( $p < 0.001$ ). Only two patients reported sporadically need to assume analgesics, no side effects during the study period.

**Conclusion:** These data demonstrate that the oral combination of collagen, glucosamine and curcumin is safe, well tolerated and shows a rapid action reducing pain and improving joint function and stiffness in early symptomatic knee osteoarthritis.

#### References:

- Bijlsma JW et al. *Lancet* 2011;377:2115.
- Loeser RF et al. *Arthritis Rheum* 2012;64:1697.
- Liu-Bryan R, Terkeltaub R. *Nat Rev Rheumatol* 2015;11:35.
- Jordan KM et al. *Ann Rheum Dis* 2003;62:1145.
- Bruyère O et al. *Semin Arthritis Rheum* 2014;44:253.
- Gouttenoire J et al. *Biorheology* 2004;41:535.
- McNamara PS et al. *Vet Clin Nth Am: Sm An Pract* 1997;27:863.

#### P269

### DIFFERENCES BETWEEN YOUNG AND OLDER ADULTS IN THE RATE OF POWER DEVELOPMENT EXCEED DIFFERENCES IN PEAK POWER

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**Objective:** Age-related declines in muscle mass and maximal muscle strength have been extensively documented. However, maximal strength requires at least 300ms to be achieved, which makes it less functionally relevant in situations that require quick and powerful responses of muscles, such as balance recovery following sudden perturbations. Parameters that characterize the ability to produce force rapidly, such as power and the rate of power development, might be more functionally relevant, but have been less studied. The aim of the present study was to investigate the age-related differences in power and in the rate of power development during isotonic knee extensions (Biodex System 3 dynamometer).